CONSTRUCTION DOCUMENTS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK
HOT SPRINGS, ARKANSAS

11/6/2023 5:17:24 PM

A/E FIRMS

PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET, SUITE 100
KANSAS CITY, MO
T: 816.474.0900

CIVIL:
CRAFTON TULL
10825 FINANCIAL CENTRE
PARKWAY, STE 300
LITTLE ROCK, AR

MEPF ENGINEERING:
IMEG CORP.
1600 BALTIMORE, SUITE 300
KANSAS CITY, MO

ARCH - FOR LIBBEY:
QUINN EVANS
219 1/2 N. MAIN STREET
ANN ARBOR, MI

STRUCTURAL:
SILMAN ENGINEERS
211 NORTH FOURTH AVENUE
SUITE 2A
ANN ARBOR, MI

LANDSCAPE:
QUINN EVANS
219 1/2 N. MAIN STREET
ANN ARBOR, MI

CONSTRUCTION DOCUMENTS

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
DENVER SERVICE CENTER

TITLE OF SHEET
REHABILITATE BATHHOUSES
LOCATION WITHIN PARK
MAURICE BATHHOUSE
NAME OF PARK
HOT SPRINGS NATIONAL PARK

REGION	COUNTY	STATE
MIDWEST	GARLAND	ARKANSAS

DRAWING NO.
128
182951
PMIS/PKG NO.
318915
SHEET
1 OF 286

SHEET INDEX

11/6/2023 5:17:24 PM

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET,
SUITE 100
KANSAS CITY, MO
T: 816.474.0900

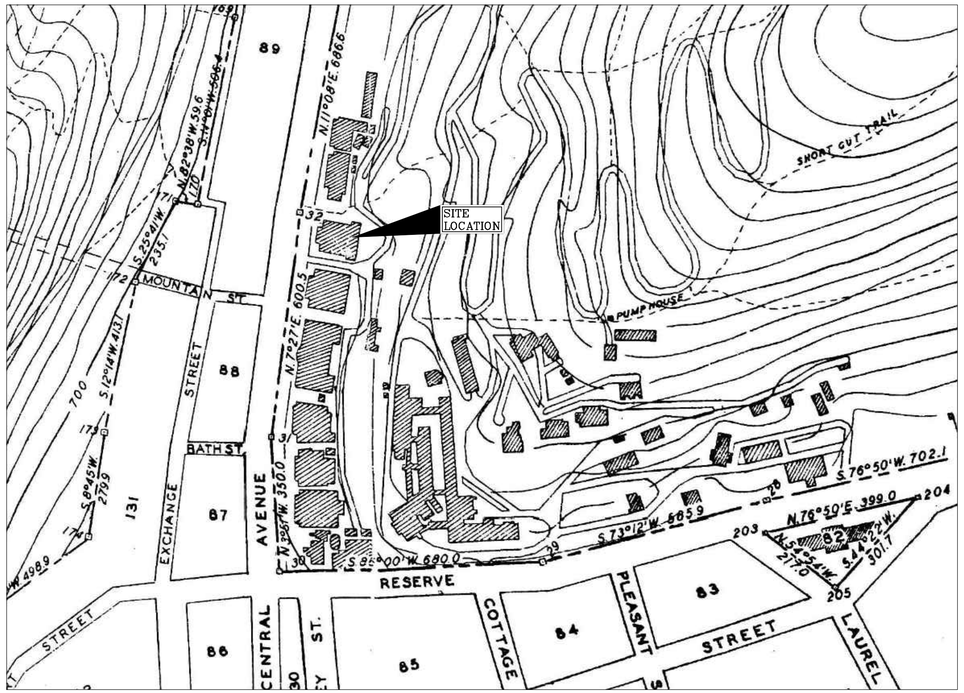
DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01
G0.01

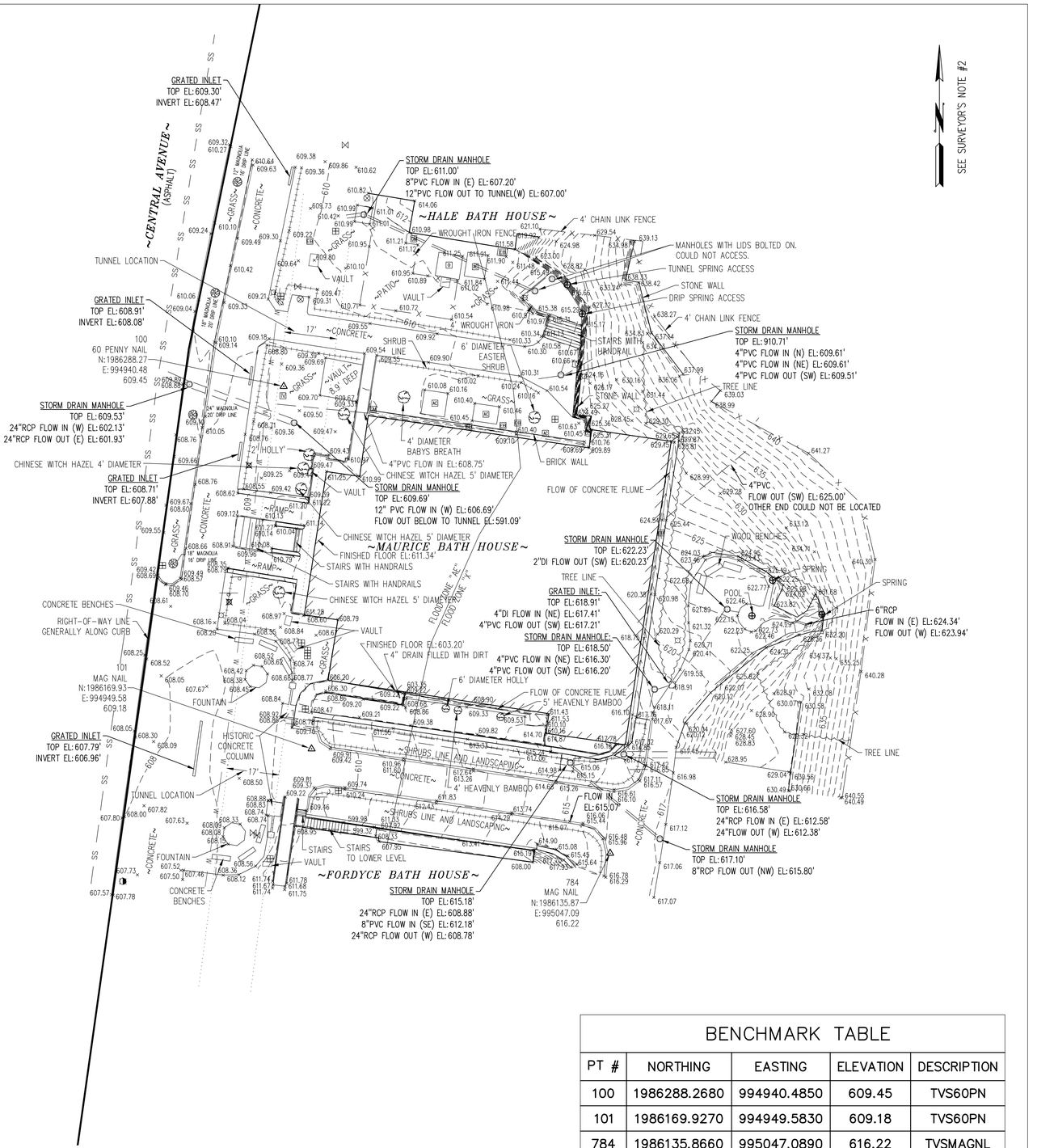
TITLE OF SHEET
MAURICE BATHHOUSE
SHEET INDEX

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128
PMIS/PKG NO. 182951
318915
SHEET 2 OF 286



VICINITY MAP
(NOT TO SCALE)



LEGEND

- SPRING LOCATION
- FOUND MONUMENT AS NOTED
- CALCULATED POSITION
- CONTROL AS NOTED
- FLAG POLE
- SIGN
- TREE
- SHRUB
- GROUND LIGHT
- ELECTRIC BOX
- LARGE ELECTRIC BOX UNKNOWN PURPOSE
- ELECTRIC METER
- HVAC UNIT
- GUY WIRE
- LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- GAS METER
- GAS VALVE
- STORM DRAIN MANHOLE
- SEWER MANHOLE
- CLEAN OUT
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- WATER SPIGOT
- IRRIGATION VALVE
- RIGHT-OF-WAY LINE
- SS — SS — UNDERGROUND SEWER
- — — — — UNDERGROUND STORM DRAIN
- OHE — OVERHEAD ELECTRIC
- UGT — UNDERGROUND TELEPHONE
- W — UNDERGROUND WATER
- X — FENCE AS NOTED
- LINE OF 3' TALL HOLLY SHRUBS 2' WIDE
- EXTENTS OF UNDERGROUND TUNNEL
- TREE LINE
- MAJOR CONTOUR (5')
- MINOR CONTOUR (1')

NOTES:

1. THIS MAP REPRESENTS A TOPOGRPHIC SURVEY FOR STRATA ARCHITECTURE AND PRESENTATION FOR THE PURPOSE OF ENGINEERING DESIGN OF SITE IMPROVEMENTS.
2. NORTH IS REFERENCED TO NAD83 (2011) AR STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, U.S. SURVEY FEET AS DETERMINED BY GPS OBSERVATION.
3. ELEVATIONS ARE REFERENCED TO NAVD88 AS DETERMINED THROUGH GPS OBSERVATIONS.
4. UNDERGROUND UTILITIES ARE SHOWN BASED ON MARKINGS LEFT PURSUANT TO ARKANSAS ONE CALL LOCATE REQUEST TICKET NUMBER 220810-1871, GARLAND COUNTY, ARKANSAS GIS WEB SITE, AND ABOVE GROUND VISIBLE EVIDENCE. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THIS SURVEY TO DETERMINE THE EXISTENCE OR ACCURATE LOCATION OF UNDERGROUND UTILITIES. FIELD VERIFY ALL UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATIONS.
5. RIGHT-OF-WAY LINE SHOWN IS BASED ON THE FINAL PLAT OF HOT SPRINGS NATIONAL PARK.
6. PORTIONS OF THIS PROPERTY ARE LOCATED IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AND FLOOD ZONE "AE" BASE FLOOD ELEVATIONS DETERMINED, AS DETERMINED THROUGH GRAPHICAL MAPPING AND SCALING ONLY FROM F.E.M.A. FLOOD INSURANCE RATE MAP NO. 05051C0345D, LAST REVISED JANUARY 20, 2010.
7. UNDERGROUND TUNNEL LOCATION IS SHOWN PER RIGHT-OF-WAY EXHIBIT FOR RESORT CABLE DATED APRIL 11, 2019, B&F PROJECT NUMBER -74489-0101, CAD NUMBER 001.
8. FIELD WORK WAS COMPLETED AUGUST 30, 2022.
9. DRIP LINE MEASUREMENTS SHOWN HEREON REFLECT THE DISTANCE FROM THE TRUNK TO THE EDGE OF THE DRIP LINE.

20 15 10 5 0 10 20 30 40 50
SCALE: 1" = 20'

BENCHMARK TABLE

PT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1986288.2680	994940.4850	609.45	TVS60PN
101	1986169.9270	994949.5830	609.18	TVS60PN
784	1986135.8660	995047.0890	616.22	TVSMAGNL

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE JR. 10/27/23

CERTIFICATE OF AUTHORIZATION CRAFTON, TULL & ASSOCIATES, INC. No. 109 ARKANSAS ENGINEER

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET,
SUITE 100
KANSAS CITY, MO
T: 816.474.0900

CRAFTON TULL
928 AIRPORT ROAD
HOT SPRINGS, AR 71913
T: 501.767.2366

DESIGNED:	MB
CADD:	RU
TECH. REVIEW:	MB
DATE:	10.27.2023

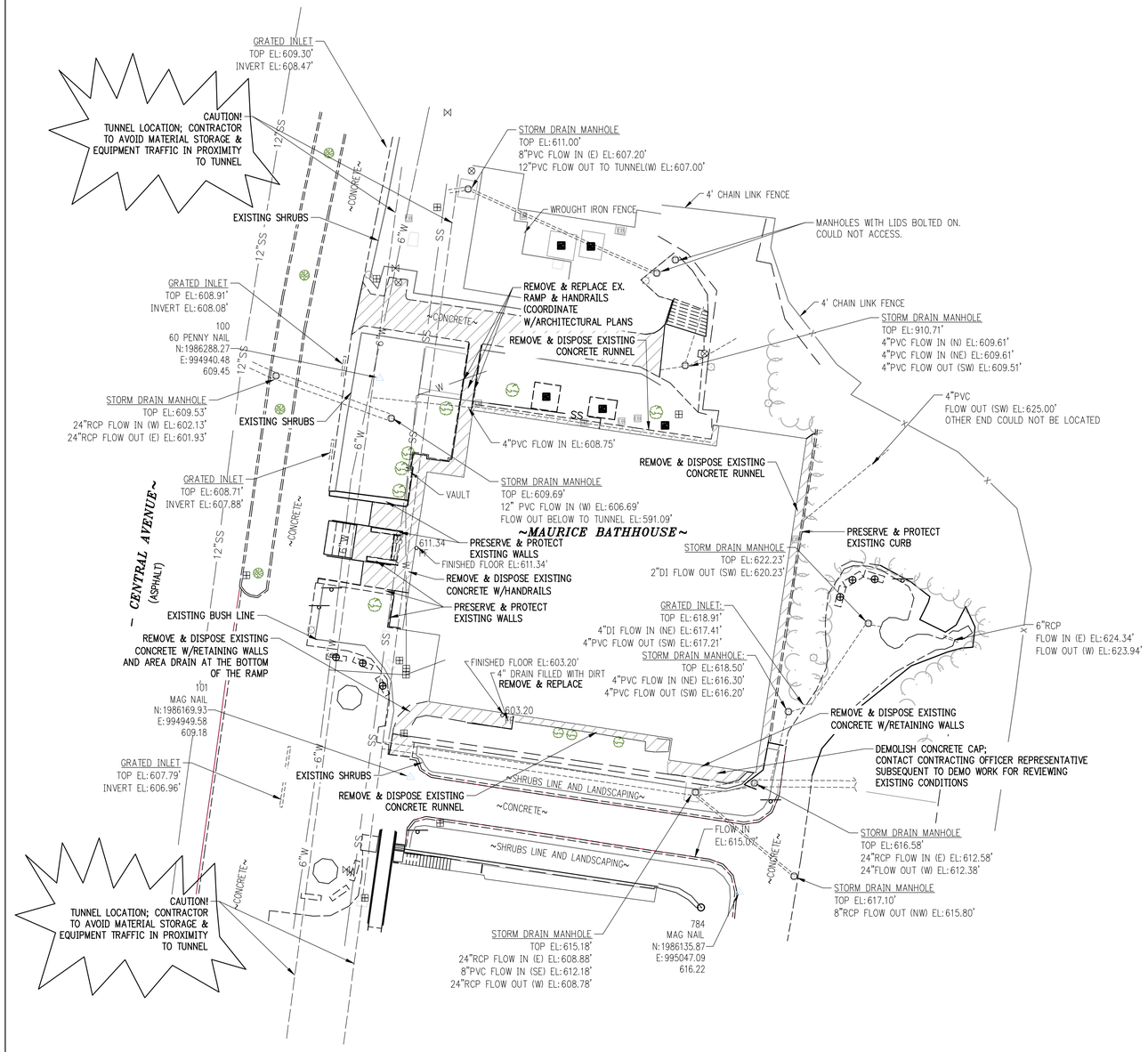
SUB SHEET NO. 01 C0.0

TITLE OF SHEET
MAURICE BATHHOUSE

TOPOGRAPHIC SURVEY

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	3 OF 286



GRAPHIC SCALE IN FEET

20' 0 20'

NOTE:
EQUIPMENT OR MATERIAL SHALL NOT BE STORED NOR
TRAVEL OVER THE EXISTING CREEK ARCH OR VALVE VAULT

LEGEND (EXISTING SYMBOLS)

SYMBOLS	
	FOUND IRON PIN
	LIGHT POLE
	POWER POLE
	TELEPHONE PEDESTAL
	TV PEDESTAL
	MANHOLE
	SANITARY SEWER CLEANOUT
	GAS METER
	GAS VALVE
	STORM SEWER PIPE
	DOWN GUY
	WATER VALVE
	FIRE HYDRANT ASSEMBLY
	AIR RELEASE VALVE
	FIRE DEPARTMENT CONNECTION
	WATER METER
	SPRINKLER HEAD
	ELECTRIC PEDESTAL
	GRATED INLET
	DROP INLET
	TREE
	TREE TO BE REMOVED
	DEMOLISH EXISTING SITE FEATURE

LINEWORK
EASEMENT
CURB
INTERMEDIATE CONTOUR (1206)
INDEX CONTOUR (1205)
SANITARY SEWER LINE (SS)
GAS LINE (G)
WATER LINE (SPECIFY SIZE & TYPE) (W)
UNDERGROUND TELEPHONE (UGT)
UNDERGROUND ELECTRIC (UGE)
OVERHEAD ELECTRIC (OHE)
UNDERGROUND TELEVISION (UGTV)
OVERHEAD TELEVISION (OHTV)
CHAIN LINK FENCE
WOOD FENCE
BARBED WIRE FENCE
FIBER OPTIC (FO)
RIGHT OF WAY
ROAD CENTERLINE

DEMOLITION NOTES

1. CONTRACTOR SHALL ABIDE BY ALL FEDERAL, STATE, AND LOCAL CODES FOR THE DEMOLITION AND DISPOSAL OF ALL MATERIALS.
2. THE UNITED STATES GOVERNMENT SHALL NOT BE LIABLE FOR ANY DEMOLITION PROCEDURES, SCHEDULING, AND DISPOSAL OF ANY MATERIALS.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE SURE THAT ADJACENT PROPERTY IS NOT DAMAGED AND IS ACCESSIBLE AT ALL TIMES, AND THAT CONSTRUCTION DOES NOT CREATE ANY HARDSHIP TO LAND OWNERS OR TENANTS ADJACENT TO THE CONSTRUCTION SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES, OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE, STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
5. THE CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO THE DISCONNECTION, REMOVAL AND RELOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANY'S FORCES AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR SERVICES. THE CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING EXISTING IRRIGATION SYSTEM IN THE AREAS OF SITE IMPROVEMENTS. THE CONTRACTOR SHALL CAP THE EXISTING IRRIGATION SYSTEM TO REMAIN SUCH THAT THE REMAINING SYSTEM SHALL CONTINUE TO FUNCTION PROPERLY.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO THE EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.
8. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTING OFFICER REPRESENTATIVE OR GOVERNMENT ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
9. ALL EXISTING SEWERS, PIPING AND UTILITIES SHOWN ARE NOT TO BE INTERPRETED AS THE EXACT LOCATION, OR AS THE ONLY OBSTACLES THAT MAY OCCUR ON THE SITE. VERIFY EXISTING CONDITIONS AND PROCEED WITH CAUTION AROUND ANY ANTICIPATED FEATURES. GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DESTRUCTION AND REMOVAL OF ALL SERVICE LINES AND CAP ALL LINES BEFORE PROCEEDING WITH WORK. UTILITIES DETERMINED TO BE ABANDONED AND LEFT IN PLACE SHALL BE GROUTED IF UNDER BUILDINGS.
10. ELECTRICAL, TELEPHONE, CABLE, WATER, FIBER OPTIC CABLE AND/OR GAS LINES NEEDING TO BE REMOVED OR RELOCATED SHALL BE COORDINATED WITH THE AFFECTED UTILITY COMPANY. ADEQUATE TIME SHALL BE PROVIDED FOR RELOCATION AND CLOSE COORDINATION WITH THE UTILITY COMPANY IS NECESSARY TO PROVIDE A SMOOTH TRANSITION IN UTILITY SERVICE.
11. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC.
12. ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO DEMOLITION.
13. CONTRACTOR MAY LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
14. CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.
15. THE CONTRACTOR SHALL COORDINATE WATERMAIN WORK WITH THE FIRE DEPARTMENT AND THE CITY/COUNTY UTILITY DEPARTMENT TO PLAN WATERMAIN IMPROVEMENTS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE AND ADJACENT BUILDINGS THROUGHOUT THIS SPECIFIC WORK AND THROUGH ALL PHASES OF CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING/PROVIDING ANY REQUIRED WATERMAIN SHUT-OFFS WITH THE CITY/COUNTY DURING CONSTRUCTION. ANY COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION WILL BE PROVIDED.
16. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE. REPAIRS SHALL RESTORE DAMAGED ITEMS TO EQUAL OR BETTER THAN, EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGE AND NOTIFYING CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION START.
17. ALL TRENCHES AND/OR EXCAVATED AREAS SHALL BE FILLED/TESTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEERING REPORT.
18. ALL OPEN TRENCHES WILL REQUIRE ARCHEOLOGICAL MONITORING TO BE PROVIDED BY THE PARK.
19. IF THE CONTRACTOR FINDS ANY UNDERGROUND TANKS ON SITE THEY SHALL CONTACT THE CONTRACTING OFFICER REPRESENTATIVE IMMEDIATELY.

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE JR.
10/27/23

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

A/E FIRMS
PRIME/ARCH:
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SUITE 100
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T: 816.474.0900

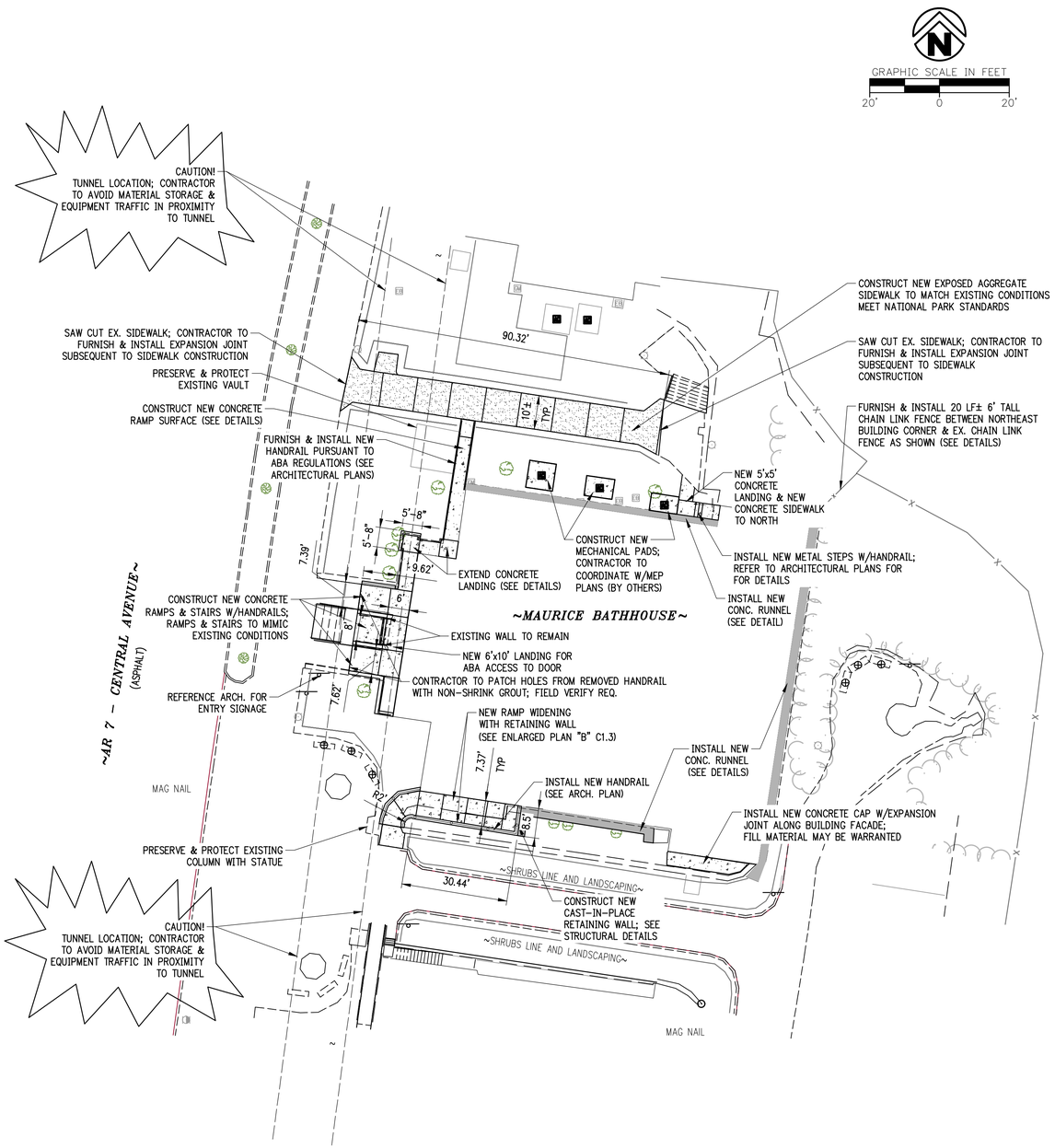
CRAFTON TULL
928 AIRPORT ROAD
HOT SPRINGS, AR 71913
T: 501.767.2366

DESIGNED:	MB
CADD:	RU
TECH. REVIEW:	MB
DATE:	10.27.2023

SUB SHEET NO.
01
C1.0

TITLE OF SHEET
MAURICE BATHHOUSE
EXISTING SITE &
DEMOLITION PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.
128
182951
PMIS/PKG NO.
318915
SHEET
4 OF 286



LEGEND (CONSTRUCT)

SYMBOLS	
	SET IRON PIN
	LIGHT POLE
	POWER POLE
	TELEPHONE PEDESTAL
	TV PEDESTAL
	MANHOLE
	SANITARY SEWER CLEANOUT
	GAS METER
	GAS VALVE
	STORM SEWER PIPE
X-X	STRUCTURE NUMBER
	WATER VALVE
	FIRE HYDRANT ASSEMBLY
	AIR RELEASE VALVE
	FIRE DEPARTMENT CONNECTION
	WATER METER
	BACK FLOW PREVENTER
	REDUCER
	RECTANGULAR DROP INLET, GRATED INLET OR JUNCTION BOX (SPECIFY ON PLAN SHEET)
	CIRCULAR DROP INLET, GRATED INLET OR JUNCTION BOX (SPECIFY ON PLAN SHEET)
	NEW CONCRETE PAVING
	EXPOSED AGGREGATE SIDEWALK
	CONCRETE RUNNEL

LINEWORK	
	EASEMENT
	CURB
1206	INTERMEDIATE CONTOUR
1205	INDEX CONTOUR
SS	SANITARY SEWER LINE
G	GAS LINE
W	WATER LINE
UGT	UNDERGROUND TELEPHONE
UGE	UNDERGROUND ELECTRIC
OHE	OVERHEAD ELECTRIC
FO	FIBER OPTIC
OHTV	UNDERGROUND TELEVISION / OVERHEAD TELEVISION
	CHAIN LINK FENCE
	WOOD FENCE
	BARBED WIRE FENCE
	BUILDING SET BACK
	RIGHT OF WAY
	PROPERTY LINE
	ROAD CENTERLINE

LEGEND (EXISTING SYMBOLS)

SYMBOLS	
	FOUND IRON PIN
	LIGHT POLE
	POWER POLE
	TELEPHONE PEDESTAL
	TV PEDESTAL
	MANHOLE
	SANITARY SEWER CLEANOUT
	GAS METER
	GAS VALVE
	STORM SEWER PIPE
	DOWN GUY
	WATER VALVE
	FIRE HYDRANT ASSEMBLY
	AIR RELEASE VALVE
	FIRE DEPARTMENT CONNECTION
	WATER METER
	SPRINKLER HEAD
	ELECTRIC PEDESTAL
	GRATED INLET
	DROP INLET
	TREE
	TREE TO BE REMOVED

LINEWORK	
	EASEMENT
	CURB
1206	INTERMEDIATE CONTOUR
1205	INDEX CONTOUR
SS	SANITARY SEWER LINE
G	GAS LINE
W	WATER LINE (SPECIFY SIZE & TYPE)
UGT	UNDERGROUND TELEPHONE
UGE	UNDERGROUND ELECTRIC
OHE	OVERHEAD ELECTRIC
UGTV	UNDERGROUND TELEVISION
OHTV	OVERHEAD TELEVISION
	CHAIN LINK FENCE
	WOOD FENCE
	BARBED WIRE FENCE
FO	FIBER OPTIC
	RIGHT OF WAY
	ROAD CENTERLINE

GENERAL NOTES

1. THE DESIGN, INSPECTION, AND CERTIFICATION OF ANY RETAINING WALL SHOWN OR REFERENCED HEREIN, INCLUDING BUT NOT LIMITED TO, SEGMENTAL RETAINING WALLS, MASS GRAVITY WALLS, GABION WALLS, ETC., GREATER THAN FORTY-EIGHT INCHES IN HEIGHT, SHALL BE BY THE STRUCTURAL ENGINEER. ANY RETAINING WALL DATA SHOWN OR REFERENCED HEREIN SHALL BE ONLY FOR COORDINATION OF THE WALL LOCATION AND ELEVATIONS.
2. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE DRAWINGS IS BASED ON A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE DRAWINGS. THE GOVERNMENT, NOR THE AE TEAM ASSUMES NO RESPONSIBILITY REGARDING THE ACCURACY OF THE DEPICTED LOCATION(S) OF THE UNDERGROUND FACILITIES ON THESE DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ANY OTHER FACILITIES NOT SHOWN ON THESE DRAWINGS. CONTRACTOR SHALL VERIFY LOCATION OF ALL FACILITIES BEFORE BEGINNING WORK.
3. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN OR NEAR THE CONSTRUCTION SITE.
4. CONTRACTOR SHALL NOT CAUSE ANY LONG-TERM INCONVENIENCE TO THE PUBLIC, ADJACENT PROPERTY OWNERS, PEDESTRIANS, ETC. DURING CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL PROVIDE ACCESS TO ALL ADJACENT PROPERTIES AT ALL TIMES DURING CONSTRUCTION.
5. CONTRACTOR SHALL CONTACT THE CONTRACTING OFFICER REPRESENTATIVE FOR CLARIFICATION IF A DISCREPANCY OR INCONSISTENCY IS IDENTIFIED IN THE PLANS OR SPECIFICATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL SHEETING, SHORING, AND SPECIAL EXCAVATION MEASURES REQUIRED ON THE PROJECT WHICH ARE NECESSARY TO CONFORM TO OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
7. ENGINEER OF RECORD SHALL OBSERVE THE TESTING OF THE WATER & SEWER MAINS. BEYOND THAT SCOPE, THE CONTRACTING OFFICER REPRESENTATIVE (COR) IS RESPONSIBLE FOR CONSTRUCTION ADMINISTRATION OR OBSERVATION SERVICES FOR THE WORK INDICATED ON THESE DRAWINGS. THEREFORE, AE TEAM ASSUMES NO RESPONSIBILITY FOR THE INTERPRETATION, COORDINATION, OR ADMINISTRATION OF THESE DOCUMENTS AND/OR DEVIATIONS THEREOF. FURTHERMORE, THE AE TEAM WILL NOT BE RESPONSIBLE FOR ANY EFFECTS THAT ANY CHANGES TO THESE DOCUMENTS MAY HAVE ON ANY RELATED TRADES, CONSTRUCTION SEQUENCES, OR OPERATION OF THE COMPLETED PROJECT EXCEPT AS SPECIFICALLY NOTED IN THE AGREEMENT BETWEEN AE TEAM AND THE GOVERNMENT.
8. **ENERGIZED ELECTRICAL LINE SAFETY, WARNINGS, AND ADVANCED NOTICES:** ALL OWNERS, GENERAL CONTRACTORS, AND SUBCONTRACTORS ASSOCIATED WITH THIS PROJECT SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH, COMPLYING WITH, AND THE ENFORCEMENT OF ARKANSAS CODES AR ST § 11-5-307 AND § AR ST 11-5-308 AND ANY OTHER CURRENT STATE CODES PERTAINING TO ADVANCE NOTICE REQUIREMENTS AND FOR SAFETY OF ALL PERSONNEL, INCLUDING THE GENERAL PUBLIC, PERTAINING TO ANY WORK, MOVEMENT, AND ACTIVITY IN CLOSE PROXIMITY TO ANY ENERGIZED ELECTRICAL LINE.

SITE NOTES

1. THE DESIGN, INSPECTION, AND CERTIFICATION OF ANY RETAINING WALL SHOWN OR REFERENCED HEREIN, INCLUDING BUT NOT LIMITED TO, SEGMENTAL RETAINING WALLS, MASS GRAVITY WALLS, GABION WALLS, ETC., GREATER THAN FORTY-EIGHT INCHES IN HEIGHT, SHALL BE BY OTHERS. ANY RETAINING WALL DATA SHOWN OR REFERENCED HEREIN SHALL BE FOR COORDINATION OF THE WALL LOCATION AND ELEVATIONS ONLY.
2. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY/STATE/FEDERAL REGULATIONS AND CODES AND OSHA STANDARDS.
3. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.
4. ALL CURB DIMENSIONS AND RADII ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
5. ALL PAVEMENT MARKINGS DIMENSIONS BACK OF CURB UNLESS OTHERWISE NOTED.
6. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
7. ALL CURB/SIDEWALK/HANDICAP RAMP DESIGNS SHALL CONFORM TO ABA STANDARDS OR LOCAL RESTRICTIVE CODES, WHICHEVER IS MORE RESTRICTIVE.
8. CONTRACTOR SHALL ENSURE ALL NECESSARY PERMITS ARE OBTAINED PRIOR TO CONSTRUCTION START.
9. CONTRACTOR SHALL MATCH NEW CURB AND GUTTER, CONCRETE, AND PAVEMENT TO EXISTING IN GRADE AND ALIGNMENT.
10. CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.

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Know what's **below**.
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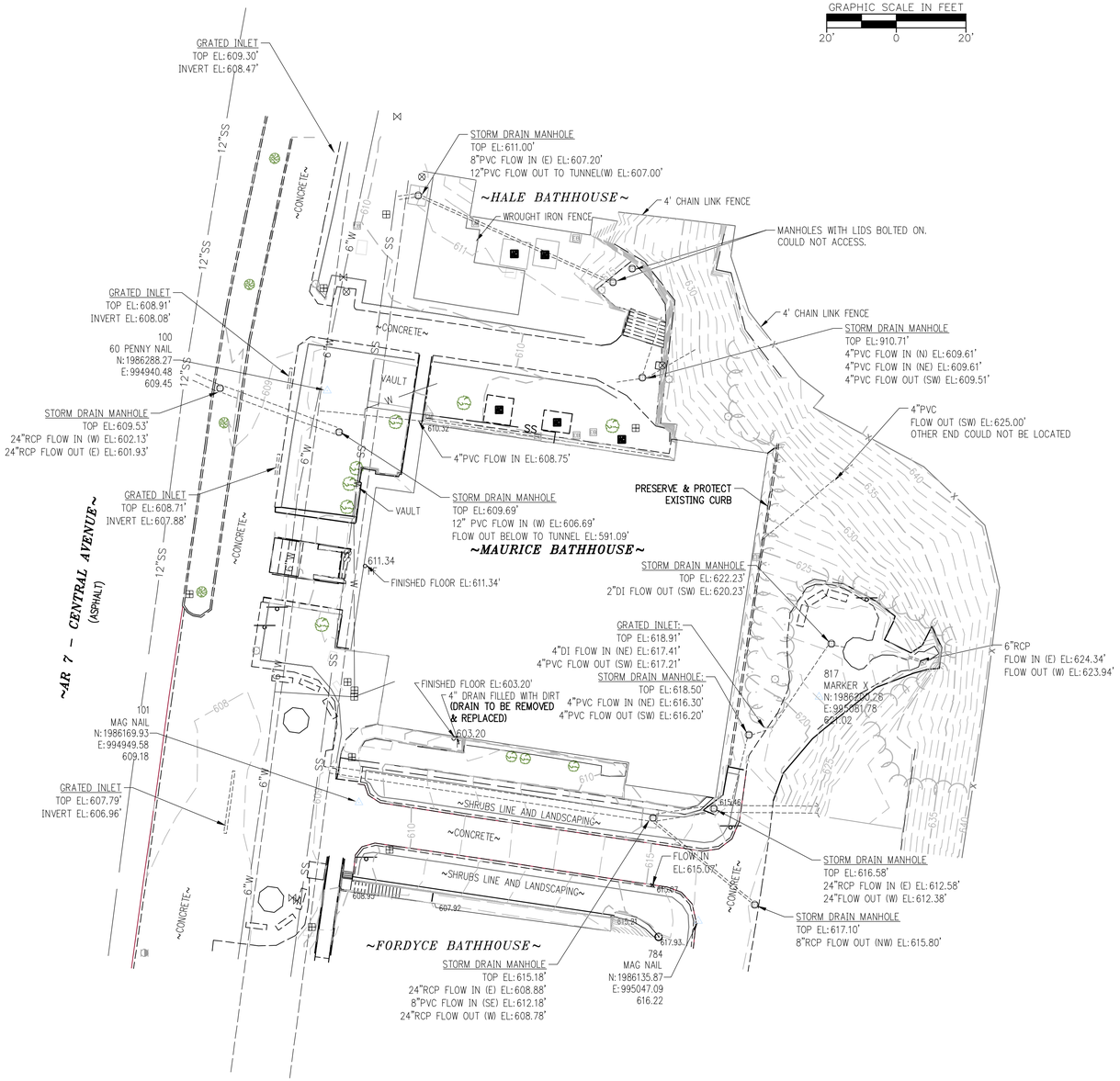
STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE, JR. 10/27/23

CERTIFICATE OF AUTHORIZATION CRAFTON, TULL & ASSOCIATES, INC. No. 109 ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	01	MAURICE BATHHOUSE	128 / 182951
	CADD: RU		PROPOSED SITE PLAN	PMIS/PKG NO. 318915
CRAFTON TULL 908 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	TECH. REVIEW: MB	C1.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 5 OF 286
	DATE: 10.27.2023			

GRAPHIC SCALE IN FEET
20' 0 20'



LEGEND (EXISTING SYMBOLS)

SYMBOLS	LINEWORK
FOUND IRON PIN	EASEMENT
LIGHT POLE	CURB
POWER POLE	INTERMEDIATE CONTOUR
TELEPHONE PEDESTAL	INDEX CONTOUR
TV PEDESTAL	SANITARY SEWER LINE
MANHOLE	GAS LINE
SANITARY SEWER CLEANOUT	WATER LINE (SPECIFY SIZE & TYPE)
GAS METER	UNDERGROUND TELEPHONE
GAS VALVE	UNDERGROUND ELECTRIC
STORM SEWER PIPE	OVERHEAD ELECTRIC
DOWN GUY	UNDERGROUND TELEVISION
WATER VALVE	OVERHEAD TELEVISION
FIRE HYDRANT ASSEMBLY	CHAIN LINK FENCE
AIR RELEASE VALVE	WOOD FENCE
FIRE DEPARTMENT CONNECTION	BARBED WIRE FENCE
WATER METER	FIBER OPTIC
SPRINKLER HEAD	RIGHT OF WAY
ELECTRIC PEDESTAL	ROAD CENTERLINE
GRATED INLET	
DROP INLET	
TREE	
TREE TO BE REMOVED	

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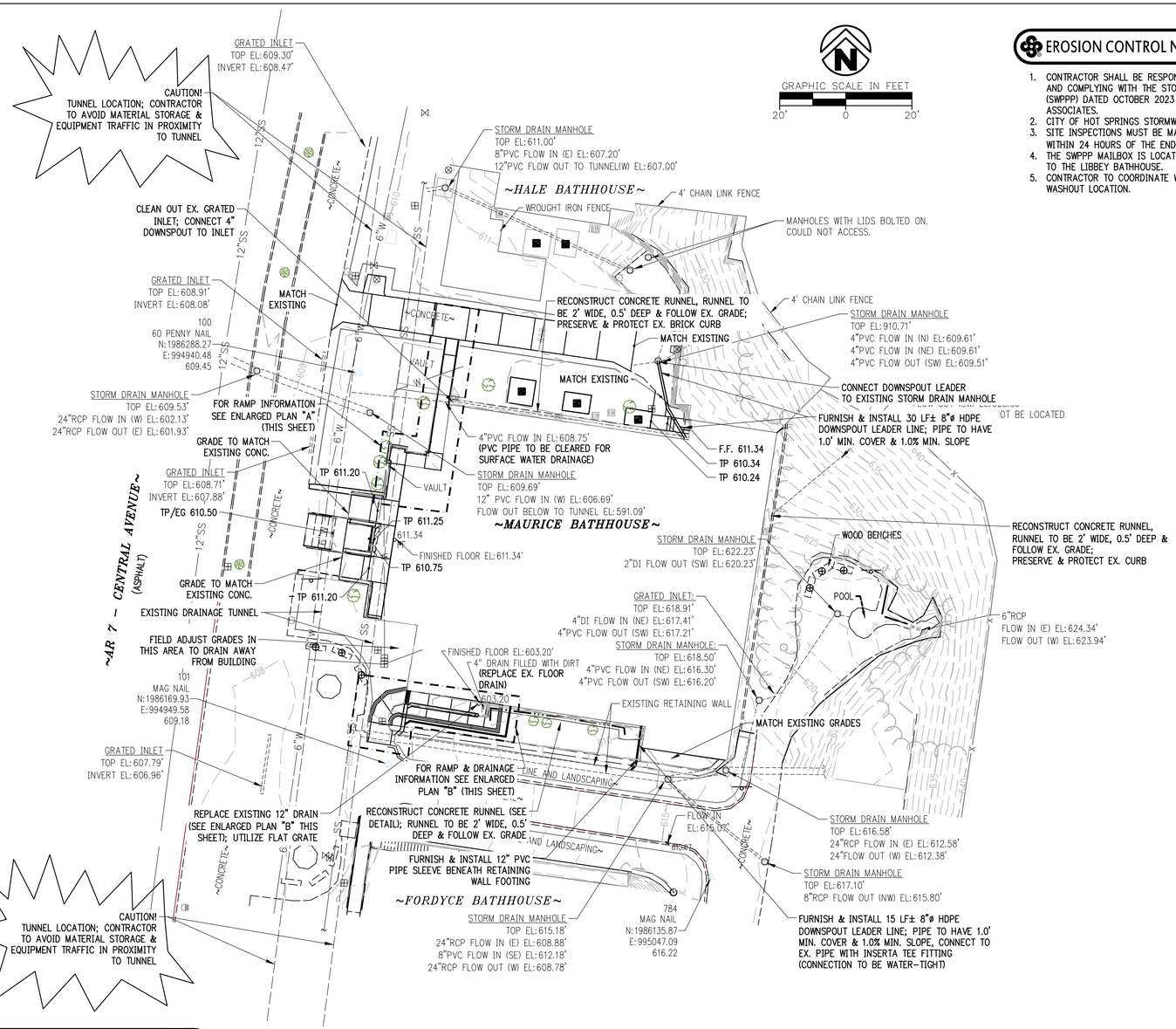
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE, JR.
10277173

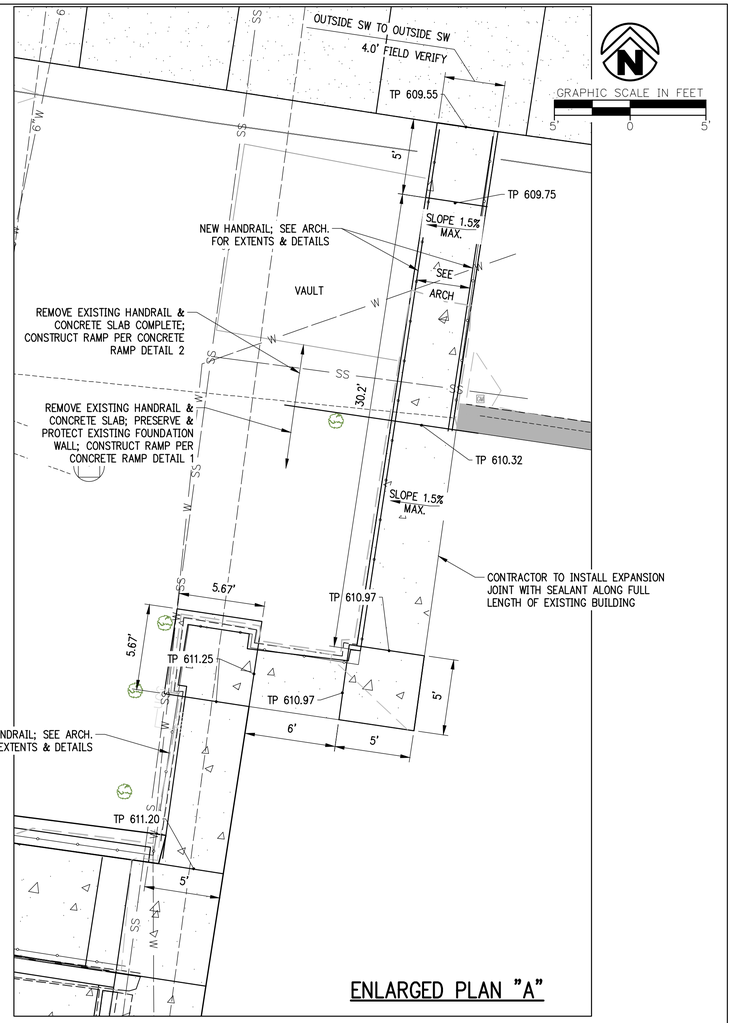
CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

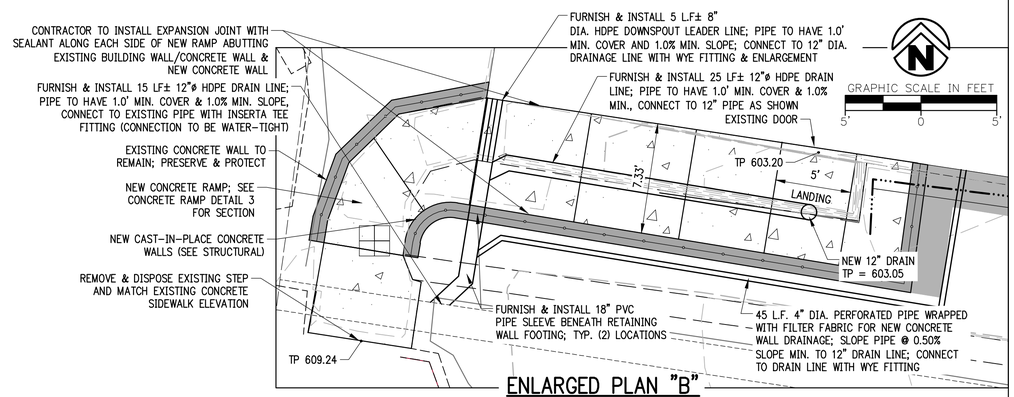
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	01	MAURICE BATHHOUSE EXISTING GRADING & DRAINAGE PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
	CADD: RU	C1.2		PMIS/PKG NO. 318915
CRAFTON TULL 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	TECH. REVIEW: MB			SHEET 6 OF 286
	DATE: 10.27.2023			



EROSION CONTROL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING, MAINTAINING AND COMPLYING WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DATED OCTOBER 2023 AND PREPARED BY CRAFTON, TULL & ASSOCIATES.
2. CITY OF HOT SPRINGS STORMWATER PERMIT WILL NOT BE REQUIRED.
3. SITE INSPECTIONS MUST BE MADE AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT 0.25" OR GREATER.
4. THE SWPPP MAILBOX IS LOCATED AT THE RESERVE STREET ENTRANCE TO THE LIBBEY BATHHOUSE.
5. CONTRACTOR TO COORDINATE WITH OWNER FOR TEMPORARY CONCRETE WASHOUT LOCATION.





GRADING AND DRAINAGE NOTES

1. THE DESIGN, INSPECTION, AND CERTIFICATION OF ANY RETAINING WALL SHOWN OR REFERENCED HEREIN, INCLUDING BUT NOT LIMITED TO, SEGMENTAL RETAINING WALLS, MASS GRAVITY WALLS, GABION WALLS, ETC., GREATER THAN FORTY-EIGHT INCHES IN HEIGHT, SHALL BE BY OTHERS. ANY RETAINING WALL DATA SHOWN OR REFERENCED HEREIN SHALL BE FOR COORDINATION OF THE WALL LOCATION AND ELEVATIONS ONLY.
2. THE CONTRACTING OFFICER REPRESENTATIVE SHALL BE SOLELY RESPONSIBLE FOR OBTAINING AND PROVIDING SEPARATE AND INDEPENDENT RETAINING WALL DESIGNS, INSPECTIONS, AND CERTIFICATIONS BY A REGISTERED PROFESSIONAL ENGINEER. THIS SHALL ALSO APPLY TO ANY ASSOCIATED AND NECESSARY PUBLIC SAFETY DEVICES INCLUDING, BUT NOT LIMITED TO, PEDESTRIAN SAFETY RAILS.
3. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES ON SITE OR IN RIGHT-OF-WAY. ALL UTILITIES MUST BE LOCATED PRIOR TO GRADING START.
4. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
5. ALL CUT OR FILL SLOPES SHALL BE A MAX 3:1 SLOPE OR FLATTER UNLESS OTHERWISE NOTED.
6. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITION OR BETTER.
7. ALL STORM SEWER PIPE CONNECTIONS TO STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT. ALL STORM SEWER STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT.
8. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY WHEN IN PAVED AND TRAFFIC AREAS.
9. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH THE PAVEMENT AND SHALL HAVE TRAFFIC BEARING RINGS AND COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 1" ABOVE FINISH GRADE. LIDS SHALL BE LABELED PER JURISDICTIONAL SPECIFICATIONS.
10. SITE GRADING SHALL NOT PROCEED UNTIL APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL NPDES PERMIT AND THE SWPPP FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
11. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL TO FINAL GRADE. REFER TO THE LANDSCAPE PLAN.
12. TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY LAND SURVEYORS. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON PLANS, CONTACT CONTRACTING OFFICER REPRESENTATIVE IMMEDIATELY.
13. THE CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS THROUGHOUT ALL PHASES OF CONSTRUCTION.
14. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT UTILITY ENTRANCE LOCATIONS.
15. THE EARTHWORK FOR ALL BUILDING FOUNDATIONS AND SLABS SHALL BE IN ACCORDANCE WITH ARCHITECTURAL BUILDING PLANS AND SPECIFICATIONS.
16. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
17. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
18. CONTRACTOR SHALL MAINTAIN ALL EXISTING PARKING, SIDEWALKS, DRIVES, ETC. CLEAR AND FREE FROM ANY CONSTRUCTION ACTIVITY AND/OR MATERIAL TO ENSURE EASY AND SAFE PEDESTRIAN AND VEHICULAR TRAFFIC TO AND FROM THE SITE.
19. IF WET AREAS ARE ENCOUNTERED ON-SITE THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER FOR THE DESIGN AND REPLACEMENT OF A FRENCH DRAIN SYSTEM.

GRADING PLAN SPOT ELEVATIONS

FG	FINISHED GRADE
TW	TOP WALL
BW	BOTTOM WALL
FL	FLOW LINE
TC	TOP CURB
G	GUTTER
SW	SIDEWALK
TP	TOP PAVEMENT
×610.00	EXISTING GRADE

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	CRAFTON TULL 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366
DESIGNED:	MB
CADD:	RU
TECH. REVIEW:	MB
DATE:	10.27.2023
SUB SHEET NO.	01 C1.3
TITLE OF SHEET	MAURICE BATHHOUSE PROPOSED GRADING & DRAINAGE PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	7 OF 286

GRAPHIC SCALE IN FEET
20' 0 20'

EXISTING UTILITY NOTE:

EXISTING UTILITIES SHOWN HEREON WERE LOCATED BASED ON ABOVE GROUND OBSERVABLE EVIDENCE, CITY OF HOT SPRINGS GIS, FIELD OBSERVATIONS & PLANS PROVIDED BY THE NATIONAL PARK DESCRIBING WATERLINE IMPROVEMENTS FOR BATHHOUSE ROW (DRAWING 128 / 41,035). CONTRACTOR TO LOCATE EXISTING UTILITY SERVICE LINES PRIOR TO CONSTRUCTION.

GRATED INLET
TOP EL:609.30'
INVERT EL:608.47'

CAUTION!
TUNNEL LOCATION; CONTRACTOR TO AVOID MATERIAL STORAGE & EQUIPMENT TRAFFIC IN PROXIMITY TO TUNNEL

STORM DRAIN MANHOLE
TOP EL:611.00'
8"PVC FLOW IN (E) EL:607.20'
12"PVC FLOW OUT TO TUNNEL(W) EL:607.00'

~HALE BATHHOUSE~

MANHOLES WITH LIDS BOLTED ON. COULD NOT ACCESS.

EX. UTILITY VAULT (8.9' DEEP); PRESERVE & PROTECT

EX. 6" WATERLINE; WATERLINE RESTS ON CREEK ARCH TUNNEL IN THIS AREA

GRATED INLET
TOP EL:608.91'
INVERT EL:608.08'

EX. 6" CAST IRON SANITARY SEWER SERVICE LINE

SEE ENLARGED AREA "A" (THIS SHEET) FOR PIPES IN THIS AREA

STORM DRAIN MANHOLE
TOP EL:910.71'
4"PVC FLOW IN (N) EL:609.61'
4"PVC FLOW IN (NE) EL:609.61'
4"PVC FLOW OUT (SW) EL:609.51'

EX. 4" GAS SERVICE LINE; CONTRACTOR TO COORDINATE WITH SUMMIT UTILITIES LOCATION OF FACILITIES PRIOR TO CONSTRUCTION

EX. THERMAL "HOT" WATER LINE

STORM DRAIN MANHOLE
TOP EL:609.53'
24"RCP FLOW IN (W) EL:602.13'
24"RCP FLOW OUT (E) EL:601.93'

4"PVC
FLOW OUT (SW) EL:625.00'
OTHER END COULD NOT BE LOCATED

4"PVC FLOW IN EL:608.75'

EX. 2-1/2" DOMESTIC WATER LINE

GRATED INLET
TOP EL:608.71'
INVERT EL:607.88'

STORM DRAIN MANHOLE
TOP EL:609.69'
12" PVC FLOW IN (W) EL:606.69'
FLOW OUT BELOW TO TUNNEL EL:591.09'

~MAURICE BATHHOUSE~

~AR 7 - CENTRAL AVENUE~ (ASPHALT)

611.34
FINISHED FLOOR EL:611.34'

STORM DRAIN MANHOLE
TOP EL:622.23'
2"DI FLOW OUT (SW) EL:620.23'

WOOD BENCHES

GRATED INLET:
TOP EL:618.91'
4"DI FLOW IN (NE) EL:617.41'
4"PVC FLOW OUT (SW) EL:617.21'

6"RCP
FLOW IN (E) EL:624.34'
FLOW OUT (W) EL:623.94'

CONTRACTOR TO VERIFY EXISTING DOMESTIC WATER ENTRANCE & ABANDON IN PLACE

FINISHED FLOOR EL:603.20'
4" DRAIN FILLED WITH DIRT

STORM DRAIN MANHOLE:
TOP EL:618.50'
4"PVC FLOW IN (NE) EL:616.30'
4"PVC FLOW OUT (SW) EL:616.20'

817
MARKER X
N:1986200.28
E:995081.78
624.02

603.20

EXISTING EMPTY WATER METER BOX TO BE REMOVED & DISPOSED; CONTRACTOR TO ENSURE ANY REMAINING EXISTING LINES ARE CAPPED.

GRATED INLET
TOP EL:607.79'
INVERT EL:606.96'

~SHRUBS LINE AND LANDSCAPING~

~CONCRETE~

FLOW IN EL:615.07'

STORM DRAIN MANHOLE
TOP EL:616.58'
24"RCP FLOW IN (E) EL:612.58'
24"FLOW OUT (W) EL:612.38'

STORM DRAIN MANHOLE
TOP EL:617.10'
8"RCP FLOW OUT (NW) EL:615.80'

CAUTION!
TUNNEL LOCATION; CONTRACTOR TO AVOID MATERIAL STORAGE & EQUIPMENT TRAFFIC IN PROXIMITY TO TUNNEL

~FORDYCE BATHHOUSE~

STORM DRAIN MANHOLE
TOP EL:615.18'
24"RCP FLOW IN (E) EL:608.88'
8"PVC FLOW IN (SE) EL:612.18'
24"RCP FLOW OUT (W) EL:608.78'

EXISTING 1.5" DOMESTIC METER & 2" LAWN IRRIGATION METER; CONTRACTOR TO COORDINATE W/ CITY TO TERMINATE DOMESTIC SERVICE & RELOCATE METER TO NEW LOCATION

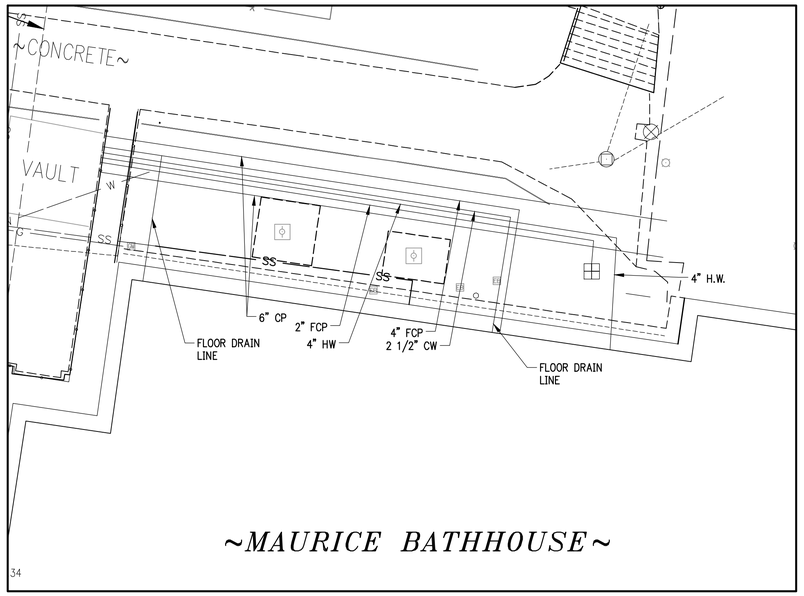
LEGEND (EXISTING SYMBOLS)

SYMBOLS

- FOUND IRON PIN
- LIGHT POLE
- POWER POLE
- TELEPHONE PEDESTAL
- TV PEDESTAL
- MANHOLE
- SANITARY SEWER CLEANOUT
- GAS METER
- GAS VALVE
- STORM SEWER PIPE
- DOWN GUY
- WATER VALVE
- FIRE HYDRANT ASSEMBLY
- AIR RELEASE VALVE
- FIRE DEPARTMENT CONNECTION
- WATER METER
- SPRINKLER HEAD
- ELECTRIC PEDESTAL
- GRATED INLET
- DROP INLET
- TREE
- TREE TO BE REMOVED

LINEWORK

- EASEMENT
- CURB
- INTERMEDIATE CONTOUR (1206)
- INDEX CONTOUR (1205)
- SANITARY SEWER LINE (SS)
- GAS LINE (G)
- WATER LINE (SPECIFY SIZE & TYPE) (W)
- UNDERGROUND TELEPHONE (UGT)
- UNDERGROUND ELECTRIC (UGE)
- OVERHEAD ELECTRIC (OHE)
- UNDERGROUND TELEVISION (UGTV)
- OVERHEAD TELEVISION (OHTV)
- CHAIN LINK FENCE
- WOOD FENCE
- BARBED WIRE FENCE
- FIBER OPTIC (FO)
- RIGHT OF WAY
- ROAD CENTERLINE



ENLARGED AREA "A"
NTS

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STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE, JR. 10/27/23

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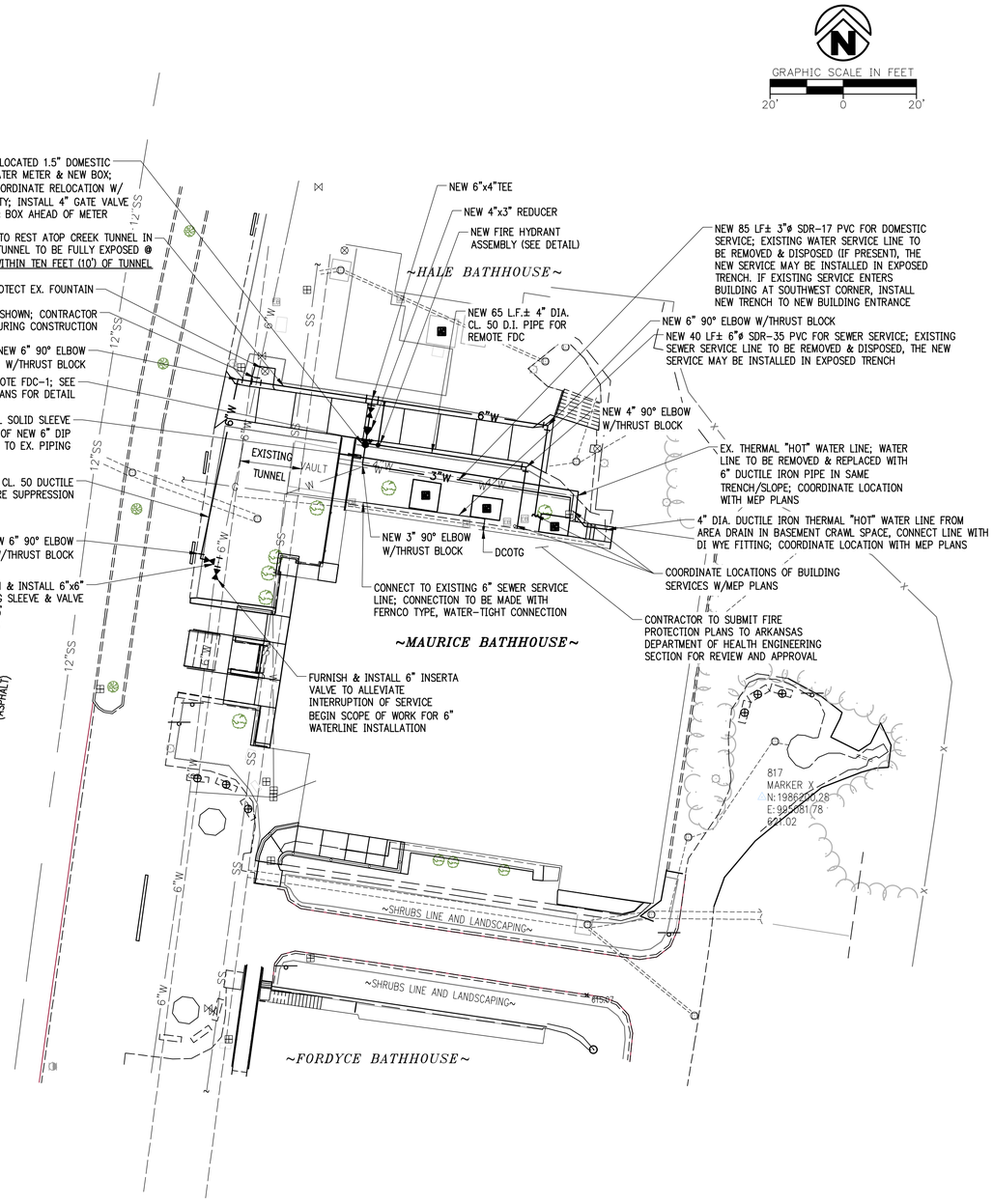
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100, KANSAS CITY, MO T: 816.474.0900	MB	01	MAURICE BATHHOUSE	128 / 182951
CRAFTON TULL 926 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	CADD: RU	C1.4	EXISTING UTILITY PLAN	PMIS/PKG NO. 318915
	TECH. REVIEW: MB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 8 OF 286
	DATE: 10.27.2023			



UTILITY NOTES

1. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES WITHIN THE WORK ZONE.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES' INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING FACILITIES. CONTRACTOR SHALL COORDINATE AND SCHEDULE TIE-INS/CONNECTIONS WITH ALL UTILITY COMPANIES.
3. ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO BACKFILLING.
4. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
5. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES.
6. THRUST BLOCKING SHALL BE PROVIDED AT ALL BENDS, TEES, FITTINGS AND FIRE HYDRANTS.
7. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
8. MINIMUM HORIZONTAL SEPARATION BETWEEN WATERLINES AND SANITARY/STORM SEWERS SHALL BE AT LEAST TEN FEET. WHERE WATERLINES CROSS SANITARY SEWERS THE WATERLINE SHALL BE PLACED ABOVE THE SEWER WITH A MINIMUM VERTICAL SEPARATION, OUTSIDE-TO-OUTSIDE, OF 18". IF IT IS NOT POSSIBLE TO CONFORM TO THESE DIMENSIONS OR DEFINED PLACEMENT, THE WATERLINE SHALL BE PLACED BELOW THE SEWER AND ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. A MINIMUM VERTICAL SEPARATION, OUTSIDE TO OUTSIDE, OF 18" SHALL BE MAINTAINED IF THE WATERLINE IS PLACED BELOW THE SEWER.
9. THE CONTRACTOR SHALL INCLUDE IN THE BID PRICE ALL MATERIAL AND LABOR ASSOCIATED WITH THE TESTING OF THE WATER AND SEWER LINES REQUIRED BY THE LOCAL AND/OR STATE AGENCIES.
10. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH FINISHED PAVEMENT ELEVATIONS, AND MANHOLES IN UNPAVED AREAS TO BE 2" ABOVE FINISHED GROUND ELEVATIONS WITH WATER TIGHT LIDS.
11. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL REGULATIONS.
12. REFER TO BUILDING PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
13. ALL MATERIALS, CONSTRUCTION, AND INSPECTION FOR WATER AND SANITARY SEWER LINES SHALL BE PER THE SPECIFICATIONS OF THE APPROPRIATE AGENCY.
14. THE CONTRACTOR SHALL COORDINATE WITH THE FIRE DEPARTMENT AND THE WATER COMPANY TO PLAN THE IMPROVEMENTS TO THE WATER MAINS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THE PROJECT. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING ANY REQUIRED WATER MAIN SHUT-OFFS WITH THE WATER COMPANY DURING CONSTRUCTION. ALL COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR; NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
15. DAMAGE TO ALL EXISTING FACILITIES DESIGNATED TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
16. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, AND EXACT UTILITY ENTRANCE LOCATIONS.
17. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED AS WELL AS COSTS OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
18. GENERAL CONTRACTOR SHALL PROVIDE ALL CONDUITS AS SHOWN ON THE PLANS, VERIFY LOCATION OF UTILITY TIE-INS, AND PROVIDE NYLON PULL CORDS INSIDE THE CONDUIT.
19. THE CONTRACTOR SHALL INCLUDE IN BID PRICE THE DAILY RECORD KEEPING OF THE RECORD CONDITION OF ALL OF THE UNDERGROUND UTILITIES, CONSTRUCTION STAKE-OUT, PREPARATION OF THE NECESSARY/REQUIRED WATER AND SEWER RECORD DRAWINGS TO BE SUBMITTED, AND ALL OTHER INFORMATION REQUIRED FOR OBTAINING PERMITS AND RELEASE OF BONDS.
20. ENERGIZED ELECTRICAL LINE SAFETY, WARNINGS, AND ADVANCED NOTICES: ALL OWNERS, GENERAL CONTRACTORS, AND SUBCONTRACTORS ASSOCIATED WITH THIS PROJECT SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH, COMPLYING WITH, AND THE ENFORCEMENT OF ARKANSAS CODES AR ST § 11-5-307 AND § AR ST 11-5-308 AND ANY OTHER CURRENT STATE CODES PERTAINING TO ADVANCE NOTICE REQUIREMENTS AND FOR SAFETY OF ALL PERSONNEL, INCLUDING THE GENERAL PUBLIC, PERTAINING TO ANY WORK, MOVEMENT, AND ACTIVITY IN CLOSE PROXIMITY TO ANY ENERGIZED ELECTRICAL LINE.

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CRAFTON TULL 908 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	CADD: RU	C1.5	PROPOSED UTILITY PLAN	PMIS/PKG NO. 318915
	TECH. REVIEW: MB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 9 OF 286
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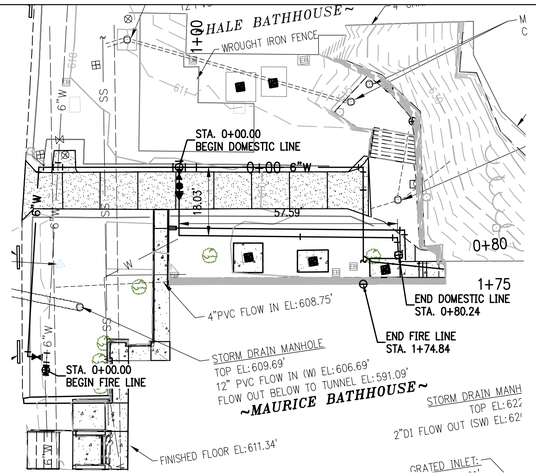

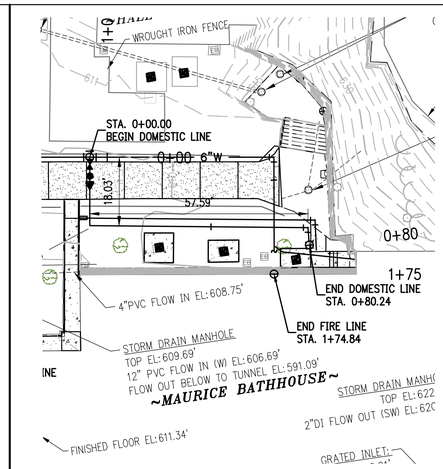

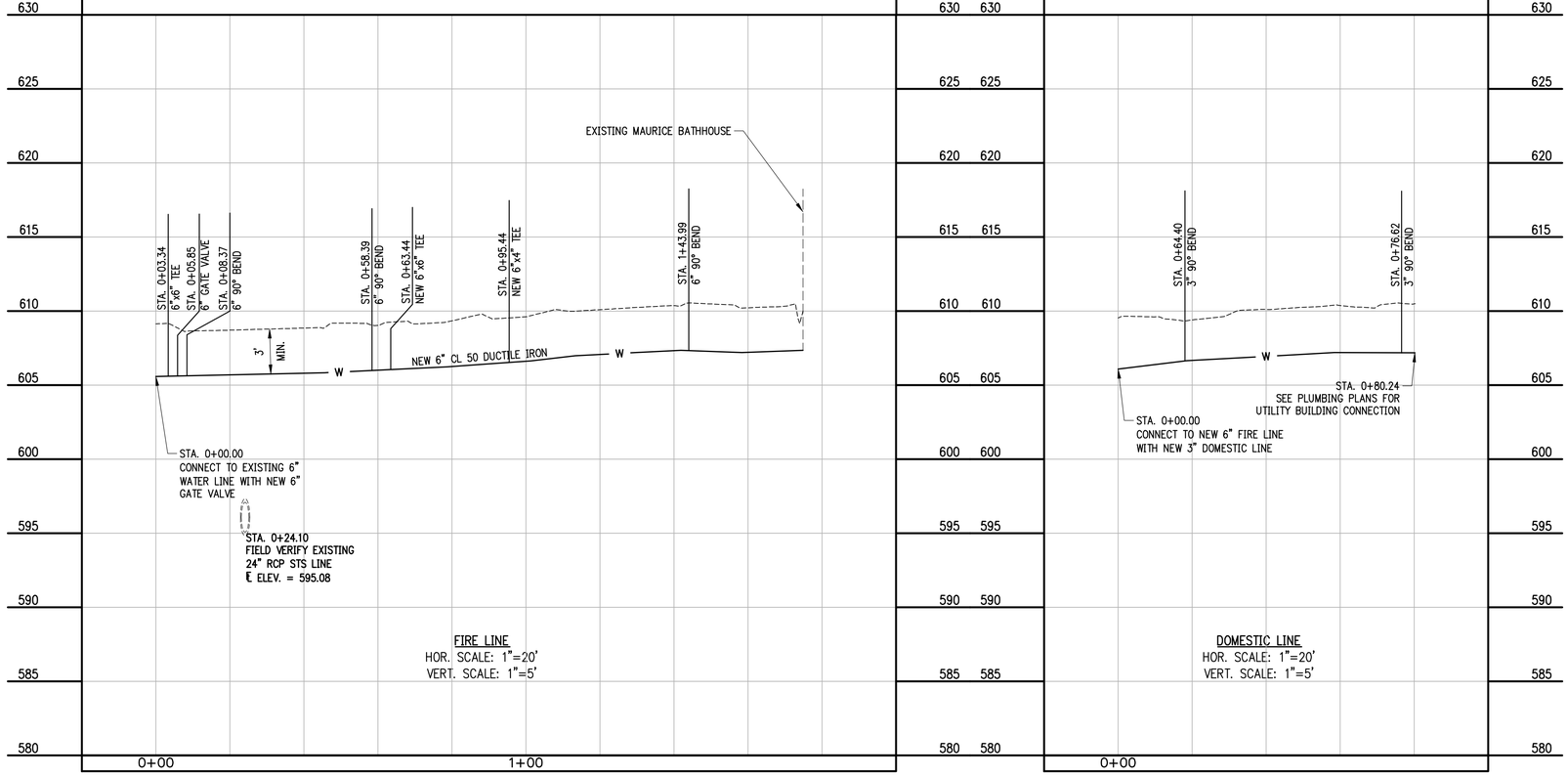

FIRE LINE
HOR. SCALE: 1"=20'
VERT. SCALE: 1"=5'

DOMESTIC LINE
HOR. SCALE: 1"=20'
VERT. SCALE: 1"=5'

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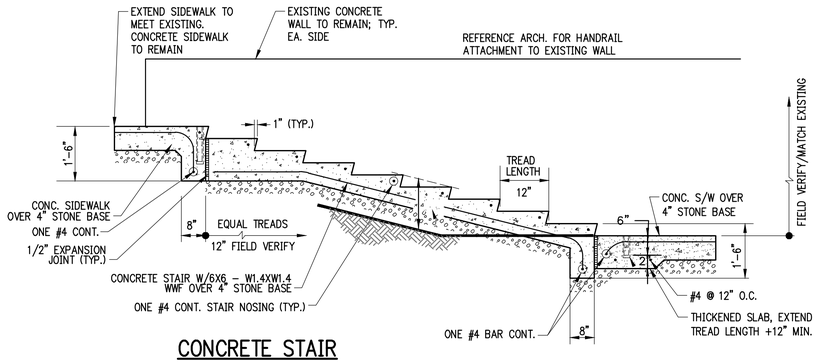
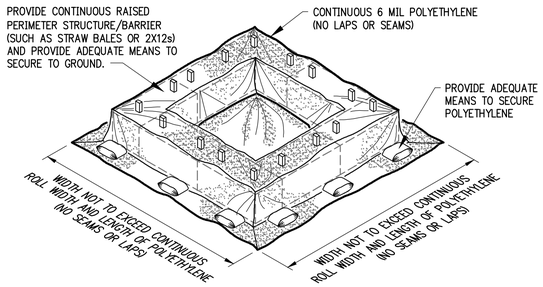


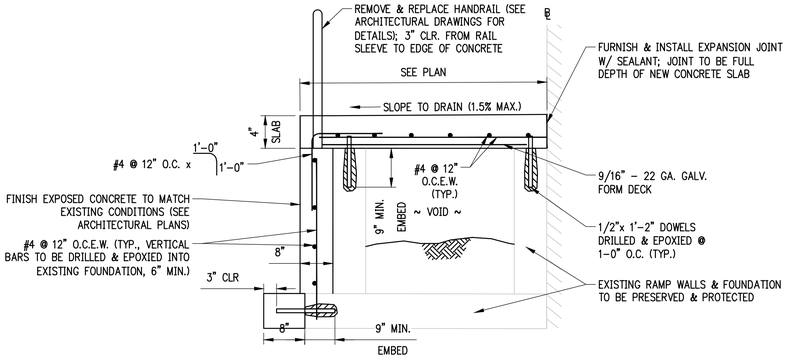
CONCRETE STAIR

NTS NOTE: REFER TO SITE AND GRADING PLANS FOR STAIR LENGTH, RISE AND LOCATION



CONCRETE WASH-OUT BASIN

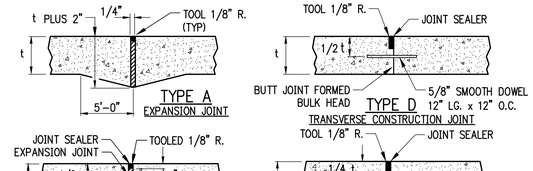
NTS



NOTES:
1. EXISTING REINFORCING NOT SHOWN FOR CLARITY.
2. EPOXY TO BE HILTI HIT-RE 500 OR APPROVED EQUAL.

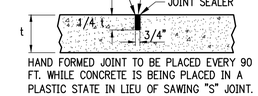
CONCRETE RAMP DETAIL 1

NTS



NOTES:
1. ALL JOINTS SPACING NOT TO EXCEED 15'-0" INTERVALS.
2. SAWED JOINTS SHALL BE CUT AS SOON AS POSSIBLE AFTER FINISH WORK IS COMPLETE & CONCRETE HAS CURED TO ACCEPT TYPE OF SAW EQUIPMENT.
3. ASSURE SAW JOINTS ARE CLEAN AND DRY PRIOR TO THE APPLICATION OF THE JOINT SEALANT.
4. SPECIFIED JOINT SEALANT APPLIED IN ACCORDANCE WITH SEALANT MANUFACTURER'S REQUIREMENTS SEALANT TOOLED 1/8" BELOW PAVEMENT SURFACE.
5. DRILLING BY HAND OR PUSHING DOWEL BARS INTO GREEN CONCRETE IS NOT ACCEPTABLE.
6. COMPLETELY FILL HOLE WITH EPOXY GROUT AND INSERT DOWEL WITH EXPANSION CAPS.
7. DOWELS SHALL BE ALIGNED PERPENDICULAR TO THE JOINT.

REMOVE TEMPLATE BEFORE CONCRETE HAS HARDENED AND TROWEL WITH 10 FT. STRAIGHT EDGE TO ASSURE SMOOTH AND CONTINUOUS GRADE BETWEEN SLABS - SEE SPECS.



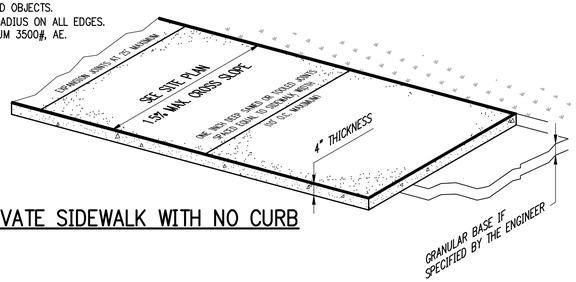
HAND FORMED JOINT TO BE PLACED EVERY 90 FT. WHILE CONCRETE IS BEING PLACED IN A PLASTIC STATE IN LIEU OF SAWING "S" JOINT.

TYPE SH

CONCRETE PAVEMENT JOINTING DETAIL

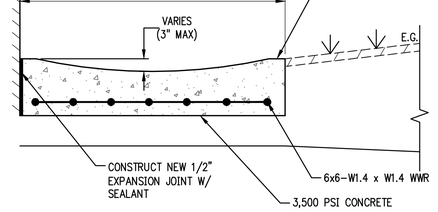
NTS

NOTES:
1. PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS.
2. PROVIDE 1/2" TOOLED RADIUS ON ALL EDGES.
3. CONCRETE TO BE MINIMUM 3500#, AE.



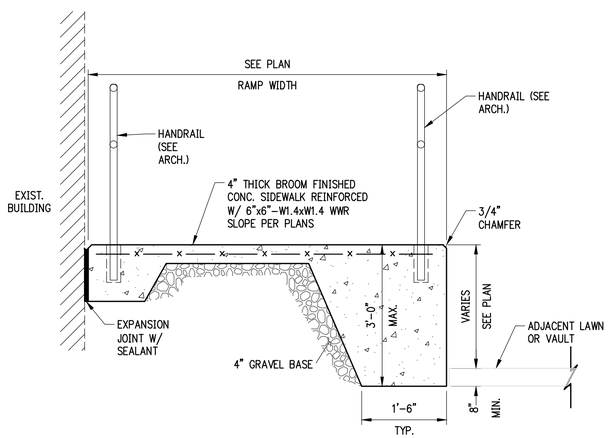
PRIVATE SIDEWALK WITH NO CURB

NTS



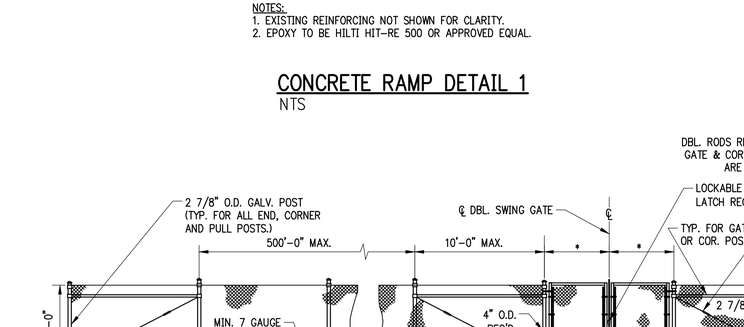
CONCRETE RUNNEL DETAIL

NTS



CONCRETE RAMP DETAIL 2

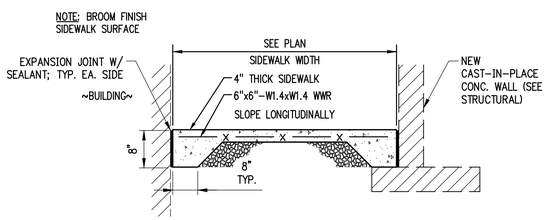
NTS



* AS SHOWN ON SITE PLAN

CHAIN LINK FENCE

NTS



CONCRETE RAMP DETAIL 3

NTS

Arkansas One Call 811

Know what's **below**.

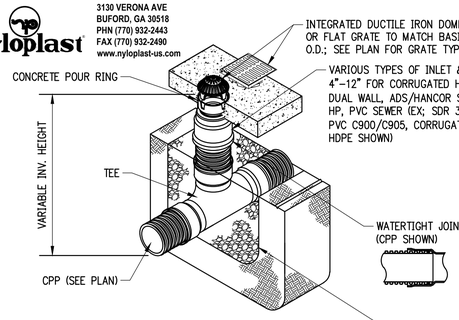
Call before you dig.

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL GEORGE JR. 10/27/23

CRAFTON, TULL & ASSOCIATES, INC. No. 109 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

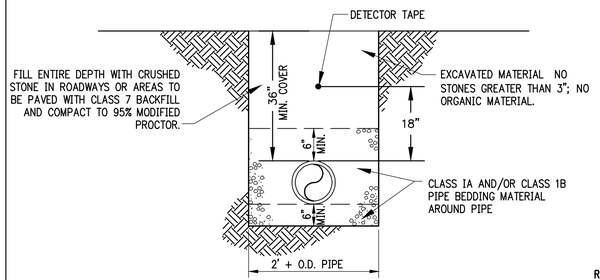
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 LOCUST STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	01	MAURICE BATHHOUSE	128 / 182951
	CADD: RU		DETAILS SHT. 1	PMIS/PKG NO. 318915
CRAFTON TULL 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	TECH. REVIEW: MB	C5.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 11 OF 286
	DATE: 10.27.2023			

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

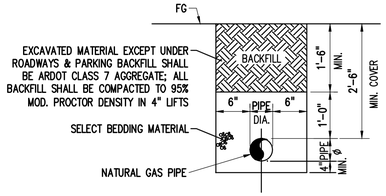


NOTES ON DRAIN
1. GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
2. DRAIN TO BE NYLOPLAST 2712AG OR APPROVED EQUAL WITH 12" RISER PIPE.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N–12/HANCOR DUAL WALL)., & PVC SEWER

12" DRAIN DETAIL
NTS



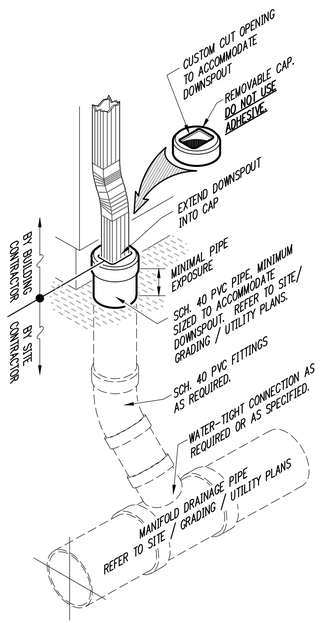
TRENCH/PIPE BEDDING FOR SEWER SANITARY SEWER MAINS
NTS



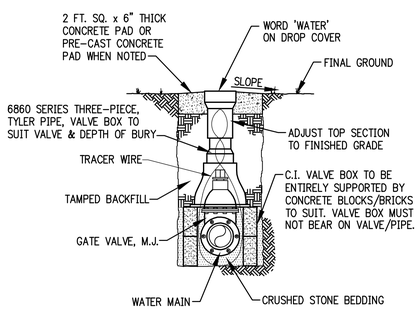
NOTES ON GAS TRENCH

1. SELECT BEDDING MATERIAL SHALL BE PIT RUN OR WASHED GRAVEL FREE OF MATERIAL OR STONES LARGER THAN 1 1/2" IN ANY DIMENSION.
2. UNDER EXISTING OR PROPOSED STREETS OR DRIVEWAYS, DEPTH TO TOP OF PIPELINE TO BE 3'–0" MINIMUM, AS APPLICABLE, FROM THE LOWER OF:
   a. TOP OF CURB
   b. NATURAL GROUND
   c. PROPOSED FINISHED GRADE

GAS PIPE TRENCH DETAIL
SCALE: N.T.S.



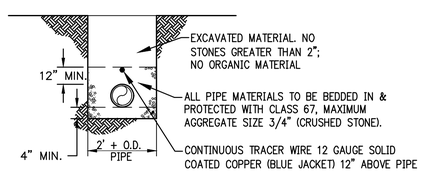
EXTERIOR DOWNSPOUT COLLECTOR
NTS



STANDARD DEPTH

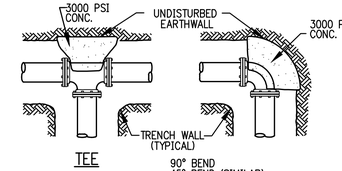
GATE VALVE
NTS

NOTES:
1. FILL ENTIRE DEPTH WITH CLASS 7 CRUSHED STONE IN ROADWAYS OR AREAS TO BE PAVED. REFER TO CONCRETE CROSSING REPAIR.



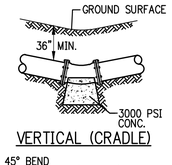
TRENCH/PIPE BEDDING FOR WATER MAINS
NTS

NOTES:
1. ALL FITTINGS SHALL BE MECHANICAL JOINT WITH RETAINER GLANDS.
2. DO NOT COVER BELLS OR FLANGES WITH CONCRETE.
3. WRAP ALL FITTINGS WITH VISQUEEN.
4. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
5. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
6. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL AND VERTICAL, SHALL BE ANCHORED BY THRUST BLOCKING.
7. REACTION BACKING TABLE IS BASED ON 200 P.S.I. + WATER HAMMER (50% MINIMUM AND SOIL BEARING PRESSURE OF 2,000 LB./SQ. FT. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEER.



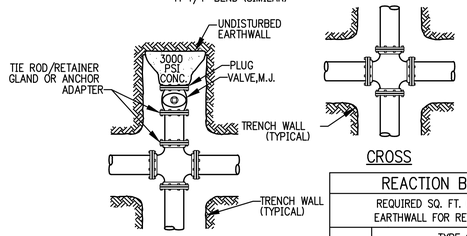
TEE

90° BEND
45° BEND (SIMILAR)
22 1/2° BEND (SIMILAR)
11 1/4° BEND (SIMILAR)



VERTICAL (CRADLE)

45° BEND
22 1/2° BEND (SIMILAR)
11 1/4° BEND (SIMILAR)



CROSS WITH PLUG/CAP
TEE WITH PLUG (SIMILAR)

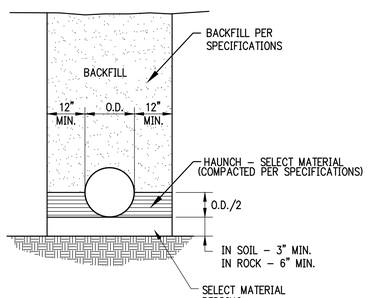
THRUST BLOCKING
NTS

CROSS

REACTION BACKING TABLE					
REQUIRED SQ. FT. OF UNDISTURBED EARTHWALL FOR REACTION BACKING					
SIZE	TYPE OF FITTINGS				
	TEE OR PLUG/CAP	90°	45°	22 1/2°	11 1/4°
2"	1	1	1	1	1
3"	1	1	1	1	1
4"	2	2	1	1	1
6"	3	3	2	1	1
8"	4	4	3	2	2
12"	10	10	5	3	2
20"	26	26	14	7	4
24"	38	38	20	10	7
30"	59	59	32	16	10

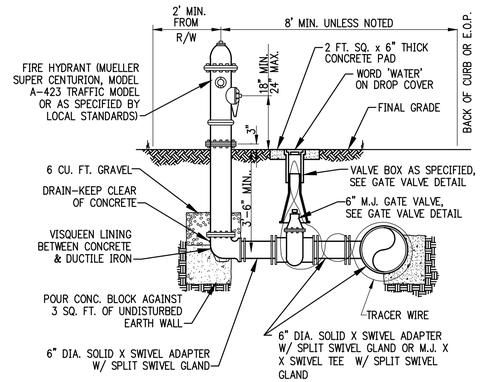
NOTES:
1. UNDER PAVEMENT, BACKFILL ENTIRE EXCAVATION WITH ARDOT CLASS 7 AGGREGATE BASE MATERIAL COMPACTED IN 8" LIFTS TO A MINIMUM OF 95% MODIFIED PROCTOR DENSITY.

CONSTRUCTION SEQUENCE
1. PLACE SELECT BEDDING MATERIAL TO GRADE.
2. COMPACT SELECT BEDDING BELOW THE PIPE.
3. INSTALL PIPE TO GRADE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.

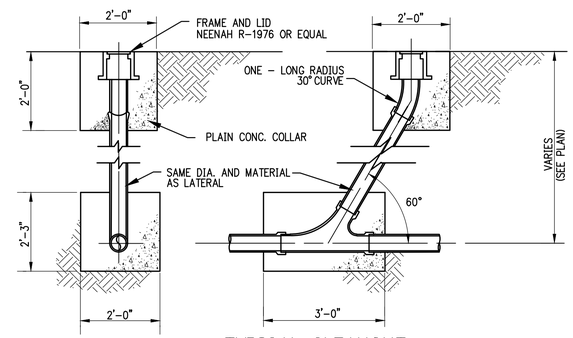


DRAINAGE PIPE INSTALLATION
NTS

NOTES:
1. ALL HYDRANTS TO BE SET PLUMB W/ NOZZLE FACING STREET.
2. LEADER LENGTHS OVER 24" BETWEEN TEE AND VALVE OR VALVE AND HYDRANT, USE D.I. PIPE W/ RETAINER GLANDS.
3. EXTENSION BARREL AND STEM FOR EXTRA BURY DEPTH IF NECESSARY.



FIRE HYDRANT ASSEMBLY
NTS



TYPICAL CLEANOUT
NTS

Arkansas One Call 811
Know what's **below**.
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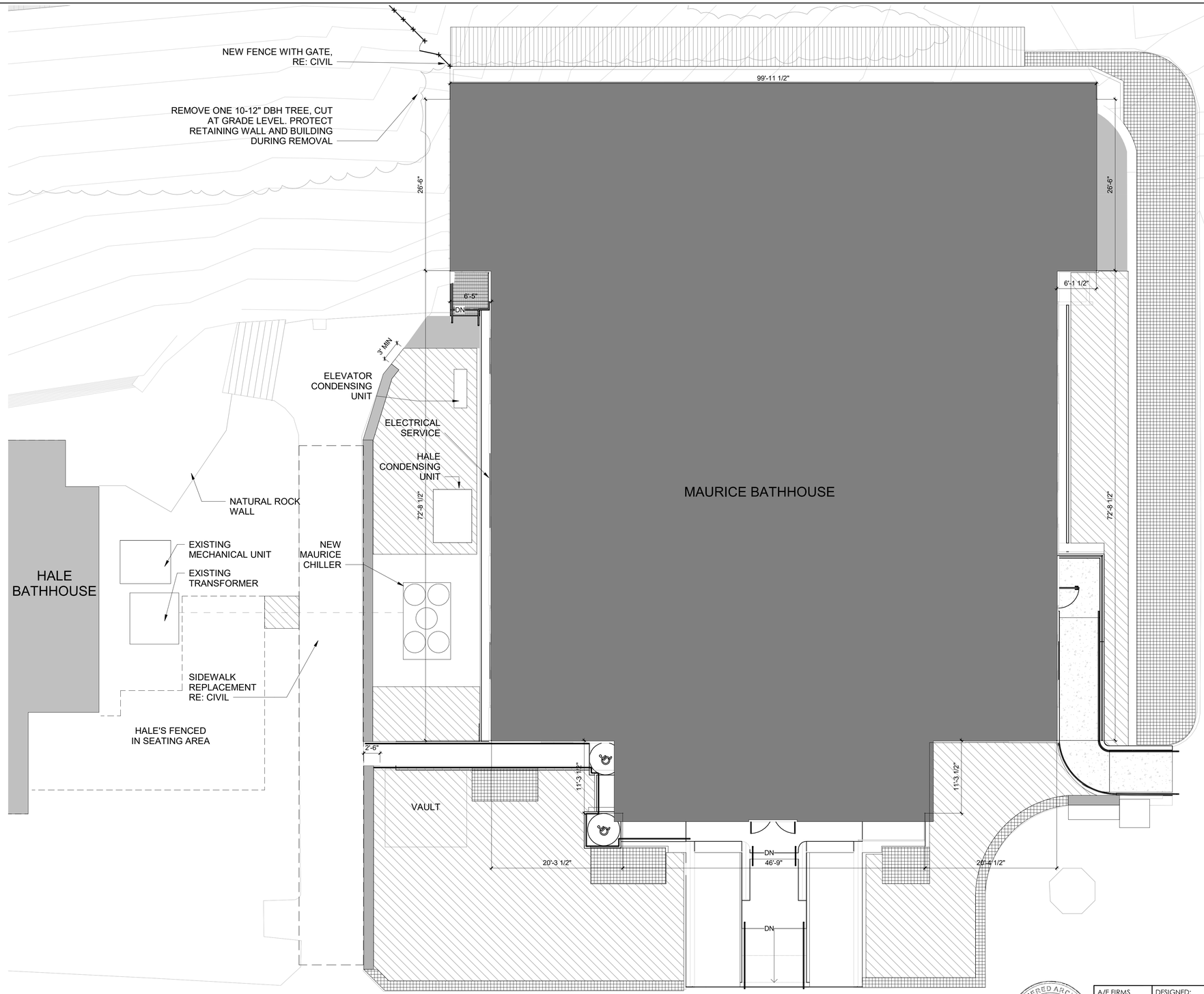
STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE JR. 10/27/23

CERTIFICATE OF AUTHORIZATION CRAFTON, TULL & ASSOCIATES, INC. No. 109 ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 IOAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	01	MAURICE BATHHOUSE	128 / 182951
CRAFTON TULL 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	CADD: RU	C5.2	DETAILS SHT. 2	PMIS/PKG NO. 318915
	TECH. REVIEW: MB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 12 OF 286
	DATE: 10.27.2023			



1 L1.0 Proposed Landscape Site Plan

1/8" = 1'-0" SCALE

BLDG.

SCALE A 0 2 4 6 8 16 32

SCALE OF FEET

LEGEND - LANDSCAPE SITE PLAN TREATMENT :

- SOD WITH ST. AUGUSTINE GRASS PER SPEC (3900 SF)
- EXISTING HOLLY (I. CORNUTA) SHRUBS TO BE REPLACED IN KIND (160 LF), MULCH PER SPEC.
- EXISTING SHRUBS TO REMAIN
- AREA REQUIRING REGRADING, INSTALLATION OF NEW TOP SOIL, EROSION CONTROL FABRIC AND AND NATIVE HARDY GROUND COVER, SEE PLANT LIST BELOW.

NOTES:

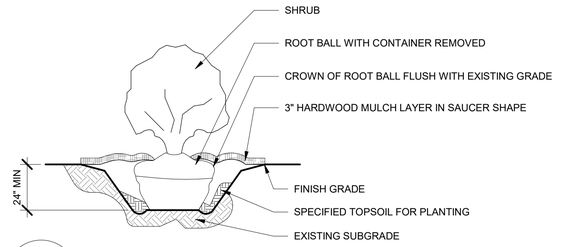
1. IF EXISTING SHRUBS ARE DAMAGED DURING CONSTRUCTION, REPLACE IN KIND.

PLANT LIST:

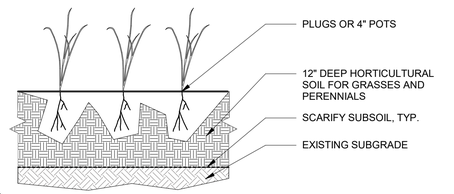
NATIVE HARDY GROUND COVER PLANTS MAY INCLUDE A MIX OF THE FOLLOWING:

- LITTLE BLUESTEM (SCHYZACHYRIUM SCOPARIUM)
- NORTHERN SEA OATS (CHASMANTHIUM SESSILIFLORUM)
- ELMLEAF GOLDENROD (SOLIDAGO ULMIFOLIA)
- EASTERN BEEBALM (MONARDA BRADBURIANA)
- SPOTTED BEEBALM (MONARDA PUNCTATA)
- PALE PURPLE CONEFLOWER (ECHINACEA PALLIDA)
- MAYAPPLE (PODOPHYLLUM PELTATUM)\

4" POTS OR PLUGS TO BE SOURCED AND INSTALLED PER SPEC.



2 L1.0 Planting Detail

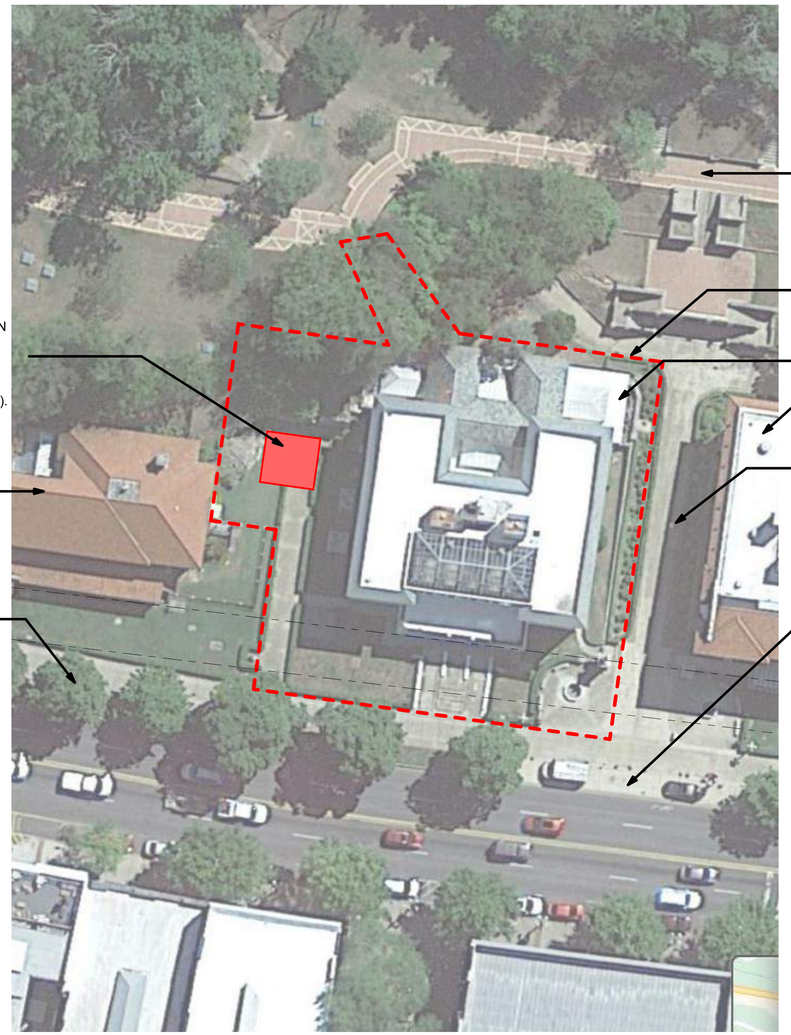


3 L1.0 Plug Detail

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 812190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	BWW	01 L1.0	MAURICE BATHHOUSE LANDSCAPE SITE PLAN	128 182951
SUBCONTRACTOR: **QUINN EVANS** 1037 SHERMAN AVE MADISON, WI T: 734.926.0419	CADD: KBR			PMIS/PKG NO. 318915
	TECH. REVIEW: BWW		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 13 OF 286
	DATE: 10.27.2023			

11/2/2023 5:31:12 PM



1 A0.01 Site Plan Maurice
NOT TO SCALE

2 A0.01 Parking Lot Aerial Plan
NOT TO SCALE

DESCRIPTION OF WORK:

THE MAURICE IS A THREE-STORY BUILDING IN THE MEDITERRANEAN REVIVAL STYLE FACING CENTRAL AVENUE AND IS ONE OF EIGHT BATHHOUSES REMAINING ON BATHHOUSE ROW IN HOT SPRINGS, ARKANSAS. BATHHOUSE ROW IS THE FRONT DOOR TO HOT SPRINGS NATIONAL PARK, WITH THE HISTORIC FORMAL ENTRANCE TO THE PARK ON THE SOUTH SIDE OF MAURICE. THE MAURICE BATHHOUSE IS ONE OF EIGHT BATHHOUSES REMAINING ON BATHHOUSE ROW. BATHHOUSE ROW WAS INITIALLY LISTED AS A NATIONAL REGISTER HISTORIC DISTRICT IN 1974 AND DESIGNATED A NATIONAL HISTORIC LANDMARK IN 1987 FOR CONTAINING THE *"LARGEST COLLECTION OF TWENTIETH CENTURY BATHHOUSES REMAINING IN THE UNITED STATES."* THE SIDEWALKS AND GREEN SPACE IN FRONT OF THE BUILDING WERE ALSO NOTED AS CONTRIBUTING FEATURES TO THE DISTRICT.

THIS OVERALL PROJECT INCLUDES THE REHABILITATION OF THE SHELL OF THE MAURICE BUILDING, RESTORATION OF PRIMARY HISTORIC INTERIOR SPACES AND FEATURES, ADDRESSING UNIVERSAL ACCESSIBILITY, AND INSTALLATION OF NEW ELECTRICAL, MECHANICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS TO PREPARE THE BUILDING FOR A FUTURE LEASE. IN COMMERCIAL REAL ESTATE TERMS, THE DESIRED CONDITION WILL BE A PARTIALLY FINISHED BUILDING THAT THE NPS MAY OFFER FOR LEASE AND TENANT CUSTOMIZATION. THE INTENT OF THIS PROJECT IS TO COMPLETE MOST OF THE UP-FRONT CAPITAL INVESTMENT FOR THE SIGNIFICANT WORK COMPONENTS SO FUTURE LEASEHOLDERS CAN FOCUS THEIR EFFORTS AND COSTS ON DESIGNING AND UNDERTAKING ADDITIONAL FACILITY IMPROVEMENTS TO SATISFY THEIR OPERATIONAL NEEDS. LEASEHOLDER FINISHES MAY INCLUDE FURTHERING THE INTERIOR BUILD-OUT, CUSTOMIZING MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS, AND INSTALLING REQUIRED OPERATIONAL SYSTEMS.

THE NPS WILL LEASE THE BUILDING TO A SUITABLE TENANT WHO WILL MAKE ADDITIONAL IMPROVEMENTS TO SUIT THEIR INTENDED USE. POTENTIAL OCCUPANCIES MAY INCLUDE VARIOUS ASSEMBLY USES (SPA FACILITIES, RESTAURANTS, EXHIBITION HALLS, ETC.), BUSINESS, AND MERCANTILE USES. ALL WORK MUST MEET THE SECRETARY OF THE INTERIOR'S STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES, SPECIFICALLY FOR REHABILITATION. THESE STANDARDS CAN BE FOUND AT WWW.NPS.GOV/TPS/STANDARDS/REHABILITATION.HTM

GENERAL NOTES:

1. REFER TO THE DIVISION 1 PROJECT SPECIFICATIONS AND ALL SPECIFICATIONS RELATED TO THE PROPOSED SCOPE OF WORK OUTLINED IN THESE CONSTRUCTION DOCUMENTS. IN ALL INSTANCES, THE SPECIFICATIONS TAKE PRECEDENCE OVER GENERAL NOTES.
2. IN THE EVENT OF DISCREPANCIES WITHIN THE DRAWINGS OR SPECIFICATIONS, THE GREATER QUALITY AND QUANTITY OF THE ITEMS IN QUESTION SHALL BE UTILIZED AT ALL LOCATIONS WHERE SUCH DISCREPANCIES OCCUR.
3. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.
4. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER (CO) OF ANY DISCREPANCIES THAT VARY FROM THE CONTRACT DOCUMENTS BEFORE BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL INCLUDE ALL ITEMS, MATERIALS, LABOR, AND SERVICES NECESSARY TO EXECUTE AND COMPLETE THE WORK INCLUDED IN THESE CONSTRUCTION DOCUMENTS.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL SHOP DRAWINGS AND SUBMITTALS WITH ALL TRADES. AND FOR THE TIMELINESS SUBMITTAL AND APPROVAL OF SHOP DRAWINGS TO MAINTAIN THE PROJECT SCHEDULE.
7. WORK THAT REQUIRES THE USE OF LOUD EQUIPMENT THAT WOULD CAUSE A DISTURBANCE TO THE SURROUNDING BUILDING OCCUPANTS MUST BE APPROVED BY THE CO, PER THE SPECIFICATIONS.
8. IF UTILITIES ARE TO BE TEMPORARILY INTERRUPTED, CONTACT THE CONTRACTING OFFICER REPRESENTATIVE (COR), PER THE SPECIFICATIONS.
9. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF PERSONS AND PROPERTY.
11. THE CONTRACTOR SHALL CONSTRUCT IN CONFORMANCE WITH ALL GOVERNING STATE AND LOCAL CODES, ORDINANCES, AND PROCEDURES.
12. THE GOVERNMENT RESERVES THE RIGHT TO REMOVE ANY ITEMS FROM THE CONSTRUCTION AREA PRIOR TO THE START OF DEMOLITION WORK BY THE CONTRACTOR AND TO RETAIN SUCH ITEMS AS THEIR PROPERTY.
13. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL BE LICENSED AND INSURED TO PERFORM WORK, AS REQUIRED BY THE FEDERAL GOVERNMENT.
14. ALL DEMOLITION DEBRIS SHALL BE TAKEN TO A LICENSED LANDFILL WITH WRITTEN PROOF PROVIDED TO THE CO. PLACEMENT OF TRASH DUMPSTER FOR CONSTRUCTION DEBRIS MUST BE APPROVED BY THE CO PRIOR TO SITE OCCUPATION, AND PER THE SPECIFICATIONS. REFER TO DIVISION 1 SPECIFICATIONS.
15. IT IS THE INTENT OF THIS CONTRACT THAT ALL AREAS AFFECTED BY CONSTRUCTION BE A FINISHED AND COMPLETE PROJECT. CONTRACTOR SHALL PATCH, REPAIR, AND ADJUST AS REQUIRED TO ACHIEVE THIS FINISHED PROJECT.
16. PATCH AND REPAIR EXISTING CONSTRUCTION AS REQUIRED, IN KIND, DUE TO DEMOLITION OR NEW CONSTRUCTION. REPAIRS OR REPLACEMENTS MUST MATCH THE EXISTING MATERIAL IN PROPERTIES, TEXTURE, PROFILE, DIMENSION, FINISH, AND WHERE APPROPRIATE, SPECIES.
17. NO SUBSTITUTES OF SPECIFIED CONSTRUCTION ITEMS, EQUIPMENT, OR FINISHES WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE CO.
18. CONTRACTORS ARE SOLELY RESPONSIBLE FOR THE CONSTRUCTION PROCESS, SCHEDULE, MATERIAL VERIFICATION, AND ORDERING MATERIALS.
19. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY SHORING AND BRACING REQUIRED FOR THE SCHEDULED WORK.
20. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ACCESS AND EQUIPMENT TO PERFORM THE SCOPE OF WORK.
21. ALL DEMOLITION MATERIALS SHALL BE REMOVED FROM THE BUILDINGS BY UTILIZING A MAXIMUM TWO (2) TON DUMP TRUCK. STATIONARY DUMPSTERS WILL NOT BE PERMITTED ON THIS SITE. DUMP TRUCKS SHALL BE PERMITTED ON THIS SITE FOR LOADING DEBRIS FROM A CHUTE LOCATED ON THE SPECIFIC BUILDING. TRUCKS SHALL BE REMOVED FROM THE SITE WHEN FULL AND SHALL MOVE SLOWLY UPON ENTERING/EXITING THE SITE VIA THE FRONT SIDEWALK. THE CONTRACTOR SHALL HAVE A FLAG PERSON ASSIST THE ENTRY/EXIT OF ALL VEHICLES UTILIZING THE FRONT MAIN SIDEWALK TO ASSURE PEDESTRIAN SAFETY
22. ALL STAGING AREAS FOR EACH BUILDING (I.E. ITEMS STORED FOR IMMEDIATE USE) SHALL BE AS APPROVED BY THE CONTRACTING OFFICER. STAGING OF ITEMS TO EACH INDIVIDUAL BUILDING SHALL ONLY OCCUR BETWEEN THE HOURS OF 10:00 P.M. TO 7:00 A.M. UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER (NOT INCLUSIVE OF THE DEMOLITION WORK). THIS IS REQUIRED TO MINIMIZE THE VEHICLE TRAFFIC ON THE MAIN SIDEWALK.
23. THE BUILDING HAS AN UNDERGROUND LAWN IRRIGATION SYSTEM. CONTRACTOR SHALL REPAIR ANY DAMAGE TO THE SYSTEM THAT MAY HAVE OCCURRED DURING THE CONSTRUCTION PROCESS. THE NEW COMPONENTS SHALL BE THE SAME MANUFACTURER AS THE EXISTING SYSTEMS.
24. ALL NEW BLACK CHAIN LINK FENCING SHALL BE INSTALLED AT THE LIMITS OF THE CONSTRUCTION STORAGE AREA, VERIFY EXACT LOCATION OF FENCING WITH THE CONTRACTING OFFICER PRIOR TO INSTALLATION. INSTALL ADJACENT TO THE EAST SIDE OF THE EXISTING HOLLY BUSHES IN ORDER TO LEAVE & PROTECT AS MANY BUSHES AS POSSIBLE.
25. CONTRACTOR SHALL INSTALL GATES IN NEW CHAIN LINK FENCE FOR CONSTRUCTION STORAGE AREA ACCESS AND AS REQUIRED BY THE CONTRACTING OFFICER.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.01	MAURICE BATHHOUSE GENERAL NOTES	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 14 OF 286
	DATE: 10.27.2023			

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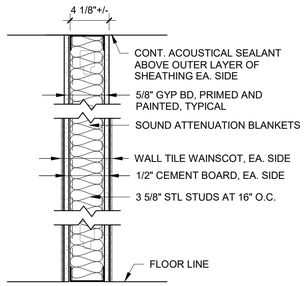
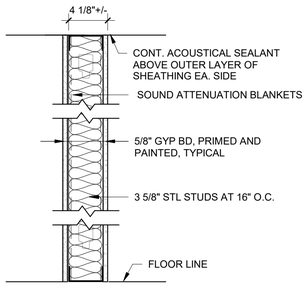
PARTITION TYPE LEGEND



A1 ACOUSTIC GYPSUM BOARD ASSEMBLY



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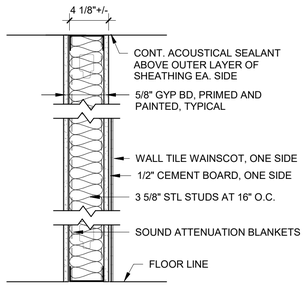

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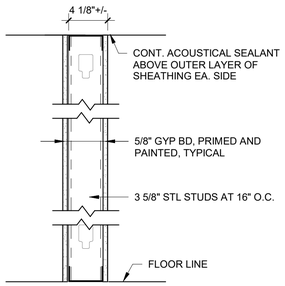

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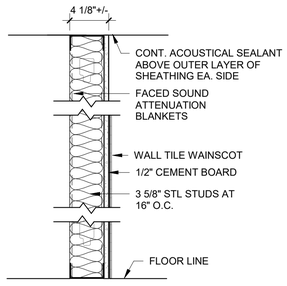

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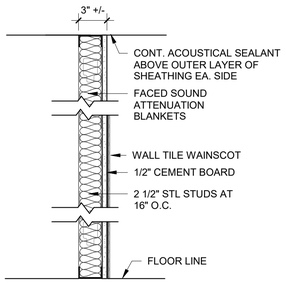

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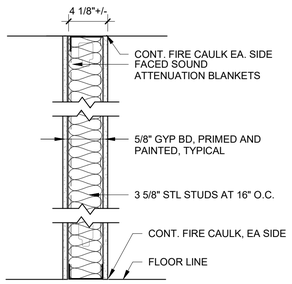
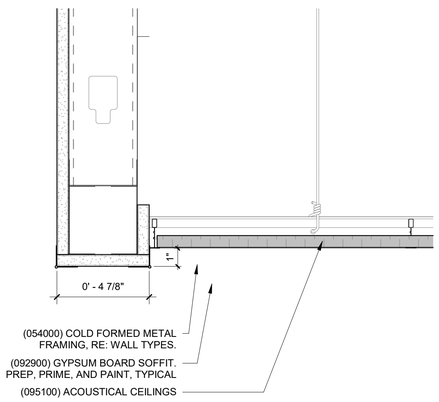


F1 (1 HOUR) FIRE RATED PARTITION



1 / A0.02 Soffit Detail

3" = 1'-0" SCALE (A)

SYMBOLS LEGEND

- (X) STRUCTURAL/COLUMN GRID
- DESCRIPTION 000'-0" ELEVATION HEIGHT TAG
- 0'-0" SPOT ELEVATION
- X00 / A000 EXTERIOR ELEVATION
- Room name / 101 ROOM TAG
- 000-0 DOOR TAG
- XX WALL TYPE
- (X) WINDOW TYPE
- SF - A STOREFRONT WINDOW
- 10' - 6 1/2" CEILING HEIGHT
- 00.00 KEYED NOTE
- X00 / A000 INTERIOR ELEVATION
- SIM / X00 / A000 SECTION CALLOUT
- X00 / A000 DETAIL CALLOUT

PARTITION TYPES GENERAL NOTES

A. INSTALL NEW RESILIENT WALL BASE ON ALL NEW WALLS, TYPICAL.

SCALE (B) 6 3 0 6 SCALE OF INCHES

SCALE (A) 12 6 0 12 SCALE OF INCHES

REGISTERED ARCHITECT — REBECCA GAEBLER — License Number 10286 — STATE OF ARKANSAS

10.18.2023

A/E FIRMS

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CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A0.02

TITLE OF SHEET
MAURICE BATHHOUSE
GENERAL NOTES

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 15 OF 286

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APPLICABLE CODES AND STANDARDS

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE - CHAPTER 12
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
NFPA 70 NEC - NATIONAL ELECTRICAL CODE
NFPA 72 - NATIONAL FIRE ALARM CODE
NFP90A - INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS
NFPA 13 2022 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
ASHRAE 90.1 - ENERGY STANDARD FOR BUILDINGS
2021 ICC/ANSI 117.1 STANDARDS
ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS (ABAAS)
NPS RM 58

BUILDING LIFE SAFETY FEATURES

THE FOLLOWING IS A LIST OF FIRE AND LIFE SAFETY FEATURES INCORPORATED INTO THE PLANNED BUILDING REHABILITATION.

- BUILDINGS OF CONSTRUCTION TYPE II-B.
- EGRESS SYSTEM COMPLYING WITH 2021 IEBC
- FULLY AUTOMATIC SPRINKLER SYSTEM WITH ALARM SUPERVISION.
- AN APPROVED FIRE ALARM SYSTEM TO BE PROVIDED PER NFPA 72
- PORTABLE FIRE EXTINGUISHERS WILL BE PROVIDED.
- SMOKE DETECTION AT HVAC UNITS WHERE APPLICABLE.
- AUTOMATIC SHUTDOWNS AT HVAC UNITS WHERE APPLICABLE.
- EMERGENCY POWER FOR EXIT LIGHTING.
- EMERGENCY GENERATOR POWER FOR FIRE PUMP

ACTUAL BUILDING AREA

FLOOR AREA PER FLOOR, TOTAL FLOOR (NO CHANGE IN SQUARE FOOTAGE):
BASEMENT: 8,739 GSF (6,154 GSF WITHOUT CRAWL SPACE)
FIRST FLOOR: 9,492 GSF
SECOND FLOOR : 5,431 GSF
THIRD FLOOR: 9,492 GSF

TOTAL: 33,154 GSF

TYPE OF CONSTRUCTION

TYPE II-B, (CURRENTLY UNSPRINKLED) PROPOSED TO BE SPRINKLED
- SECTION 602.2 PAGE 85

OCCUPANCY CLASSIFICATION

USE GROUP A-3 RECREATION / A-2 MEETING SPACE / GROUP B BUSINESS
- SECTION 393; PAGE 23
- SECTION 304; PAGE 24
- EXISTING BUILDING IS NON-SEPARATED A2/A3/B/ACCESSORY S1, PER SECTION 508.3
- BASEMENT: A3 (POOL DECK); B (MECHANICAL AND SUPPORT SPACES)
- FIRST FLOOR: A3 (LOBBY AND SUN PORCH); B (REMAINDER OF FLOOR)
- SECOND FLOOR: B
- THIRD FLOOR: A2 (ROYCROFT ROOM); B (REMAINDER OF FLOOR)

OCCUPANT LOADS

OCCUPANT LOAD FACTORS (TABLE 1004.5)

ACCESSORY STORAGE AREAS/MECHANICAL: 300 SF GROSS / PERSON
ASSEMBLY, UNCONCENTRATED: 15 SF NET / PERSON
ASSEMBLY, CONCENTRATED: 7 SF NET / PERSON
BUSINESS: 150 SF GROSS / PERSON

ALLOWABLE BUILDING HEIGHT

1011.6.2 IEBC - CHANGE OF OCCUPANCY TO EQUAL OR LESSER HAZARD, BUILDING HEIGHT, AND AREA ARE ACCEPTABLE.

ACTUAL BUILDING HEIGHT

3 STORIES, APPROX. 99'-11 1/2"

BASIC ALLOWABLE AREA

28,500 SF ABOVE GRADE
- IBC SECTION 506.2

ACTUAL ALLOWABLE AREA PER STORY

4,766 GSF (FIRST FLOOR) OTHER FLOORS ARE LESS

CHANGE OF USE

NO CHANGE OF USE.

ALTERATIONS

THERE IS MINOR RECONFIGURATION ON THE BASEMENT, FIRST FLOOR AND SECOND FLOOR. CONFIGURATION IS LESS THAN 50%.

IEBC SECTION 603: THE RECONFIGURATION OR EXTENSION OF ANY SYSTEM WHERE THE WORK AREA IS EQUAL TO OR LESS THAN 50% OF THE BUILDING AREA.

MIXED USE AND OCCUPANCY

NON-SEPARATED OCCUPANCIES ARE ALLOWED GIVEN THAT THE MOST RESTRICTIVE PROVISIONS OF CHAPTER 9 APPLY TO THE ENTIRE BUILDING
- IBC SECTION 508.3.2, PAGE 81

NUMBER OF EXITS CAN STAY IN A SINGLE-TENANT BUILDING
- IEBC SECTION 804.4.1

EXISTING VERTICAL OPENINGS SHALL COMPLY WITH PROVISIONS OF SECTIONS 802.2.1, 802.2.2, AND 802.2.3
- IEBC SECTION 802.2.1 - EXCEPTIONS: 3) NOT REQUIRED WHEN CONNECTING A MAIN FLOOR AND MEZZANINE. 3.2) ALL CONDITIONS MET
- IEBC SECTION 1203.6 – IN BUILDINGS OF THREE STORIES OR LESS, EXIT ENCLOSURE CONSTRUCTION SHALL LIMIT THE SPREAD OF SMOKE BY THE USE OF TIGHT-FITTING DOORS AND SOLID ELEMENTS. SUCH ELEMENTS ARE NOT REQUIRED TO HAVE A FIRE-RESISTANCE RATING..1

ACCESSIBILITY

ACCESSIBLE ROUTE IS REQUIRED AND PROVIDED AT THE FIRST FLOOR LEVEL OF THE BUILDING

ACTIVE FIRE PROTECTION

AN AUTOMATIC FIRE SPRINKLER SYSTEM WILL BE INCORPORATED INTO THE DESIGN, BUT PER IEBC 1011.2.1 CODE IS NOT REQUIRED.

STANDPIPES: NOT REQUIRED (SECTION 905)

FIRE ALARM SYSTEM WITH VOICE ALARM COMMUNICATION SYSTEM: NOT REQUIRED (SECTION 907.2.3 AND SECTION 907.6)

SMOKE DETECTION: NOT REQUIRED (SECTION 907) BUT IS REQUIRED BY NPS AND WILL BE INSTALLED

EXIT SIGNS: REQUIRED, TWO OR MORE EXITS ARE REQUIRED (SECTION 1013)

EMERGENCY LIGHTING: REQUIRED, A MINIMUM AVERAGE OF 1 FOOT-CANDLE (SECTION 1008)

PORTABLE FIRE EXTINGUISHERS REQUIRED (SECTION 906.1)

FIRE- RESISTIVE REQUIREMENTS FOR ELEMENTS OF THE STRUCTURE:

CONSTRUCTION TYPE II-B
STRUCTURAL FRAME: 0-HOUR
BEARING WALL EXTERIOR: 0-HOUR
BEARING WALLS INTERIOR: 0-HOUR
NON-BEARING WALLS INTERIOR: 0-HOUR
FLOOR CONSTRUCTION: 0-HOUR
ROOF CONSTRUCTION: 0-HOUR
VERTICAL SHAFTS: REFER TO SECTION 1203.6 - SMOKE GASKETING PROVIDED

COMBUSTIBLE MATERIALS IN TYPE II CONSTRUCTION:
ALLOWABLE MATERIALS PER SECTIONS 603.1.1 THROUGH 603.1.3

MEANS OF EGRESS:
THIS IS A SINGLE TENANT BUILDING; THEREFORE, THE EXISTING NUMBER OF EXITS CAN REMAIN
- SECTION 804.4.1

CODE EQUIVALENCY CONCEPTS

EXTERIOR WALL FIRE RESISTANCE RATINGS:
FIRE SEPARATION DISTANCE: 30'-0"
- TABLE 704.8, PAGE 92

ALLOWABLE UNPROTECTED OPENING AREA:
- GREATER THAN 25'- TO 30' = 70% OPEN
- GREATER THAN 30' = NO LIMIT

CODE EQUIVALENCY CONCEPT - EXISTING VERTICAL OPENINGS AND STAIR ENCLOSURES
CODE EQUIVALENCY CONCEPT TO COMPLY WITH IEBC 1203.6 STAIRWAY ENCLOSURE REQUIRES BUILDINGS OF THREE STORIES OR LESS TO LIMIT SPREAD OF SMOKE BY USE OF TIGHT-FITTING DOORS AND SOLID ELEMENTS. SUCH ELEMENTS ARE NOT REQUIRED TO HAVE A FIRE-RESISTANCE RATING. NOT REQUIRED, PER IEBC SECTION 1203.2. ALSO, PER IEBC SECTION 802.2.3 SUPPLEMENTAL STAIRWAY ENCLOSURE IS NOT REQUIRED, PER THE EXCEPTION: HOWEVER, THE PLANS WILL PROVIDE DOORS AT THE BASEMENT, SECOND, AND THIRD FLOORS AT THE STAIR ENCLOSURE.

EXIT SIGNS

WHERE EXIT SIGNS ARE REQUIRED (SECTION 1013)

WHEN TWO OR MORE EXITS FROM A STORY OR AREA ARE REQUIRED EXIT SIGNS SHALL BE INSTALLED. EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF APPROACH. EXIT SIGNS SHALL BE LOCATED AS NECESSARY TO CLEARLY INDICATE THE DIRECTION OF EGRESS TRAVEL. NO POINT SHALL BE MORE THAN 100 FEET FROM THE NEAREST VISIBLE SIGN.

GRAPHICS

THE COLOR AND DESIGN OF LETTERING ON EXIT SIGNS SHALL BE IN HIGH CONTRAST WITH THEIR BACKGROUND. WORDS ON THE SIGN SHALL BE IN BLOCK LETTERS 6 INCHES IN HEIGHT WITH A STROKE OF NOT LESS THAN ¾ INCH.

ILLUMINATION

SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED BY TWO ELECTRIC LAMPS OR SHALL BE OF AN APPROVED SELF-LUMINOUS TYPE. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES.

POWER SOURCE

TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM.

DOORS

LOCK OR LATCH (SECTION 1010.1.9.3)

EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OF EFFORT.

MANUALLY OPERATED EDGE OR SURFACE MOUNTED FLUSH BOLTS AND SURFACE MOUNTED BOLTS ARE PROHIBITED.

PANIC HARDWARE (SECTION 1010.1.10)

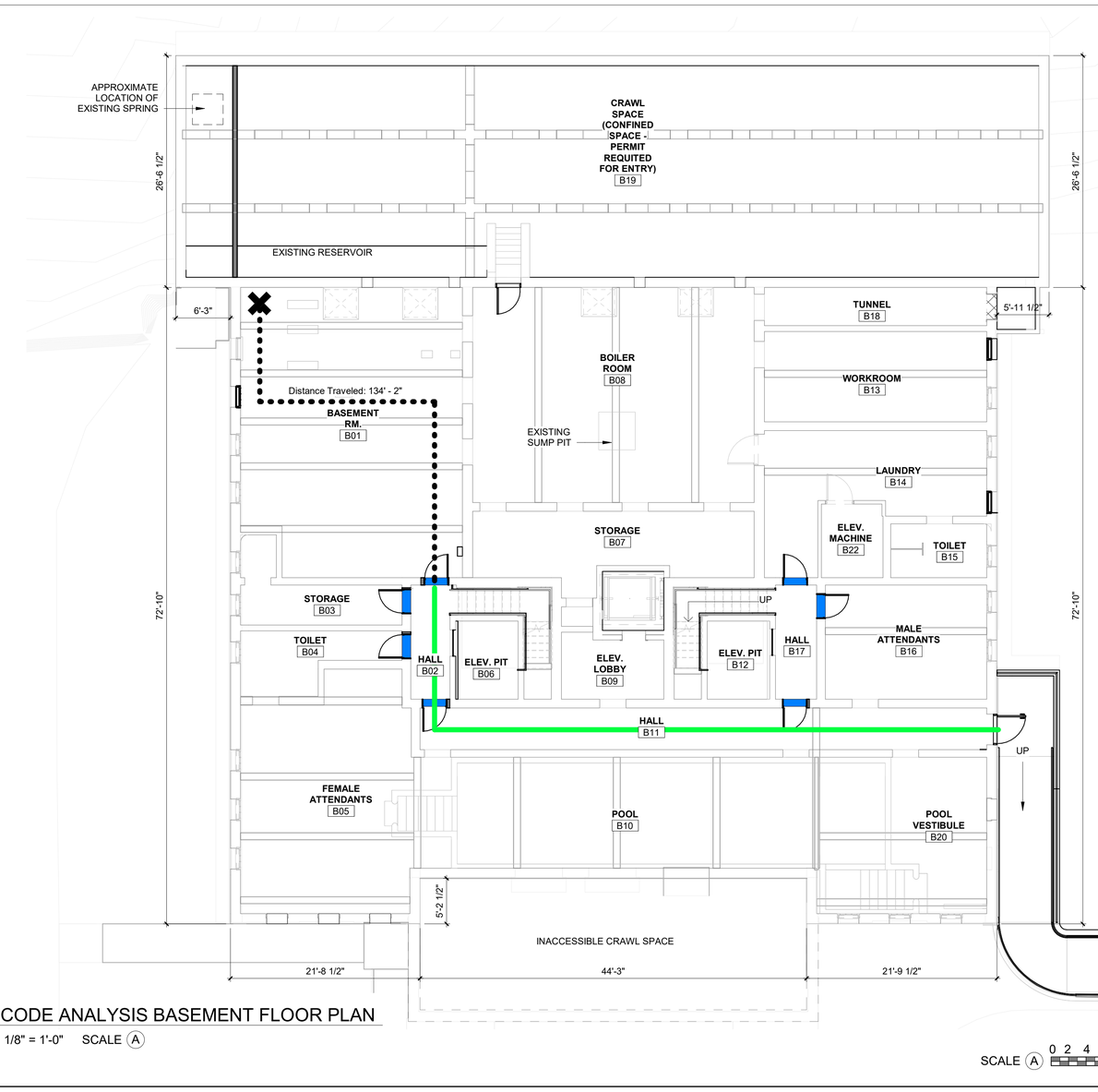
PANIC HARDWARE: REQUIRED (E OCCUPANCIES GREATER THAN 50 OCCUPANTS)

FLOOR LEVEL AT DOORS (SECTION 1010.1.5)

REGARDLESS OF OCCUPANT LOAD, THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 0.5 INCHES. THRESHOLDS GREATER THAN 0.25 INCHES SHALL BE BEVELED.

LANDING AT DOORS (SECTION 1010.1.6)

LANDINGS SHALL HAVE A WIDTH NOT LESS THAN THE WIDTH OF THE STAIRWAY OR THE WIDTH OF THE DOOR, WHICHEVER IS THE GREATER. DOORS IN THE FULLY OPEN POSITION SHALL NOT REDUCE A REQUIRED DIMENSION BY MORE THAN 7 INCHES. WHEN LANDINGS SERVE AN OCCUPANT LOAD OF 50 OR MORE, DOORS IN ANY POSITION SHALL NOT REDUCE THE LANDING DIMENSION TO LESS THAN ONE HALF ITS REQUIRED WIDTH. LANDINGS SHALL HAVE A LENGTH MEASURED IN THE DIRECTION OF TRAVEL OF NOT LESS THAN 44 INCHES



1 / A0.03 CODE ANALYSIS BASEMENT FLOOR PLAN
1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

BLDG

HISTORIC ROOM NAMES HAVE BEEN USED ON THESE DRAWINGS TO ILLUSTRATE THE HISTORIC FUNCTIONS OF THE BATHHOUSE SPACES. THESE ROOM NAMES DO NOT REFLECT THE ANTICIPATED FUTURE USE OF THE ROOMS AS PART OF THIS PHASE OF REHABILITATION WORK.

THIS PROJECT REPRESENTS A PARTIAL WHITE BOX OF THE MAURICE BUILDING, FOCUSING ON THE EXTERIOR REHABILITATION, INSTALLATION OF NEW UTILITIES, STRUCTURAL STABILIZATION, INSTALLATION OF NEW MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS, AND REHABILITATION OF CRITICAL PRIMARY SPACES. THE BUILDING WILL NOT BE OCCUPIABLE UPON COMPLETION OF THIS FIRST PHASE OF REHABILITATION. A FUTURE LEASEHOLDER WILL DETERMINE THE FINAL USE AND OCCUPANCY FOR THE BUILDING AND WILL COMPLETE PROPOSED REHABILITATION PLANS, INCLUDING UPDATED CODE AND LIFE SAFETY REVIEW, FOR THE NPS REGIONAL AHJ APPROVAL. THAT SCOPE OF WORK WILL INCLUDE INTERIOR REHABILITATION AND CUSTOMIZATION OF THE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS TO ADDRESS THE NEW USE AND INTERIOR LAYOUT.

CODE PLAN LEGEND

- SMOKE SEALS/GASKETING REQUIRED AT DOOR
- TRAVEL DISTANCE AND COMMON PATH OF TRAVEL
- 1 HR FIRE RATED
- COMMON PATH OF TRAVEL

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REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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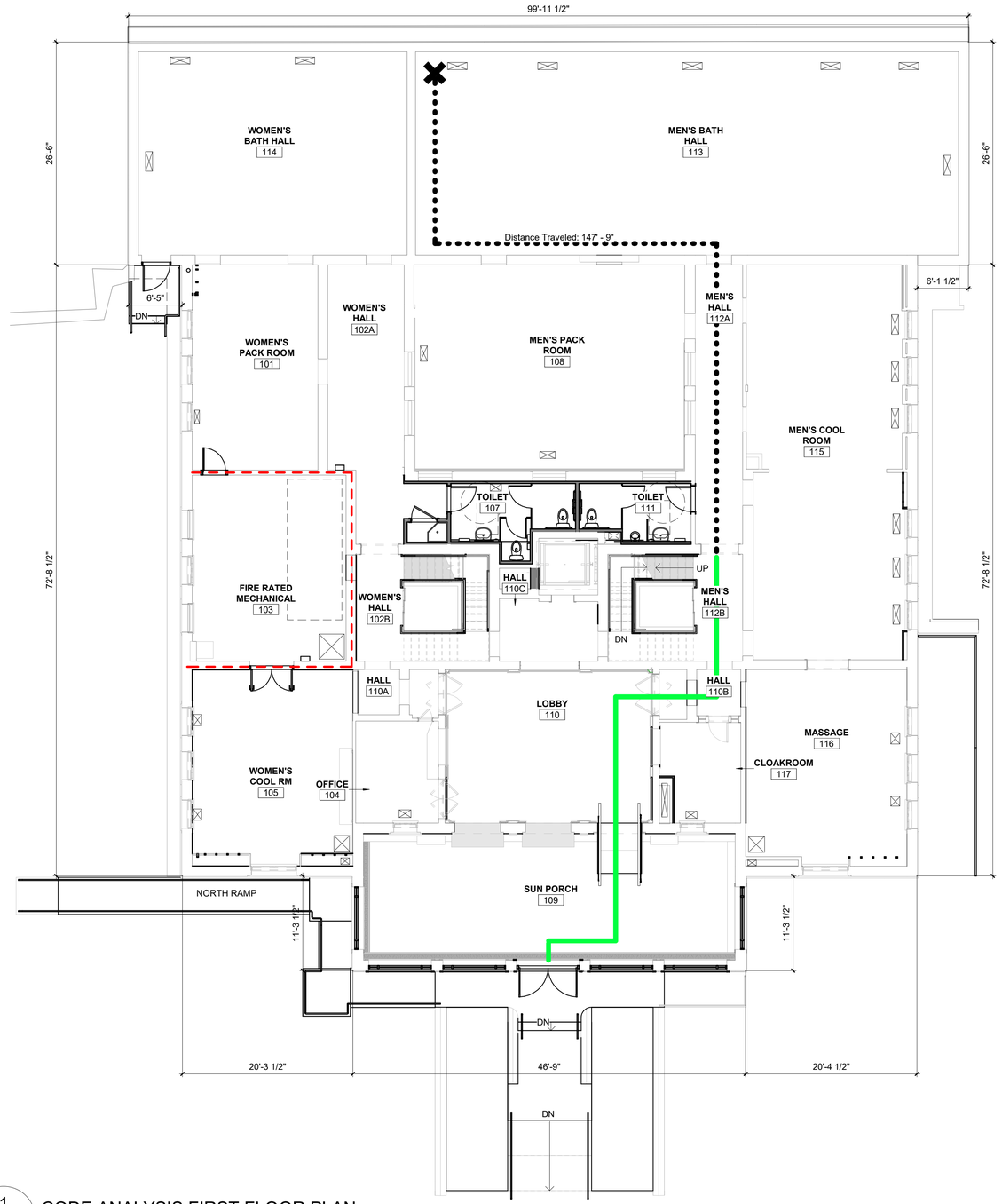

1 A0.04 CODE ANALYSIS FIRST FLOOR PLAN

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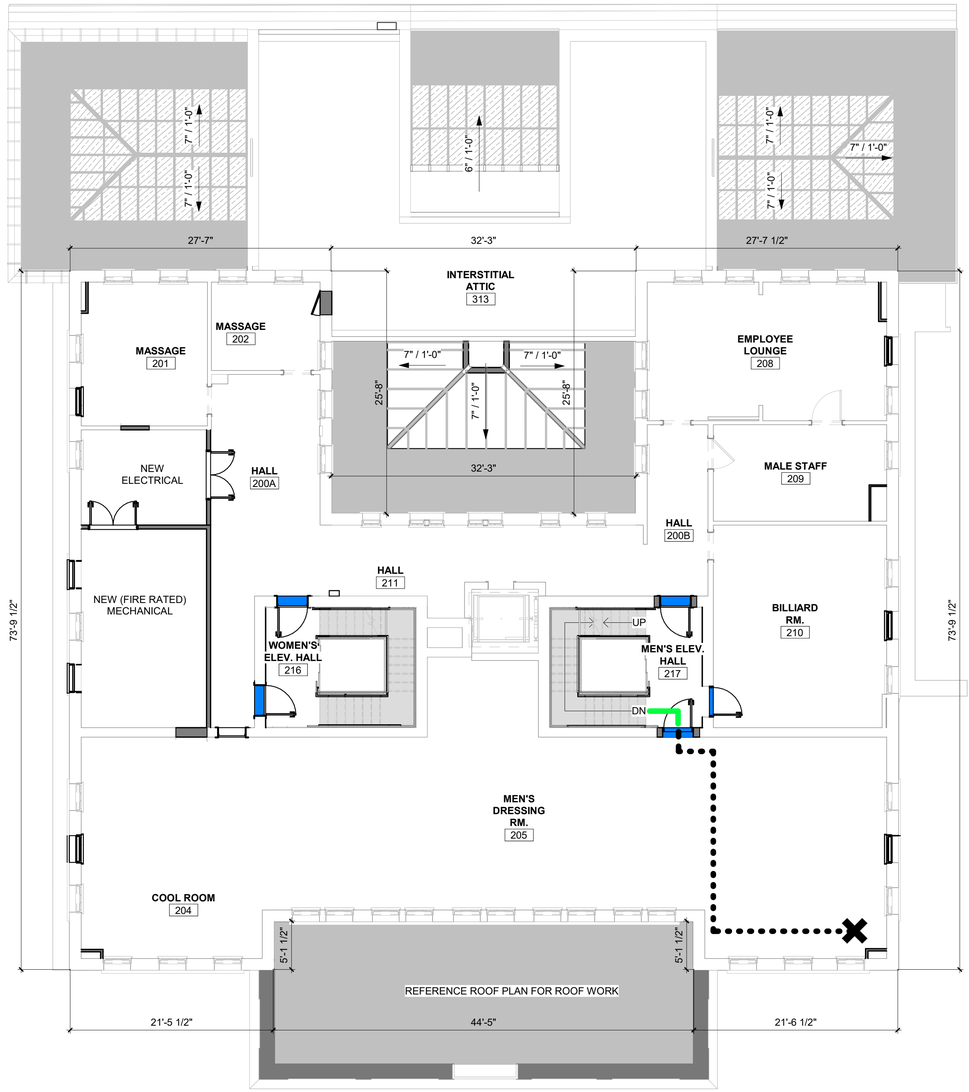

2 A0.04 CODE ANALYSIS SECOND FLOOR PLAN

1/8" = 1'-0" SCALE (A)

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CODE PLAN LEGEND

- SMOKE SEALS/GASKETING REQUIRED AT DOOR
- TRAVEL DISTANCE AND COMMON PATH OF TRAVEL
- 1 HR FIRE RATED
- COMMON PATH OF TRAVEL

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SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

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REBECCA GAEBLER
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STATE OF ARKANSAS
10.18.2023

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TECH. REVIEW:	AG
DATE:	10.27.2023
SUB SHEET NO.	01 A0.04
TITLE OF SHEET	MAURICE BATHHOUSE CODE ANALYSIS
	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	17 OF 286

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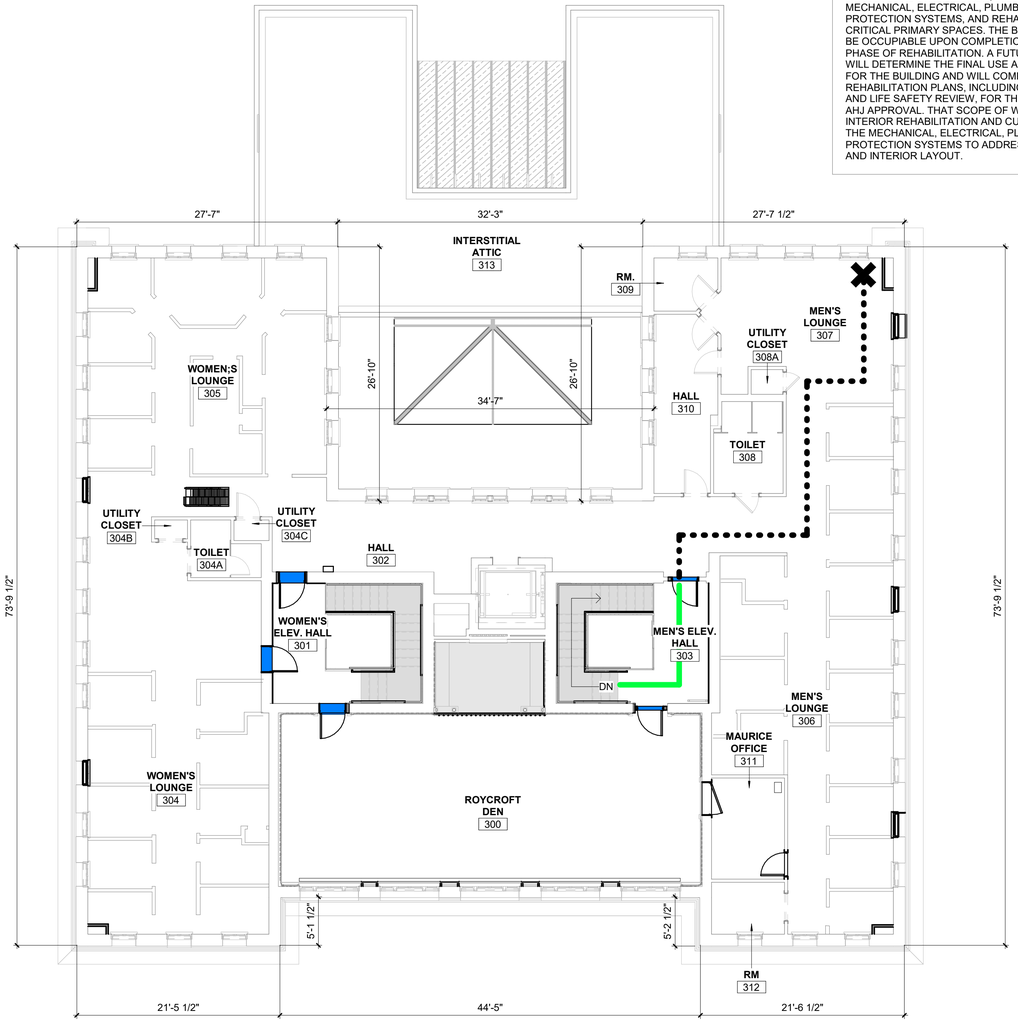

1 / A0.05 CODE ANALYSIS THIRD FLOOR PLAN

1/8" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

CODE PLAN LEGEND

- SMOKE SEALS/GASKETING REQUIRED AT DOOR
- TRAVEL DISTANCE AND COMMON PATH OF TRAVEL
- 1 HR FIRE RATED
- COMMON PATH OF TRAVEL

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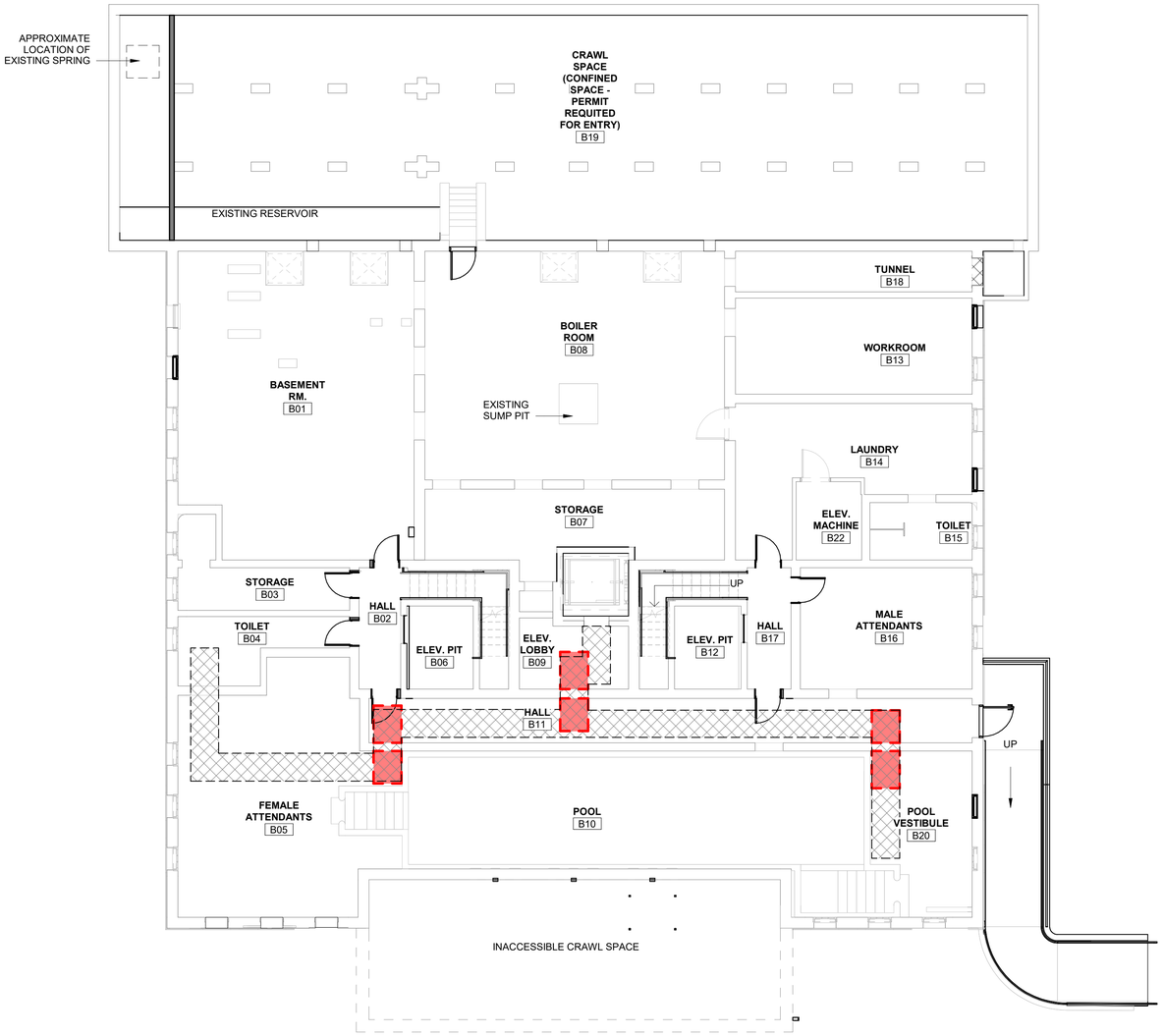
TITLE OF SHEET
MAURICE BATHHOUSE
CODE ANALYSIS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

SUB SHEET NO. 01
A0.05

DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915
SHEET 18 OF 286

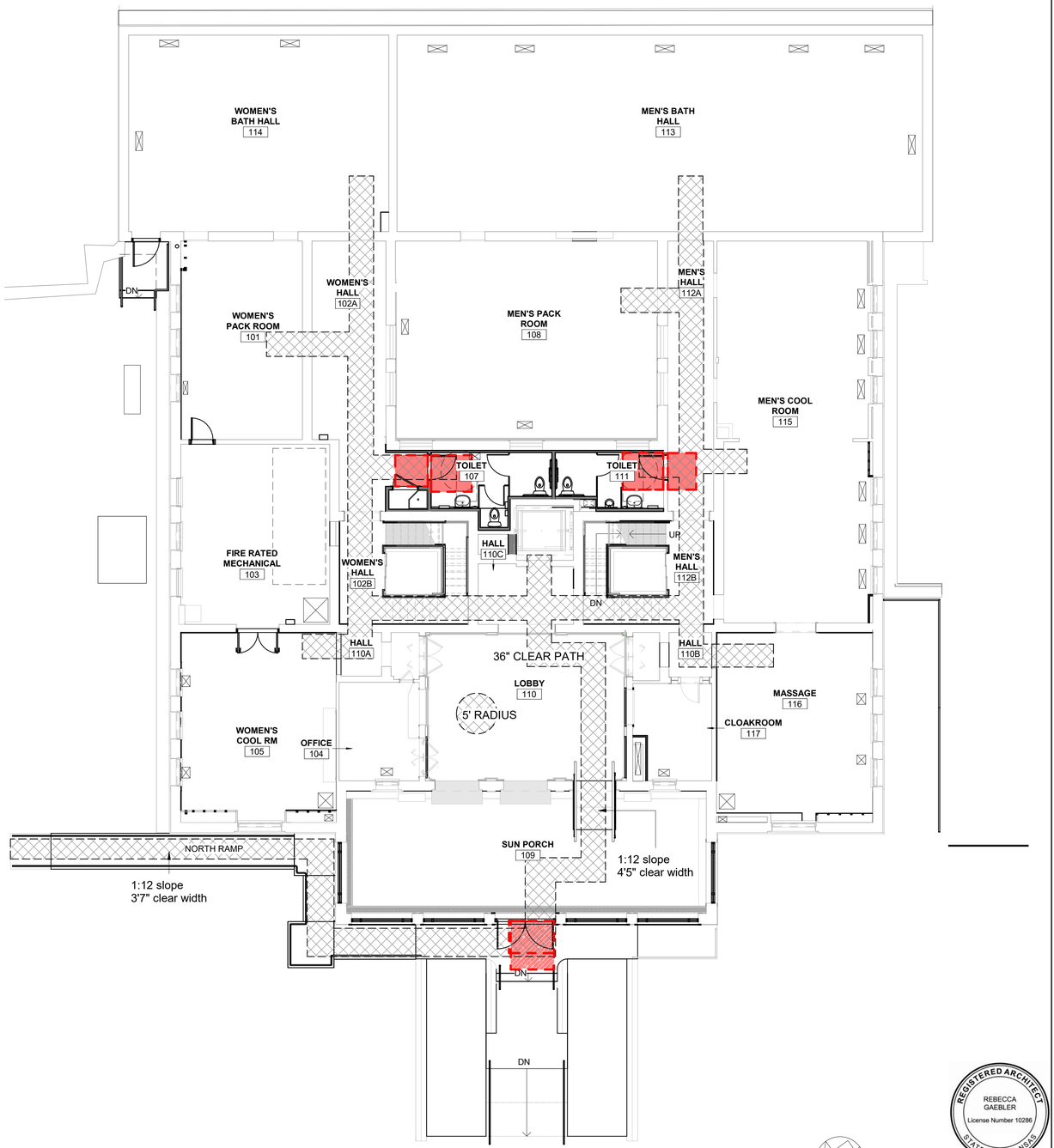
11/6/2023 5:38:13 PM



1 A0.06 ACCESSIBILITY BASEMENT FLOOR PLAN

1/8" = 1'-0" SCALE (A)

BLDG.



2 A0.06 ACCESSIBILITY FIRST FLOOR PLAN

1/8" = 1'-0" SCALE (A)

BLDG.

ACCESSIBILITY PLAN LEGEND

DOOR CLEARANCE

ACCESSIBLE PATH OF TRAVEL

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

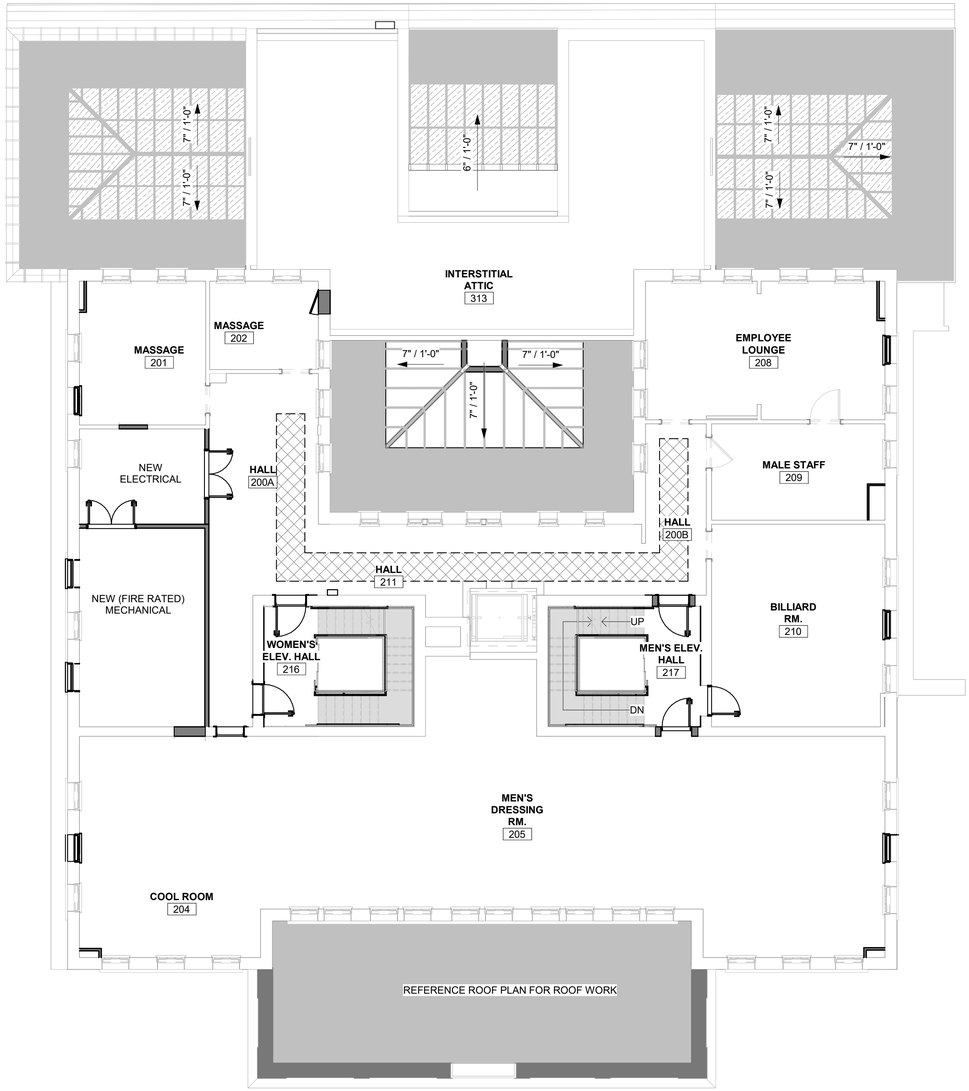
SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.06	MAURICE BATHHOUSE ACCESSIBILITY PLAN	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 19 OF 286
	DATE: 10.27.2023			

11/6/2023 5:38:16 PM



1 A0.07 ACCESSIBILITY SECOND FLOOR PLAN

1/8" = 1'-0" SCALE (A)

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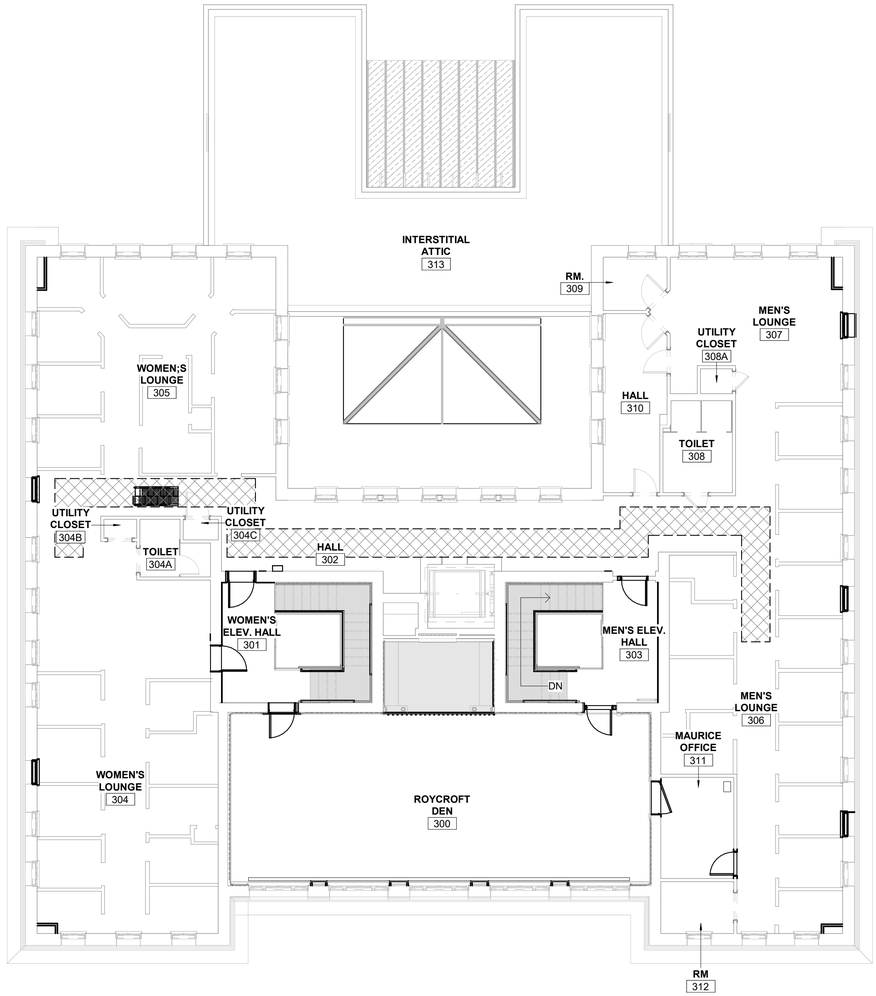

2 A0.07 ACCESSIBILITY THIRD FLOOR PLAN

1/8" = 1'-0" SCALE (A)

BLDG

ACCESSIBILITY PLAN LEGEND

DOOR CLEARANCE

ACCESSIBLE PATH OF TRAVEL

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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REBECCA GAEBLER
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STATE OF ARKANSAS
10.18.2023

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.07	MAURICE BATHHOUSE ACCESSIBILITY PLAN	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 20 OF 286
	DATE: 10.27.2023			

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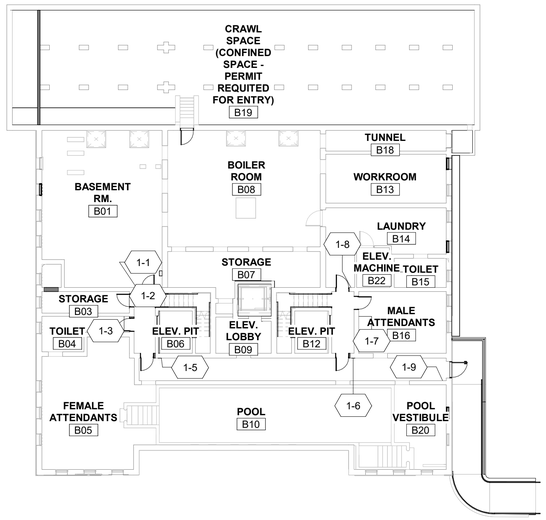

1 A0.08 BASEMENT SIGNAGE PLAN

1/16" = 1'-0" SCALE (A)

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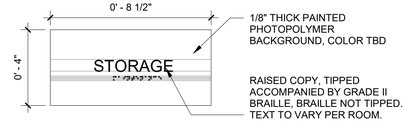

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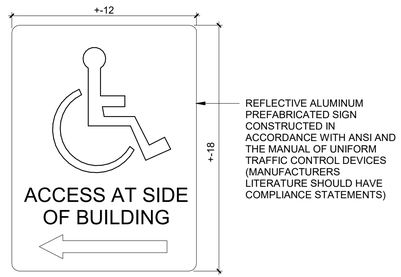

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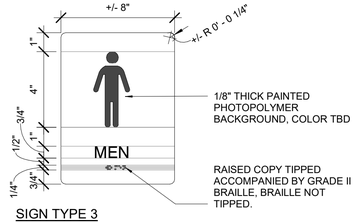

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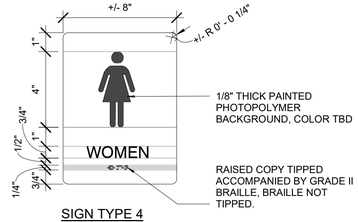


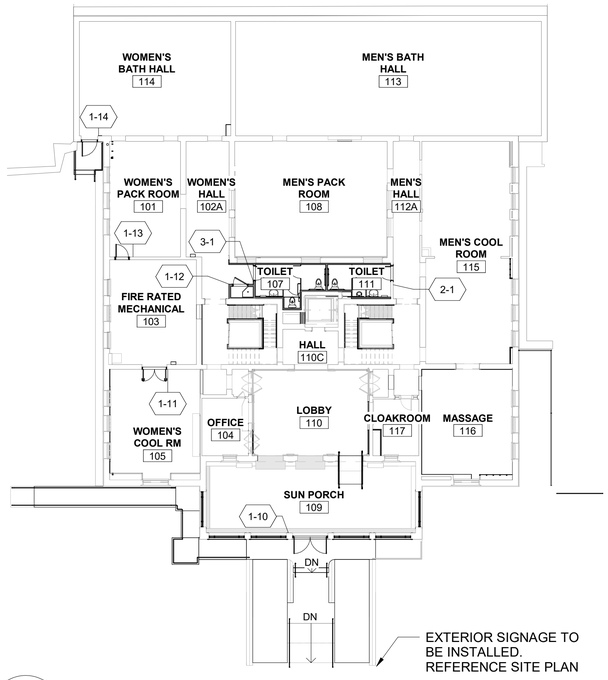
SIGN TYPE 4

SIGNAGE SCHEDULE							
Type Mark	Level	Sign Number	Number on Sign	Message on Sign	Room: Number	Room: Name	Comments
TYPE 1	Basement	1-1	N/A	STAIR	B02	HALL	
TYPE 1	Basement	1-2	N/A	STAIR	B02	HALL	
TYPE 1	Basement	1-3	N/A	STAIR	B03	STORAGE	
TYPE 1	Basement	1-5	N/A	STAIR	B06	ELEV. PIT	
TYPE 1	Basement	1-6	N/A	STAIR			
TYPE 1	Basement	1-7	N/A	STAIR	B17	HALL	
TYPE 1	Basement	1-8	N/A	STAIR	B17	HALL	
TYPE 1	Basement	1-9	N/A	EXIT	B20	POOL VESTIBULE	
TYPE 1	First Floor	1-10	N/A	EXIT			
TYPE 1	First Floor	1-11	N/A	MECHANICAL	B05	FEMALE ATTENDANTS	
TYPE 1	First Floor	1-12	N/A	JANITORIAL	B01	BASEMENT RM.	
TYPE 1	First Floor	1-13	N/A	MECHANICAL	B01	BASEMENT RM.	
TYPE 1	First Floor	1-14	N/A	EXIT			
TYPE 1	Second Floor	1-15	N/A	ELECTRICAL	B01D	ELECTRICAL	
TYPE 1	Second Floor	1-16	N/A	MECHANICAL	B01E	MECHANICAL	
TYPE 1	Second Floor	1-17	N/A	STAIR	216	WOMEN'S ELEV. HALL	
TYPE 1	Second Floor	1-18	N/A	STAIR	216	WOMEN'S ELEV. HALL	
TYPE 1	Second Floor	1-19	N/A	STAIR	217	MEN'S ELEV. HALL	
TYPE 1	Second Floor	1-20	N/A	STAIR	217	MEN'S ELEV. HALL	
TYPE 1	Second Floor	1-21	N/A	STAIR	217	MEN'S ELEV. HALL	
TYPE 1	Third Floor	1-22	N/A	STAIR	301	WOMEN'S ELEV. HALL	
TYPE 1	Third Floor	1-23	N/A	STAIR	301	WOMEN'S ELEV. HALL	
TYPE 1	Third Floor	1-24	N/A	STAIR	301	WOMEN'S ELEV. HALL	
TYPE 1	Third Floor	1-25	N/A	STAIR	303	MEN'S ELEV. HALL	
TYPE 1	Third Floor	1-26	N/A	STAIR	303	MEN'S ELEV. HALL	
TYPE 1	First Floor	2-1	N/A	MEN	B07	STORAGE	
TYPE 1	First Floor	3-1	N/A	WOMEN	B07	STORAGE	

TYPE 1: 27

Grand total: 27

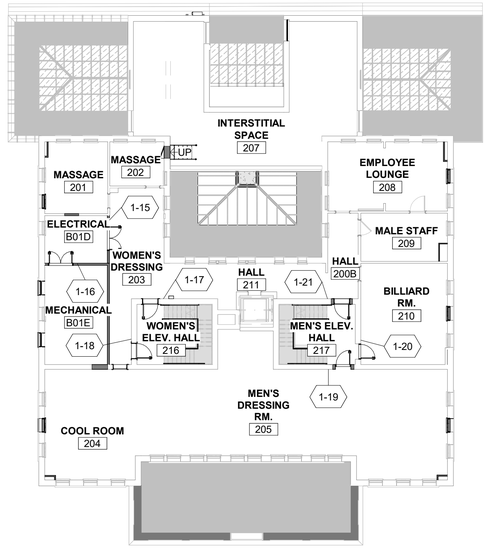
INTERIOR/ EXTERIOR SIGNAGE TYPES



2 A0.08 FIRST FLOOR SIGNAGE PLAN

1/16" = 1'-0" SCALE (A)

BLDG



3 A0.08 SECOND FLOOR SIGNAGE PLAN

1/16" = 1'-0" SCALE (A)

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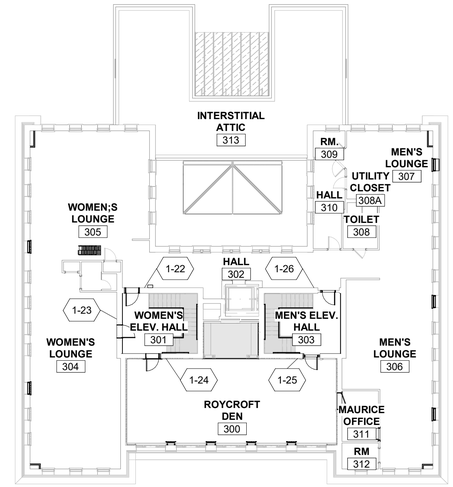


4 A0.08 THIRD FLOOR SIGNAGE PLAN

1/16" = 1'-0" SCALE (A)

BLDG

SCALE (B) 6 3 0 6

SCALE OF INCHES

SCALE (A) 0 8 16 32

SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.08	MAURICE BATHHOUSE SIGNAGE	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 21 OF 286
	DATE: 10.27.2023			

11/6/2023 5:36:22 PM

DOOR SCHEDULE

MARK	ROOM NAME	DOOR TYPE	DOOR WIDTH	DOOR HEIGHT	DOOR CONDITION	FRAME DESCRIPTION	FRAME TYPE	GLAZING CONDITION	NOTES
001-1	HALL	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
003-1	STORAGE	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
004-1	HALL	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
006-1	ELEV. PIT	D1	3' - 0"	6' - 8"	NEW METAL GATE	STEEL FRAME INTEGRAL WITH GATE	N/A	N/A	B, J
011-1	HALL	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
011-2	HALL	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
011-3	HALL	B5	3' - 3"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	H
012-1	ELEV. PIT	D1	3' - 0"	6' - 8"	NEW METAL GATE	STEEL FRAME	N/A	N/A	B, J
014-2	HALL	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
016-1	MALE ATTENDANTS	B2	2' - 8"	6' - 8"	NEW	STEEL FRAME	1, AA	N/A	B
019-1	CRAWL SPACE (CONFINED SPACE - PERMIT REQUITED FOR ENTRY)	B5	2' - 8"	2' - 3 1/2"	NEW	STEEL FRAME	1, AA	N/A	H
101-1	FIRE RATED MECHANICAL	B3	2' - 8"	6' - 8"	NEW	STEEL FRAME - 45 MIN RATED	3	N/A	B
104-2	OFFICE	X2	4' - 5"	2' - 8"	EXISTING	WOOD FRAME - EXISTING TO REMAIN	N/A	N/A	F,I
105-2	FIRE RATED MECHANICAL	B4	5' - 0"	6' - 10"	NEW	STEEL FRAME - 45 MIN RATED	3	N/A	B
106-1	WOMEN'S HALL	C2	3' - 0"	6' - 4 3/4"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
107-1	TOILET	C2	3' - 0"	6' - 4 3/4"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
109-1	SUN PORCH	A1	5' - 0"	8' - 4"	NEW	STEEL FRAME	1, BB	NEW TEMPERED	B
110-1	LOBBY	X1	4' - 9 1/2"	7' - 7 7/8"	GOOD	EXISTING	N/A	GOOD	C,D,E,F
110-2	LOBBY	X1	4' - 9 1/2"	7' - 7 7/8"	GOOD	EXISTING	N/A	GOOD	C,D,E,F
111-1	TOILET	C2	3' - 0"	7' - 0"	GOOD	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
114-2	WOMEN'S BATH HALL	B5	3' - 3"	6' - 8"	NEW	EXISTING	1	N/A	B
117-1	CLOAKROOM	X3	2' - 4"	7' - 0"	GOOD	EXISTING	N/A	N/A	G
200A-1	ELECTRICAL	B1	5' - 0"	6' - 10"	NEW	STEEL FRAME	1, CC	N/A	B
200A-2	MECHANICAL	B4	5' - 0"	6' - 10"	NEW	STEEL FRAME - 45 MIN RATED	1, CC	N/A	B
203-2	WOMEN'S DRESSING	NA	2' - 10"	7' - 0"	NEW FRAME	WOOD FRAME	2, DD	N/A	B
210-2	BILLIARD RM.	C2	3' - 0"	6' - 10"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
216-1	WOMEN'S ELEV. HALL	C2	3' - 2"	7' - 0"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
216-2	WOMEN'S DRESSING	C2	3' - 2"	7' - 0"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
217-1	HALL	C2	3' - 2"	7' - 0"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
217-2	MEN'S ELEV. HALL	C2	3' - 0"	6' - 10"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
301-1	WOMEN'S ELEV. HALL	C2	2' - 8"	6' - 8"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, EE	N/A	B
301-2	WOMEN'S ELEV. HALL	C2	2' - 8"	6' - 8"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
301-3	WOMEN'S ELEV. HALL	B3	2' - 8"	6' - 8"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
303-1	MEN'S ELEV. HALL	B3	2' - 8"	6' - 8"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, BB	N/A	B
303-2	ROYCROFT DEN	C2	2' - 8"	6' - 8"	NEW	STEEL FRAME WITH WOOD TRIM OVERLAY	1, EE	N/A	B
311-1	MAURICE OFFICE	C3	3' - 4 5/8"	6' - 4 3/4"	NEW	WOOD FRAME - EXISTING TO REMAIN WITH REPAIRS	N/A	NEW TEMPERED	A,B
311-2	MAURICE OFFICE	C4	2' - 5 5/8"	6' - 4 3/4"	NEW	WOOD FRAME - EXISTING TO REMAIN WITH REPAIRS	N/A	REUSE EXISTING	A,B

GENERAL NOTES:

- ALL DOOR OPENINGS, HARDWARE, AND THRESHOLDS ARE TO BE ABA COMPLIANT.
- ALL EXTERIOR DOORS AND FRAMES ARE TO BE PAINTED.
- ALL INTERIOR DOORS ARE TO BE PAINTED OR STAINED/FINISHED PER LOCATION.
- IN LOCATIONS WERE EXISTING DOORS AND FRAMES ARE TO BE DEMOLISHED, REMOVE ALL UNUSED NAILS, SCREWS, HARDWARE NOT TO BE SALVAGED OR REUSED, AND ACCESSORIES IN THEIR ENTIRETY. PATCH AND REPAIR DOORS, JAMBS, AND PANELING WHERE HARDWARE IS REMOVED, PER SPECIFICATIONS.
- REPLICA DOORS ARE TO MATCH HISTORIC DOORS. MATCH DIMENSIONS, PROFILE, AND TONGUE AND GROOVE CONSTRUCTION DETAILING. INTERIOR PLY TO BE SOLID WOOD TO MATCH EXISTING CONSTRUCTION. USE NAILING PATTERN AND FASTENERS THAT MATCH HISTORIC DOORS. WHERE INDICATED, INSTALL NEW GLAZING TO BE TEMPERED AND SET IN SILICONE AND FRAMED WITH TRIM MATCH EXISTING INSTALLATION.

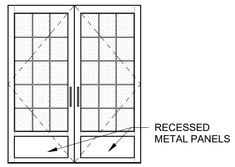
NOTES

A. PROVIDE NEW REPLICA WOOD DOOR TO MATCH EXISTING, REFERENCE GENERAL NOTES. SHOP DRAWINGS OF REPLICA DOOR TO BE APPROVED BY CO PRIOR TO CONSTRUCTION AND INSTALLATION.
B. SHOP DRAWING OF NEW DOOR AND/OR FRAMES IS REQUIRED TO BE APPROVED BY CO PRIOR TO FABRICATION.
C. RESTORE FINISHES ON 2 PAIRS OF DOUBLE-ACTING DOORS TO MATCH PAINT ANALYSIS REPORT
D. ADJUST DOORS AND HINGES FOR PROPER OPERATION AND REFINISH EXISTING BRASS PUSH PLATES
E. STRIP LAYERS OF OLD PAINT FROM HINGES AND REPAINT TO MATCH COLOR IN HISTORIC PAINT ANALYSIS. USE TINTED PRIMER BEFORE FINAL COAT. REINSTALL AND STANDARD SCREWS (NO PHILLIPS SCREWS). REPLACE MISSING FINIALS (8 EA)
F. STRIP AND PAINT HINGES ON GATES. REPLACE PHILLIPS SCREWS WITH STANDARD SCREWS (4 EA)
G. REFRESH FINISH ON DOOR AND SIDELIGHT
H. NEW DOOR FRAME TO BE INSTALLED IN THE SAME LOCATION OF EXISTING.
I. REPAIR DOOR TO CLOSE PROPERLY AND REPAIR FINISH ON DOOR.
J. CUSTOM METAL GATE THAT IS POWDER COATED AND PAINTED SILVER TO MATCH THE HISTORIC PAINT COLOR. REFERENCE DOOR HARDWARE SPECIFICATIONS. GATE TO HAVE A LOCK, METAL STOPS AT THE TOP AND SIDES, AND HINGES. DOOR SHOULD NOT SWING IN.

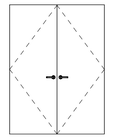
311-2

311-1

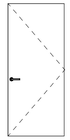
1 A0.16 Photo Detail - 311 Maurice Office - Doors



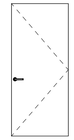
A1 STEEL DOORS



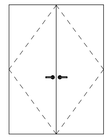
B1 HOLLOW METAL STEEL DOOR



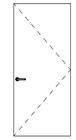
B2 HOLLOW METAL STEEL DOOR



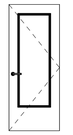
B3 45-MIN. RATED HOLLOW METAL STEEL DOOR



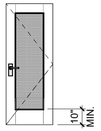
B4 45-MIN. RATED HOLLOW METAL STEEL DOOR



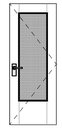
B5 INSULATED HOLLOW METAL STEEL DOOR



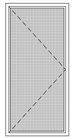
C2 REPLICA WOOD DOOR



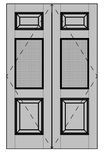
C3 REPLICA WOOD DOOR WITH GLAZING



C4 REPLICA WOOD DOOR WITH GLAZING

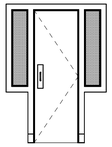


D1 METAL GATE



X1 HISTORIC SOLID WOOD DOOR

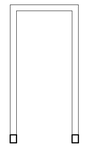
X2 HISTORIC WOOD GATES



X3 HISTORIC WOOD DOOR WITH SIDE LITES

2 A0.16 DOOR TYPES

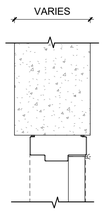
1 HOLLOW METAL STEEL DOOR FRAME



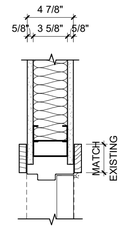
2 WOOD DOOR

3 45-MIN. RATED HOLLOW METAL STEEL DOOR FRAME

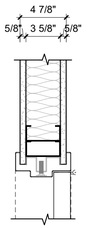
3 A0.16 DOOR FRAME TYPES



AA



BB



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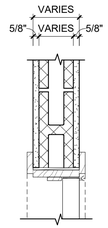


DD

4 A0.16 Door Frame Profiles

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET,
SUITE 100
KANSAS CITY, MO
T: 816.474.0900

DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

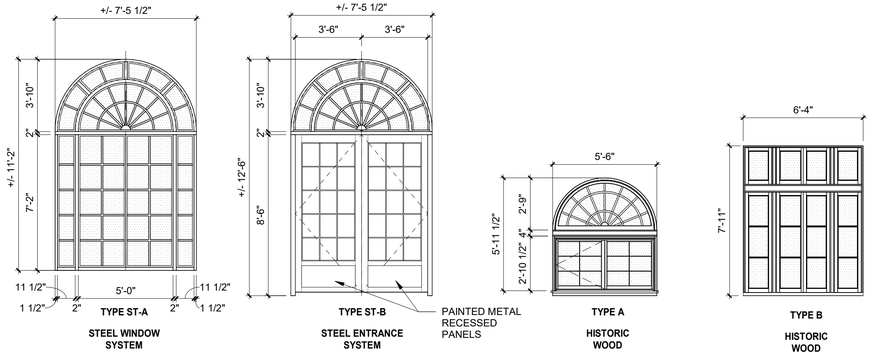
SUB SHEET NO. 01 A0.16

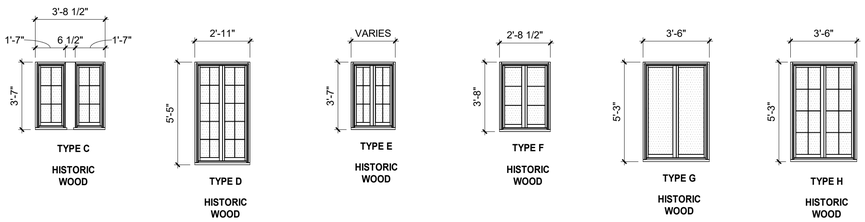
TITLE OF SHEET
MAURICE BATHHOUSE
DOOR SCHEDULE

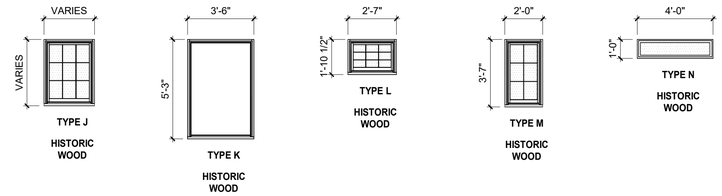
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 22 OF 286

11/6/2023 5:38:23 PM

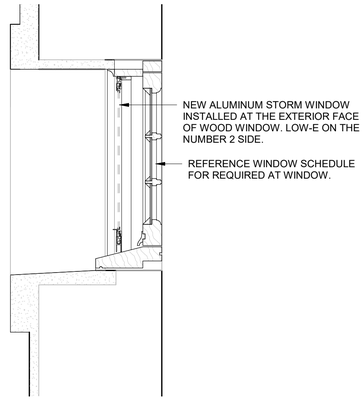






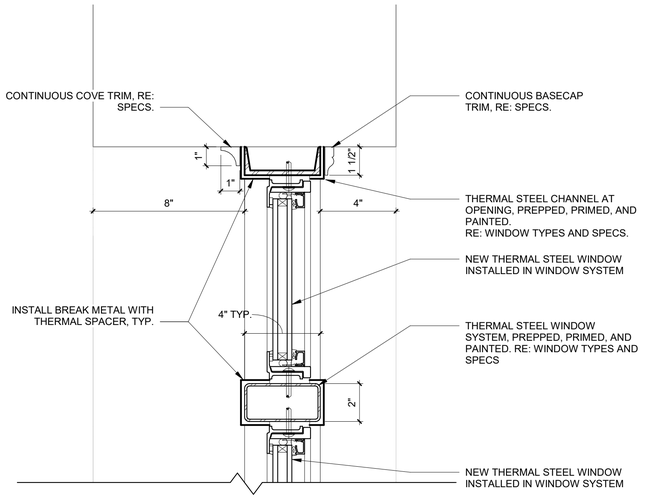
1 A0.20 WINDOW TYPES

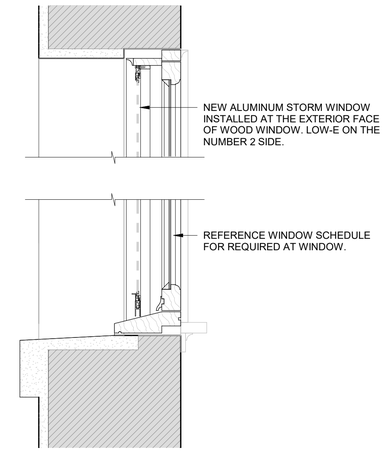
1/4" = 1'-0" SCALE (A)



2 A0.20 Section Detail - Basement Window

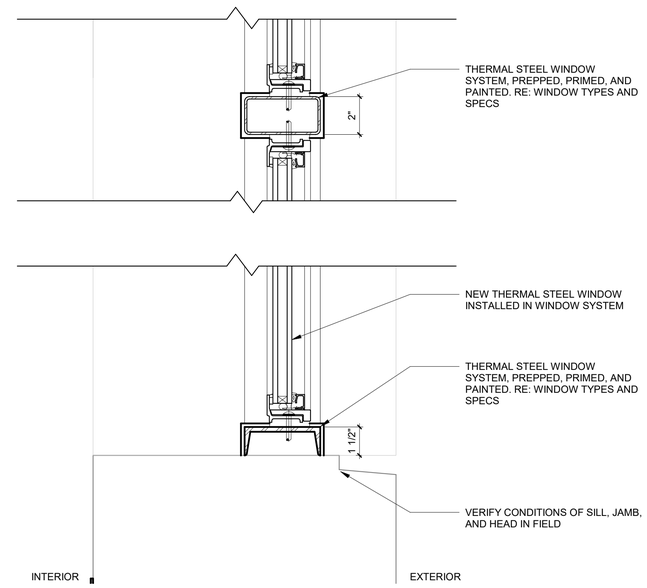
1 1/2" = 1'-0" SCALE (B)





3 A0.20 Section Detail - Typical Upper Floor Window

1 1/2" = 1'-0" SCALE (B)



1 A0.20 Section Detail - Storefront Window Head / Sill

3" = 1'-0" SCALE (C)

WINDOW & ENTRANCE SYSTEM NOTES

A. CONTRACTOR TO PROVIDE AND INSTALL A FULLY THERMALLY BROKEN AND COMPLETE STRUCTURAL FRAMING, WINDOW AND ENTRANCE DOOR SYSTEM.
   a. STEEL FRAMING SHOULD BE INSTALLED TO PROVIDE THERMALLY BROKEN DESIGN TO ADDRESS THIS REQUIREMENT, INCLUDING PROVIDING NEW BREAK METAL WITH THERMAL INSULATION, FINISHED TO MATCH THE SYSTEM. STEEL NOT THERMALLY BROKEN TO INCLUDE THERMAL COATING SYSTEM TO LIMIT CONDENSATION AND THERMAL BRIDGING. COATING TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. BASIS OF DESIGN IS TNEMEC THERMAL COATING AEROLON, OR EQUAL.

SCALE (C) 6 3 0 6
SCALE OF INCHES

SCALE (B) 12 6 0 12
SCALE OF INCHES

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

11/6/2023 5:38:24 PM

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.20	MAURICE BATHHOUSE WINDOW TYPES	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 23 OF 286
	DATE: 10.27.2023			

WINDOW SCHEDULE

NUMBER	WINDOW TYPE EXISTING / NEW	WINDOW OPENING		REPAIR EXISTING WINDOW TO REMAIN	INSTALL NEW REPLACEMENT WINDOW - TYPE	EXISTING WINDOW CONDITION	EXTERIOR TRIM & SILL CONDITION	# OF PANES, BROKEN OR MISSING GLASS, DIMS	HARD WARE	INTERIOR TRIM, STOOL, & APRON	KEYNOTES
		WIDTH	HEIGHT								
001	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR, SOME INTERIOR DETERIORATION	HH		A	50	1
002	L	2' - 4 1/2"	1' - 8"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH		A	50	1
003	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR, VINES GROWING THROUGH, MINOR ROT AT BOTTOM OF SASH	HH		A	50	1
004	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR, MINOR DETERIORATION AT TOP OF SASH	AA, HH		A	50	1
005	L	2' - 4 1/2"	1' - 8"	X		CONDITION: POOR, PLATIC WRAPPING ON INTERIOR OF WINDOW, WHITE PAINT, CENTRAL WOOD NAILER	HH		A	50	1
006	L	2' - 4 1/2"	1' - 8"	X		CONDITION: POOR, PLATIC WRAPPING ON INTERIOR OF WINDOW, WHITE PAINT, CENTRAL WOOD NAILER	HH		A	50	1
007	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR, MODERATE DETERIORATION AT BOTTOM RIGHT CORNER	HH		A	50	1
008	L	2' - 4 1/2"	1' - 8"	X		CONDITION: GOOD	HH		A	50	1
009	- / L	2' - 4 1/2"	1' - 8"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH		A	50	1
010	-	2' - 4 1/2"	1' - 8"		X	EXISTING LOUVER INFILL TO REMAIN. PREP, PRIME AND PAINT. RE: MEP	HH		A	50	1
011	- / L	2' - 4 1/2"	1' - 8"		X	INFILLED WITH LOUVER VENT, REPLACE WITH NEW WINDOW	HH		A	50	1
012	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR	DD, HH	A	A	50	1
013	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR	HH	B	A	50	1
014	- / L	2' - 4 1/2"	1' - 8"		X	INFILLED WITH LOUVER VENT, REPLACE WITH NEW WINDOW	HH		A	50	1
015	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR/GOOD	CC, HH		A	50	1
016	L	2' - 4 1/2"	1' - 8"	X		CONDITION: GOOD	HH		A	50	1
017	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR, MINOR DETERIORATION AT BOTTOM LEFT OF SASH	HH		A	50	1
018	- / L	2' - 4 1/2"	1' - 8"		X	INFILLED WITH LOUVER VENT, REPLACE WITH NEW WINDOW	HH		A	50	1
019	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR/GOOD	DD, HH		A	50	1
020	L	2' - 4 1/2"	1' - 8"	X		CONDITION: GOOD	HH		A	50	1
021	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR/GOOD	CC, HH		A	50	1
022	L	2' - 4 1/2"	1' - 8"	X		CONDITION: FAIR	HH	C	A	50	1
023	L	2' - 4 1/2"	1' - 8"		X	INACCESSIBLE: WINDOW OPENINGS BLOCKED ON EXTERIOR BY RAMP. BLOACKED OFF BY WOOD NAILER ON INTERIOR	HH		A	50	1
024	L	2' - 4 1/2"	1' - 8"		X	INACCESSIBLE: WINDOW OPENINGS BLOCKED ON EXTERIOR BY RAMP. BLOACKED OFF BY WOOD NAILER ON INTERIOR	HH		A	50	1
025	L	2' - 4 1/2"	1' - 8"		X	INACCESSIBLE: WINDOW OPENINGS BLOCKED ON EXTERIOR BY RAMP. BLOACKED OFF BY WOOD NAILER ON INTERIOR	HH		A	50	1
101	H	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, DETERIORATION AT TOP CORNERS AND BOTTOM LEFT CORNER OF SASH	EE, HH		C	53, 54, 57, 63	1
102	H	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, ABANDONDED ANCHORS	CC, EE, HH		C	53, 54, 57, 63	1
103	H	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR	CC, EE, HH		C	51, 57, 63	1
104	-	3' - 2"	4' - 11 1/4"		X	EXISTING LOUVER INFILL TO REMAIN. PREP, PRIME AND PAINT. RE: MEP	HH	D	C	51, 57, 63	1
105	H	3' - 2"	4' - 11 1/4"	X		EXISITNG HISTORIC WINDOW.CONDITION: FAIR, WINDOWS DO NOT CLOSE SECURELY, BUT NO APPRENT DETERIORATION	HH		C	51, 57, 63	1
106	-	3' - 2"	4' - 11 1/4"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	D	C	51, 57	1
107	G	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, ABRAGAL INTACT, SHIM SASH STOP IN PLACE, SECTIONS OF BOTTOM SASH DUTCHMAN'D	HH		C	52, 58, 64, 66	1
108	G	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, ABRAGAL INTACT, WOOD SHIM STOP MISSING, DUTCHMAN REPAIRS TO BOTTOM RAILS (BOTH) HOLE RIGHT	DD, HH		C	52, 58, 65	1
109	G	3' - 2"	4' - 11 1/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, ABRAGAL INTACT, WOOD SHIM STOP MISSING, DUTCHMAN REPAIRS TO BOTTOM RAILS. (BOTH)	DD, HH		C	52, 58, 65	1
110	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SLIGHT DETERIORATION AT CENTRAL BOTTOM RAILS, NO WOOD SHIM SASH STOP	CC, DD, HH		C	51, 57, 63	1
111	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SLIGHT DETERIORATION AT CENTRAL BOTTOM RAILS, NO WOOD SHIM SASH STOP	CC, DD, HH		C	51, 57, 63	1
112	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SLIGHT DETERIORATION AT CENTRAL BOTTOM RAILS, NO WOOD SHIM SASH STOP	CC, DD, HH		C	51, 57, 63	1
113	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, DETERIORATION AT TOP CENTRAL RAILS, WOOD SHIM SASH STOP INTACT	EE, HH		C	51, 57, 63	1
114	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, DETERIORATION AT TOP CENTRAL RAILS, WOOD SHIM SASH STOP INTACT	DD, EE, HH		C	51, 57, 63	1
115	H	3' - 4"	5' - 1 3/4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR	CC, DD, EE FF, HH		C	51, 57, 63	1
116	H	3' - 4"	5' - 1 3/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR	EE, DD, FF, CC, HH		C	51, 57, 65, 66	1
117	H	3' - 4"	5' - 1 3/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR	EE, DD, CC, HH		C	51, 57, 63	1
118	H	3' - 4"	5' - 1 3/4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR	EE, FF, DD, CC, HH		C	54, 57, 65	1
119	A	5' - 4 1/4"	2' - 10 1/2" (UPPER) 5' - 4" (LOWER)	X		EXISITNG NEW REPLACEMENT WINDOW. FANLIGHT CONDITION: GOOD, SASH CONDITION: FAIR. SLIGHT DETERIORATION AT BASE OF WINDOW SASHES.	HH		C	51, 60, 63, 70	1
127	A	5' - 4 1/4"	2' - 10 1/2" (UPPER) 5' - 4" (LOWER)	X		EXISITNG NEW REPLACEMENT WINDOW. FANLIGHT CONDITION: GOOD, SASH CONDITION: FAIR. NAIL HOLES, SPLINTERING, AND DETERIORATION IN BOTTOM RAILS.	HH		C	54, 59, 70	1
128	N					CONDITION: GOOD	N/A	D			1
129	N					CONDITION: GOOD	N/A	D			1
130	N					CONDITION: GOOD	N/A	D			1
131	N					CONDITION: GOOD	N/A	D			1
132	N					CONDITION: GOOD	N/A	D			1
133	N					CONDITION: GOOD	N/A	D			1
134	N					CONDITION: GOOD	N/A	D			1
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-A	ST-A				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					
ST-B	ST-B				X	REPLACE EXISTING STOREFRONT TO MATCH EXISTING					

WINDOWS - GENERAL NOTES -

A. WHERE WINDOWS ARE REMOVED FOR RESTORATION OR MISSING, CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY WINDOW PROTECTION FOR SECURITY AND TO PREVENT WEATHER INFILTRATION AND ENTRANCE OF PESTS.
B. CONTRACTOR RESPONSIBLE FOR COMPLETE REMOVAL AND DISPOSAL OF EXISTING TEMPORARY WINDOW OPENING COVERINGS.
C. RESTORE ALL EXISTING INTERIOR TRIM TO REMAIN. SILLS AND TRIM THAT HAVE WATER SPOTTING, STREAKING, OR SCRATCHING TO BE SANDED AND REFINISHED, PER SPECIFICATIONS.
D. REMOVE ALL EXISTING NAILS AND OTHER ATTACHMENTS THAT ARE NO LONGER UTILIZED AS PART OF THE CONSTRUCTION.
E. REFER TO WINDOW SCHEDULE AND SPECIFICATIONS FOR ALL WORK.
F. WINDOWS NEAR STAIRS AND DOOR OPENINGS ARE REQUIRED TO HAVE TEMPERED GLASS INSTALLED, PER BUILDING CODES.
G. WINDOWS 135 AND 136 ARE NOT SCHEDULED.
RE: INTERIOR ELEVATIONS FOR WORK TO BE DONE.
H. ALL WINDOWS TO BE PREPPED, PRIMED, AND PAINTED ON THE INTERIOR AND EXTERIOR. EXTERIOR TO BE GREEN PAINT. INTERIOR TO BE PRIMED WITH TWO COATS OF WHITE PAINT.

EXTERIOR TRIM & SILL CONDITION

AA. N/A
BB. GLAZING IN GOOD CONDITION.
CC. REGLAZING NECESSARY
DD. DRIP CAP MISSING AND/OR DAMAGED, INSTALL REPLACEMENT DRIP CAP TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE.
EE. SILL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT SILL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
FF. BOTTOM RAIL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT BOTTOM RAIL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT
GG. EXTERIOR TRIM MISSING AND/OR DAMAGED, INSTALL REPLACEMENT EXTERIOR TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
HH. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS. PREP, PRIME, AND PAINT

GLAZING NOTES

A. 1 OF 6 BROKEN
B. 2 OF 6 BROKEN
C. 1 OF 6 BROKEN - BOTTOM CENTER PANE
D. N/A

HARDWARE NOTES

A. N/A - FIXED WITH WOOD NAILER
B. N/A
C. INTACT
D. BALL CAP HINGES INTACT
E. BALL CAP HINGES ON LEFT INTACT
F. BALL CAP HINGES ON RIGHT INTACT
G. MODERN FLAT CAP HINGES ON LEFT
H. MODERN FLAT CAP HINGES ON RIGHT
I. MODERN FLAT CAP HINGES ON BOTTOM
J. BALL CAP HINGES ON LEFT RUSTED
K. BALL CAP HINGES ON RIGHT RUSTED
L. BALL CAP HINGES ON LEFT BOTTOM RUSTED
M. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED
N. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED EXCEPT FOR BALL HINGE AT BOTTOM RIGHT
O. ALL 4 BALL HINGES RUSTED
P. ALL 4 HINGES MODERN FLAT CAP
Q. MISSING PINS
R. NO HAND LATCHES OR LOCK HOLES

INTERIOR TRIM, STOOL AND APRON NOTES

50. NO INTERIOR TRIM, TYPICAL FOR BASEMENT WINDOWS.
51. STOOL IN GOOD CONDITION. PREP, PRIME, AND PAINT.
52. NO STOOL, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT
53. STOOL DETERIORATED, REPLACE WITH NEW STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
54. STOOL DETACHING AND/OR ASKEW , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
55. STOOL DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
56. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT STOOL. PREP, PRIME, AND PAINT .
57. APRON IN GOOD CONDITION, PREP, PRIME, AND PAINT.
58. NO APRON, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
59. APRON DETERIORATED, REPLACE WITH NEW APRON TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
60. APRON DETACHING AND/OR ASKEW , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
61. APRON DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
62. NO TRIM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
63. TRIM IN GOOD CONDITION. PREP, PRIME, AND PAINT.
64. TRIM MISSING AND/OR DAMAGED ON TOP, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
65. TRIM MISSING AND/OR DAMAGED ON RIGHT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
66. TRIM MISSING AND/OR DAMAGED ON LEFT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
67. TRIM MISSING AND/OR DAMAGED ON BOTTOM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
68. TRIM HAS MINOR DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
69. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT TRIM. PREP, PRIME, AND PAINT .
70. NO TRIM NO REPLACEMENT

KEYNOTES - EXISTING WINDOW CONDITION

1. ALL EXTERIOR WINDOWS (EXCEPT FOR THE SUN PORCH) INSTALL A NEW EXTERIOR, PRE-FINISHED, CUSTOM, ALUMINUM, STORM WINDOW, PROVIDE TEMPERED GLASS, WHERE NOTED IN THE WINDOW SCHEDULE. REFERENCE SPECIFICATIONS.

REGISTERED ARCHITECT
REBECCA
GAEBLER
License Number 10286
STATE OF ARKANSAS

Angie Gaebler
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
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DESIGNED:
CA/AG
CADD:
CA/ZA/EM
TECH. REVIEW:
AG
DATE:
10.27.2023

SUB SHEET NO.
01
A0.21

TITLE OF SHEET
MAURICE BATHHOUSE
WINDOW SCHEDULE

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.
128
182951
PMIS/PKG NO.
318915
SHEET
24 OF 286

11/6/2023 5:38:25 PM

WINDOW SCHEDULE

NUMBER	WINDOW TYPE EXISTING / NEW	WINDOW OPENING WIDTH	WINDOW OPENING HEIGHT	REPAIR EXISTING WINDOW TO REMAIN	INSTALL NEW REPLACEMENT WINDOW - TYPE	EXISTING WINDOW CONDITION	EXTERIOR TRIM & SILL CONDITION	# OF PANES, BROKEN OR MISSING GLASS, DIMS	HARD WARE	INTERIOR TRIM, STOOL, & APRON	KEYNOTES
201	J	3' - 2"	2' - 8"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, MINOR DETERIOATION AT RAIL OPPOSITE OF HINGES, SCREW ALLOWING WINDOW OPEN PARTLY.	HH		D	54, 57, 63	1
202	- / J	2' - 9 1/2"	3' - 4"		X	INFILLED WITH LOUVER VENT, REPLACE WITH NEW WINDOW	HH		D	52, 58, 68	1
203	J	3' - 2"	2' - 8"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, ABRASION AT BOTTOM OF LEFT CORNER OF SASH, WINDOW MOSTLY OPEN.	HH		D	54, 61, 63	1
204	J / -	2' - 9 1/2"	3' - 4"	X		CONDITION: FAIR, PAINT DELAMINATION AT TOP LEFT AND RIGHT RAIL. WOOD ROT AT BOTTOM OF LEFT CORNER SASH.	HH		D	51, 57, 54, 60	1
205	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, DETERIORATION AT BOTTOM LEFT CORNER OF SASH.	HH		D	52, 58, 63	1
206	J / -	2' - 9 1/2"	3' - 4"	X		CONDITION: POOR, SASH IN GOOD CONDITION, TRIM, STOOL AND APRON IN VERY POOR CONDITION.	HH		D	53, 58, 68	1
207	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SOME PAINT DELAMINATION AND ABRASION AT TOP RAIL. SASH IN POOR CONDITION, STOOL IN POOR CONDITION.	HH		D	53, 58	1
208	- / J	2' - 9 1/2"	3' - 4"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH		B	51, 57, 63	1
209	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, DETERIORATION AND CHIPPING AT BOTTOM LEFT CORNER OF SASH	HH		D	51, 57, 63, 70	1
210	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD, SASH IN GOOD CONDITION, NO APPARENT DETERIORATION.	HH		D	51, 57, 63	1
211	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, MINOR DETERIORATION AT TOP OF SASH AND PAINT DELAM AT BOTTOM	HH		D	51, 57, 63	1
212	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SOME DETERIORATION/SPLINTERING AT TOP LEFT, TOP RIGHT, AND BOTTOM RIGHT CORNERS OF SASH	HH		D	51, 60, 63	1
213	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, WOOD ROT AND DETERIORATION AT TOP LEFT CORNER OF SASH. SOME WATER SPOTTING AT BOTTOM RAIL.	HH		D	53, 58, 63	1
214	J	2' - 9 1/2"	3' - 4"	X		EXISTING HISTORIC WINDOW. CONDITION: GOOD, SASH IN GOOD CONDITION, NO APPARENT DETERIORATION.	HH		D	51, 57, 63	1
215	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, DETERIORATION AND CHIPPING AT BOTTOM LEFT CORNER OF SASH	HH		D	51, 57, 63, 70	1
216	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, WHITE PAINT PATCHES ON ALL 4 SIDES OF SASH, CHIPPING AT BOTTOM LEFT CORNER OF SASH.(MINOR)	HH		D	51, 56, 57, 63	1
217	M	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASH IN GOOD CONDITION	HH		D	54, 57, 64	1
218	C	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, SASHES IN FAIR CONDITION	HH		D	52, 58, 64, 71	1
219	C	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES IN GOOD CONDITION, PARTY AJAR	HH		D	51, 54, 59, 60, 63, 72	1
220	M	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, SASHES DIRT BUT IN FAIR CONDITION	HH		D	53, 59, 66, 68, 73	1
221	M	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASH IN GOOD CONDITION	HH		D	52, 58, 64, 66, 72	1
222	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
223	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		D	52, 58, 63, 71, 74	1
224	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, CHIPPING AT BOTTOM LEFT CORNER OF TRIM AND SASH	HH		D	52, 58, 63	1
225	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: CHIPPING AT TOP CORNERS OF SASH	HH		D	52, 58, 63	1
226	J	2' - 9 1/2"	3' - 4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR	HH		D	52, 58, 75	1
227	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR	HH		D	51, 57, 66	1
228	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, CHIPS IN TOP RAIL	HH		D	53, 57, 63	1
229	- / J	2' - 9 1/2"	3' - 4"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	A	B	51, 57, 63	1
230	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, MINOR DELAMINATION AND DETERIORATION AT TOP RAIL OF SASH	HH		D	51, 60, 63	1
231	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, CHIPPING AND DETERIORATION AT TOP CORNERS OF SASH	HH		D	51, 57, 63	1
232	J	2' - 9 1/2"	3' - 4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
233	- / J	2' - 9 1/2"	3' - 4"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	A	B	54, 57, 66	1
234	J	2' - 9 1/2"	3' - 4"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
235	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, DETERIORATION AT TOP LEFT CORNER AND TOP RAIL	HH		D	51, 58, 63	1
236	- / J	2' - 9 1/2"	3' - 4"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	A	B	51, 57, 63	1
237	J	2' - 9 1/2"	3' - 4"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASH SETTLING AT TOP LEFT CORNER, SLIGHTLY AJAR. MINOR DETERIORATION AT BOTTOM LEFT OF SASH	HH		D	51, 58, 63	1
238	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, DETERIORATION AT BOTTOM LEFT CORNER OF SASH< SLIGHT SETTLEMENT, TOP LEFT SASH AJAR	HH		D	52, 58, 62	1
239	J	2' - 9 1/2"	3' - 4"		X	CONDITION:FAIR, DETERIORATION AT BOTTOM LEFT CORNER OF SAH, SLIGHTSETTLEMTN, TOP LEFT OF SASH AJAR	HH		D	52, 58, 62	1
240	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, SASH OPEN AT TOP, SLIGHT DETERIORATION AT TOP RAIL	HH		D	52, 58, 62	1
241	J	2' - 9 1/2"	3' - 4"		X	CONDITION; FAIR, MINOR DETERIORATION AT TOP LEFT CORNER	HH		D	54, 57, 66	1
242	J	2' - 9 1/2"	3' - 4"		X	CONDITION: POOR, DETERIORATION AT BOTTOM LEFT CORNER AND TOP RAIL OF SASH	HH		D	53, 61, 64, 64, 76	1
243	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, MINOR DETERIORATION AT BOTTOM RIGHT CORNER OF SASH	HH		D	51, 59, 70	1
244	J	2' - 9 1/2"	3' - 4"		X	CONDITION:FAIR, MINOR DETERIORATION AND CHIPPING AT BOTTOM LEFT AND TOP CORNERS OF SASH, PAINT DELAM AT TOP RAIL	HH		D	51, 60, 70	1
245	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, DETERIORATION AT TOP CORNERS OF SASH	HH		D	51, 57, 64	1
246	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, DETERIORATION AT TOP CORNERS AND BOTTOM LEFT CORNER OF SASH	HH		D	51, 57, 63, 64, 70	1
247	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, DETERIORATION AT TOP CORNERS AND BOTTOM LEFT CORNER OF SASH	HH		D	51, 57, 63	1
248	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, SASH IN GOOD CONDITION	HH		D	51, 57, 63	1
249	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, SASH IN GOOD CONDITION	HH		D	51, 57, 63, 68, 70	1
250	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, SASH DETERIORATION AT TOP CORNERS	HH		D	65, 66, 70	1
251	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, MINOR PAINT DELAMINATION	HH		D	52, 58,73	1
252	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, MINOR PAINT DELAMINATION	HH		D	52, 58, 68	1
253	J	2' - 9 1/2"	3' - 4"		X	CONDITION: FAIR, MINOR PAINT DELAMINATION	HH		D	52, 58, 68	1

WINDOWS - GENERAL NOTES -

A. WHERE WINDOWS ARE REMOVED FOR RESTORATION OR MISSING, CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY WINDOW PROTECTION FOR SECURITY AND TO PREVENT WEATHER INFILTRATION AND ENTRANCE OF PESTS.
B. CONTRACTOR RESPONSIBLE FOR COMPLETE REMOVAL AND DISPOSAL OF EXISTING TEMPORARY WINDOW OPENING COVERINGS.
C. RESTORE ALL EXISTING INTERIOR TRIM TO REMAIN. SILLS AND TRIM THAT HAVE WATER SPOTTING, STREAKING, OR SCRATCHING TO BE SANDED AND REFINISHED, PER SPECIFICATIONS.
D. REMOVE ALL EXISTING NAILS AND OTHER ATTACHMENTS THAT ARE NO LONGER UTILIZED AS PART OF THE CONSTRUCTION.
E. REFER TO WINDOW SCHEDULE AND SPECIFICATIONS FOR ALL WORK.
F. WINDOWS NEAR STAIRS AND DOOR OPENINGS ARE REQUIRED TO HAVE TEMPERED GLASS INSTALLED, PER BUILDING CODES.

EXTERIOR TRIM & SILL CONDITION

AA. N/A
BB. GLAZING IN GOOD CONDITION.
CC. REGLAZING NECESSARY
DD. DRIP CAP MISSING AND/OR DAMAGED, INSTALL REPLACEMENT DRIP CAP TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE.
EE. SILL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT SILL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
FF. BOTTOM RAIL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT BOTTOM RAIL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT
GG. EXTERIOR TRIM MISSING AND/OR DAMAGED, INSTALL REPLACEMENT EXTERIOR TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
HH. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS. PREP, PRIME, AND PAINT

GLAZING NOTES

A. N/A

HARDWARE NOTES

A. N/A - FIXED WITH WOOD NAILER
B. N/A
C. INTACT
D. BALL CAP HINGES INTACT
E. BALL CAP HINGES ON LEFT INTACT
F. BALL CAP HINGES ON RIGHT INTACT
G. MODERN FLAT CAP HINGES ON LEFT
H. MODERN FLAT CAP HINGES ON RIGHT
I. MODERN FLAT CAP HINGES ON BOTTOM
J. BALL CAP HINGES ON LEFT RUSTED
K. BALL CAP HINGES ON RIGHT RUSTED
L. BALL CAP HINGES ON LEFT BOTTOM RUSTED
M. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED
N. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED EXCEPT FOR BALL HINGE AT BOTTOM RIGHT
O. ALL 4 BALL HINGES RUSTED
P. ALL 4 HINGES MODERN FLAT CAP
Q. MISSING PINS
R. NO HAND LATCHES OR LOCK HOLES

INTERIOR TRIM, STOOL AND APRON NOTES

50. NO INTERIOR TRIM, TYPICAL FOR BASEMENT WINDOWS.
51. STOOL IN GOOD CONDITION. PREP, PRIME, AND PAINT.
52. NO STOOL, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT
53. STOOL DETERIORATED, REPLACE WITH NEW STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
54. STOOL DETACHING AND/OR ASKEWED , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
55. STOOL DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
56. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT STOOL. PREP, PRIME, AND PAINT .
57. APRON IN GOOD CONDITION, PREP, PRIME, AND PAINT.
58. NO APRON, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
59. APRON DETERIORATED, REPLACE WITH NEW APRON TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
60. APRON DETACHING AND/OR ASKEWED , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
61. APRON DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
62. NO TRIM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
63. TRIM IN GOOD CONDITION. PREP, PRIME, AND PAINT.
64. TRIM MISSING AND/OR DAMAGED ON TOP, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
65. TRIM MISSING AND/OR DAMAGED ON RIGHT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
66. TRIM MISSING AND/OR DAMAGED ON LEFT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
67. TRIM MISSING AND/OR DAMAGED ON BOTTOM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
68. TRIM HAS MINOR DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
69. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT TRIM. PREP, PRIME, AND PAINT.
70. JAMB AT LEFT DETERIORATING EPOXY REPAIR
71. THERE IS NO TILE SO NO APRON OR TRIM
72. MINOR EPOXY REPAIR AT TRIM LEFT CORNER
73. TRIM IS MISSING AT CENTER TRIM
74. BOTTOM STILL IS COMING UP
75. SILL IS MISSING
76. APRON TRIM IS MISSING
77. APRON TRIM IS DETACHED

KEYNOTES - EXISTING WINDOW CONDITION

1. (ALL WINDOWS) INSTALL NEW INTERIOR, PRE-FINISHED, ALUMINUM, FIXED REMOVABLE MAGNETIC STORM WINDOW, PROVIDE TEMPERED GLASS, WHERE NOTED IN THE WINDOW SCHEDULE.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.22	MAURICE BATHHOUSE WINDOW SCHEDULE	128 / 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 25 OF 286
	DATE: 10.27.2023			

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WINDOW SCHEDULE

NUMBER	WINDOW TYPE EXISTING / NEW	WINDOW OPENING WIDTH	WINDOW OPENING HEIGHT	REPAIR EXISTING WINDOW TO REMAIN	INSTALL NEW REPLACEMENT WINDOW - TYPE	EXISTING WINDOW CONDITION	EXTERIOR TRIM & SILL CONDITION	# OF PANES, BROKEN OR MISSING GLASS, DIMS	HARD WARE	INTERIOR TRIM, STOOL, & APRON	KEYNOTES
301	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: POOR, CASEMENT TILTED DUE TO SETTLEMENT, BOTTOM LEFT OF RIGHT SASH SPLINTERED, WINDOWS AJAR	HH		F	53, 61, 64, 67	1
302	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: FAIR, BROKEN GLASS BOTTOM LEFT	HH	A	K	53, 57, 64	1
303	- / E	2' - 5 1/2"	3' - 3 1/2"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	F	B	52, 58, 63	1
304	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR	HH		G, F	51, 57, 63	1
305	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		G, K	51, 57, 63	1
306	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		G, K	51, 57, 63	1
307	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		D	51, 57, 63	1
308	- / E	2' - 5 1/2"	3' - 3 1/2"		X	EXISITNG HISTORIC WINDOW. INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	F	B	51, 57, 63	1
309	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		H, J	51, 57, 63	1
310	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		K	53, 57, 63	1
311	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, HANDLE LATCH HOLES IN RIGHT RAIL OF LEFT SASH, LOCK HOLE IN CENTER OF LEFT RAIL, RIGHT SASH	HH		E, Q	52, 58, 63	1
312	F	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		G, F	54, 57, 69	1
313	F	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
314	F	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SMALL NOTCH IN BOTTOM RIGHT CORNER SASH PAINTABLE	HH		D	51, 57, 63	1
315	F	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		H, E	51, 57, 64	1
316	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SMALL NOTCH/SPLINTER AT BOTTOM RAIL, RIGHT SASH	HH	B	G, K	51, 57, 63	1
317	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		G, F	51, 57, 63	1
318	E	2' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		D	54, 57, 63	1
319	E	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY, LOCK HOLES IN MIDDLE OF CENTER RAILS	HH		D	51, 57, 67	1
320	C	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY, LOCK HOLES IN MIDDLE OF CENTER RAILS	HH		D	51, 57, 67	1
321	C	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SMALL NOTCH IN LEFT RAIL OF RIGHT SASH	HH		D	51, 57, 63	1
322	C	3' - 5 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, SASHES OKAY	HH		D	52, 62, 63	1
323	E	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
324	E	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, SASHES OKAY	HH		G, F	52, 58, 65, 66	1
325	E	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, NOTCH IN TOP LEFT OF SASH	HH		H, E	52, 58, 63	1
326	E	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, SPLINTERING IN RIGHT RAIL, LEFT SASH	HH		O	54, 60, 63	1
327	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: GOOD	HH		D	51, 57, 63	1
328	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, NOTCH IN BOTTOM LEFT OF SASH	HH		G, F	54, 57, 63	1
329	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR	HH		K	51, 57, 63	1
330	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		G, K	51, 57, 64	1
331	- / J	1' - 11 1/2"	3' - 3 1/2"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	F	B	51, 57, 63	1
332	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: POOR, RIGHT RAIL ON LEFT SASH DETERIORATED	HH		D	54, 57, 63	1
333	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		H, J	51, 57, 63	1
334	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		D	54, 57, 63	1
335	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		H, E, L	51, 57, 64	1
336	- / J	1' - 11 1/2"	3' - 3 1/2"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	F	B	51, 57, 63	1
337	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH	C	P	54, 57, 63	1
338	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH	C	D	53, 57, 64	1
339	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG HISTORIC WINDOW. CONDITION: FAIR, SASHES OKAY	HH		D	53, 57, 64	1
340	- / J	1' - 11 1/2"	3' - 3 1/2"		X	INFILLED WITH FAN UNIT, REMOVE FAN, INSTALL NEW WINDOW	HH	F	B	51, 57, 66	1
341	J	1' - 11 1/2"	3' - 3 1/2"	X		EXISITNG NEW REPLACEMENT WINDOW. CONDITION: POOR, BOTTOM RIGHT OF LEFT SASH DETERIORATING	HH	D	E, Q	53, 57, 66, 64	1
342	F	1' - 11 1/2"	3' - 3 1/2"		X	CONDITION: POOR, SASHES OKAY	HH		O	64, 57, 64	1
343	F	1' - 11 1/2"	3' - 3 1/2"		X	CONDITION: FAIR, SASHES OKAY	HH		O	51, 57, 65	1
344	F	1' - 11 1/2"	3' - 3 1/2"		X	CONDITION: FAIR, SASHES OKAY	HH		H, E	51, 57, 65	1
345	B	5'-0"	7' - 6"		X	CONDITION: POOR, HAND LATCH HOLES ON RIGHT RAIL OF MIDDLE-LEFT SASH, LOCK HOLES IN SASHES 1,3,& 4. SOME ROT AT BOTTOM OF RIGHT MULLION	HH		I, M	53, 57, 64, 65	1
346	B	5'-0"	7' - 6"		X	CONDITION: POOR, HAND LATCH HOLES ON RIGHT RAIL OF MIDDLE-LEFT SASH, LOCK HOLES IN SASHES 1,3,& 4. SOME ROT AT BOTTOM OF RIGHT MULLION	HH		I, M	53, 60, 63	1
347	B	5'-0"	7' - 6"		X	CONDITION: FAIR, ABRASION AT VERTICAL AND HORIZONTAL MULLIONS	HH		I, M	53, 57, 67	1
348	B	5'-0"	7' - 6"		X	CONDITION: FAIR, ABRASION AT VERTICAL AND HORIZONTAL MULLIONS	HH		I, N	55, 57, 63	1
349	B	5'-0"	7' - 6"		X	CONDITION: POOR, ABRASION AT VERTICAL AND HORIZONTAL MULLION, MULLIONS DETERIORATED, CENTER TRANSOM SASHES OPEN, ROT AT BOTTOM RAIL OF TRANSOM SASH #2	HH		I, M	53, 57, 64	1
350	F					CONDITION: POOR, DETERIORATION AT BOTTOM-CENTER OF SASHES AND NOTCH IN MIDDLE OF RIGHT RAIL, LEFT SASH					
351	F					CONDITION: FAIR, BEAD ON RIGHT SASH BROKEN AT BOTTOM, SASHES OKAY OTHERWISE					
352	F	2' - 5 1/2"	3' - 3 1/2"		X	CONDITION: GOOD	HH	E	D, R, K	51, 57, 63	1

WINDOWS - GENERAL NOTES -

A. WHERE WINDOWS ARE REMOVED FOR RESTORATION OR MISSING, CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY WINDOW PROTECTION FOR SECURITY AND TO PREVENT WEATHER INFILTRATION AND ENTRANCE OF PESTS.
B. CONTRACTOR RESPONSIBLE FOR COMPLETE REMOVAL AND DISPOSAL OF EXISTING TEMPORARY WINDOW OPENING COVERINGS.
C. RESTORE ALL EXISTING INTERIOR TRIM TO REMAIN. SILLS AND TRIM THAT HAVE WATER SPOTTING, STREAKING, OR SCRATCHING TO BE SANDED AND REFINISHED, PER SPECIFICATIONS.
D. REMOVE ALL EXISTING NAILS AND OTHER ATTACHMENTS THAT ARE NO LONGER UTILIZED AS PART OF THE CONSTRUCTION.
E. REFER TO WINDOW SCHEDULE AND SPECIFICATIONS FOR ALL WORK.
F. WINDOWS NEAR STAIRS AND DOOR OPENINGS ARE REQUIRED TO HAVE TEMPERED GLASS INSTALLED, PER BUILDING CODES.

EXTERIOR TRIM & SILL CONDITION

AA. N/A
BB. GLAZING IN GOOD CONDITION.
CC. REGLAZING NECESSARY
DD. DRIP CAP MISSING AND/OR DAMAGED, INSTALL REPLACEMENT DRIP CAP TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE.
EE. SILL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT SILL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
FF. BOTTOM RAIL MISSING AND/OR DAMAGED, INSTALL REPLACEMENT BOTTOM RAIL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT
GG. EXTERIOR TRIM MISSING AND/OR DAMAGED, INSTALL REPLACEMENT EXTERIOR TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
HH. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS. PREP, PRIME, AND PAINT

REPLACE SILL. REPLICATE WINDOW TO BE 1/2" THICKER SASH TO ALLOW FOR INSULATED GLAZING UNITS. INSTALL INSULATED GLAZING WITH LOW-E ON NUMBER 2 SIDE.

GLAZING NOTES

A. 1 OF 6 BROKEN - BOTTOM LEFT PANE
B. 1 OF 6 BROKEN - CRACK IN BOTTOM LEFT PANE
C. 1 OF 6 BROKEN - CRACK IN BOTTOM RIGHT PANE
D. 1 OF 6 BROKEN - CRACK IN TOP LEFT PANE
E. 1 OF 6 BROKEN - SMALL CRACK IN MIDDLE OF RIGHT PANE
F. N/A

HARDWARE NOTES

A. N/A - FIXED WITH WOOD NAILER
B. N/A
C. INTACT
D. BALL CAP HINGES INTACT
E. BALL CAP HINGES ON LEFT INTACT
F. BALL CAP HINGES ON RIGHT INTACT
G. MODERN FLAT CAP HINGES ON LEFT
H. MODERN FLAT CAP HINGES ON RIGHT
I. MODERN FLAT CAP HINGES ON BOTTOM
J. BALL CAP HINGES ON LEFT RUSTED
K. BALL CAP HINGES ON RIGHT RUSTED
L. BALL CAP HINGES ON LEFT BOTTOM RUSTED
M. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED
N. BALL CAP HINGES ON TRANSOM, BOTTOM RUSTED EXCEPT FOR BALL HINGE AT BOTTOM RIGHT
O. ALL 4 BALL HINGES RUSTED
P. ALL 4 HINGES MODERN FLAT CAP
Q. MISSING PINS
R. NO HAND LATCHES OR LOCK HOLES

INTERIOR TRIM, STOOL AND APRON NOTES

50. NO INTERIOR TRIM, TYPICAL FOR BASEMENT WINDOWS.
51. STOOL IN GOOD CONDITION. PREP, PRIME, AND PAINT.
52. NO STOOL, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
53. STOOL DETERIORATED, REPLACE WITH NEW STOOL TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
54. STOOL DETACHING AND/OR ASKEWED , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
55. STOOL DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
56. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT STOOL. PREP, PRIME, AND PAINT .
57. APRON IN GOOD CONDITION, PREP, PRIME, AND PAINT.
58. NO APRON, INSTALL REPLACEMENT STOOL TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE. PREP, PRIME, AND PAINT.
59. APRON DETERIORATED, REPLACE WITH NEW APRON TO MATCH HISTORIC IN SPECIES, SIZE, AND PROFILE. PREP, PRIME, AND PAINT.
60. APRON DETACHING AND/OR ASKEWED , REATTACH AS REQUIRED. PREP, PRIME, AND PAINT.
61. APRON DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
62. NO TRIM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
63. TRIM IN GOOD CONDITION. PREP, PRIME, AND PAINT.
64. TRIM MISSING AND/OR DAMAGED ON TOP, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
65. TRIM MISSING AND/OR DAMAGED ON RIGHT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
66. TRIM MISSING AND/OR DAMAGED ON LEFT, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
67. TRIM MISSING AND/OR DAMAGED ON BOTTOM, INSTALL REPLACEMENT TRIM TO MATCH HISTORIC IN SPECIES, SIZE AND PROFILE, PREP, PRIME, AND PAINT.
68. TRIM HAS MINOR DAMAGED, REPAIR WITH WOOD FILLER. PREP, PRIME, AND PAINT.
69. REMOVE DAMAGED LOOSE PAINT AND NON-HISTORIC COATINGS AT TRIM. PREP, PRIME, AND PAINT .

KEYNOTES - EXISTING WINDOW CONDITION

1. (ALL WINDOWS) INSTALL NEW INTERIOR, PRE-FINISHED, ALUMINUM, FIXED REMOVABLE MAGNETIC STORM WINDOW, PROVIDE TEMPERED GLASS, WHERE NOTED IN THE WINDOW SCHEDULE.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A0.23	MAURICE BATHHOUSE WINDOW SCHEDULE	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 26 OF 286
	DATE: 10.27.2023			

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1 AX1.0 Demolition Basement Floor Plan

1/8" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE SCOPE OF DEMOLITION WORK IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION DRAWINGS. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL DEMOLITION WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. REMOVE ALL UNUSED AND/OR ABANDONED PIPE, CONDUIT, CONDUCTORS, SCREWS, NAILS AND FASTENERS IN THEIR ENTIRETY BACK TO THEIR ORIGINAL SOURCE.

C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.01	024296, 028333 - REMOVE EXISTING DOOR, FRAME AND ACCESSORIES. REFERENCE DOOR SCHEDULE AND SPECIFICATION.
02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.06	013591, 024296, 028333 - CAREFULLY REMOVE AND SALVAGE ALL HISTORIC PLUMBING FIXTURES TO BE GIVEN TO THE PARK FOR STORAGE, TYPICAL. "
02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.11	024296, 028333 - REMOVE ALL ABANDONED ANCHORS AT THE EXISTING MASONRY OPENING TO ALL FOR NEW DOOR FRAME INSTALLATION. REFERENCE DOOR SCHEDULE.
02.12	024296, 028333, 017329 – CAREFULLY DEMOLISH PORTION OF EXISTING WALL FOR NEW MEP SYSTEM INSTALLATION. REFERENCE MEP DRAWINGS.
02.100	024296, 028333 - DEMOLISH CONCRETE RAMP, RAMP RETAINING WALL, AND ASSOCIATED RAILS, REFERENCE CIVIL DRAWINGS.
02.102	024296 - CRAWL SPACE: DEMOLISH EXISTING DETERIORATED VAPOR BARRIER AND ALL RELATED INSTALLATION COMPONENTS, INCLUDING SAND BAGS, TERMINATION BARS AND ALL ATTACHMENTS, CONSTRUCTION DEBRIS, PLYWOOD, AND ANYTHING ELSE THAT IS NOT PART OF THE PHYSICAL BUILDING STRUCTURE FROM THE CRAWLSPACE IN ITS ENTIRETY.
02.103	024296 - DEMOLISH EXISTING BASEMENT SLAB FOR INSTALLATION OF NEW MEP PIPING, REFERENCE MEP AND STRUCTURAL DRAWINGS.
02.201	024296 - DEMOLISH EXISTING RUNNELS, REFERENCE CIVIL DRAWINGS (N-+/-74 LF, E-+/-108 LF, S-+/-41 LF, W-+/-6 LF: TOTAL +/-229 LF).
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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REGISTERED ARCHITECT
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10.18.2023

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CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 AX1.0

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION BASEMENT FLOOR PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 27 OF 286

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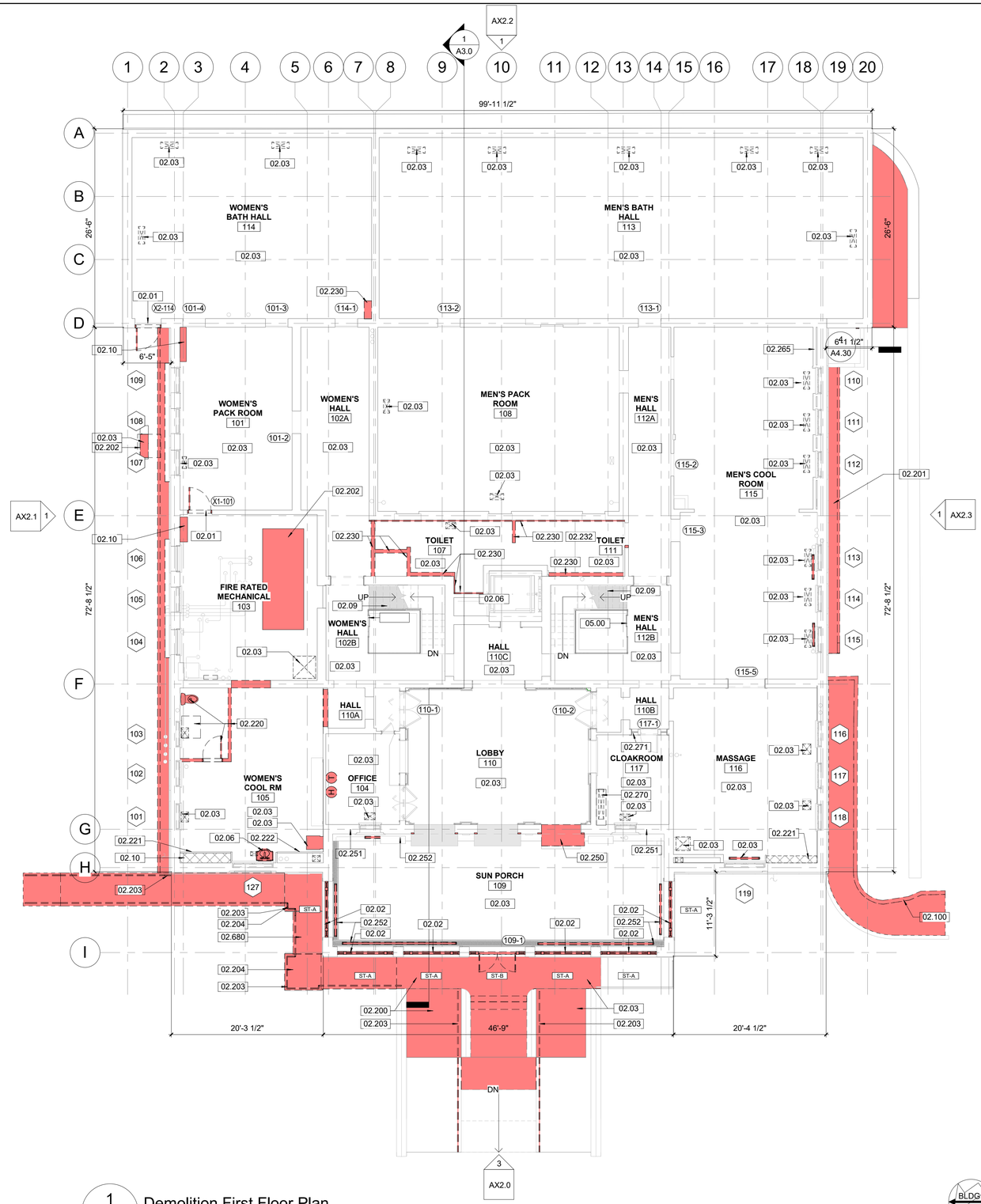

1 Demolition First Floor Plan
AX1.1 1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

BLDG.

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.01	024296, 028333 - REMOVE EXISTING DOOR, FRAME AND ACCESSORIES. REFERENCE DOOR SCHEDULE AND SPECIFICATION.
02.02	024119 - REMOVE EXISTING STOREFRONT WINDOWS AND ASSOCIATED ANCHORS. BE CAREFUL TO LIMIT DAMAGE TO BOTH INTERIOR PLASTER AND EXTERIOR STUCCO. REFERENCE WINDOW SCHEDULE AND SPECIFICATIONS. CONTRACTOR TO DISPOSE OF STOREFRONT WINDOWS AND ASSOCIATED COMPONENTS.
02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.06	013591, 024296, 028333 - CAREFULLY REMOVE AND SALVAGE ALL HISTORIC PLUMBING FIXTURES TO BE GIVEN TO THE PARK FOR STORAGE, TYPICAL. *
02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.10	024296, 028212, 028333, 017329 - CUT NEW HOLE INTO EXISTING FLOOR SLAB FOR NEW MEP PENETRATION. REFERENCE MEP AND STRUCTURAL DRAWINGS.
02.200	024296 - DEMOLISH EXISTING PORTION OF CONCRETE STAIRS AND FRONT LANDING, REFERENCE CIVIL DRAWINGS. *
02.201	024296 - DEMOLISH EXISTING RUNNELS, REFERENCE CIVIL DRAWINGS (N-+/-74 LF, E-+/-108 LF, S-+/-41 LF, W-+/-6 LF: TOTAL +/-229 LF).
02.202	024296 - 103 MECHANICAL: DEMOLISH EXISTING CONCRETE PADS UNDER EQUIPMENT, REFERENCE MEP DRAWINGS (QTY 2 LARGE AND 1 SMALL).
02.203	024296 - DEMOLISH EXISTING EXTERIOR HANDRAIL, SUPPORTS AND ANCHORS.
02.204	024296 - DEMOLISH EXISTING PORTION OF RAMP SLAB, REFERENCE CIVIL DRAWINGS.
02.220	024296, 028333 - 105 WOMEN'S COOLING ROOM: DEMOLISH THE EXISTING RESTROOM IN THE NORTHEAST CORNER. REMOVE ALL WALLS, DOOR, FIXTURES, PIPING, AND ASSOCIATED ANCHORS AND HARDWARE.
02.221	105 WOMEN'S COOLING ROOM: EXISTING CHASE TERRAZZO BASE TO REMAIN IN PLACE. CAREFULLY REMOVE ALL DEBRIS WITHIN THE SHAFT AND PREP FOR NEW MEP UTILITIES AND NEW FRAMING. REFERENCE MEP DRAWINGS.
02.222	105 WOMEN'S COOLING ROOM: EXISTING CHASE TILED WALL AND TERRAZZO BASE TO REMAIN IN PLACE. CAREFULLY REMOVE ALL DEBRIS WITHIN THE SHAFT AND PREP FOR NEW MEP UTILITIES AND NEW FRAMING. REFERENCE MEP DRAWINGS.
02.230	024296, 028333 - 106, 107, & 111: DEMOLISH EXISTING METAL FRAMING, DRYWALL, INSULATION AND ALL ASSOCIATED ANCHORS.
02.232	024296 - ROOM 111: DEMOLISH EXISTING TILE FLOORING AND GROUT(+/-200 SF).
02.250	024119, 024296 - 109 SUNPORCH: CAREFULLY DEMOLISH EXISTING NON-HISTORIC RAMP SLAB AND TILE (+/-135 SF). SURROUNDING FINISHES AND STRUCTURE THAT ARE TO REMAIN SHALL BE PROTECTED.
02.251	024296 - 109 SUNPORCH: CAREFULLY REMOVE THROUGH-WALL GRILLES IN NORTH AND SOUTH WALLS (2 EA). PROTECT SURROUNDING FINISHES DURING REMOVAL.
02.252	024296 - 109 SUNPORCH: CAREFULLY REMOVE EXISTING BASE WALL RADIATORS, PIPES, AND ASSOCIATED ANCHORS, REFERENCE MEP DRAWINGS. PROTECT QUARRY TILE FLOORING DURING REMOVAL
02.265	017329, 024296 - 115/116: CUT A HOLE INTO THE EXISTING CHASE WALL TO ALLOW ACCESS FOR INSTALLING NEW MEP SYSTEMS. THE HOLE SHOULD BE CLEAN CUT AND ALLOW FOR AN EASY INSTALLATION OF ACCESS DOOR. PROVIDE SUPPORT AS REQUIRED FOR INSTALLATION. PRIOR TO CUTTING HOLE, COORDINATE THE REQUIRED HEIGHT OF HOLE WITH MEP ALL TRADES. REFERENCE MEP DRAWINGS.
02.270	024296 - 117 CLOAKROOM: REMOVE EXISTING BUILT-IN DUCT IN NORTHWEST CORNER OF ROOM, REFERENCE MEP DRAWINGS.
02.271	024296 - 117 CLOAKROOM: REMOVE RECEPTACLES AND ALARM PANELS, REFERENCE MEP (3 EA).
02.680	024296 - EXTERIOR ABA RAMP: EXISTING ABA RAMP FOUNDATION TO REMAIN. CAREFULLY DEMOLISH EXISTING RAMP SLAB AND RAILINGS IN THEIR ENTIRETY, REFERENCE CIVIL DRAWINGS.
05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY, REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 28 OF 286

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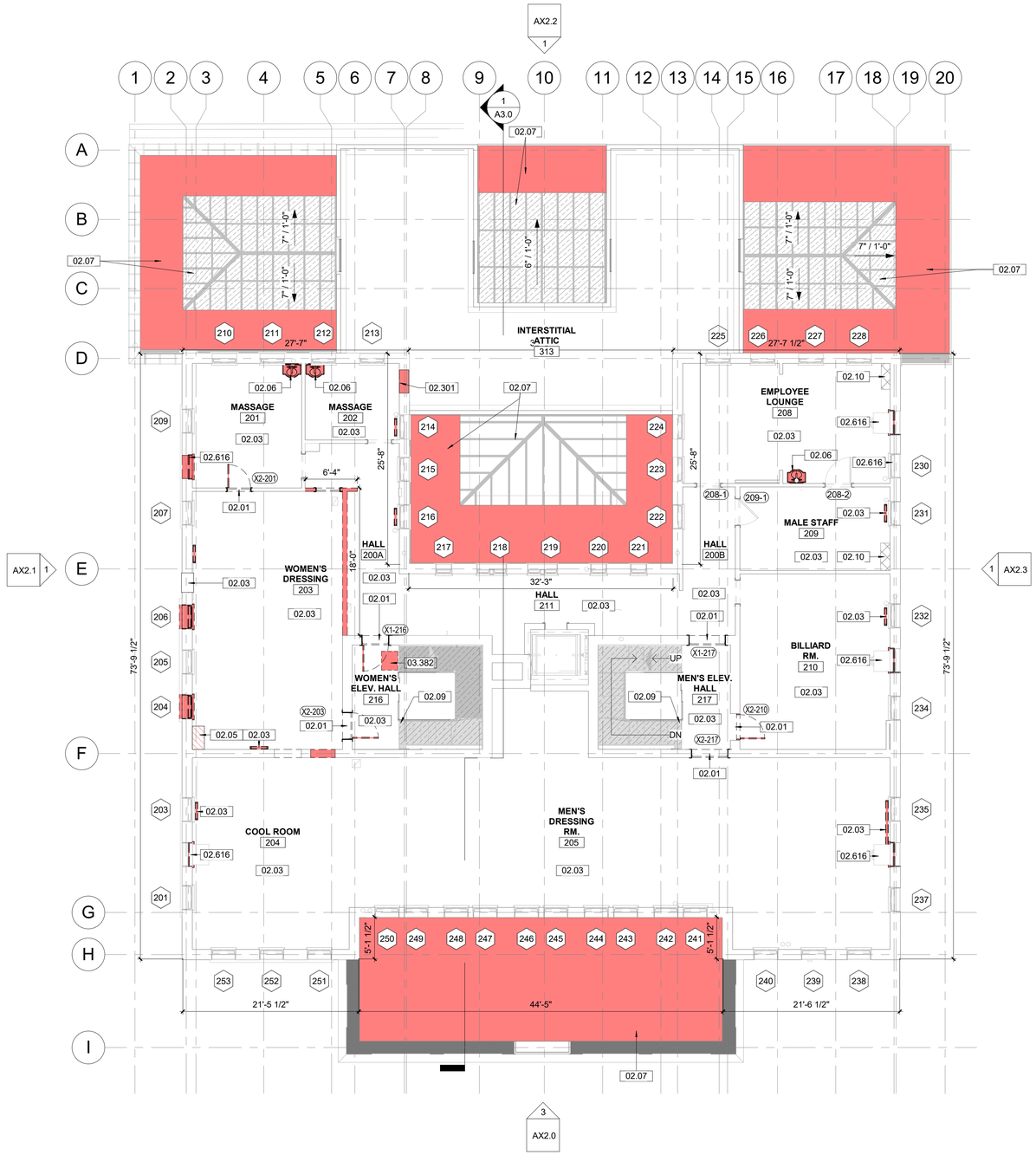

1 AX1.2 Demolition Second Floor Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

11/6/2023 5:41:38 PM

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KEYNOTES

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02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.05	024296, 028333 - CAREFULLY DEMOLISH HISTORIC SHAFT, INCLUDING TERRAZZO BASE, BY CREATING A SMOOTH CUT AT THE BOTTOM OF THE BASE. CUT TO BE FLUSH WITH ADJACENT FLOOR.
02.06	013591, 024296, 028333 - CAREFULLY REMOVE AND SALVAGE ALL HISTORIC PLUMBING FIXTURES TO BE GIVEN TO THE PARK FOR STORAGE, TYPICAL. "
02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.10	024296, 028212, 028333, 017329 - CUT NEW HOLE INTO EXISTING FLOOR SLAB FOR NEW MEP PENETRATION. REFERENCE MEP AND STRUCTURAL DRAWINGS.
02.301	024296, 028212, 028333 - MASSAGE 202: DEMOLISH EXISTING MASONRY WALL FOR NEW DOOR INSTALLATION. REFERENCE DOOR SCHEDULE AND STRUCTURAL DRAWINGS.
02.616	024296 - CAREFULLY DEMOLISH MECHANICAL LOUVERS FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
03.382	033000, 096613 - STAIR 216: INFILL HOLE IN FLOOR AND INSTALL TERRAZZO REPAIR AT STAIR LANDING. TERRAZZO TO MATCH EXISTING.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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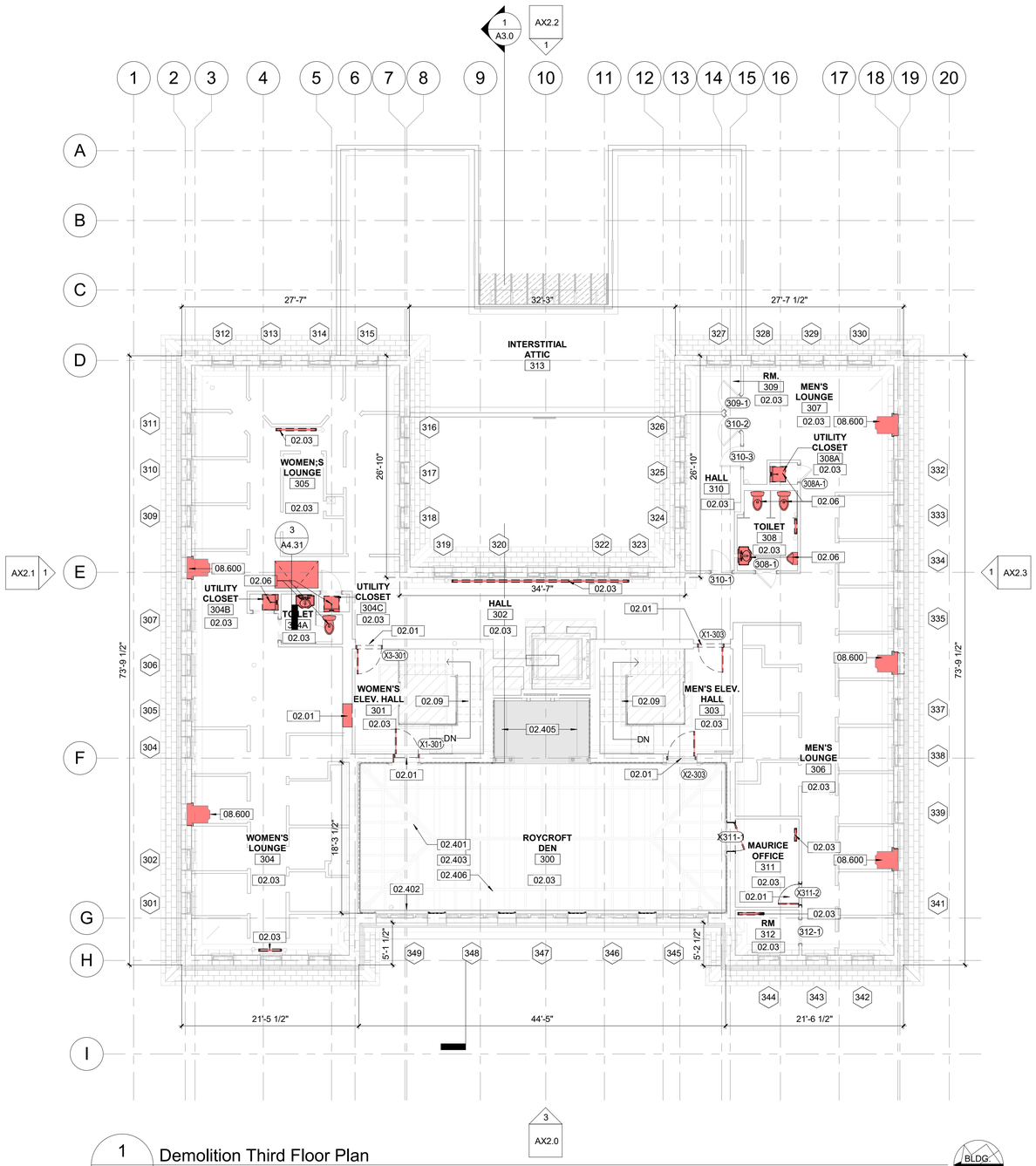
TECH. REVIEW:	AG
DATE:	10.27.2023

SUB SHEET NO. 01 AX1.2

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION SECOND FLOOR PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	29 OF 286



1 AX1.3 Demolition Third Floor Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

11/6/2023 5:41:41 PM

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE SCOPE OF DEMOLITION WORK IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION DRAWINGS. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL DEMOLITION WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. REMOVE ALL UNUSED AND/OR ABANDONED PIPE, CONDUIT, CONDUCTORS, SCREWS, NAILS AND FASTENERS IN THEIR ENTIRETY BACK TO THEIR ORIGINAL SOURCE.

C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.01	024296, 028333 - REMOVE EXISTING DOOR, FRAME AND ACCESSORIES. REFERENCE DOOR SCHEDULE AND SPECIFICATION.
02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.06	013591, 024296, 028333 - CAREFULLY REMOVE AND SALVAGE ALL HISTORIC PLUMBING FIXTURES TO BE GIVEN TO THE PARK FOR STORAGE, TYPICAL. "
02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.401	013591, 024296, 060312, 064023 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT, REMOVE AND LABEL ALL WOOD WALL CLADDING TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.402	024296, 028333 - 300 ROYCROFT ROOM: CAREFULLY REMOVE EXISTING RADIATORS TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.403	013591, 024296 - 300 ROYCROFT ROOM: CAREFULLY REMOVE AND RELABEL SALVAGED THERMOSTATS (2 EA). TO BE REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.405	013591, 024296, 060312, 064023 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT, REMOVE AND LABEL WOOD BENCHES IN NOOK TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.406	013591, 024296, 060312, 064023 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT, REMOVE AND LABEL WOOD CORNICE AT TOP OF WOOD WALL. CLADDING TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
08.600	088000, 099113, 099123 - INSTALL REPLICA WOOD WINDOW. REFERENCE WINDOW SCHEDULE. PREP, PRIME, AND PAINT. INSTALL NEW INTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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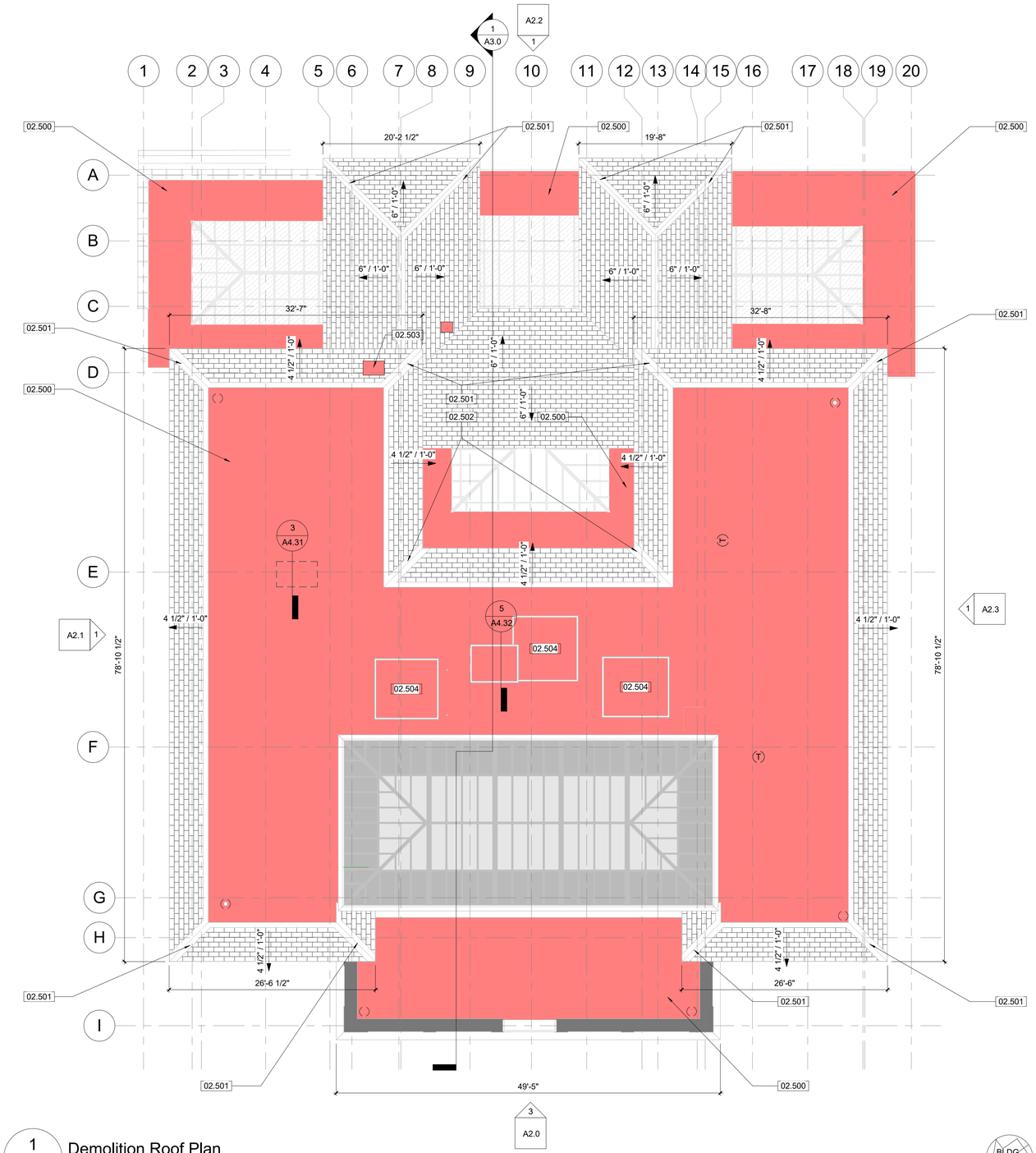
SUB SHEET NO. 01 AX1.3

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION THIRD FLOOR PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 30 OF 286



1 AX1.4 Demolition Roof Plan

1/8" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

11/6/2023 5:41:42 PM

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.500	024296 - REMOVE MEMBRANE ROOFING, INSULATION, AND ASSOCIATED FLASHING AT LOW SLOPE ROOF SURROUNDING TRANSLUCENT PANEL SKYLIGHTS, OVER SUN PORCH, AND AT THE MAIN ROOF.
02.501	024296 - REMOVE AND SALVAGE CLAY RIDGE CAP TILES, REMOVE CORRODED METAL FLASHING. (+/-135 LF)
02.502	024296 - REMOVE AND SALVAGE CLAY ROOFING TILES AT VALLEYS, REMOVE CORRODED METAL VALLEY FLASHING (+/-72 LF FLASHING)
02.503	024296 - REMOVE AND SALVAGE CLAY TILES IN LOCATION THAT CLAY TILE SLIPPED AND REVEALED DETERIORATED WOOD SHEATHING BELOW (3 SF).
02.504	024296 - REMOVE MEMBRANE ROOFING, INSULATION, AND ASSOCIATED FLASHING AT ROOF TOWERS.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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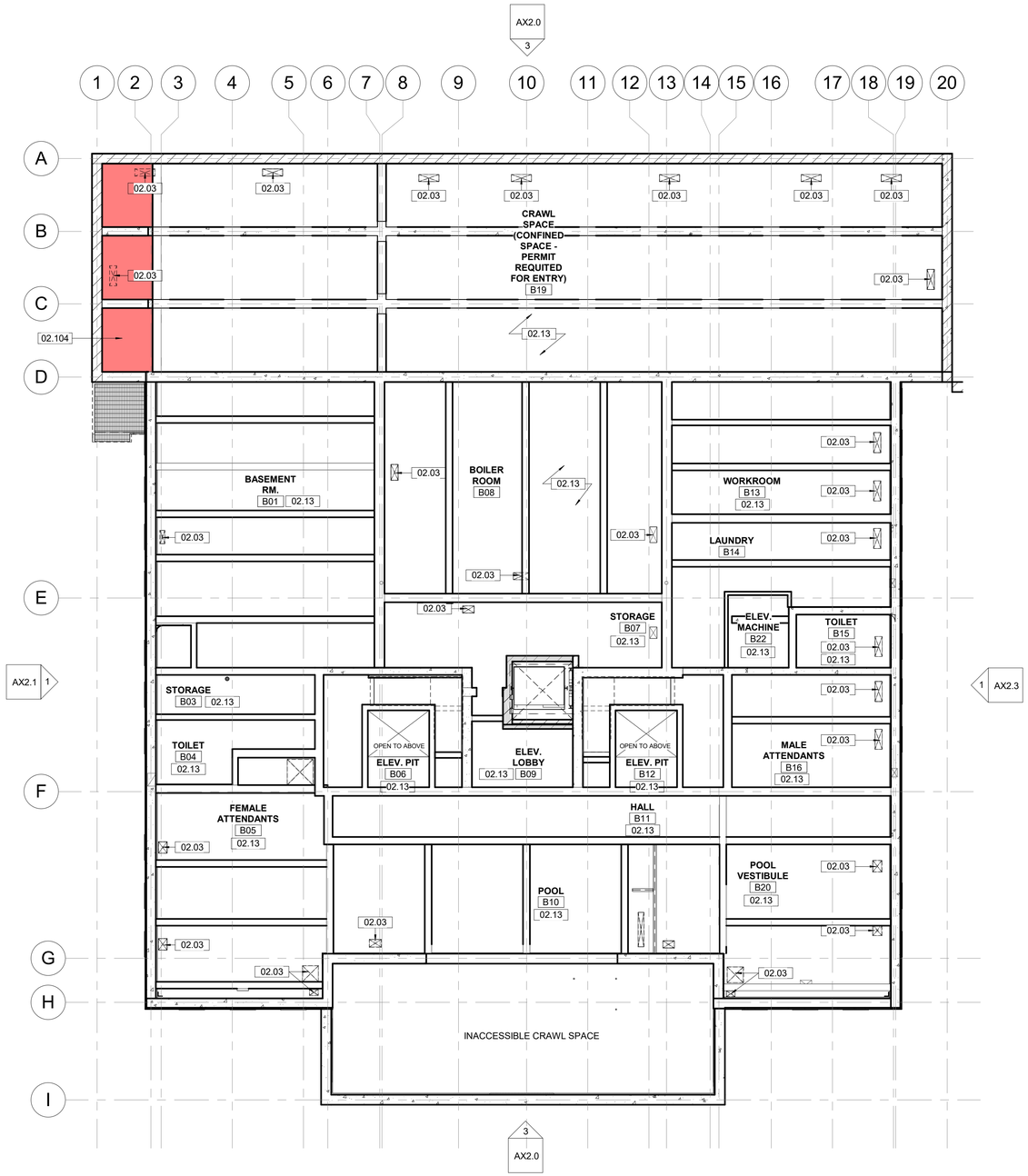
SUB SHEET NO. 01 AX1.4

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION ROOF PLAN

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	31 OF 286



1 AX1.20 Demolition Basement Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

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SCALE OF FEET

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E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.13	030130.52 - REFERENCE STRUCTURAL DRAWINGS FOR AREAS OF REPAIRS TO THE EXISTING UNDERSIDE OF SLAB ABOVE AND STRUCTURAL CONCRETE BEAMS.
02.104	024296 - DEMOLISH EXISTING CONCRETE SLAB. REFERENCE STRUCTURAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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SUB SHEET NO. 01 AX1.20

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION BASEMENT REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 32 OF 286

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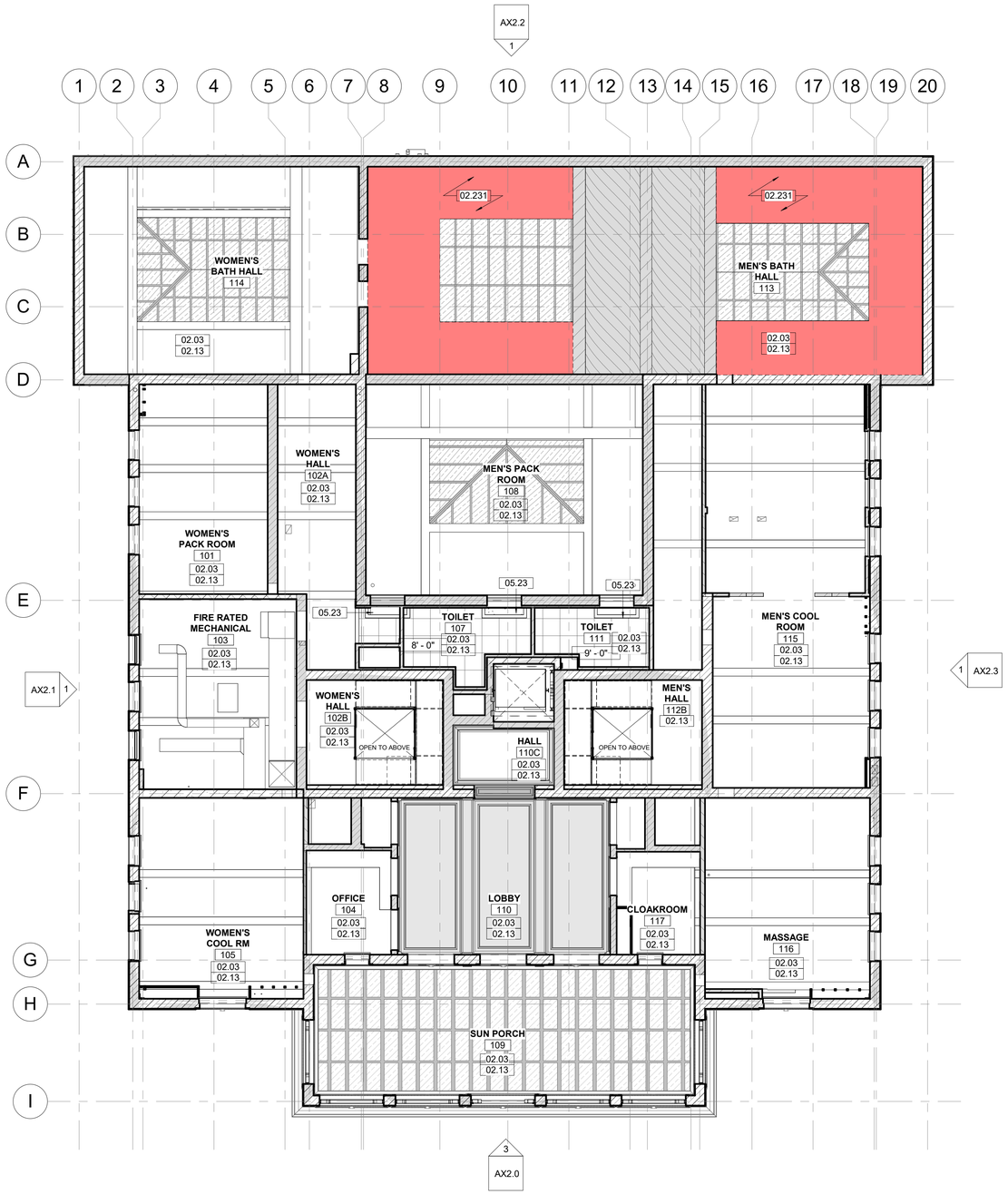

1
AX1.21 Demolition First Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

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SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

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E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.13	030130.52 - REFERENCE STRUCTURAL DRAWINGS FOR AREAS OF REPAIRS TO THE EXISTING UNDERSIDE OF SLAB ABOVE AND STRUCTURAL CONCRETE BEAMS.
02.231	024296, 028212, 028333 - ROOM 113: REMOVE TILES FROM FLAT PORTIONS OF CEILING (+/-568 SF). PROVIDE SHORING AS REQUIRED.
05.23	054000, 092900 - 107 & 111 RESTROOMS: INSTALL NEW METAL STUD WITH GYP FINISH WINDOW WELLS (24 LF).
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

DEMOLITION LEGEND

EXISTING WALL AND/OR CONSTRUCTION TO REMAIN

EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED

DAMAGED AND / OR DETERIORATED STUCCO

EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED

EXISTING CRACK IN STUCCO AND/OR PLASTER

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10.18.2023

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SUB SHEET NO. 01 AX1.21

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION FIRST FLOOR REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 33 OF 286

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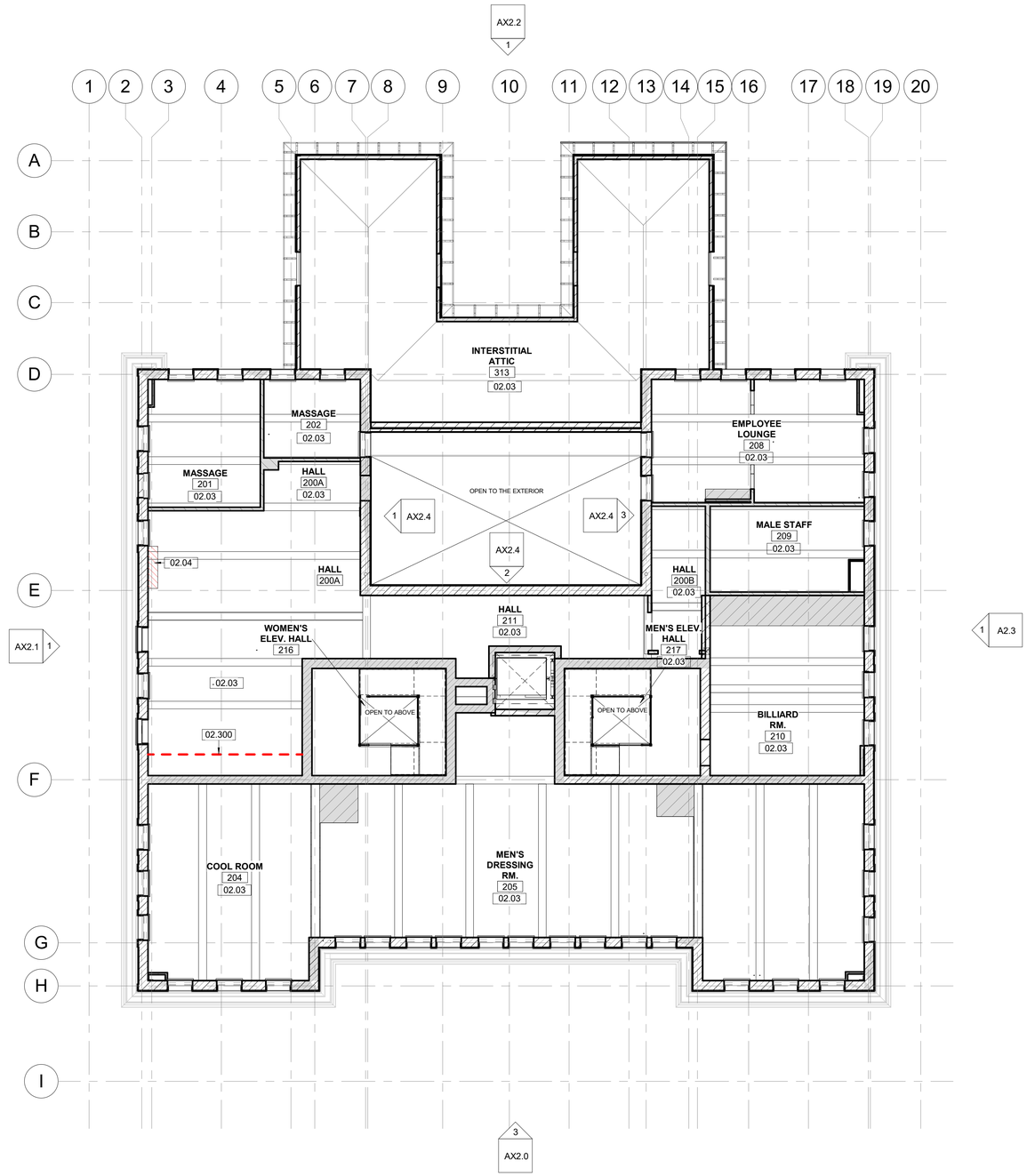

1 AX1.22 Demolition Second Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

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SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

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GENERAL NOTES - DEMOLITION:

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C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.04	024296, 028333 - DEMOLISH EXISTING RADIATOR AND ASSOCIATED ANCHORS AND PIPING. INFILL HOLES IN FLOORING, REFERENCE STRUCTURAL DRAWINGS.
02.300	024296, 028333 – CAREFULLY DEMOLISH BLACK IRON ABOVE AND ASSOCIATED ANCHORS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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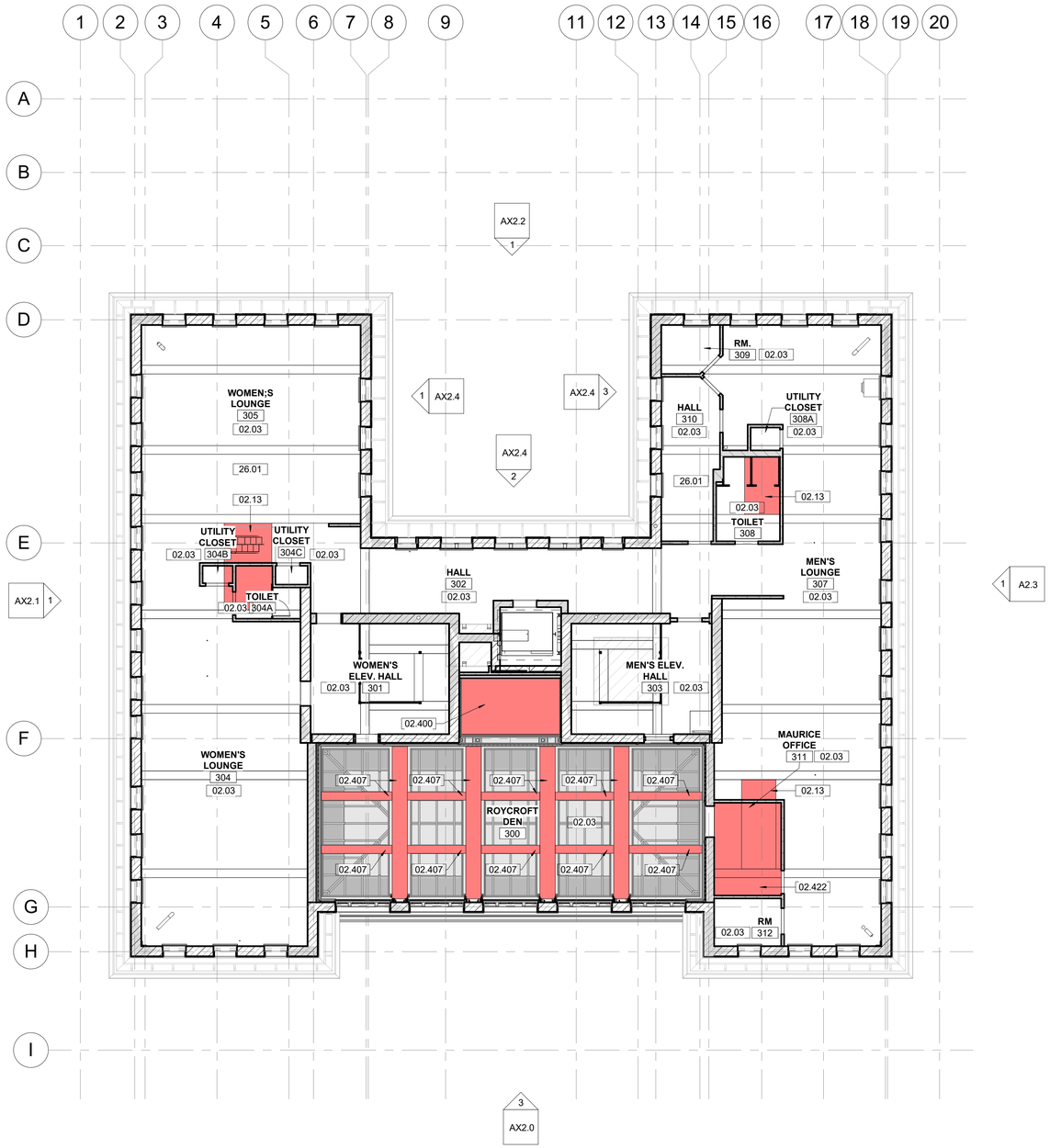
DATE: 10.27.2023

SUB SHEET NO. 01 AX1.22

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION SECOND FLOOR REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 34 OF 286



1 AX1.23 Demolition Third Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE A

BLDG.

SCALE A 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - DEMOLITION:

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E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

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02.13	030130.52 - REFERENCE STRUCTURAL DRAWINGS FOR AREAS OF REPAIRS TO THE EXISTING UNDERSIDE OF SLAB ABOVE AND STRUCTURAL CONCRETE BEAMS.
02.400	024296, 028212, 028333 - 300 ROYCROFT ROOM: CAREFULLY REMOVE REMNANTS OF GYPSUM BOARD CEILING AT NOOK (77 SF).
02.407	013591, 024296, 060312, 064023 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT, REMOVE AND LABEL WOOD LAYLIGHT CLADDING TO BE RESTORED AND REINSTALLED. REFERENCE STRUCTURAL TREATMENT DRAWINGS AND ARCHITECTURAL TREATMENT DRAWINGS.
02.422	013591, 024296 - 311 MAURICE OFFICE: REMOVE REMNANTS OF PLASTER CEILING.

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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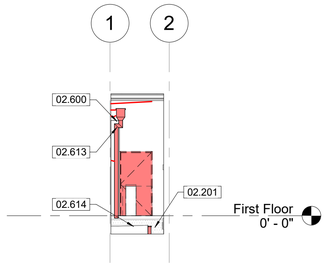
DATE: 10.27.2023

SUB SHEET NO. 01
AX1.23

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION THIRD FLOOR REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

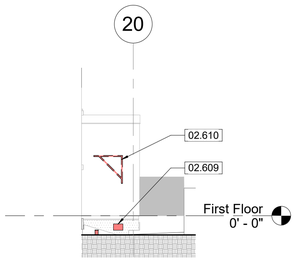
DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915
SHEET 35 OF 286

11/6/2023 5:41:48 PM



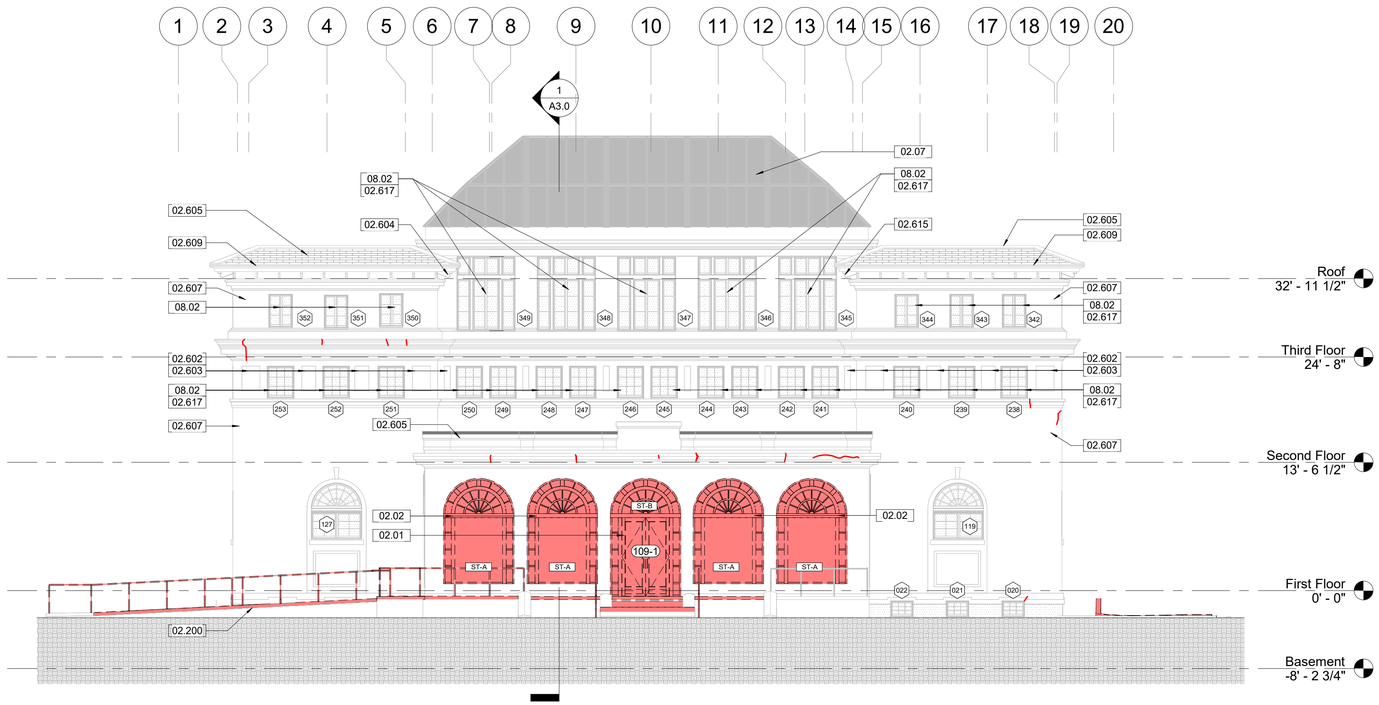
1 AX2.0 Demolition West Elevation - Northeast Corner

1/8" = 1'-0" SCALE (A)



2 AX2.0 Demolition West Elevation - Southeast Corner

1/8" = 1'-0" SCALE (A)



3 AX2.0 Demolition West Elevation

1/8" = 1'-0" SCALE (A)

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE SCOPE OF DEMOLITION WORK IS NOT LIMITED EXCLUSIVELY TO THE WORK INDICATED ON THE DEMOLITION DRAWINGS. THE CONSTRUCTION DOCUMENTS ARE PROVIDED AS A GENERAL GUIDE FOR DEMOLITION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL DEMOLITION WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK, REMOVE ALL UNUSED AND/OR ABANDONED PIPE, CONDUIT, CONDUCTORS, SCREWS, NAILS AND FASTENERS IN THEIR ENTIRETY BACK TO THEIR ORIGINAL SOURCE.

KEYNOTES

02.01	024296, 028333 - REMOVE EXISTING DOOR, FRAME AND ACCESSORIES. REFERENCE DOOR SCHEDULE AND SPECIFICATION.
02.02	024119 - REMOVE EXISTING STOREFRONT WINDOWS AND ASSOCIATED ANCHORS. BE CAREFUL TO LIMIT DAMAGE TO BOTH INTERIOR PLASTER AND EXTERIOR STUCCO. REFERENCE WINDOW SCHEDULE AND SPECIFICATIONS. CONTRACTOR TO DISPOSE OF STOREFRONT WINDOWS AND ASSOCIATED COMPONENTS.
02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.200	024296 - DEMOLISH EXISTING PORTION OF CONCRETE STAIRS AND FRONT LANDING, REFERENCE CIVIL DRAWINGS. *
02.201	024296 - DEMOLISH EXISTING RUNNELS, REFERENCE CIVIL DRAWINGS (N-+/-74 LF, E-+/-108 LF, S-+/-41 LF, W-+/-6 LF; TOTAL +/-229 LF).
02.600	024296 - REMOVE LOOSE AND OR DETERIORATED STUCCO, TYPICAL THROUGHOUT THE EXTERIOR WALLS (ROUGHLY 310 SF).
02.602	024296 - CAREFULLY REMOVE DAMAGED WALL TILES (50 EA).
02.603	024296 - CAREFULLY REMOVE CRACKED TILE GROUT (100 LF). REMOVE ALL LOOSE TILES. SALVAGE AND LABEL FOR REINSTALLATION.
02.604	024296 - REMOVE DAMAGED WOOD AT EAVES (10 SF VARIES LOCATIONS).
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
02.609	024296 - DEMOLISH WOOD COVERING AT HOLE (EAST OF BULKHEAD) AND ALL ASSOCIATED ANCHORS.
02.610	024296 - DEMOLISH METAL HANGER MOUNTED TO EXTERIOR WALL AND ASSOCIATED ANCHORS. PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
02.613	024296 - DEMOLISHING EXISTING DOWNSPOUT, AND ASSOCIATED ANCHORS. SCUPPER TO REMAIN.
02.614	024296 - DEMOLISH STONE, AND BRICK COVERING AT HOLE BELOW DOOR.
02.615	REMOVE NON-HISTORIC DEBRIS FROM EXTERIOR LEDGES, ROOF, AND EAVES, TYPICAL.
02.617	024296 - CAREFULLY DEMOLISH AND SALVAGE HISTORIC WOOD WINDOW FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

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10.18.2023

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DATE: 10.27.2023

SUB SHEET NO. 01 AX2.0

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION WEST ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 36 OF 286

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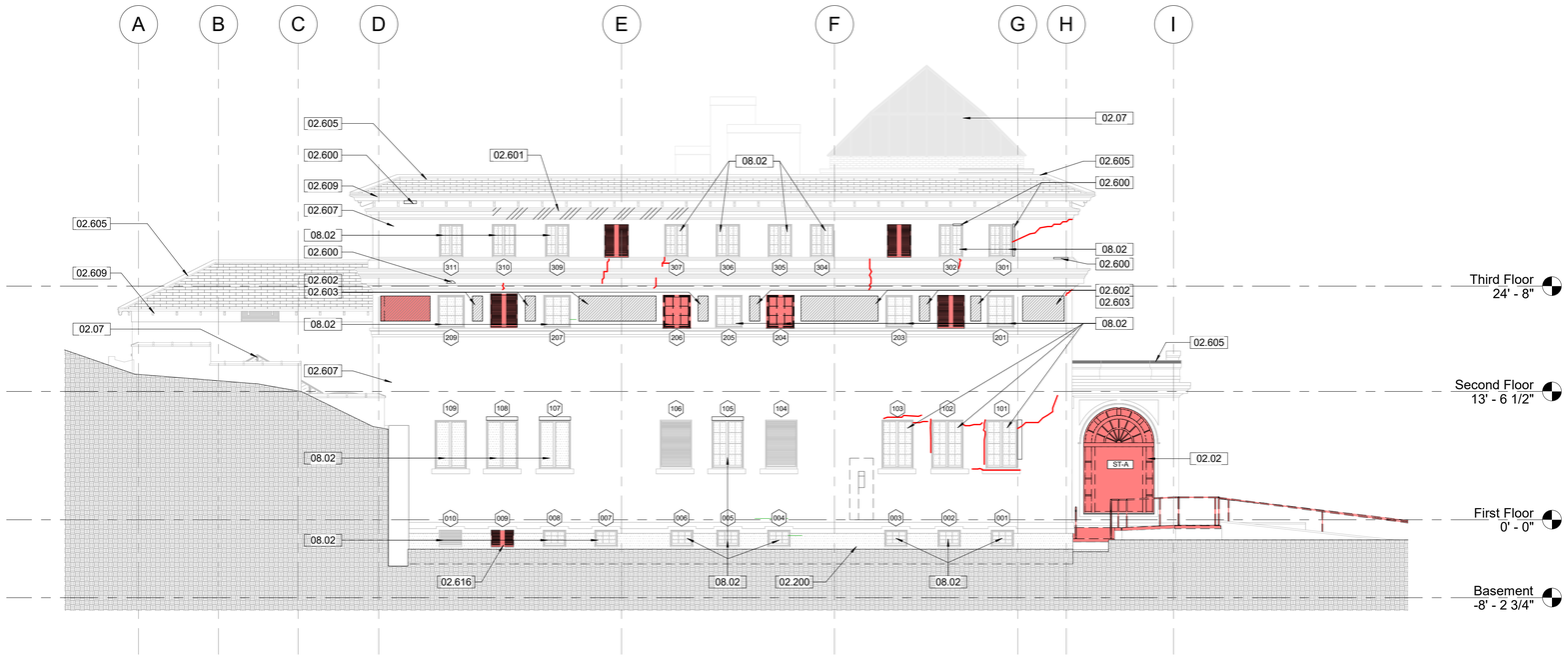

1
AX2.1
Demolition North Elevation
1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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KEYNOTES

02.02	024119 - REMOVE EXISTING STOREFRONT WINDOWS AND ASSOCIATED ANCHORS. BE CAREFUL TO LIMIT DAMAGE TO BOTH INTERIOR PLASTER AND EXTERIOR STUCCO. REFERENCE WINDOW SCHEDULE AND SPECIFICATIONS. CONTRACTOR TO DISPOSE OF STOREFRONT WINDOWS AND ASSOCIATED COMPONENTS.
02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.200	024296 - DEMOLISH EXISTING PORTION OF CONCRETE STAIRS AND FRONT LANDING, REFERENCE CIVIL DRAWINGS. "
02.600	024296 - REMOVE LOOSE AND OR DETERIORATED STUCCO, TYPICAL THROUGHOUT THE EXTERIOR WALLS (ROUGHLY 310 SF).
02.601	024296 - REMOVE BIOLOGICAL GROWTH FROM STUCCO (+/- 150 SF).
02.602	024296 - CAREFULLY REMOVE DAMAGED WALL TILES (50 EA).
02.603	024296 - CAREFULLY REMOVE CRACKED TILE GROUT (100 LF). REMOVE ALL LOOSE TILES. SALVAGE AND LABEL FOR REINSTALLATION.
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
02.609	024296 - DEMOLISH WOOD COVERING AT HOLE (EAST OF BULKHEAD) AND ALL ASSOCIATED ANCHORS.
02.616	024296 - CAREFULLY DEMOLISH MECHANICAL LOUVERS FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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SUB SHEET NO. 01 AX2.1

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION NORTH ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915
SHEET 37 OF 286

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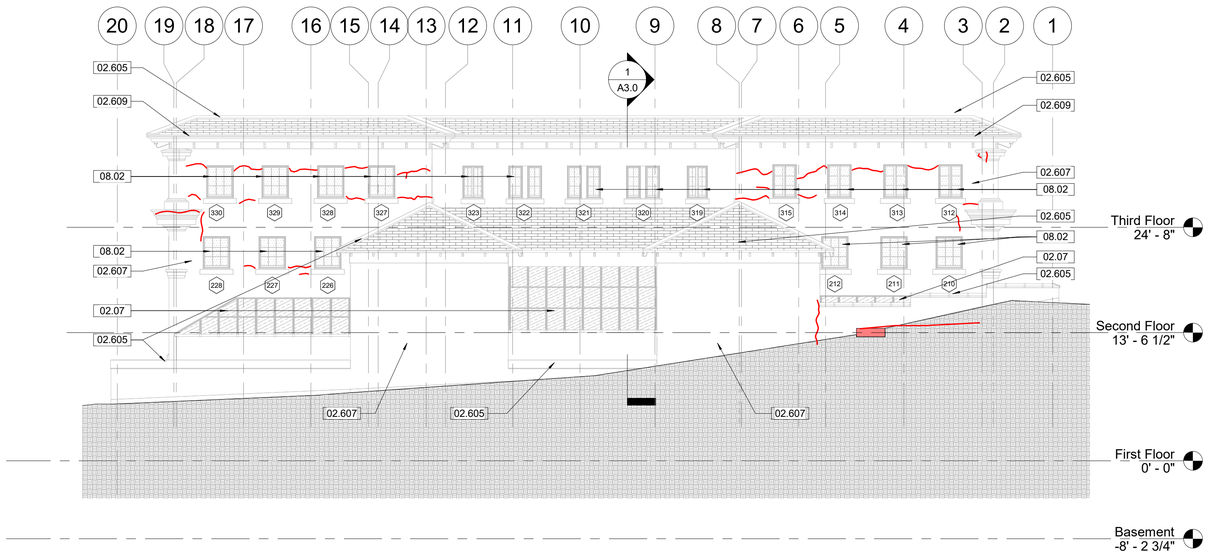

1 AX2.2 Demolition East Elevation

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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KEYNOTES

02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
02.609	024296 - DEMOLISH WOOD COVERING AT HOLE (EAST OF BULKHEAD) AND ALL ASSOCIATED ANCHORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION EAST ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128
182951
PMIS/PKG NO. 318915
SHEET 38 OF 286

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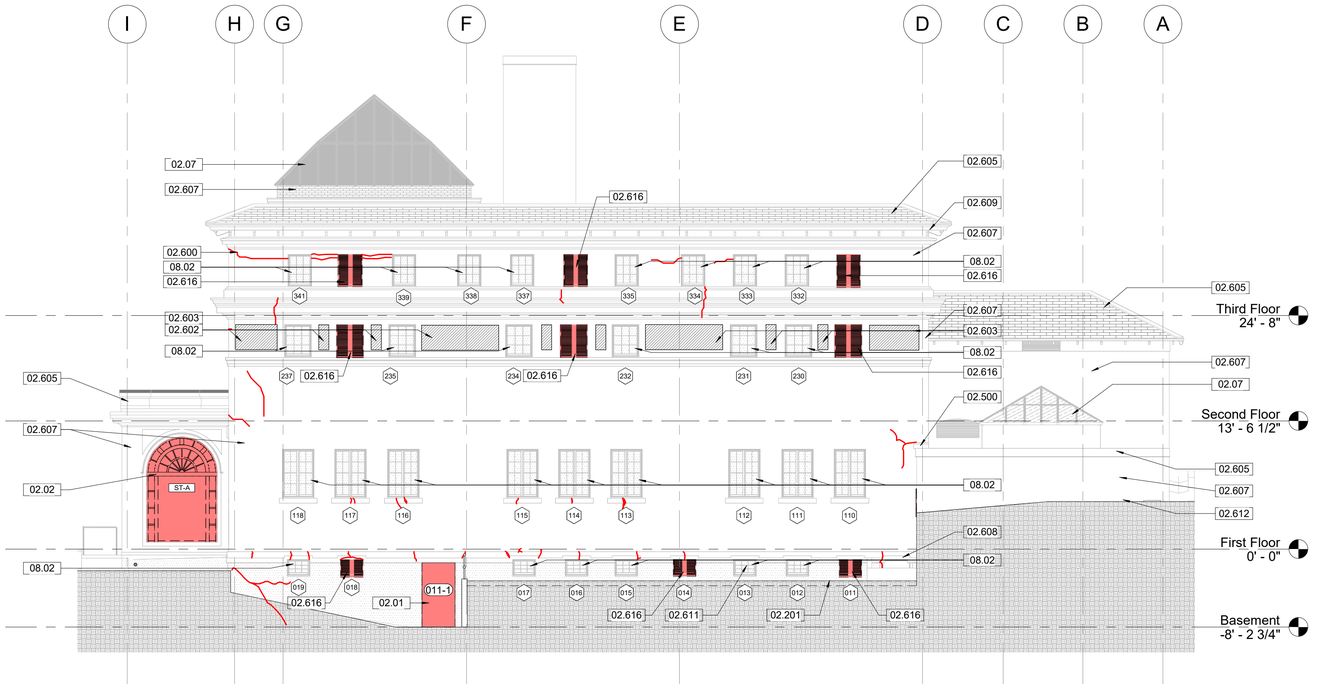

1
AX2.3
Demolition South Elevation
1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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KEYNOTES

02.01	024296, 028333 - REMOVE EXISTING DOOR, FRAME AND ACCESSORIES. REFERENCE DOOR SCHEDULE AND SPECIFICATION.
02.02	024119 - REMOVE EXISTING STOREFRONT WINDOWS AND ASSOCIATED ANCHORS. BE CAREFUL TO LIMIT DAMAGE TO BOTH INTERIOR PLASTER AND EXTERIOR STUCCO. REFERENCE WINDOW SCHEDULE AND SPECIFICATIONS. CONTRACTOR TO DISPOSE OF STOREFRONT WINDOWS AND ASSOCIATED COMPONENTS.
02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.201	024296 - DEMOLISH EXISTING RUNNELS, REFERENCE CIVIL DRAWINGS (N-+/-74 LF, E-+/-108 LF, S-+/-41 LF, W-+/-6 LF: TOTAL +/-229 LF).
02.500	024296 - REMOVE MEMBRANE ROOFING, INSULATION, AND ASSOCIATED FLASHING AT LOW SLOPE ROOF SURROUNDING TRANSLUCENT PANEL SKYLIGHTS, OVER SUN PORCH, AND AT THE MAIN ROOF.
02.600	024296 - REMOVE LOOSE AND OR DETERIORATED STUCCO, TYPICAL THROUGHOUT THE EXTERIOR WALLS (ROUGHLY 310 SF).
02.602	024296 - CAREFULLY REMOVE DAMAGED WALL TILES (50 EA).
02.603	024296 - CAREFULLY REMOVE CRACKED TILE GROUT (100 LF). REMOVE ALL LOOSE TILES. SALVAGE AND LABEL FOR REINSTALLATION.
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
02.608	024296 - DEMOLISH WOOD COVERING BULKHEAD AND ALL ASSOCIATED ANCHORS.
02.609	024296 - DEMOLISH WOOD COVERING AT HOLE (EAST OF BULKHEAD) AND ALL ASSOCIATED ANCHORS.
02.611	024296 - CAREFULLY REMOVE DAMAGED CONCRETE WINDOW SILL AT WINDOW 013 (1 EA).
02.612	024296 - DEMOLISH CONCRETE CAP, REFERENCE CIVIL DRAWINGS.
02.616	024296 - CAREFULLY DEMOLISH MECHANICAL LOUVERS FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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SUB SHEET NO. 01 AX2.3

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION SOUTH ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 39 OF 286

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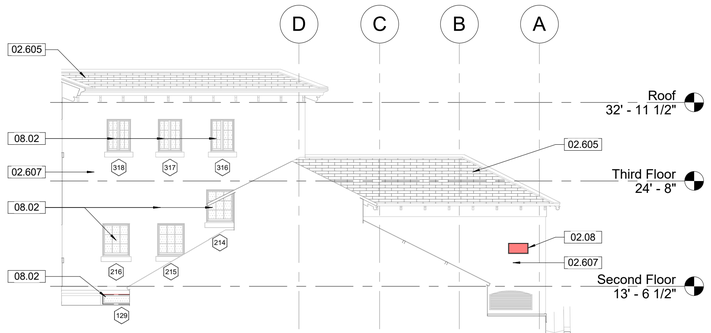
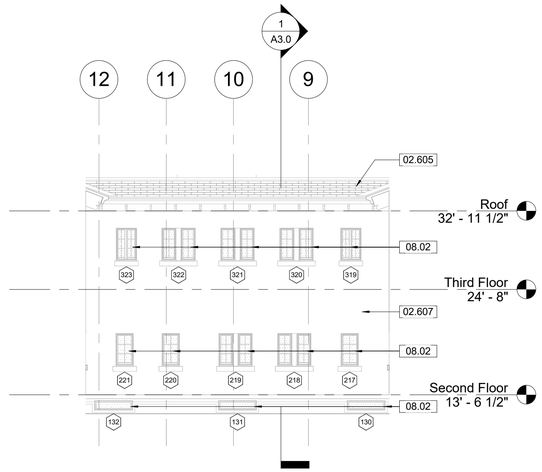


1 AX2.4 DEMOLITION Exterior Elevation - North Court

1/8" = 1'-0" SCALE (A)



2 AX2.4 DEMOLITION Exterior Elevation - West Court

1/8" = 1'-0" SCALE (A)

3 AX2.4 DEMOLITION Exterior Elevation - South Court

1/8" = 1'-0" SCALE (A)

4 AX2.4 DEMOLITION Exterior Elevation - East Court

1/8" = 1'-0" SCALE (A)

5 AX2.4 DEMOLITION EAST PARAPET WALL

1/8" = 1'-0" SCALE (A)

6 AX2.4 DEMOLITION NORTH PARAPET WALL

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - DEMOLITION:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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C. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

D. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

E. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.08	024296, 028333, 017329 - DEMOLISH EXISTING WALL FOR NEW MEP PENETRATION. REFERENCE MEP AND STRUCTURAL DRAWINGS. PROVIDE SHORING WHERE REQUIRED.
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."

DEMOLITION LEGEND

- EXISTING WALL AND/OR CONSTRUCTION TO REMAIN
- EXISTING WALL AND/OR CONSTRUCTION TO BE DEMOLISHED
- DAMAGED AND / OR DETERIORATED STUCCO
- EXISTING INTERIOR CONCRETE SLAB TO BE DEMOLISHED
- EXISTING CRACK IN STUCCO AND/OR PLASTER

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SUB SHEET NO. 01 AX2.4

TITLE OF SHEET
MAURICE BATHHOUSE
DEMOLITION COURT ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 40 OF 286

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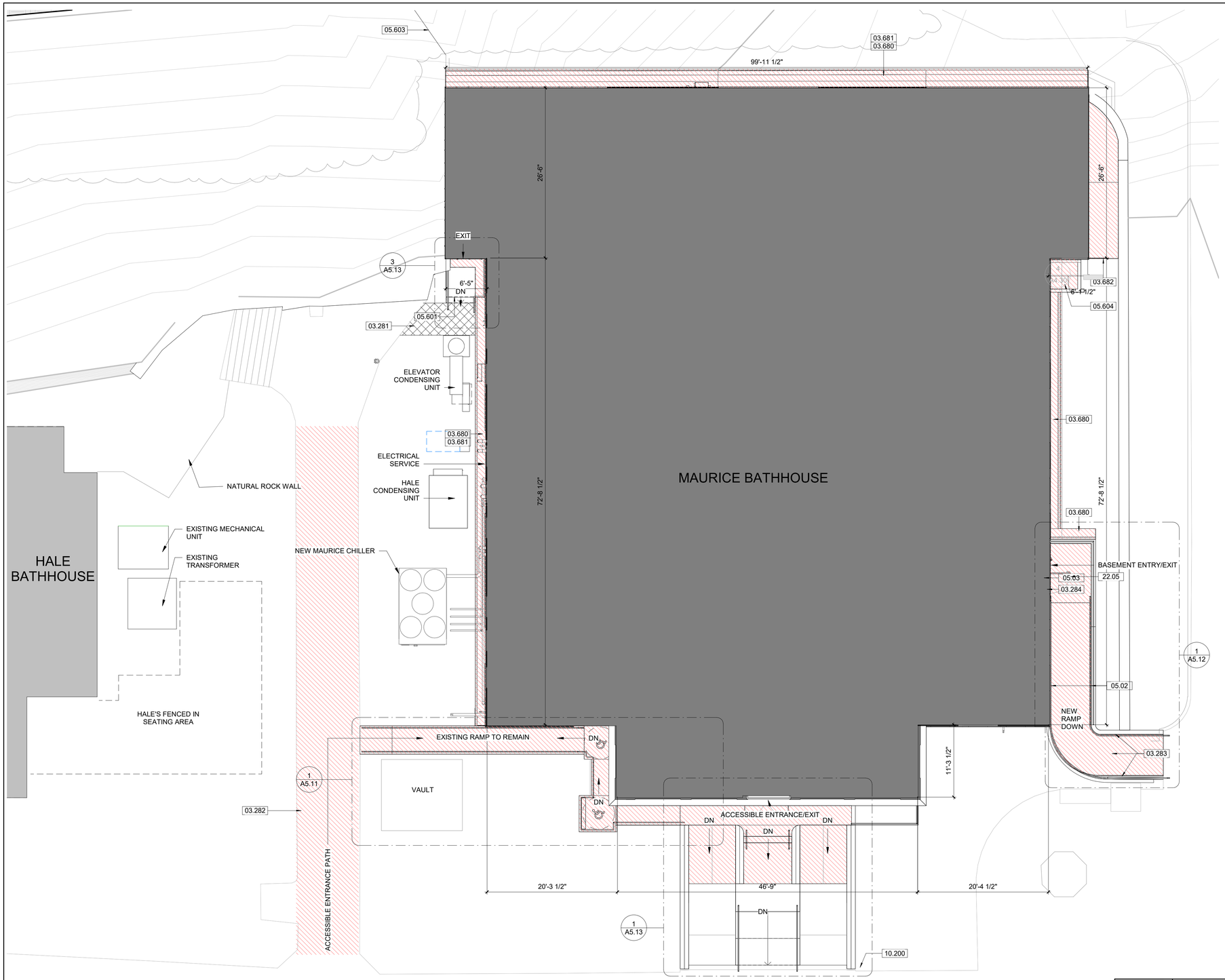

1 AS1.0 Proposed Architectural Site Plan

1/8" = 1'-0" SCALE (A)

BLDG SCALE (A)

0 2 4 6 8 16 32

SCALE OF FEET

11/6/2023 7:47:39 PM

GENERAL NOTES - TREATMENT:

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B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.281	033000 - PROVIDE CONCRETE LANDING AND SIDEWALK TO CONNECT NEW EGRESS STAIR AND EXISTING PAVED SIDEWALK, REFERENCE CIVIL DRAWINGS.
03.282	033000 - REMOVE AND REPLACE CONCRETE SIDEWALK DISTURBED FOR MECHANICAL UNIT RELOCATION, REFERENCE CIVIL DRAWINGS.
03.283	033000 - REPLACE CONCRETE RAMP TO BASEMENT LEVEL WITH EXPANDED RAMP AND LOWER LANDING, REFERENCE CIVIL AND STRUCTURAL DRAWINGS.
03.284	033000 - REPLACE CONCRETE RETAINING WALLS AT NEW BASEMENT LEVEL RAMP. REFERENCE CIVIL AND STRUCTURAL DRAWINGS.
03.680	033000 - INSTALL NEW CONCRETE RUNNELS, REFERENCE CIVIL DRAWINGS.
03.681	033000 - INSTALL NEW CONCRETE RUNNEL CURBS, REFERENCE CIVIL DRAWINGS.
03.682	033000 - EXTERIOR: NEW CONCRETE CAP, REFERENCE CIVIL. FILL WILL BE REQUIRED PRIOR TO INSTALLING NEW CAP.
05.02	055213, 099123 - INSTALL NEW GALVANIZED METAL HANDRAILS. PREP, PRIME AND PAINT.
05.03	055213, 099113 - INSTALL NEW GALVANIZED METAL GUARDRAIL. PREP, PRIME, AND PAINT.
05.601	051200, 055213, 099123 - INSTALL NEW PAINTED METAL EGRESS LANDING, STAIR, GUARDRAIL, AND HANDRAIL AT NORTHEAST EGRESS DOOR, REFERENCE ARCHITECTURAL FLOOR PLANS.
05.603	EXTERIOR: INSTALL CHAIN LINK FENCE, REFERENCE CIVIL AND LANDSCAPING DRAWINGS.
05.604	INSTALL NEW METAL PLATE COVER OVER BULKHEAD AND ALL ASSOCIATED ANCHORS.
10.200	101423 - EXTERIOR SIGN INSTALLED DIRECTING VISITORS TO THE ABA RAMP AT THE NORTH.
22.05	INSTALL DRAINAGE AT THE BASE OF NEW RAMP, REFERENCE CIVIL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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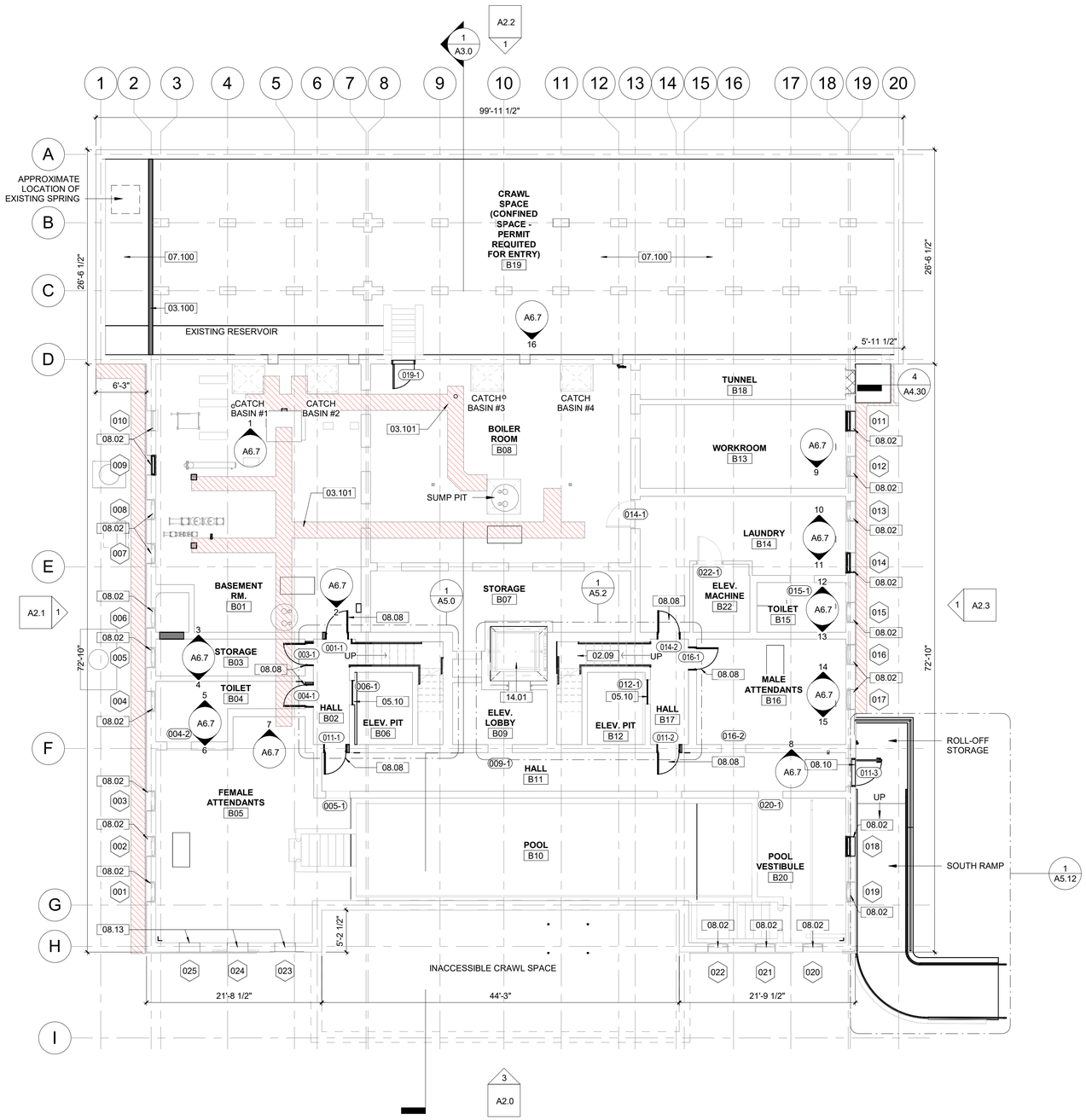
REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900
DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023
SUB SHEET NO.	01 AS1.0
TITLE OF SHEET	MAURICE BATHHOUSE ARCHITECTURAL SITE PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	41 OF 286



1 A1.0 Proposed Basement Floor Plan

1/8" = 1'-0" SCALE (A)

BLDG.

SCALE (B) 0 1 2 4 8 16 SCALE OF FEET

SCALE (A) 0 2 4 6 8 16 32 SCALE OF FEET

GENERAL NOTES - TREATMENT:

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C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
03.100	030130.52, 033000 - CRAWL SPACE: INSTALL NEW CONCRETE WALL WITH OVERFLOW, REFERENCE STRUCTURAL.
03.101	030130.52, 033000 - INSTALL NEW CONCRETE AT BASEMENT SLAB, REFERENCE MEP AND STRUCTURAL DRAWINGS. TOP OF NEW CONCRETE SLAB TO ALIGN WITH EXISTING FLOOR SLAB, TYPICAL.
05.10	051200 - INSTALL NEW EXTERIOR GALVANIZED STAIR AND LANDING TO SPAN NEW CONCRETE RUNNEL, REFERENCE STRUCTURAL DRAWINGS. STAIR CONFIGURATION TO BE APPROVED BY CO PRIOR TO INSTALLATION.
07.100	072600 - CRAWL SPACE: INSTALL NEW HEAVY-DUTY VAPOR BARRIER THROUGHOUT ENTIRE CRAWLSPACE, PER SPECIFICATIONS. REFERENCE MEP AND STRUCTURAL DRAWINGS FOR ADDITIONAL WORK REQUIRED WITHIN THE CRAWL SPACE.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
08.08	081113, 087100 - INSTALL 1-HR FIRE RATED HOLLOW METAL DOOR AND HOLLOW METAL FRAMES, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.10	081113, 087100 - INSTALL INSULATED HOLLOW METAL DOOR AND FRAME, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.13	EXISTING WINDOWS ARE INFILLED AND WILL REMAIN INFILLED.
14.01	142400 - REFURBISH EXISTING ELEVATOR CAB AND INSPECT/REPAIR CONTROLS AND OPERATING MECHANISMS, REFERENCE SPECIFICATIONS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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REGISTERED ARCHITECT — REBECCA GAEBLER — License Number 10286 — STATE OF ARKANSAS — 10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET, SUITE 100
KANSAS CITY, MO
T: 816.474.0900

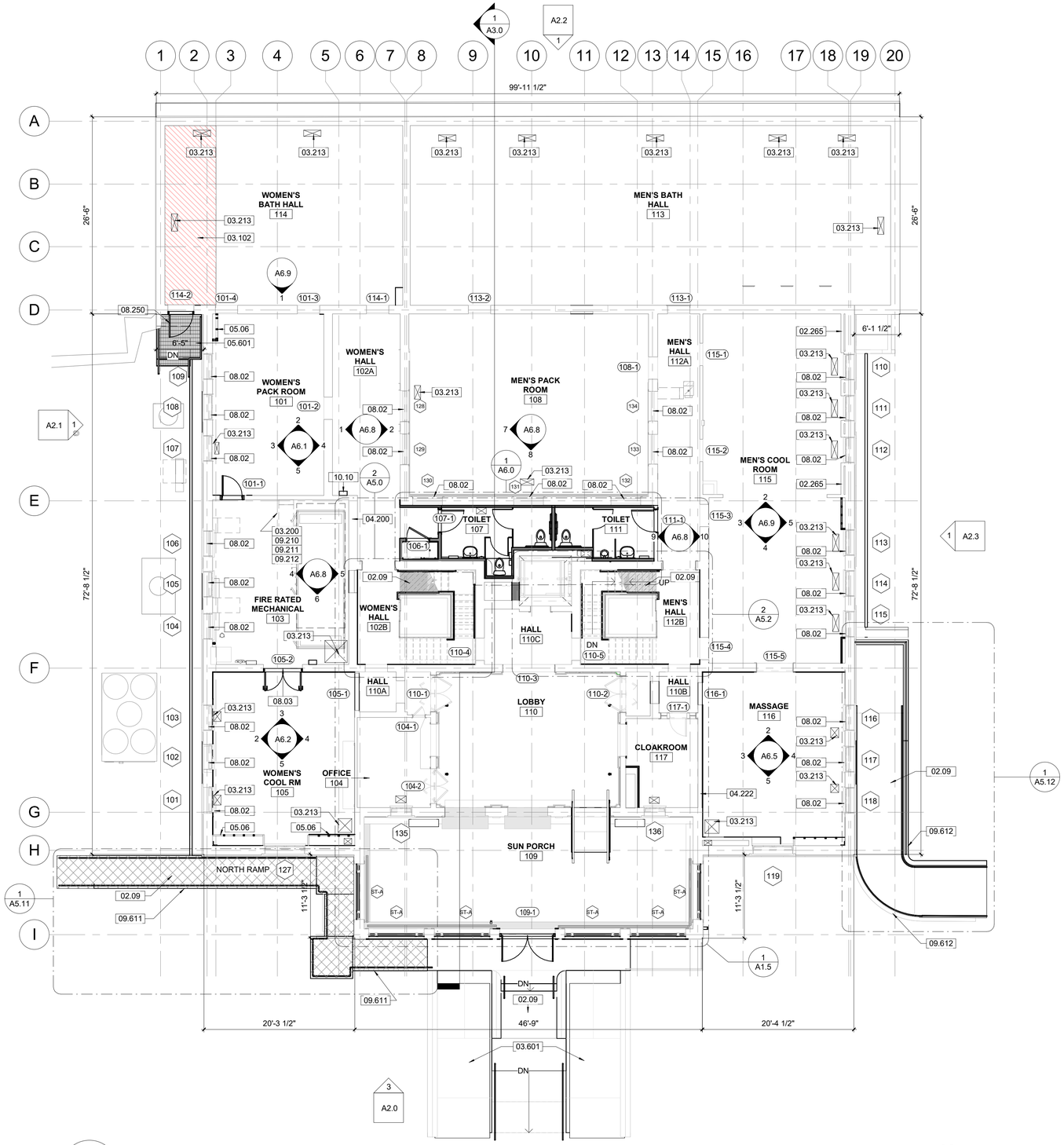
DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A1.0

TITLE OF SHEET
MAURICE BATHHOUSE
BASEMENT FLOOR PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 42 OF 286

11/6/2023 5:38:28 PM



1 A1.1 Proposed First Floor Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - TREATMENT:

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KEYNOTES

02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.265	017329, 024296 - 115/116: CUT A HOLE INTO THE EXISTING CHASE WALL TO ALLOW ACCESS FOR INSTALLING NEW MEP SYSTEMS. THE HOLE SHOULD BE CLEAN CUT AND ALLOW FOR AN EASY INSTALLATION OF ACCESS DOOR. PROVIDE SUPPORT AS REQUIRED FOR INSTALLATION. PRIOR TO CUTTING HOLE, COORDINATE THE REQUIRED HEIGHT OF HOLE WITH MEP ALL TRADES. REFERENCE MEP DRAWINGS.
03.102	030130.52, 033000 - INFILL CONCRETE SLAB, REFERENCE STRUCTURAL DRAWINGS.
03.200	030130.52, 033000 - 103 MECHANICAL: INFILL HOLES IN FLOOR CUT FOR GRILLS, PIPES, OR DUCTS WITH REINFORCED CONCRETE (24 SF - SCATTERED).
03.213	030130.52, 033000 - INFILL HOLES IN FLOOR CUT FOR GRILLES, PIPES, OR DUCTS WITH REINFORCED CONCRETE, REFERENCE STRUCTURAL DRAWINGS (16 SF).
03.601	033000, 030130.52 - REPAIR CONCRETE RAMP WHERE EXISTING HANDRAILS WERE DEMOLISHED. CONCRETE PATCH TO BE FLUSH WITH EXISTING RAMP CONCRETE. REFERENCE STRUCTURAL DRAWINGS.
04.200	040323 - 103 MECHANICAL: REPAIR HOLES THROUGH MASONRY AND PLASTER WALLS WITH NEW BRICK OR CMU INFILL (25 SF).
04.222	040323 - MASSAGE 116: PATCH HOLE IN NORTH MASONRY WALL (4 SF).
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.601	051200, 055213, 099123 - INSTALL NEW PAINTED METAL EGRESS LANDING, STAIR, GUARDRAIL, AND HANDRAIL AT NORTHEAST EGRESS DOOR, REFERENCE ARCHITECTURAL FLOOR PLANS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
08.03	081113, 087100 - INSTALL FIRE RATED HOLLOW METAL FRAME AND METAL DOUBLE DOORS, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.250	087100, 099113 - 114 WOMEN'S BATH HALL: DOOR 2/114 - INSTALL NEW HARDWARE ON EXIT DOOR. PREP, PRIME, AND PAINT EXISTING DOOR AND FRAME (1 EA)
09.210	092300 - 103 MECHANICAL: REPAIR HOLES IN PLASTER WALLS WITH NEW PLASTER (40 SF)
09.211	096613 - 103 MECHANICAL: PATCH TERRAZZO FLOORING WITH CONCRETE WHERE CONCRETE FLOOR HAS BEEN PATCHED (24 SF), ALL FLOOR INFILL FOR MECHANICAL 103 PER STRUCTURAL TO BE FLUSH WITH UNDERSIDE OF SLAB AND TOP OF FINISH FLOOR.
09.212	099123 - 103 MECHANICAL: PREP, PRIME, AND PAINT ALL WALLS.
09.611	099113 - PREP, PRIME, AND PAINT OUTSIDE FACE OF ABA RAMP TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
09.612	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING RETAINING WALL TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
10.10	104413, 104416 - INTERIOR: INSTALL WALL MOUNTED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS: PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A1.1	TITLE OF SHEET: MAURICE BATHHOUSE FIRST FLOOR PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 43 OF 286

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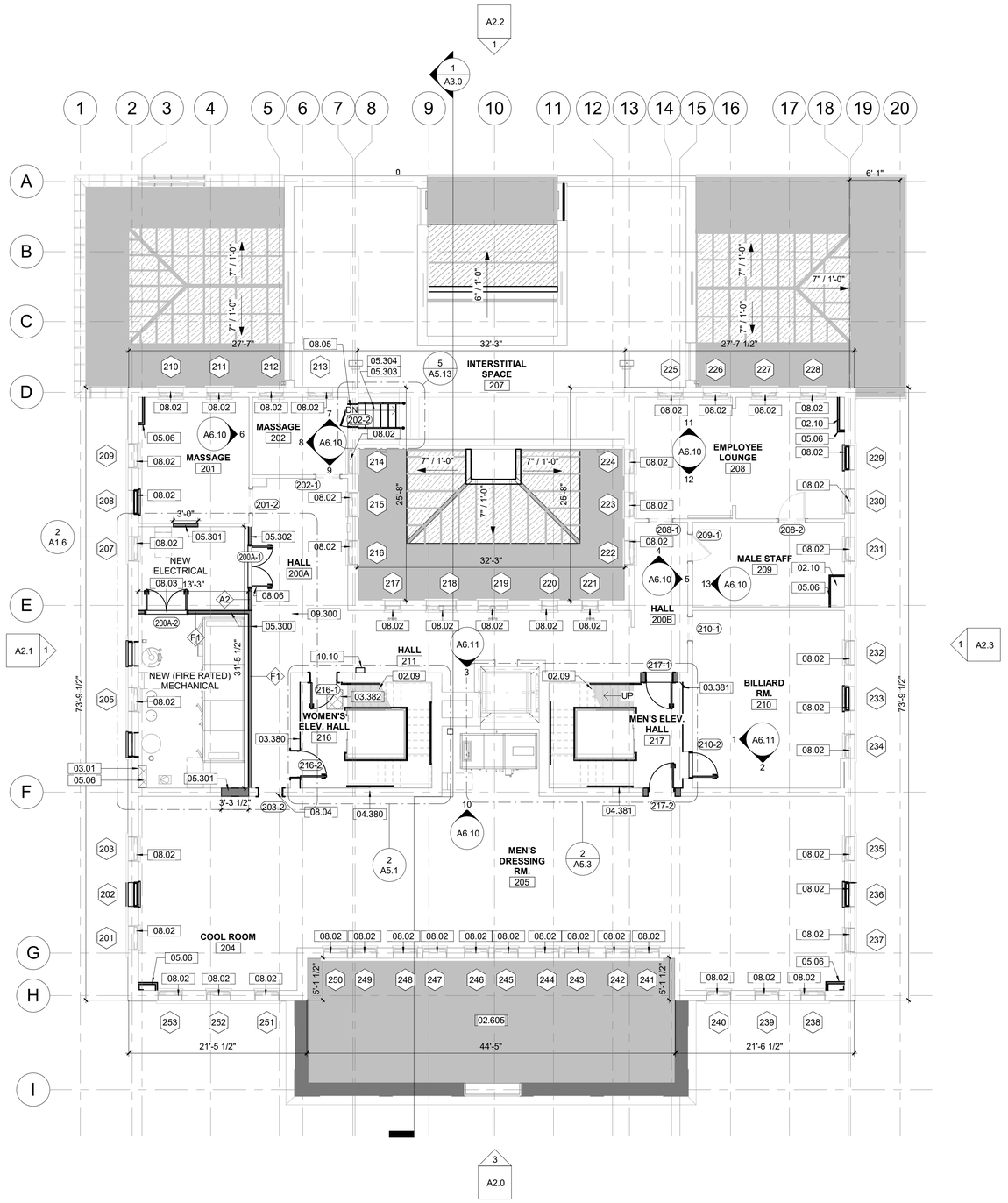

1 / A1.2 Proposed Second Floor Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

11/6/2023 5:38:34 PM

GENERAL NOTES - TREATMENT:

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KEYNOTES

02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
02.10	024296, 028212, 028333, 017329 - CUT NEW HOLE INTO EXISTING FLOOR SLAB FOR NEW MEP PENETRATION. REFERENCE MEP AND STRUCTURAL DRAWINGS.
02.605	REFERENCE ROOF PLAN FOR DEMOLITION REQUIRED AT ROOFS, TYPICAL
03.01	030130.52, 033000 - INFILL EXISTING OPENING IN FLOOR WITH CONCRETE, REFERENCE STRUCTURAL DRAWINGS. NEW INFILL TO SET DOWN FROM EXISTING FINISH FLOOR TO ALLOW FOR FUTURE INFILL. 03.01"
03.380	033000 - STAIR 216: INFILL SECTION OF CONCRETE WALL WHERE MISSING WITH MASONRY AND PLASTER ON NORTH, EAST, AND WEST SIDES (15 SF). REFERENCE STRUCTURAL DRAWINGS FOR TYPICAL INFILL DETAIL.
03.381	033000 - STAIR 217: INFILL SECTION OF CONCRETE WALL WHERE MISSING ON SOUTH AND EAST SIDES (+/-12 SF).
03.382	033000, 096613 - STAIR 216: INFILL HOLE IN FLOOR AND INSTALL TERRAZZO REPAIR AT STAIR LANDING. TERRAZZO TO MATCH EXISTING.
04.380	040323 - STAIR 216: INFILL SECTION OF BRICK WALL WHERE BRICK IS MISSING ON WEST SIDE (6 SF).
04.381	040323 - STAIR 217: INFILL SECTION OF BRICK WALL WHERE BRICK IS MISSING ON WEST SIDE (6 SF).
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.300	054000, 078443, 092900, 099123 - SECOND FLOOR MECHANICAL ROOM: INSTALL 6" FIRE RATED WALL. FIRE CAULK AND FIRE STOPS TO BE INCLUDED AT ALL WALL OPENINGS. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (35 LF)
05.301	054000, 092900, 099123 - SECOND FLOOR UTILITY ROOMS: INFILL EXISTING DOOR OPENINGS (48 SF).
05.302	054000, 092900, 099123 - SECOND FLOOR ELECTRICAL ROOM: INSTALL 6" WALL. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (10 LF)
05.303	051200 - INSTALL NEW METAL STAIR, REFERENCE STRUCTURAL DRAWINGS.
05.304	055213, 099123 - INSTALL NEW GALVANIZED METAL HANDRAILS. PREP, PRIME AND PAINT. VERIFY HEIGHT OF HANDRAIL IN FIELD.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
08.03	081113, 087100 - INSTALL FIRE RATED HOLLOW METAL FRAME AND METAL DOUBLE DOORS, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.04	081113, 081433, 087100 - INSTALL NEW DOOR, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.05	081113, 087100 - INSTALL NEW METAL ACCESS DOOR INTO INTERSTITIAL SPACE (1 LS). VERIFY HEIGHT OF DOOR IN FIELD. REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.06	081113, 087100 - INSTALL HOLLOW DOUBLE DOORS AND METAL FRAME. REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
09.300	096613 - SECOND FLOOR: INFILL WITH COMPLIMENTARY TERRAZZO WHERE EXISTING INTERIOR WALLS ARE REMOVED. TERRAZZO TO INCLUDE METAL ACCENT STRIPPING TO INDICATE THE LOCATIONS OF HISTORIC WALLS (+/-30 SF).
10.10	104413, 104416 - INTERIOR: INSTALL WALL MOUNTED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
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- NEW WALLS
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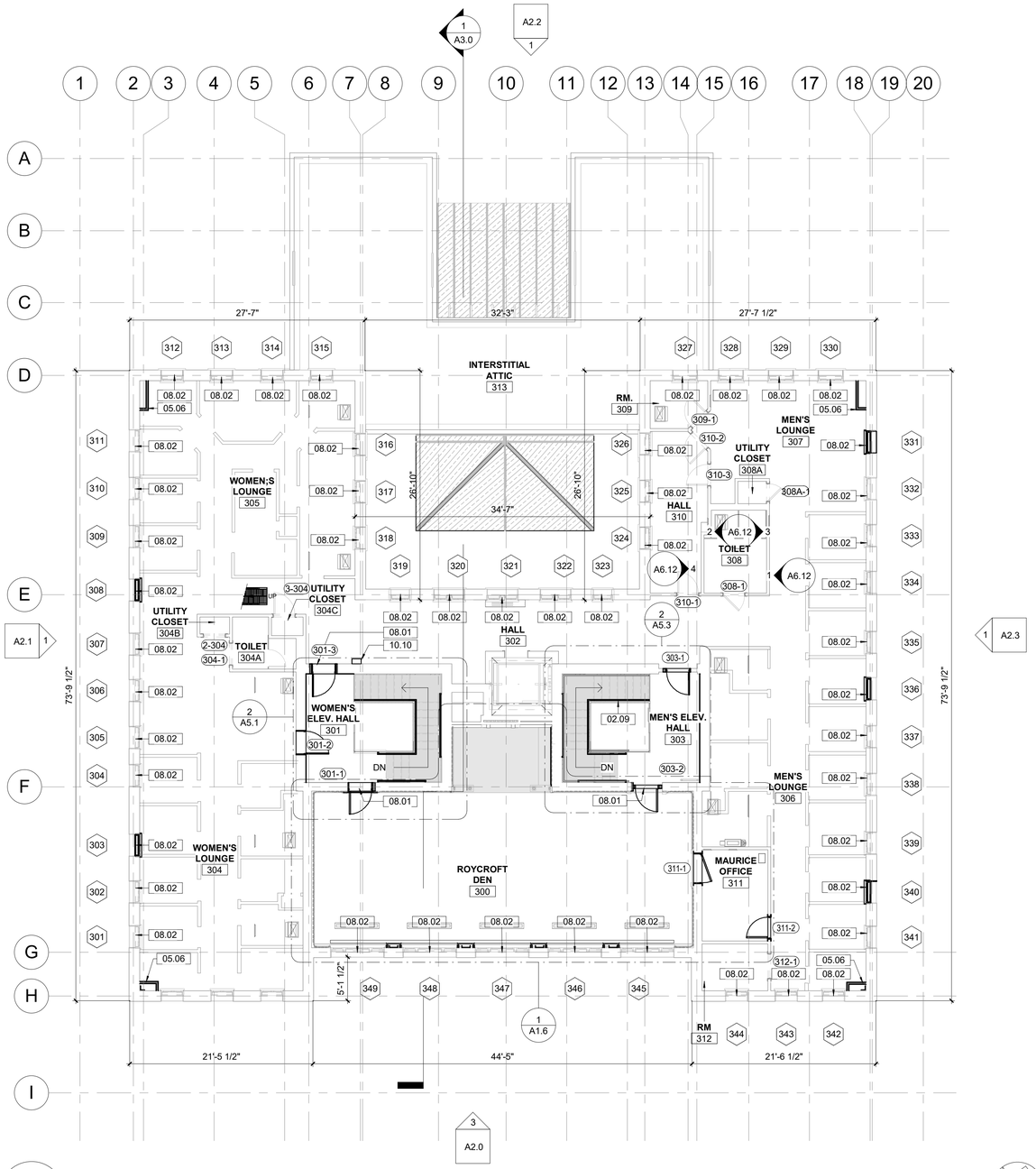

1 A1.3 Proposed Third Floor Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

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KEYNOTES

02.09	REFERENCE ENLARGE VERTICAL CIRCULATION PLANS FOR REQUIRED WORK, TYPICAL
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
10.10	104413, 104416 - INTERIOR: INSTALL WALL MOUNTED FIRE EXTINGUISHER CABINET AND FIRE EXTINGUISHER

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
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KANSAS CITY, MO
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DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023

SUB SHEET NO. 01 A1.3

TITLE OF SHEET
MAURICE BATHHOUSE
THIRD FLOOR PLAN

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	45 OF 286

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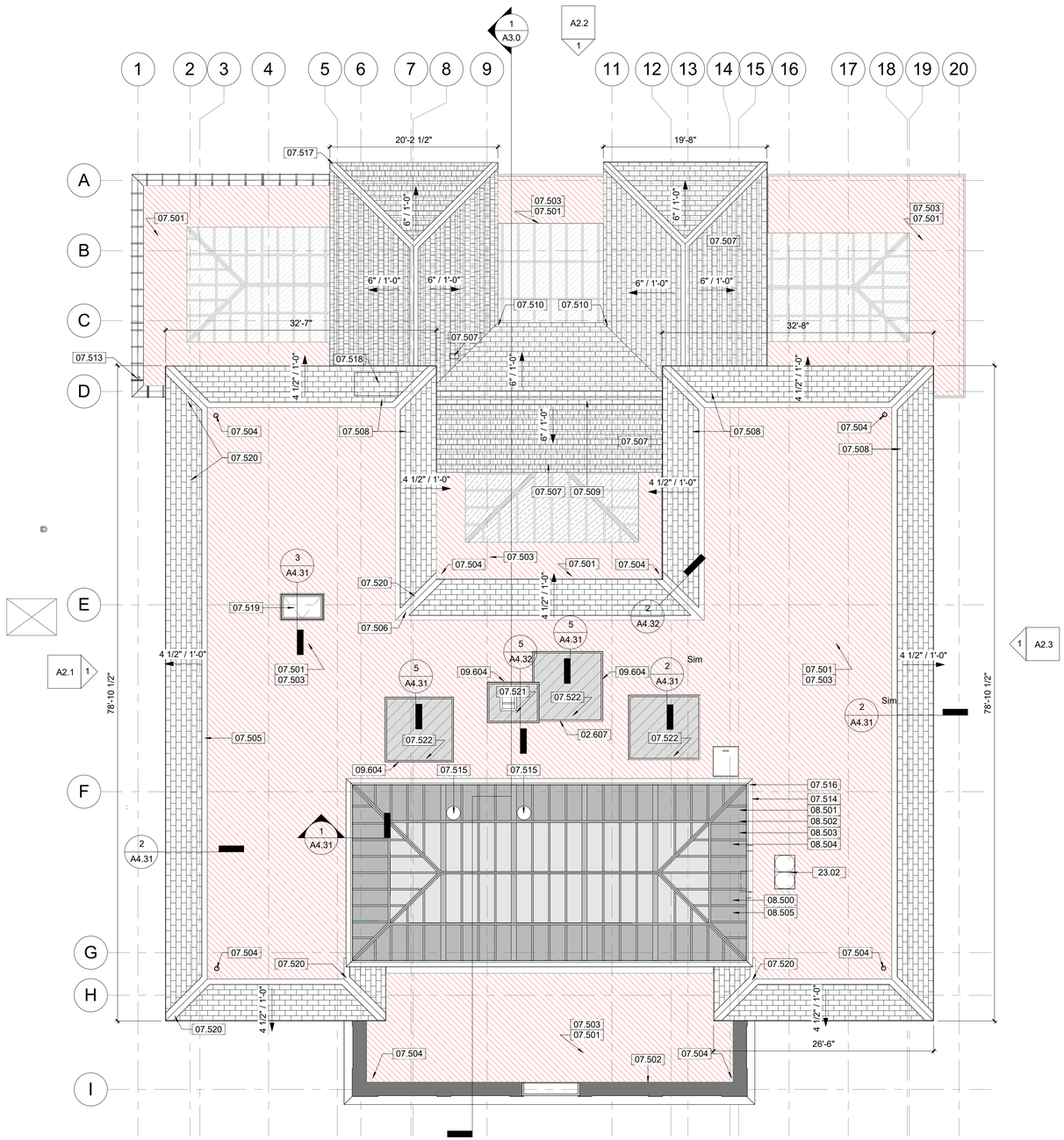

1 A1.4 Proposed Roof Plan

1/8" = 1'-0" SCALE (A)

BLDG

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

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KEYNOTES

02.607	024296 - CAREFULLY REMOVE ALL ABANDONED ANCHORS, TYPICAL THROUGHOUT THE EXTERIOR OF THE BUILDING (5 EA). PATCH STUCCO IN KIND. FINISH TO MATCH ADJACENT STUCCO.
07.501	070150.19, 071326, 075423, 076200 - PROVIDE MEMBRANE ROOFING, INSULATION, AND ASSOCIATED FLASHING AT LOW SLOPE ROOF SURROUNDING TRANSLUCENT PANEL SKYLIGHTS, OVER SUN PORCH, AND AT THE MAIN ROOF.
07.502	076200 - ROOF FLASHING AT SUN PORCH TO BE COPPER TO MATCH METAL OF EXISTING PARAPET CAP.
07.503	075423 - MODIFY SLOPE WITH ADDITION OF TAPERED INSULATION AT LOW-SLOPE ROOFING TO IMPROVE DRAINAGE.
07.504	077200 - REPLACE DRAIN STRAINER DOMES AT ROOF DRAINS (10 EA)
07.505	REPLACE CRACKED TERRA COTTA PARAPET CAP TILES (3 EA). REPLACEMENT TILES CAN BE ORDERED THROUGH SMALLORDERS@LUDOWICI.COM.
07.506	079200 - REPLACE DETERIORATED SEALANT AT COPPER PARAPET CAP FLASHING (25 LF)
07.507	REPLACE DAMAGED AND/OR LOOSE GREEN GLAZED VITRIFIED CLAY ROOF TILES - RIBBED PROFILE (+/-160 SF). REPLACEMENT TILES CAN BE ORDERED THROUGH SMALLORDERS@LUDOWICI.COM.
07.508	REPLACE DAMAGED AND/OR LOOSE GREEN GLAZED VITRIFIED CLAY ROOF TILES - FLAT PROFILE (+/-100 SF). REPLACEMENT TILES CAN BE ORDERED THROUGH SMALLORDERS@LUDOWICI.COM.
07.509	076200 - INSTALL NEW METAL FLASHING AT RIDGES, REINSTALL SALVAGED RIDGE CAP TILES (+/-135 LF).
07.510	076200 - INSTALL NEW METAL FLASHING ALONG VALLEYS, REINSTALL SALVAGED ROOFING TILES (+/-72 LF FLASHING, AND 96 SF ROOFING).
07.513	REPLACE TILE COPING WHERE VENT PIPING IS REMOVED, REFERENCE MEP DRAWINGS. REPLACEMENT TILES CAN BE ORDERED THROUGH SMALLORDERS@LUDOWICI.COM.
07.514	REMOVE EXISTING GUTTER LINING AND INSTALL NEW TPO GUTTER LINING AT PERIMETER OF ROYCROFT SKYLIGHT.
07.515	DEACTIVATE TURBINE WIND VENTILATORS. TURBINES TO REMAIN IN PLACE.
07.516	076200 - REPAIR SOUTHEAST CORNER OF THE METAL GUTTER WITH REPLACEMENT SECTIONS OF METAL TO MATCH EXISTING IN KIND.
07.517	REPLACE BROKEN AND MISSING END CAP AT BOTTOM OF ROOF RIDGE (1 TILE). REPLACEMENT TILES CAN BE ORDERED THROUGH SMALLORDERS@LUDOWICI.COM.
07.518	071326 - INSTALL NEW EXTERIOR RATED WOOD SHEATHING TO MATCH THE EXISTING WOOD ROOF SHEATHING IN THICKNESS. INSTALL ICE AND WATER SHIELD. REINSTALL EXISTING CLAY TILES. (3 SF)
07.519	077200 - INSTALL NEW INSULATED ROOF HATCH AND LADDER
07.520	REINSTALL LOOSE AND DROPPED CLAY TILES (+/-25 TILES).
07.521	040323, 092400 - REMOVE AND REPLACE CEMENT PARGE COATING IN KIND. SLOPE TO DRAIN TO EXTERIOR OF CHIMNEY. RESET AND REPOINT LOOSE BRICKS AND OPEN MORTAR JOINTS AT PERIMETER. ASSUME 18" DOWN INTO CHIMNEY TO BE REPOINTED. REPLACE ROUGHLY +/- 30 BRICKS TO MATCH EXISTING IN DIMENSION AND TYPE.
07.522	076200 - REPLACE ROOFING AND FLASHING IN KIND ON TOWERS.
08.500	088000 - REPLACE FOUR (4) BROKEN GLASS PANELS IN THE SKYLIGHT.
08.501	079200 - REPLACE ALL SEALANTS. TEMPORARILY REMOVE ALL MULLION COVERS TO REPLACE SEALANTS AND REINSTALL COVERS IN THEIR ORIGINAL LOCATIONS. REMOVE EXISTING RUSTED MULLION WIRE TIES AND REPLACE WITH NEW GALVANIZED FASTENERS. REPLACE MULLIONS THAT ARE RUSTED OR IN OVERALL POOR CONDITION WITH LIKE MULLIONS OF GALVANIZED METAL.
08.502	REMOVE EXISTING AND REPLACE ALL RUSTED BOLTS, SCREWS, AND OTHER FASTENERS AND INSTALL NEW GALVANIZED OR STAINLESS-STEEL FASTENERS. INSTALL WITH NEOPRENE WASHERS.
08.503	SPOT TREAT ALL AREAS OF RUST ON THE GALVANIZED SECTIONS OF METAL. CLEAN RUST TO BARE METAL, PREPARE THE METAL, AND TREAT WITH A ZINC-RICH PRIMER AND COATING TO PREVENT FURTHER DAMAGE.
08.504	PROVIDE ADDITIONAL SUPPORT ON THE INTERIOR FACE OF THE SKYLIGHT AT THE ROOF TRANSITION WHERE THE HORIZONTAL SUPPORTS ARE BOWING. INSTALL TWO (2) 10-FOOT LONG, NEW GALVANIZED METAL CHANNELS TO PREVENT FURTHER DAMAGE.
08.505	CONFIRM ALL WEEPS ARE OPEN AND DRAINING. INSTALL BUG SCREENS AT WEEPS, TYPICAL.
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
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DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023

SUB SHEET NO. 01 A1.4

TITLE OF SHEET
MAURICE BATHHOUSE
ROOF PLAN

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	46 OF 286

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TREATMENT PLAN LEGEND

REPLACEMENT MATERIAL INSTALLED

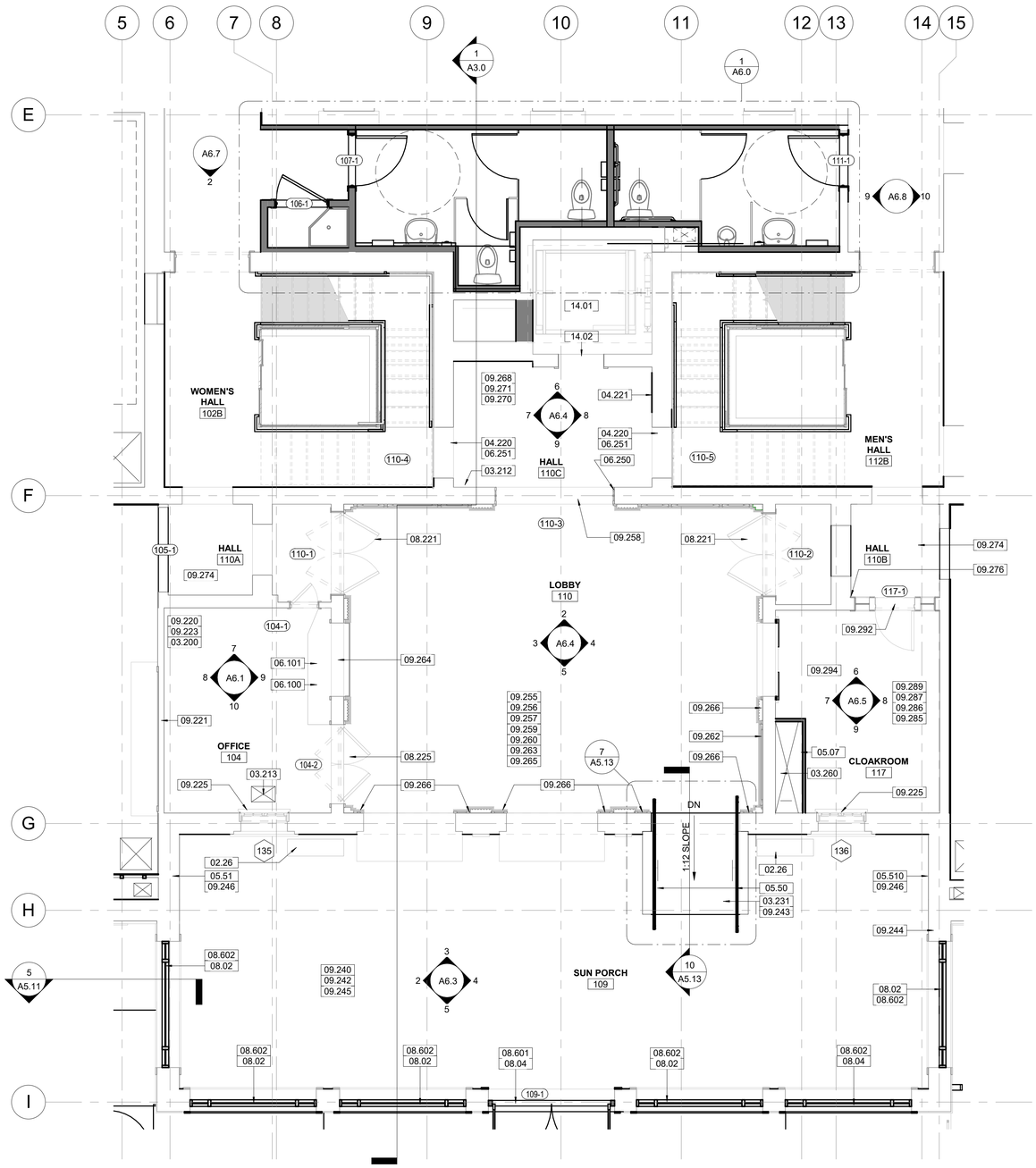
NEW MATERIAL INSTALLED

AREA REQUIRING RESTORATION DUE TO SIGNIFICANT STAINING

NEW WALLS

EXISTING WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.



1 / A1.5 Enlarged Floor Plan - First Floor West Entrance Area

1/4" = 1'-0" SCALE (A)

BLDG

SCALE: (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES.

D. PHOTOGRAPH AND VIDEO ALL PORTION OF THE WOOD PANELED WALLS, CEILING AND BEAMS IN THE LOBBY PRIOR TO WORK. PHOTOGRAPHS TO BE FLAT TO CAPTURE AS MUCH DETAIL AS POSSIBLE OF ALL SECTIONS OF THE FLAT CEILING, ALL SIDES AND BOTTOMS OF THE BEAMS, AND DECORATIVE PLASTERWORK. PROVIDE ADEQUATE LIGHTING TO THE DOCUMENTATION. PHOTOGRAPHS SHALL BE OF A RESOLUTION GREAT ENOUGH TO SEE DETAIL OF THE WOOD GRAINING AND LATER STENCILING THAT REMAINS INTACT. 02) 02.280 STRIP ALL UPPER LAYERS OF PAINT TO REVEAL THE WOOD GRAIN DECORATIVE PAINTED FINISH BELOW, TO SOUND PLASTER MATERIAL. STRIP ALL WAX FROM THE WOOD GRAIN PAINTED FINISH, IN ORDER FOR NEW PRIMERS AND PATCHES TO BOND TO THE SURFACE.

E. PROVIDE A MOCK-UP OF THE DECORATIVE WOOD GRAIN PAINTING TO MATCH THE EXISTING HISTORIC WOOD GRAIN PAINTING ON ALL SURFACE OF THE BEAMS AND PLASTER MOLDINGS WITH A WAX COATING. CORRECT MOCK-UP, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE WOOD GRAINING PATTERN, COLORS, BLENDING, AND FINISH ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES, PER SPECIFICATIONS.

F. PROVIDE MOCK-UP OF THE FLAT PAINTED CEILING COFFERS, PER THE HISTORIC PAINT REPORT. PROVIDE MOCK-UPS, PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED HISTORIC FINISHES ON THE BEAMS AND CEILINGS, ONLY AFTER ALL OTHER REHABILITATION WORK IN THE LOBBY HAS BEEN COMPLETED.

G. INSPECT HISTORIC STAINED FINISH AND CREATE TWO MOCK-UPS OF THE PROPOSED NEW STAINED FINISH, INCLUDING NEW WAXED TOP COATING. MOCK-UPS TO INCLUDE ONE FOR THE STRIPPED AND RESTORED HISTORIC WOOD PANELING AND ONE FOR THE NEW, REPLACEMENT WOOD PANELING. CORRECT MOCK-UPS, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE MOCK-UPS ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES, PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED STAINED AND WAXED FINISHES ON THE WOOD WALL PANELING.

H. HISTORIC WOOD PILASTER CAPITALS HAVE ALL BEEN REMOVED FROM THE ROOM. SEVERAL OF THE ORIGINAL CAPITALS ARE IN PARK ARCHIVAL STORAGE FOR REFERENCE OF HISTORIC FINISHES. EXISTING PILASTER CAPITALS ARE GFRC.

I. PROVIDE A MOCK-UP OF THE DECORATIVE WOOD GRAIN PAINTING TO MATCH THE EXISTING HISTORIC WOOD GRAIN PAINTING ON ALL SURFACES OF THE BEAMS AND PLASTER MOLDINGS AND THE ADJACENT WOOD PANELING AND PILASTERS, AND TOPPED WITH A WAX COATING. CORRECT MOCK-UP, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE WOOD GRAINING PATTERN, COLORS, BLENDING, AND FINISH ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES, PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED HISTORIC FINISHES ON THE PILASTER CAPITALS, ONLY AFTER ALL OTHER REHABILITATION WORK IN THE LOBBY HAS BEEN COMPLETED.

KEYNOTES

02.26	099123 - EXISTING RADIATOR TO REMAIN. PROTECT DURING CONSTRUCTION, PREP, PRIME AND PAINT.
03.200	030130.52, 033000 - 103 MECHANICAL: INFILL HOLES IN FLOOR CUT FOR GRILLS, PIPES, OR DUCTS WITH REINFORCED CONCRETE (24 SF - SCATTERED).
03.212	030130.52, 033000 - 110C ELEVATOR LOBBY: PATCH FLOORING WHERE PIPE IS REMOVED (1 SF).
03.213	030130.52, 033000 - INFILL HOLES IN FLOOR CUT FOR GRILLES, PIPES, OR DUCTS WITH REINFORCED CONCRETE, REFERENCE STRUCTURAL DRAWINGS (16 SF).
03.231	033000, 093013 - 109 SUNPORCH: REBUILD RAMP TO BE CONTINUOUS AND TO MEET ABA AND ADA REQUIREMENTS. REFERENCE STRUCTURAL DRAWINGS.
03.260	030130.52, 033000 - 117 CLOAKROOM: INFILL FLOOR WHERE MECHANICAL DUCT WAS REMOVED (6 SF).
04.220	040323 - 110C ELEVATOR LOBBY: SPOT REPOINT DOOR OPENINGS AND JAMBS AT NORTH AND SOUTH WALLS (36 SF).
04.221	040323, 081113 - 110C ELEVATOR LOBBY: CLEAN-UP EXISTING OPENING. INSTALL NEW METAL FRAME AND ACCESS DOOR. REPAIR PLASTER SURROUNDING NEW ACCESS DOOR.
05.07	054000 - INSTALL NEW METAL STUDS TO CREATE NEW CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.50	109 SUNPORCH: INSTALL RAILING ON NORTH AND SOUTH SIDES OF NEW RAMP (24 LF)
05.51	042000, 092400 - 109 SUNPORCH: INFILL GRILLE OPENING WITH NEW MASONRY TO MATCH. PATCH WALL FINISHES TO MATCH SURROUNDING STUCCO ON ROOM 109 SIDE (6 SF).
05.510	042000, 092400 - 109 SUNPORCH: INFILL GRILLE OPENING WITH NEW MASONRY TO MATCH. PATCH WALL FINISHES TO MATCH SURROUNDING STUCCO ON ROOM 109 SIDE (6 SF).
06.100	060312, 099300 - 104 OFFICE: REFINISH BUILT-IN DESK AND MAKE REPAIRS (REPLACE MISSING BACK IN CUBBY). ENSURE ALL DRAWERS AND DOOR WORK PROPERLY.
06.101	060312, 099300 - 104 OFFICE: REFRESH FINISH ON ALL MILLWORK.
06.250	061000 - 110C ELEVATOR LOBBY: REPLICATE AND REPLACE MISSING DOOR TRIM. TO MATCH EXISTING IN SPECIES, PROFILE, AND FINISH.
06.251	061000 - 110C ELEVATOR LOBBY: REPLICATE TWO WOOD DOOR FRAMES (2 EA). REFERENCE DETAIL.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
08.04	081113, 081433, 087100 - INSTALL NEW DOOR, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.221	099123 - 110 LOBBY: RESTORE FINISHES ON 2 PAIRS OF DOUBLE-ACTING DOORS TO MATCH PAINT ANALYSIS REPORT (4 EA), REFERENCE DOOR SCHEDULE FOR ADDITIONAL WORK.
08.225	110 LOBBY: REFERENCE DOOR SCHEDULE FOR WORK TO GATES.
08.601	092300, 092300, 092400 - PREP EXISTING DOOR OPENING FOR NEW CUSTOM STEEL ENTRY DOUBLE DOORS WITH ARCHED TRANSOM TO MATCH THE HISTORIC CONFIGURATION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
08.602	092300, 092400 - PREP EXISTING WINDOW OPENING FOR NEW CUSTOM STEEL WINDOWS TO MATCH THE HISTORIC CONDITION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
09.220	093013 - 104 OFFICE: INSTALL REPLICA QUARRY TILE IN OFFICE.
09.221	092300 - 104 OFFICE: REPAIR DIAGONAL CRACK IN PLASTER ON NORTH WALL (+/- 8 LF)
09.223	099123 - 104 OFFICE: PREP, PRIME, AND PAINT ALL WALLS.
09.225	099123 - 104 OFFICE: PREP, PRIME, AND PAINT WINDOW SASHES (2 EA).
09.240	093013 - 109 SUNPORCH: SPOT REPAIR (INFILL DIVOTS WITH COLORED PATCHES) AND REGROUT SPOT LOCATIONS IN TILED FLOOR (657 SF)
09.242	093013 - 109 SUNPORCH: REPLACE DAMAGED BASE TILES 6.126" SQ X 15/16 THICK (3 EA)
09.243	093013 - 109 SUNPORCH: INSTALL REPLICA QUARRY TILE AT NEW INTERIOR ABA RAMPS (134 SQ).
09.244	092300, 099123 - 109 SUNPORCH: REPAIR CRACK IN SOUTH PLASTER WALL (11 LF). PREP, PRIME, AND PAINT TO MATCH ADJACENT WALLS.
09.245	099123 - 109 SUNPORCH: PAINT ALL WALLS (480 SF).
09.246	092400, 099123 - 109 SUNPORCH: INSTALL NEW STUCCO PATCH AT NEW INFILL (6 SF). PREP, PRIME, AND PAINT TO MATCH ADJACENT WALLS.
09.255	093013 - 110 LOBBY: RESET MOSAIC TILES THAT HAVE SETTLED AND CREATE TRIPPING HAZARDS (24 LF)
09.256	093013 - 110 LOBBY: REPLACE MISSING FIELD HEXAGONAL TILES (50 EA)
09.257	093013 - 110 LOBBY: REPLACE MISSING WHITE HEXAGONAL TILES AT EAST THRESHOLD (30 EA)
09.258	093013 - 110 LOBBY: INSTALL NEW TILE THRESHOLD BETWEEN LOBBY AND ELEVATOR ROOM (1 EA)
09.259	110 LOBBY: CLEAN MARBLE BASE AND REMOVE PAINT (49 LF)
09.260	110 LOBBY: INSTALL NEW GROUT AT MARBLE BASE (49 LF)
09.262	060312 - 110 LOBBY: REPAIR AND REPLACE EXISTING DAMAGED OR WARPED WOOD PANELING. REPLACEMENT WOOD PANELING TO MATCH THE HISTORIC WOOD PANELING OAK SPECIES AND CUT. WARPED OAK MAY BE ADHERED AS VENEER TO STABLE PLYWOOD BACKER. PROVIDE SAMPLES OF REPLACEMENT OAK PANELING TO MATCH THE HISTORIC FOR CONTRACTING OFFICER APPROVAL. (1 LS)
09.263	090394 - 110 LOBBY: RESTORE HISTORIC PAINT FINISHES BASED ON HISTORIC PAINT ANALYSIS REPORT. PRIME ALL SURFACES, PER SPECIFICATIONS. (1 LS)
09.264	099300 - 110 LOBBY: RESTORE FINISH ON WOOD COUNTER AND GATE (1 LS)
09.265	090394 - 110 LOBBY: REPAINT GRILLE BASED ON HISTORIC PAINT ANALYSIS. INSTALL STANDARD SCREWS (1 EA)
09.266	060312 - 110 LOBBY: REPAIR BASES OF DOOR TRIM IN WEST WALL (6 EA)
09.268	093013 - 110C ELEVATOR LOBBY: INSTALL QUARRY TILE THROUGH OUT ELEVATOR LOBBY. TILE TO BE FLUSH WITH ADJACENT FLOORS AT ALL DOOR OPENINGS.
09.270	093013 - 110C ELEVATOR LOBBY: INSTALL NEW 6" QUARRY TILE BASE AT PERIMETER.
09.271	092300 - 110C ELEVATOR LOBBY: REMOVE DETERIORATED PLASTER AND WALL COVERINGS. REPAIR PLASTER WALLS AND SKIM COAT. INTENSIVE PLASTER REPAIRS AND REPLACEMENT.
09.274	093013 - ROOM 110A: REPLACE A FEW DAMAGED PIECES OF HEXAGONAL FLOORING TILE (5 EA).
09.276	096613 - ROOM 110B: REPAIR/INFILL HOLE IN FLOOR ALONG WEST WALL. REFERENCE STRUCTURAL DRAWINGS.
09.285	093013 - 117 CLOAKROOM: INSTALL NEW QUARRY TILE FLOORING (121 SF)
09.286	117 CLOAKROOM: REINSTALL MARBLE PLINTH BASE; STRIP PAINT FROM MARBLE PLINTHS (6 EA)
09.287	092300 - 117 CLOAKROOM: REPAIR PLASTER AT EAST, WEST, AND NORTH WALLS WHERE DUCT AND ALARM DEVICES ARE REMOVED (14 SF)
09.289	099123 - 117 CLOAKROOM: PREP, PRIME, AND PAINT ALL WALLS.
09.292	099300 - 117 CLOAKROOM: REFRESH FINISH ON DOOR AND SIDELIGHT (1 LS).
09.294	099300 - 117 CLOAKROOM: REFRESH FINISH ON ALL MILLWORK (1 LS)
14.01	142400 - REFURBISH EXISTING ELEVATOR CAB AND INSPECT/REPAIR CONTROLS AND OPERATING MECHANISMS, REFERENCE SPECIFICATIONS.
14.02	142400 - 110C ELEVATOR LOBBY: INSTALL METAL THRESHOLD AT ELEVATOR OPENING (1 EA)

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A1.5	TITLE OF SHEET MAURICE BATHHOUSE ENLARGED PLANS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 47 OF 286

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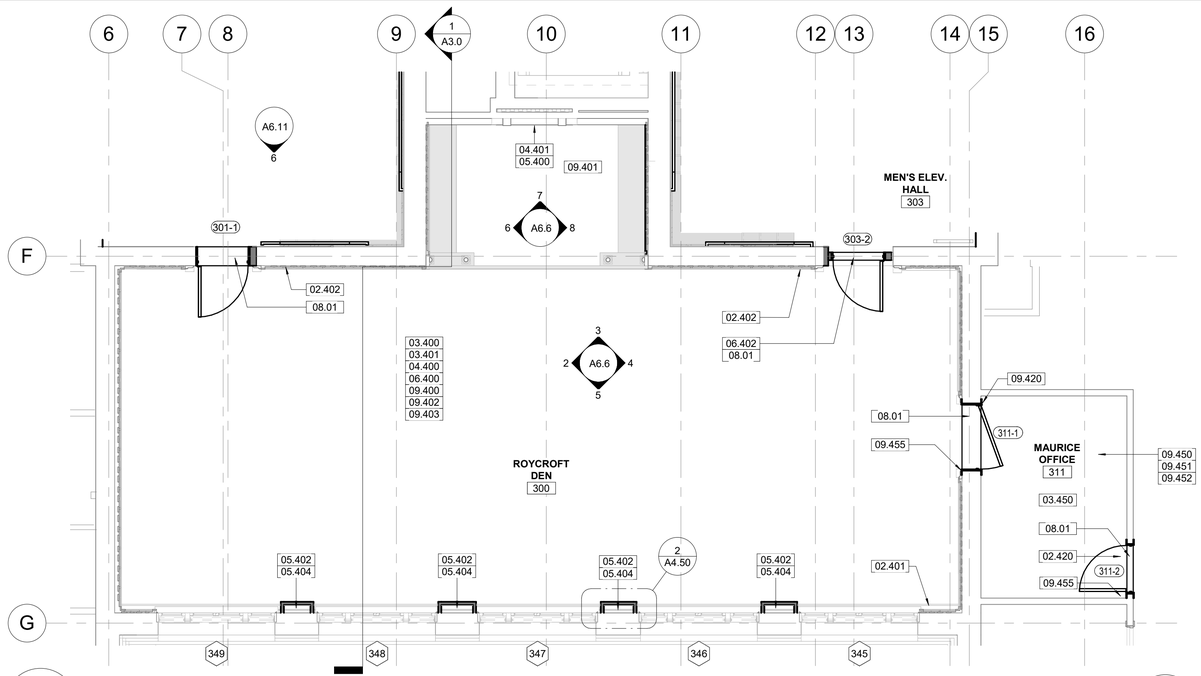
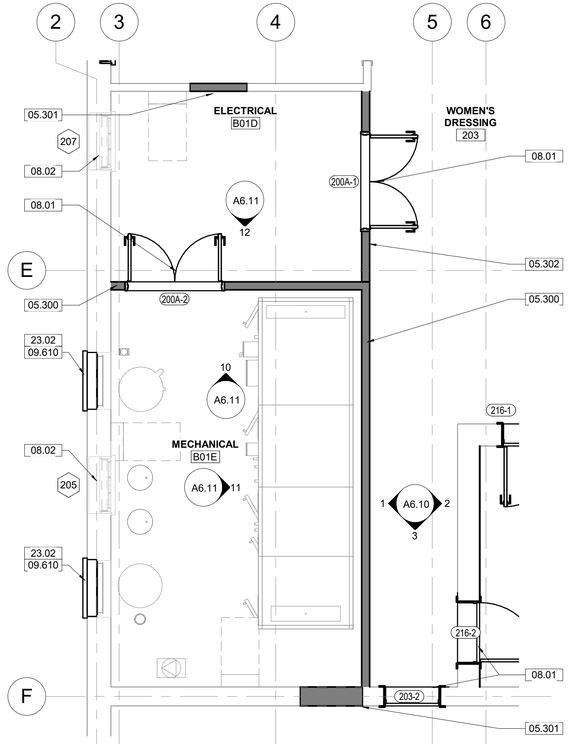


1 A1.6 Enlarged Plan - 300 Roycroft Den

1/4" = 1'-0" SCALE (A)



2 A1.6 Proposed Second Floor Plan - Enlarged Plan

1/4" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

E. PHOTOGRAPH AND VIDEO ALL PORTION OF THE WOOD PANELED WALLS, MILLWORK, NOOK, AND WOODEN LAYLIGHT STRUCTURE PRIOR TO WORK. PHOTOGRAPHS TO BE FLAT TO CAPTURE AS MUCH DETAIL AS POSSIBLE OF ALL SECTIONS OF THE FLAT CEILING, ALL SIDES AND BOTTOMS OF THE BEAMS, AND DECORATIVE PLASTERWORK. PROVIDE ADEQUATE LIGHTING FOR THE DOCUMENTATION. PHOTOGRAPHS SHALL BE OF A RESOLUTION GREAT ENOUGH TO SEE DETAIL OF THE WOOD GRAINING AND LATER STENCILING THAT REMAINS INTACT.

F. HISTORIC DECORATIVE WOOD PANELING AND MILLWORK IN THE ROYCROFT DEN DATE TO THE 1915 BUILDING RENOVATION. WOOD PANELING AND MILLWORK CONSIST OF CUSTOM DECORATIVE VERTICAL BOARD WOOD PANELING WITH WOOD ACCENTS AND DECORATIVE CAP, INSTALLED OVER WOOD FURRING. MILLWORK IS CUSTOM WITH MOLDED PROFILES, TURNED COLUMNS, PANELING, AND BENCHES. THE HISTORIC WOOD-FRAMED LAYLIGHT CONSISTS OF WOOD BEAMS AND PROFILES MOLDINGS AND BRACKETS. ALL WOOD APPEARS TO BE FIR OR PINE AND IS STAINED A DARK BROWN AND WAS FINISHED WITH A THIN, SATIN VARNISH. ALL MILLWORK IS TO BE DOCUMENTED PRIOR TO REMOVAL. CAREFULLY SALVAGE ALL EXISTING HISTORIC WOOD PANELING AND MILLWORK FROM THE ROOM, INCLUDING WALLS, NOOK, AND CEILING LAYLIGHT STRUCTURE, TO BE RESTORED IN A CONDITIONED MILLWORK SHOP OFF SITE.

ALL SECTIONS OF DAMAGED, DETERIORATED, OR MISSING MILLWORK ARE TO BE REPLICATED TO MATCH THE EXISTING HISTORIC MILLWORK OFF SITE.

G. PROVIDE SHOP DRAWINGS INDICATING THE OVERALL DIMENSIONS, PROFILES, AND CONSTRUCTION METHODOLOGY FOR ALL SECTIONS OF MILLWORK AND PANELING TO BE REPLICATED AND REPLACED, PER THE SPECIFICATIONS. PROVIDE SAMPLES OF REPLACEMENT WOOD TO MATCH HISTORIC WOOD PANELING AND MILLWORK WOOD SPECIES, GRAINING, AND CUT.

H. PROVIDE MOCK-UPS OF PROPOSED FINISHES. MOCK-UPS TO INCLUDE: SECTION OF REFINISHED EXISTING HISTORIC MILLWORK; SECTION OF DUTCHMAN WOOD PATCH / BLENDING EXISTING HISTORIC MILLWORK WITH NEW REPLACEMENT MILLWORK FINISHES; SECTION OF REPLACEMENT MILLWORK FINISHES. CORRECT MOCK-UP, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THEY ARE APPROVED.

UPON APPROVAL OF MOCK-UPS, REINSTALL HISTORIC AND NEW PANELING AND MILLWORK INTO THE NEW SPACE, ONLY AFTER MAJOR REPAIRS IN THE ROOM AND THE TILE FLOORING HAVE BEEN COMPLETED AND INSTALLED. FURRING MAY BE A COMBINATION OF PRESSURE-TREATED WOOD OR LIGHT-GAUGE METAL FURRING. SUBMIT FURRING PRODUCTS FOR CONTRACTING OFFICER APPROVAL

KEYNOTES

02.401	013591, 024296, 060312, 064023 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT, REMOVE AND LABEL ALL WOOD WALL CLADDING TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.402	024296, 028333 - 300 ROYCROFT ROOM: CAREFULLY REMOVE EXISTING RADIATORS TO BE RESTORED AND REINSTALLED. REFERENCE INTERIOR ELEVATIONS FOR TREATMENT.
02.420	013591 - 311 MAURICE OFFICE: CLEAN 4 MARBLE PLINTHS AT DOORS (4 EA)
03.400	033000, 030130.52 - 300 ROYCROFT ROOM: REPAIR CRACKS IN CONCRETE DECK, REFERENCE STRUCTURAL.
03.401	033000, 093013 - 300 ROYCROFT ROOM: INSTALL NEW CONCRETE TOPPING SLAB TO PREPARE FOR NEW TILE FLOOR, REFERENCE STRUCTURAL DRAWINGS (823 SF).
03.450	033000 - 311 MAURICE OFFICE: FILL CRACKS IN CONCRETE FLOOR AND BASE (102 SF)
04.400	040323 - 300 ROYCROFT ROOM: REPAIR AND STABILIZE MASONRY WALLS, REFERENCE STRUCTURAL. REPOINT ALL OPEN MORTAR JOINTS.
04.401	300 ROYCROFT ROOM: CLEAN EXISTING STONE WALL, BRICK MASONRY FIREPLACE SURROUND AND BOX, AND STONE MANTEL WITH DETERGENT SOLUTION. SOLUTION TO BE JOB-MIXED BY PREPARING 2 CUPS OF TETRASODIUM PYROPHOSOPHATE (TSP), ½ CUP OF LAUNDRY DETERGENT, AND 20 QUARTS OF HOT WATER FOR EVERY 5 GALLONS OF SOLUTION REQUIRED. PROTECT ALL NEARBY SURFACES TO PREVENT CLEANING SOLUTION FROM MAKING CONTACT WITH THE HISTORIC WOOD BENCH, SURROUNDING MILLWORK, AND FLOOR. CLEAN FROM TOP TO BOTTOM USING NATURAL BRISTLE BRUSHES (NO METAL). CLEAN MASONRY FOR UNIFORM APPEARANCE. SPOT CLEAN STAINED AREAS. RINSE ALL DETERGENT. REMOVE ALL TAPE AND ANY RESIDING RESIDUE UPON COMPLETION.
05.300	054000, 078443, 092900, 099123 - SECOND FLOOR MECHANICAL ROOM: INSTALL 6" FIRE RATED WALL. FIRE CAULK AND FIRE STOPS TO BE INCLUDED AT ALL WALL OPENINGS. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (35 LF)
05.301	054000, 092900, 099123 - SECOND FLOOR UTILITY ROOMS: INFILL EXISTING DOOR OPENINGS (48 SF).
05.302	054000, 092900, 099123 - SECOND FLOOR ELECTRICAL ROOM: INSTALL 6" WALL. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (10 LF)
05.400	013591 - 300 ROYCROFT ROOM: RESTORE IRON LINTEL AT FIREPLACE OPENING (1 EA). REMOVE RUST, PREP, PRIME AND PAINT.
05.402	054000 - 300 ROYCROFT ROOM: INSTALL NEW METAL STUD FURRING (21 LF)
05.404	051200 - 300 ROYCROFT ROOM: INSTALL NEW VERTICAL STEEL CHANNELS, REFERENCE STRUCTURAL DRAWINGS
06.400	013591, 024296, 060312, 099300 - 300 ROYCROFT ROOM: CAREFULLY DOCUMENT AND SALVAGE ALL WOOD PANELING, PILASTERS, BENCHES, INGLENOOK DIVIDING WALL, AND ALL WOOD LAYLIGHT FRAMING FROM ROOM TO BE RESTORED EITHER ON OR OFF SITE. REPLACE DETERIORATED AND TERMINATE-DAMAGED PORTIONS OF WOOD PANELING AND DETAILS, INCLUDING TURNED WOOD COLUMNS. REINSTALL AND RESTORE FINISH IN PLACE. PROVIDE NEW SIDE TRIM AND CAP AT EACH NEW FURRED PILASTER AT OUTER (WEST) WALL WHERE NEW STRUCTURAL CHANNELS ARE TO BE INSTALLED. MATCH HISTORIC WOOD SPECIES AND FINISH.
06.402	024296, 060312, 099300 - 300 ROYCROFT ROOM: REPAIR TERMITE-DAMAGED JAMBS AT DOOR 1/301 AND 3/303 (4 EA)
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.400	093013 - 300 ROYCROFT ROOM: INSTALL NEW REPLICA RECTANGULAR 6"X9" RED QUARRY CLAY TILE THROUGHOUT TO MATCH HISTORIC PHOTOGRAPHS (823 SF)
09.401	093013 - 300 ROYCROFT ROOM: RESTORE TILE FLOORING IN NOOK. RE-GROUT, AS REQUIRED (77 SF)
09.402	092300 - 300 ROYCROFT ROOM: RESTORE AND INSTALL NEW 5-COAT PLASTER FINISHES OVER MASONRY ON AREAS ABOVE PANELING. SAND, PRIME AND PAINT. REFERENCE INTERIOR ELEVATIONS (378 SF)
09.403	099123 - 300 ROYCROFT ROOM: PREP, PRIME AND PAINT PLASTER AREAS ABOVE PANELING, REFERENCE INTERIOR ELEVATIONS (378 SF)
09.420	311 MAURICE OFFICE: CLEAN 4 MARBLE PLINTHS WITH SOAP AND WATER (4 EA).
09.450	099123 - 311 MAURICE OFFICE: PAINT CONCRETE FLOOR TO MATCH HISTORIC PAINT ANALYSIS (102 SF).
09.451	024293, 040323, 092300 - 311 MAURICE OFFICE: REMOVE DAMAGED OR UNATTACHED PLASTER FROM WALLS. REMOVE LOOSE PAINT. SPOT REPOINT EXPOSED MASONRY AS REQUIRED. REPAIR CRACKS. INSTALL NEW PLASTER WHERE MISSING AND SKIM COAT THE REMAINDER OF THE ROOM (252 SF). INSTALL NEW PLASTER BOARD AND PLASTER SKIM COATING AT ALL NEW PILASTERS ALONG WEST WALL ABOVE WOOD PANELING.
09.452	099123 - 311 MAURICE OFFICE: PREP, PRIME, AND PAINT ALL WALLS (252 SF)
09.455	099300 - 311 MAURICE OFFICE: RESTORE FINISHES ON TRIM AT BOTH DOORS (1 LS)
09.610	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING LOUVERS.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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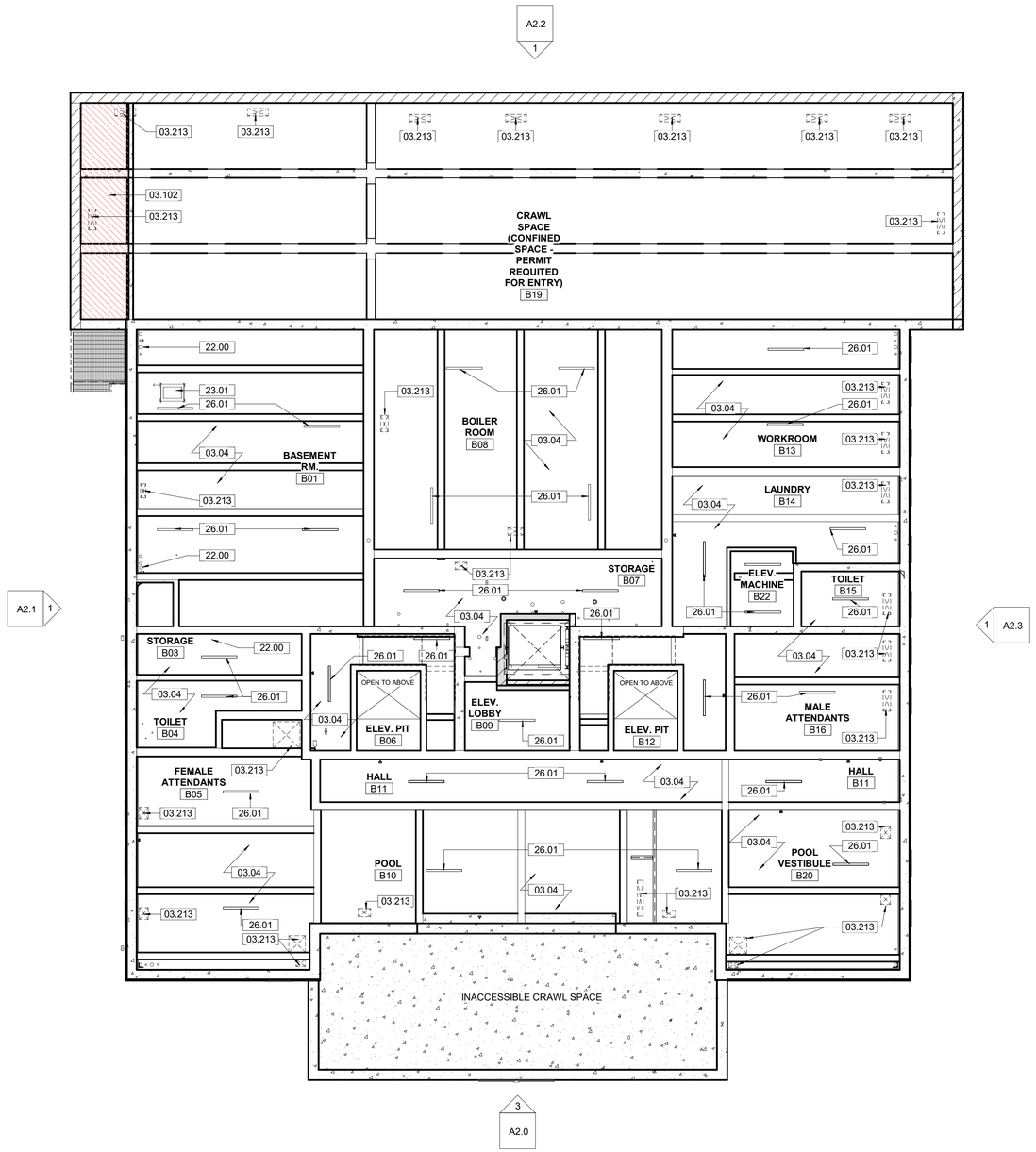
SUB SHEET NO. 01 A1.6

TITLE OF SHEET
MAURICE BATHHOUSE
ENLARGED PLANS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 48 OF 286

11/6/2023 7:02:58 PM



1 / A1.10 Proposed Basement Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

BLDG

GENERAL NOTES - TREATMENT REFLECTED CEILING PLAN:

A. ALL DIMENSIONS ARE TO THE FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.

B. CEILING HEIGHTS ARE SHOWN TO FINISH FLOOR LINE.

C. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

D. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

E. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

F. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.04	030130.52, 033000 - STRUCTURAL REPAIRS REQUIRED. REFERENCE STRUCTURAL DRAWINGS.
03.102	030130.52, 033000 - INFILL CONCRETE SLAB, REFERENCE STRUCTURAL DRAWINGS.
03.213	030130.52, 033000 - INFILL HOLES IN FLOOR CUT FOR GRILLES, PIPES, OR DUCTS WITH REINFORCED CONCRETE, REFERENCE STRUCTURAL DRAWINGS (16 SF).
22.00	PLUMBING PIPES AND/OR ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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SUB SHEET NO. 01 A1.10

TITLE OF SHEET
MAURICE BATHHOUSE
BASEMENT REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 49 OF 286

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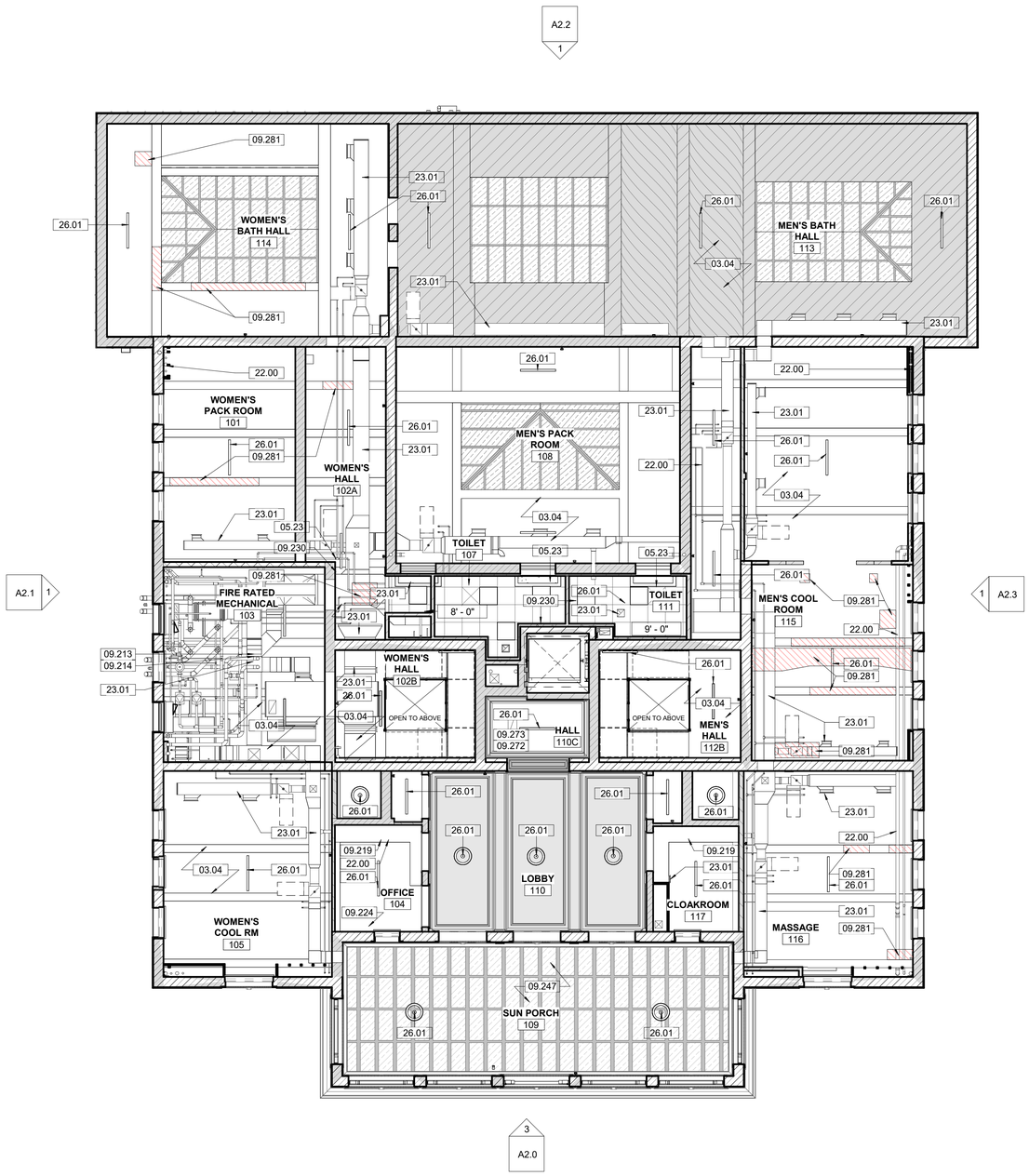

1 A1.11 Proposed First Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - TREATMENT REFLECTED CEILING PLAN:

A. ALL DIMENSIONS ARE TO THE FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.

B. CEILING HEIGHTS ARE SHOWN TO FINISH FLOOR LINE.

C. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

D. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

E. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

F. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.04	030130.52, 033000 - STRUCTURAL REPAIRS REQUIRED. REFERENCE STRUCTURAL DRAWINGS.
05.23	054000, 092900 - 107 & 111 RESTROOMS: INSTALL NEW METAL STUD WITH GYP FINISH WINDOW WELLS (24 LF).
09.213	092300 - 103 MECHANICAL: REPAIR PLASTER THROUGHOUT ENTIRE CEILING.
09.214	099123 - 103 MECHANICAL: PREP, PRIME, AND PAINT CEILING.
09.219	054000, 092900, 099123 - INSTALL FRAMING AND GYPSUM BOARD FOR NEW MECHANICAL SOFFIT. PREP, PRIME, AND PAINT. REFERENCE REFLECTED CEILING.
09.224	099123 - 104 OFFICE: PREP, PRIME, AND PAINT CEILING AND NEW SOFFIT.
09.230	095123 - 107 & 111 RESTROOM: INSTALL NEW ACOUSTICAL CEILING, REFERENCE REFLECTED CEILING PLAN AND SPECIFICATIONS.
09.247	099123 - 109 SUNPORCH: PREP, PRIME, AND PAINT EXISTING METAL CEILING GRID.
09.272	092300 - 110C ELEVATOR LOBBY: REPAIR PLASTER CEILING AND SKIM COAT.
09.273	092300 - 110C ELEVATOR LOBBY: REPAIR DECORATIVE PLASTER CORNICE (38 LF).
09.281	092300 - REPAIR PLASTER CEILING AND BEAMS AFTER STRUCTURAL REPAIRS.
22.00	PLUMBING PIPES AND/OR ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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DATE:	10.27.2023
SUB SHEET NO.	01 A1.11
TITLE OF SHEET	MAURICE BATHHOUSE FIRST FLOOR REFLECTED CEILING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	50 OF 286

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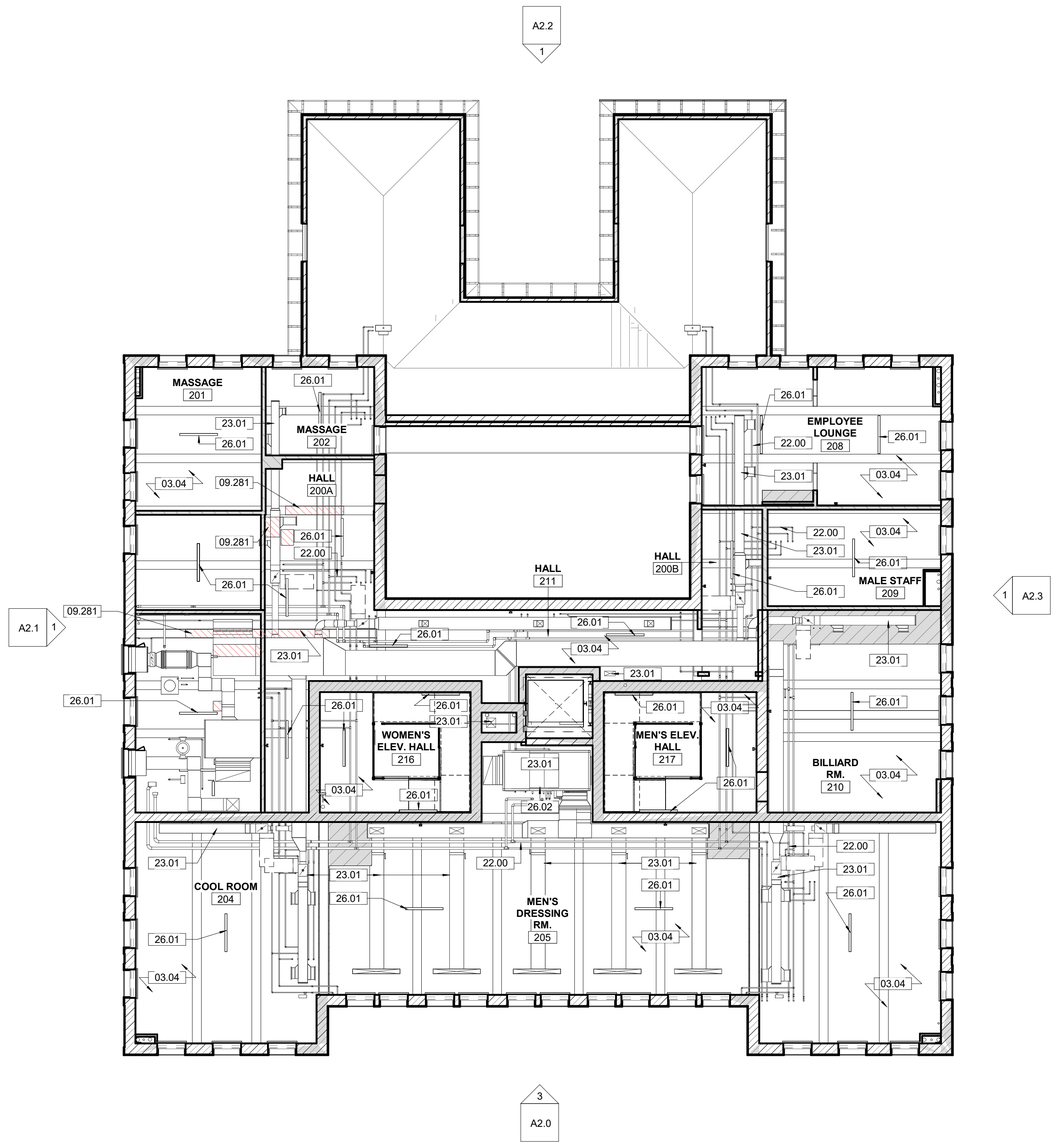

1 A1.12 Proposed Second Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

BLDG

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - TREATMENT REFLECTED CEILING PLAN:

A. ALL DIMENSIONS ARE TO THE FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.

B. CEILING HEIGHTS ARE SHOWN TO FINISH FLOOR LINE.

C. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

D. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

E. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

F. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.04	030130.52, 033000 - STRUCTURAL REPAIRS REQUIRED. REFERENCE STRUCTURAL DRAWINGS.
09.281	092300 - REPAIR PLASTER CEILING AND BEAMS AFTER STRUCTURAL REPAIRS.
22.00	PLUMBING PIPES AND/0R ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.
26.02	EXISTING LIGHT FIXTURE TO BE CAREFULLY REINSTALLED, REFERENCE ELECTRICAL

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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DATE: 10.27.2023

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MAURICE BATHHOUSE
SECOND FLOOR
REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 51 OF 286

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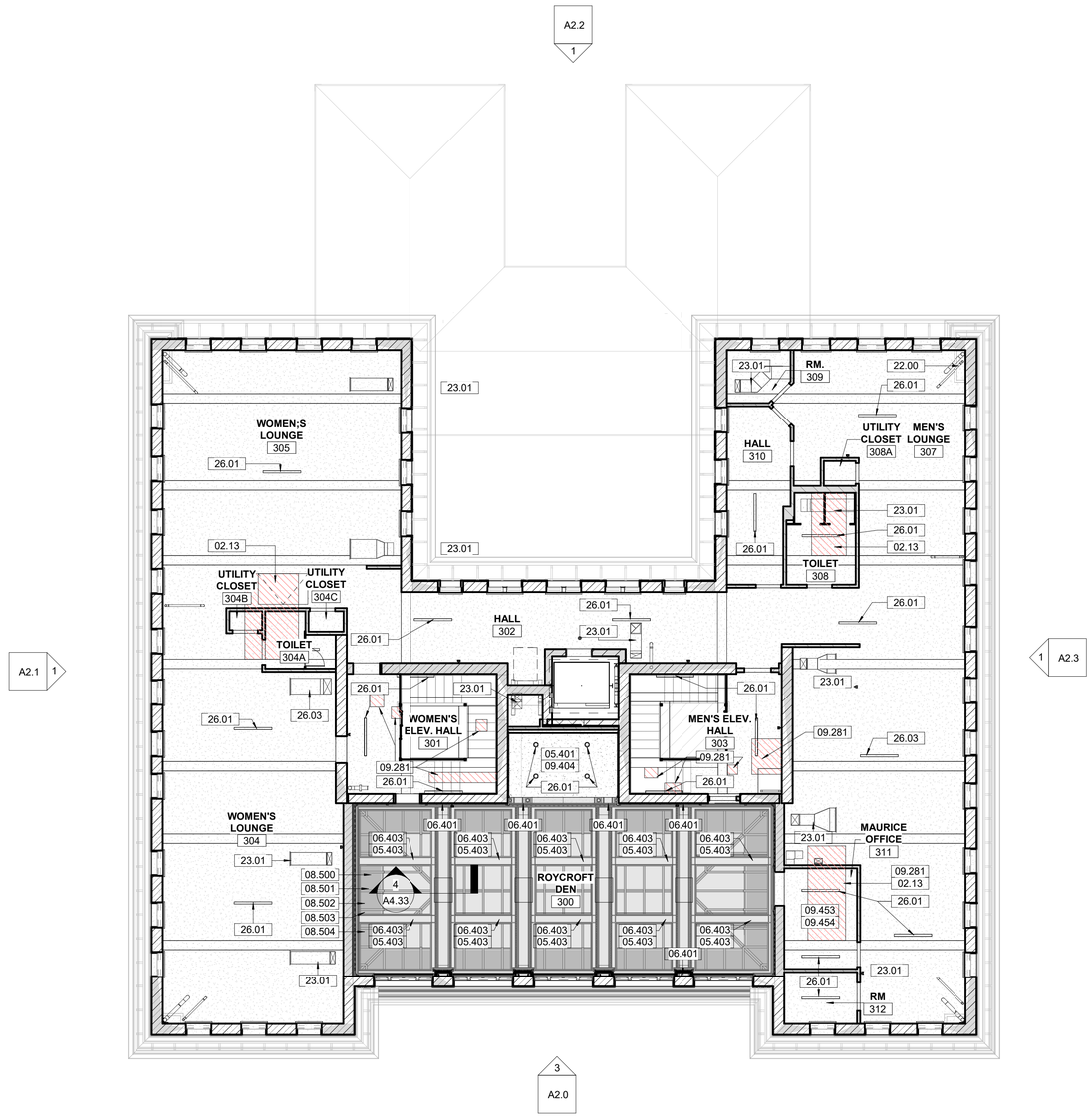

1 A1.13 Proposed Third Floor Reflected Ceiling Plan

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL NOTES - TREATMENT REFLECTED CEILING PLAN:

A. ALL DIMENSIONS ARE TO THE FACE OF FINISH MATERIAL UNLESS OTHERWISE NOTED.

B. CEILING HEIGHTS ARE SHOWN TO FINISH FLOOR LINE.

C. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

D. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

E. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

F. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.13	030130.52 - REFERENCE STRUCTURAL DRAWINGS FOR AREAS OF REPAIRS TO THE EXISTING UNDERSIDE OF SLAB ABOVE AND STRUCTURAL CONCRETE BEAMS.
05.401	054000 - 300 ROYCROFT ROOM: INSTALL METAL CEILING FRAMING IN NOOK (77 SF)
05.403	051200 - 300 ROYCROFT ROOM: INSTALL NEW STEEL BEAMS, REFERENCE STRUCTURAL DRAWINGS
06.401	300 ROYCROFT ROOM: RE-CREATE PLASTER BRACKET GROTESQUES WITH DECORATIVE PAINTING TO MATCH HISTORIC PAINT ANALYSIS STUDY (8 EA)
06.403	024296, 060312, 099300 - 300 ROYCROFT ROOM: CAREFULLY REINSTALL WOOD LAYLIGHT FRAMING. REPLACE DETERIORATED AND TERMINATE-DAMAGED PORTIONS OF WOOD CLADDING. REINSTALL AND RESTORE FINISH IN PLACE.
08.500	088000 - REPLACE FOUR (4) BROKEN GLASS PANELS IN THE SKYLIGHT.
08.501	079200 - REPLACE ALL SEALANTS. TEMPORARILY REMOVE ALL MULLION COVERS TO REPLACE SEALANTS AND REINSTALL COVERS IN THEIR ORIGINAL LOCATIONS. REMOVE EXISTING RUSTED MULLION WIRE TIES AND REPLACE WITH NEW GALVANIZED FASTENERS. REPLACE MULLIONS THAT ARE RUSTED OR IN OVERALL POOR CONDITION WITH LIKE MULLIONS OF GALVANIZED METAL.
08.502	REMOVE EXISTING AND REPLACE ALL RUSTED BOLTS, SCREWS, AND OTHER FASTENERS AND INSTALL NEW GALVANIZED OR STAINLESS-STEEL FASTENERS. INSTALL WITH NEOPRENE WASHERS.
08.503	SPOT TREAT ALL AREAS OF RUST ON THE GALVANIZED SECTIONS OF METAL. CLEAN RUST TO BARE METAL, PREPARE THE METAL, AND TREAT WITH A ZINC-RICH PRIMER AND COATING TO PREVENT FURTHER DAMAGE.
08.504	PROVIDE ADDITIONAL SUPPORT ON THE INTERIOR FACE OF THE SKYLIGHT AT THE ROOF TRANSITION WHERE THE HORIZONTAL SUPPORTS ARE BOWING. INSTALL TWO (2) 10-FOOT LONG, NEW GALVANIZED METAL CHANNELS TO PREVENT FURTHER DAMAGE.
09.281	092300 - REPAIR PLASTER CEILING AND BEAMS AFTER STRUCTURAL REPAIRS.
09.404	092300 - 300 ROYCROFT ROOM: INSTALL NEW DRYWALL AT NOOK CEILING. PREP, PRIME, AND PAINT.
09.453	092300 - 311 MAURICE OFFICE: RESTORE PLASTER CEILING. REMOVE LOOSE PAINT. FILL CRACKS AND SKIM COAT (78 SF)
09.454	099123 - 311 MAURICE OFFICE: PREP, PRIME, AND PAINT CEILING (78 SF)
22.00	PLUMBING PIPES AND/OR ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW WALLS
- EXISTING WALLS

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MAURICE BATHHOUSE
THIRD FLOOR REFLECTED CEILING PLAN
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	52 OF 286

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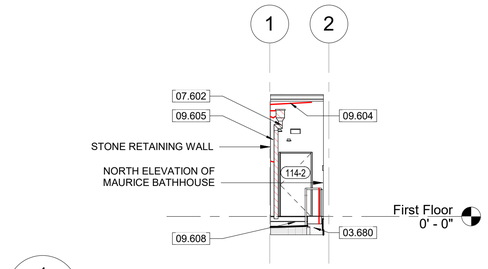
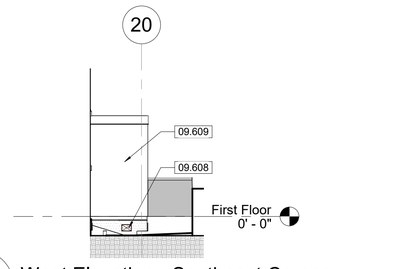


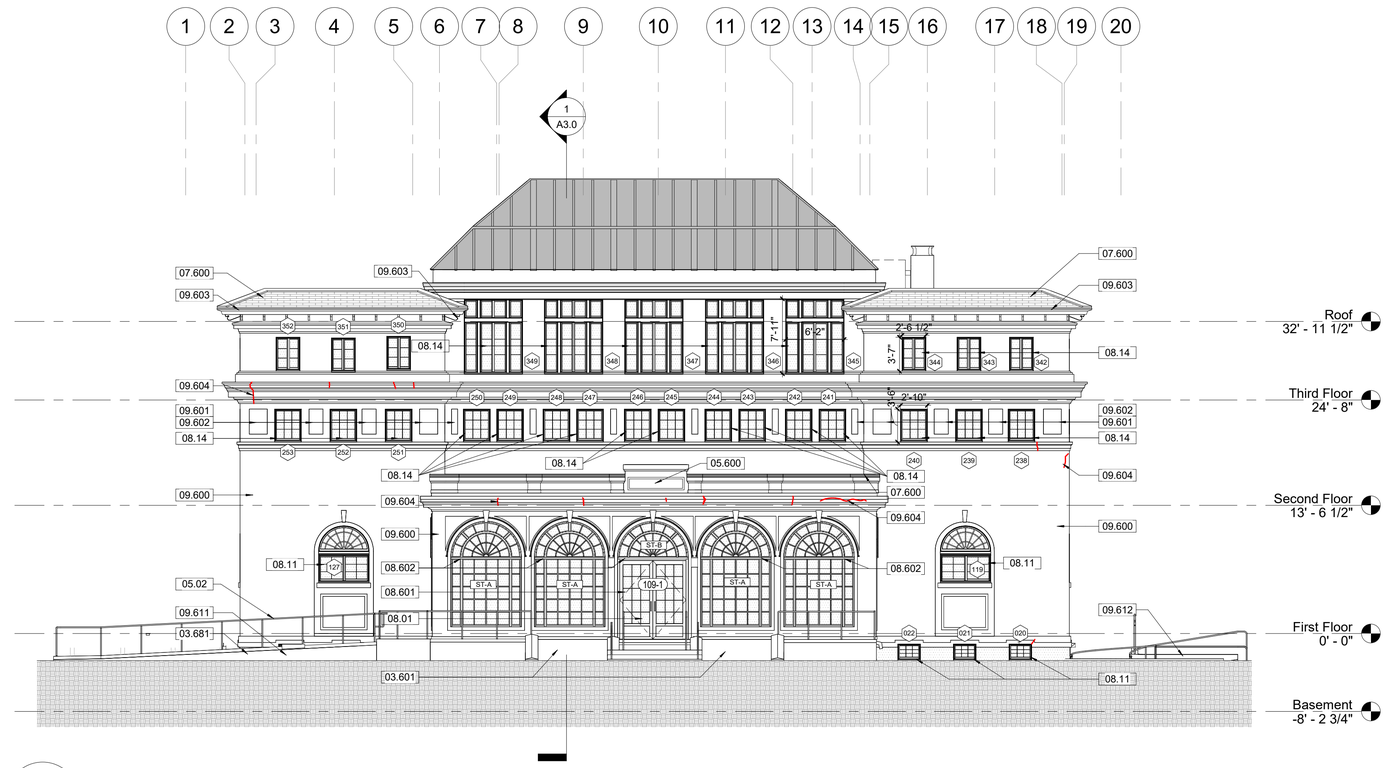
1 A2.0 West Elevation - Northeast Corner

1/8" = 1'-0" SCALE (A)



2 A2.0 West Elevation - Southeast Corner

1/8" = 1'-0" SCALE (A)



3 A2.0 West Elevation

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL ELEVATION NOTES:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.601	033000, 030130.52 - REPAIR CONCRETE RAMP WHERE EXISTING HANDRAILS WERE DEMOLISHED. CONCRETE PATCH TO BE FLUSH WITH EXISTING RAMP CONCRETE. REFERENCE STRUCTURAL DRAWINGS.
03.680	033000 - INSTALL NEW CONCRETE RUNNELS, REFERENCE CIVIL DRAWINGS.
03.681	033000 - INSTALL NEW CONCRETE RUNNEL CURBS, REFERENCE CIVIL DRAWINGS.
05.02	055213, 099123 - INSTALL NEW GALVANIZED METAL HANDRAILS. PREP, PRIME AND PAINT.
05.600	050373 - REFINISH HISTORIC BRONZE SIGN (1 EA.)
07.600	REFERENCE ROOF PLAN FOR TREATMENT RECOMMENDATIONS, TYPICAL.
07.602	076200 - INSTALL NEW DOWNSPOUT, DOWNSPOUT ELBOW AND ASSOCIATED ANCHORS. DOWNSPOUT TO DISCHARGE INTO NEW CONCRETE RUNNELS.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.11	080152.61, 099113, 099123 - RESTORE HISTORIC WOOD WINDOW. REFERENCE WINDOW SCHEDULE FOR REQUIRED REPAIRS. PREP, PRIME, AND PAINT ALL EXISTING WOOD WINDOW TO REMAIN. INSTALL NEW EXTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
08.14	088000, 099113, 099123 - INSTALL REPLICA WOOD WINDOWS WITH INSULATED GLAZING, REFERENCE WINDOW SCHEDULE. PREP, PRIME, AND PAINT ALL NEW WINDOWS.
08.601	092300, 092300, 092400 - PREP EXISTING DOOR OPENING FOR NEW CUSTOM STEEL ENTRY DOUBLE DOORS WITH ARCHED TRANSOM TO MATCH THE HISTORIC CONFIGURATION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
08.602	092300, 092400 - PREP EXISTING WINDOW OPENING FOR NEW CUSTOM STEEL WINDOWS TO MATCH THE HISTORIC CONDITION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
09.600	099113 - PREP AND PAINT EXTERIOR WALLS (ROUGHLY 2050 SF).
09.601	093013 - INSTALL CUSTOM TILES TO MATCH REMOVED HISTORIC TILES. CUSTOM COLOR AND SHAPE TO MATCH EXISTING (50 EA).
09.602	093013 - REPAIRS AREAS OF CRACKED TILE GROUT. REINSTALL SALVAGED TILE, RESET, AND GROUT (100 LF).
09.603	062013, 099113 - REPAIR EAVES. PREP, PRIME, AND PAINT.
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).
09.605	092400 - INSTALL NEW STUCCO WHERE LOOSE STUCCO WAS REMOVED (ROUGHLY 300 SF)
09.608	061000, 092400 - INFILL EXTERIOR HOLE WITH NEW STUCCO TO MATCH ADJACENT STUCCO. SHEATHING WILL BE REQUIRED TO INFILL HOLE PRIOR TO STUCCO INSTALLATIONS (2 SF).
09.609	092400 - INFILL EXTERIOR HOLE WITH NEW STUCCO TO MATCH ADJACENT STUCCO (1 SF).
09.611	099113 - PREP, PRIME, AND PAINT OUTSIDE FACE OF ABA RAMP TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
09.612	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING RETAINING WALL TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.

ELEVATION TREATMENT LEGEND

REPLACEMENT MATERIAL INSTALLED (INCLUDING WINDOWS, DOORS, RETAINING WALLS, ETC)

TILE

TL-1 — REPAIR AREAS OF CRACKED TILE GROUT, EXISTING TILE TO REMAIN IN PLACE (50 SF). CONTRACTOR TO TAKE GREAT CARE OF EXISTING HISTORIC TILES. REPLACEMENT HISTORIC TILES ARE NOT AVAILABLE.

STUCCO

ST-1 — REMOVE LOOSE, DAMAGED AND /OR STRUCTURAL UNSOUND STUCCO AND REPLACE WITH NEW STUCCO.

ST-2 — REMOVE BIOLOGICAL GROWTH FROM STUCCO (N-20 SF, W-15 SF: TOTAL 150 SF). PER SECRETARY OF INTERIOR'S STANDARDS USE THE GENTLEST MEANS POSSIBLE IN ORDER TO PRESERVE THE HISTORIC FABRIC. NO SANDBLASTING, CHEMICALS, OR HIGH PRESSURE SPRAY. REFERENCE SPECIFICATIONS.

REPAIR CRACKS

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STATE OF ARKANSAS
10.18.2023

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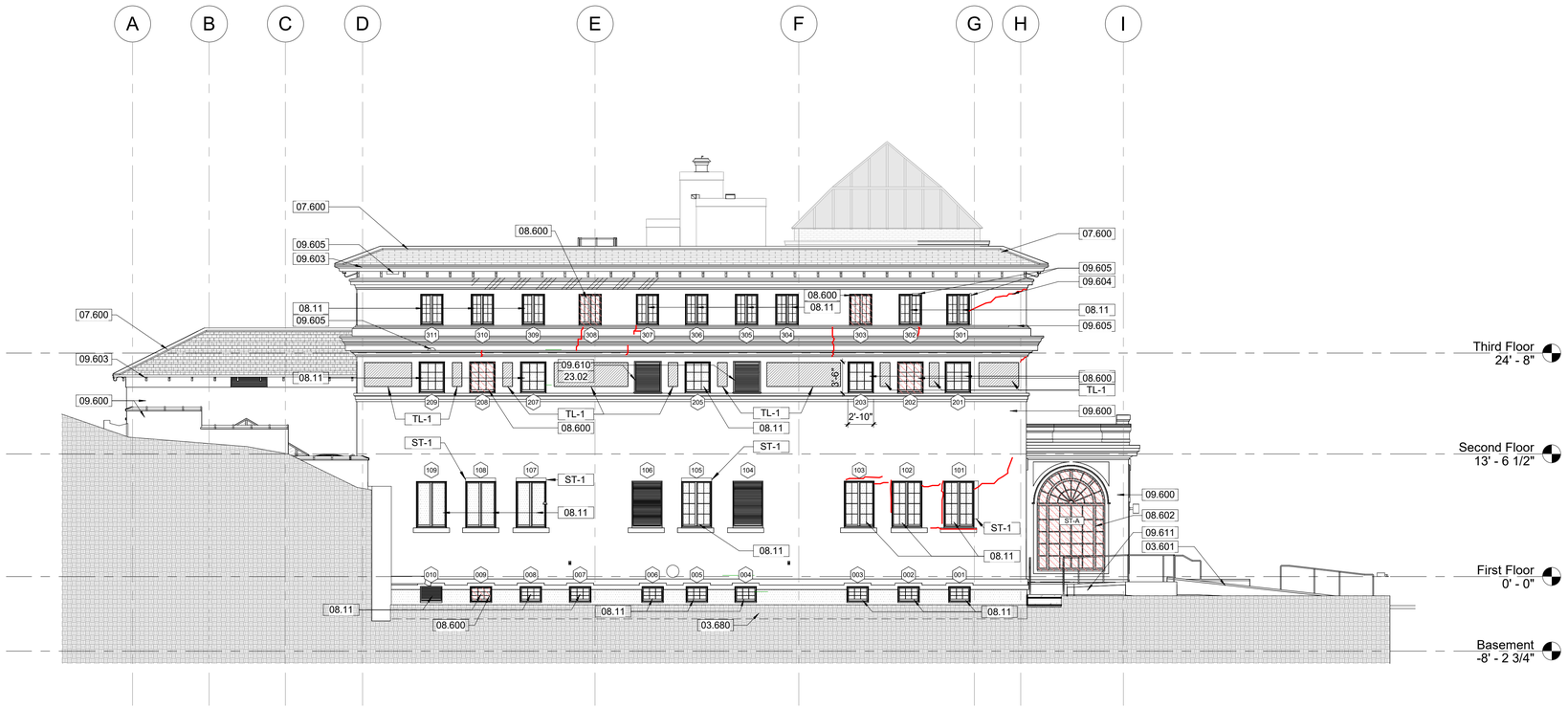
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A2.0

TITLE OF SHEET
MAURICE BATHHOUSE
WEST ELEVATION
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 53 OF 286

11/6/2023 5:38:24 PM



1
A2.1
North Elevation
1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32
SCALE OF FEET

GENERAL ELEVATION NOTES:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

03.601	033000, 030130.52 - REPAIR CONCRETE RAMP WHERE EXISTING HANDRAILS WERE DEMOLISHED. CONCRETE PATCH TO BE FLUSH WITH EXISTING RAMP CONCRETE. REFERENCE STRUCTURAL DRAWINGS.
03.680	033000 - INSTALL NEW CONCRETE RUNNELS, REFERENCE CIVIL DRAWINGS.
07.600	REFERENCE ROOF PLAN FOR TREATMENT RECOMMENDATIONS, TYPICAL.
08.11	080152.61, 099113, 099123 - RESTORE HISTORIC WOOD WINDOW. REFERENCE WINDOW SCHEDULE FOR REQUIRED REPAIRS. PREP, PRIME, AND PAINT ALL EXISTING WOOD WINDOW TO REMAIN. INSTALL NEW EXTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
08.600	088000, 099113, 099123 - INSTALL REPLICA WOOD WINDOW. REFERENCE WINDOW SCHEDULE. PREP, PRIME, AND PAINT. INSTALL NEW INTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
08.602	092300, 092400 - PREP EXISTING WINDOW OPENING FOR NEW CUSTOM STEEL WINDOWS TO MATCH THE HISTORIC CONDITION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
09.600	099113 - PREP AND PAINT EXTERIOR WALLS (ROUGHLY 2050 SF).
09.603	062013, 099113 - REPAIR EAVES, PREP, PRIME, AND PAINT.
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).
09.605	092400 - INSTALL NEW STUCCO WHERE LOOSE STUCCO WAS REMOVED (ROUGHLY 300 SF)
09.610	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING LOUVERS.
09.611	099113 - PREP, PRIME, AND PAINT OUTSIDE FACE OF ABA RAMP TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.

ELEVATION TREATMENT LEGEND

REPLACEMENT MATERIAL INSTALLED (INCLUDING WINDOWS, DOORS, RETAINING WALLS, ETC)

TILE

TL-1 — REPAIR AREAS OF CRACKED TILE GROUT, EXISTING TILE TO REMAIN IN PLACE (50 SF). CONTRACTOR TO TAKE GREAT CARE OF EXISTING HISTORIC TILES. REPLACEMENT HISTORIC TILES ARE NOT AVAILABLE.

STUCCO

ST-1 — REMOVE LOOSE, DAMAGED AND /OR STRUCTURAL UNSOUND STUCCO AND REPLACE WITH NEW STUCCO.

ST-2 — REMOVE BIOLOGICAL GROWTH FROM STUCCO (N-20 SF, W-15 SF: TOTAL 150 SF). PER SECRETARY OF INTERIOR'S STANDARDS USE THE GENTLEST MEANS POSSIBLE IN ORDER TO PRESERVE THE HISTORIC FABRIC. NO SANDBLASTING, CHEMICALS, OR HIGH PRESSURE SPRAY. REFERENCE SPECIFICATIONS.

REPAIR CRACKS

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SUB SHEET NO. 01 A2.1

TITLE OF SHEET
MAURICE BATHHOUSE
NORTH ELEVATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 54 OF 286

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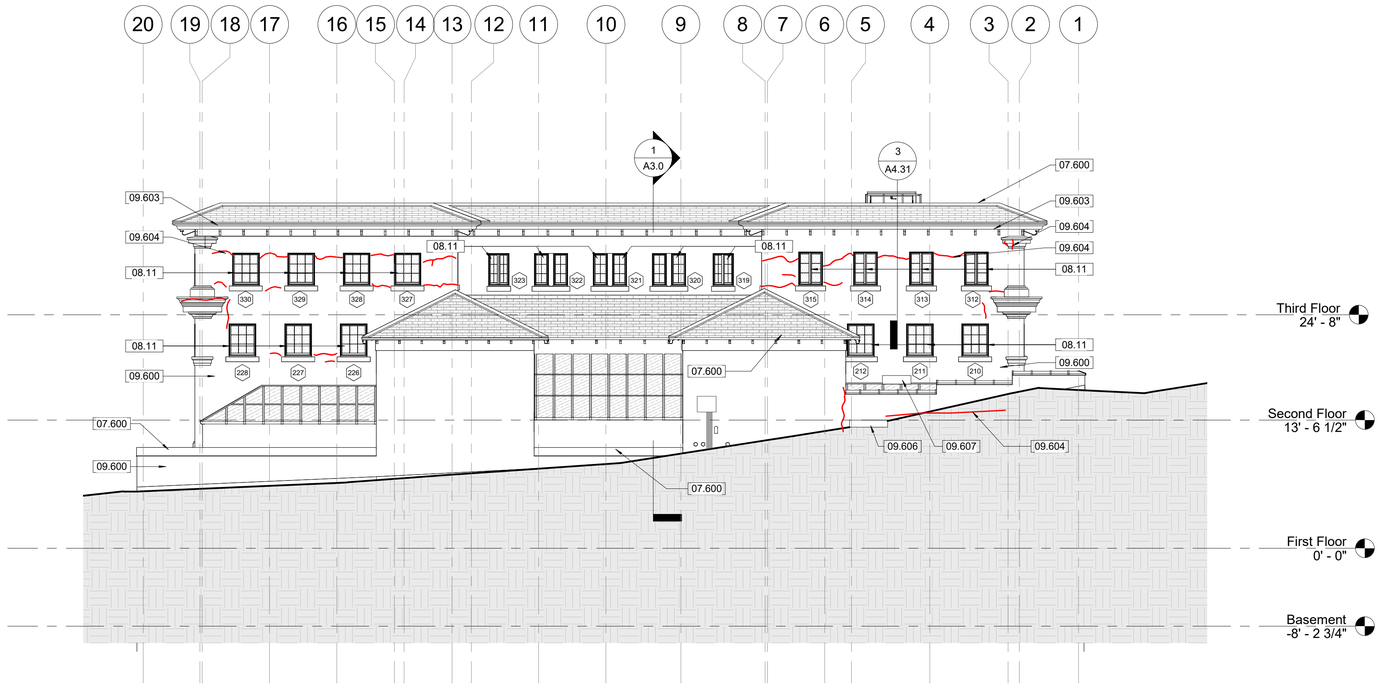

1
A2.2 East Elevation

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL ELEVATION NOTES:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING T THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

07.600	REFERENCE ROOF PLAN FOR TREATMENT RECOMMENDATIONS, TYPICAL.
08.11	080152.61, 099113, 099123 - RESTORE HISTORIC WOOD WINDOW. REFERENCE WINDOW SCHEDULE FOR REQUIRED REPAIRS. PREP, PRIME, AND PAINT ALL EXISTING WOOD WINDOW TO REMAIN. INSTALL NEW EXTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
09.600	099113 - PREP AND PAINT EXTERIOR WALLS (ROUGHLY 2050 SF).
09.603	062013, 099113 - REPAIR EAVES. PREP, PRIME, AND PAINT.
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).
09.606	092400 - INSTALL NEW STUCCO WHERE MISSING (ROUGHLY 5 SF)
09.607	092400 - INSTALL NEW STUCCO WHERE NON-APPROPRIATE PATCH WAS REMOVED (6 SF)

ELEVATION TREATMENT LEGEND

REPLACEMENT MATERIAL INSTALLED (INCLUDING WINDOWS, DOORS, RETAINING WALLS, ETC)

TILE

TL-1 — REPAIR AREAS OF CRACKED TILE GROUT, EXISTING TILE TO REMAIN IN PLACE (50 SF). CONTRACTOR TO TAKE GREAT CARE OF EXISTING HISTORIC TILES. REPLACEMENT HISTORIC TILES ARE NOT AVAILABLE.

STUCCO

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REPAIR CRACKS

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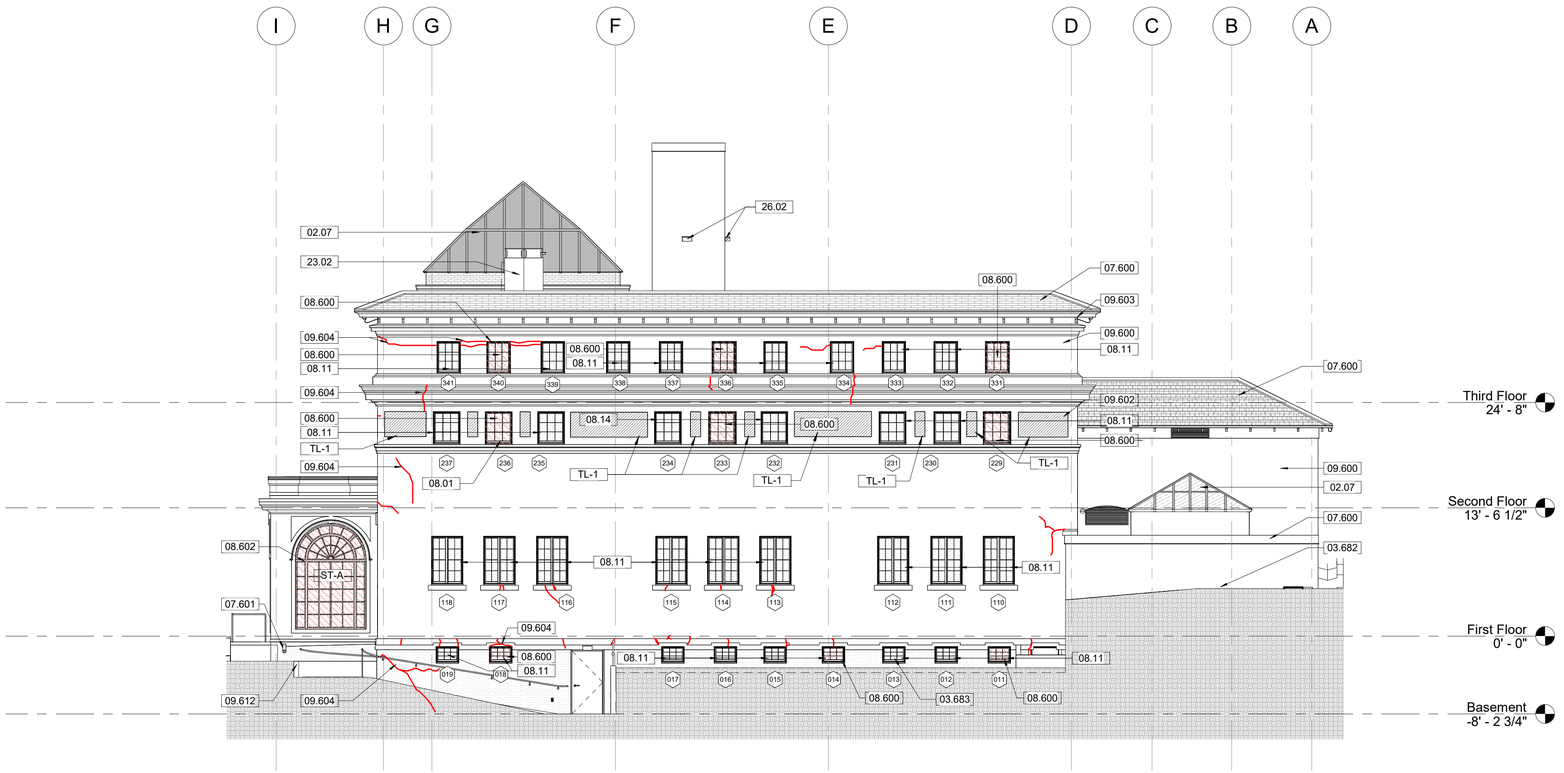
SUB SHEET NO. 01 A2.2

TITLE OF SHEET
MAURICE BATHHOUSE
EAST ELEVATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 55 OF 286

11/6/2023 5:39:34 PM



1 / A2.3 South Elevation

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL ELEVATION NOTES:

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B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
03.682	033000 - EXTERIOR: NEW CONCRETE CAP, REFERENCE CIVIL. FILL WILL BE REQUIRED PRIOR TO INSTALLING NEW CAP.
03.683	033000 - INSTALL NEW CONCRETE WINDOW SILL AT WINDOW 013 (1 EA). SILL WILL NEED TO BE INTEGRAL WITH NEW CONCRETE RUNNELS.
07.600	REFERENCE ROOF PLAN FOR TREATMENT RECOMMENDATIONS, TYPICAL.
07.601	076200 - INSTALL NEW DOWNSPOUT AND EXTENSION AT EXISTING INTERNAL GUTTER EXIT HOLE. WATER TO BE DIRECTED AWAY FROM BUILDING.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.11	080152.61, 099113, 099123 - RESTORE HISTORIC WOOD WINDOW. REFERENCE WINDOW SCHEDULE FOR REQUIRED REPAIRS. PREP, PRIME, AND PAINT ALL EXISTING WOOD WINDOW TO REMAIN. INSTALL NEW EXTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
08.14	088000, 099113, 099123 - INSTALL REPLICA WOOD WINDOWS WITH INSULATED GLAZING, REFERENCE WINDOW SCHEDULE. PREP, PRIME, AND PAINT ALL NEW WINDOWS.
08.600	088000, 099113, 099123 - INSTALL REPLICA WOOD WINDOW. REFERENCE WINDOW SCHEDULE. PREP, PRIME, AND PAINT. INSTALL NEW INTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
08.602	092300, 092400 - PREP EXISTING WINDOW OPENING FOR NEW CUSTOM STEEL WINDOWS TO MATCH THE HISTORIC CONDITION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
09.600	099113 - PREP AND PAINT EXTERIOR WALLS (ROUGHLY 2050 SF).
09.602	093013 - REPAIRS AREAS OF CRACKED TILE GROUT. REINSTALL SALVAGED TILE, RESET, AND GROUT (100 LF).
09.603	062013, 099113 - REPAIR EAVES. PREP, PRIME, AND PAINT.
09.604	092400 - REPAIR CRACKS IN STUCCO (ROUGHLY 300 LF).
09.612	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING RETAINING WALL TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.
26.02	EXISTING LIGHT FIXTURE TO BE CAREFULLY REINSTALLED, REFERENCE ELECTRICAL

ELEVATION TREATMENT LEGEND

REPLACEMENT MATERIAL INSTALLED (INCLUDING WINDOWS, DOORS, RETAINING WALLS, ETC)

TILE

TL-1 — REPAIR AREAS OF CRACKED TILE GROUT, EXISTING TILE TO REMAIN IN PLACE (50 SF). CONTRACTOR TO TAKE GREAT CARE OF EXISTING HISTORIC TILES. REPLACEMENT HISTORIC TILES ARE NOT AVAILABLE.

STUCCO

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REPAIR CRACKS

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SUB SHEET NO. 01 A2.3

TITLE OF SHEET
MAURICE BATHHOUSE
SOUTH ELEVATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	56 OF 286

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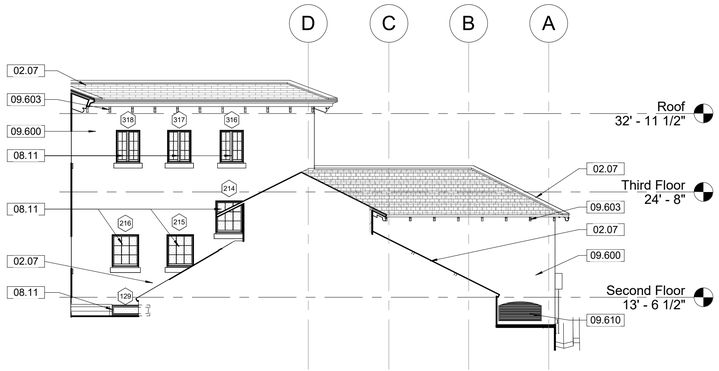
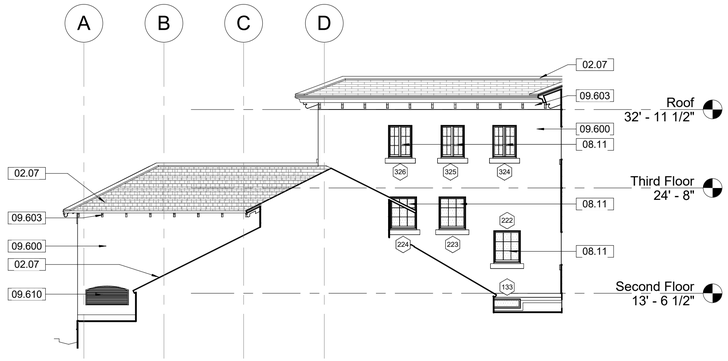


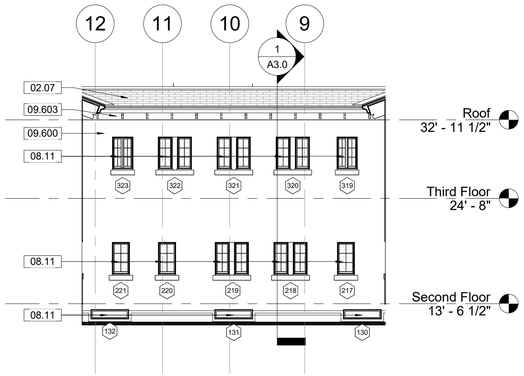
1 A2.4 Exterior Elevation - North Court

1/8" = 1'-0" SCALE (A)



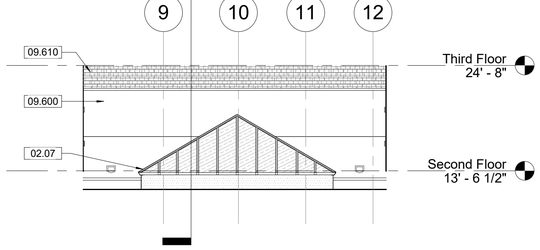
2 A2.4 Exterior Elevation - South Court

1/8" = 1'-0" SCALE (A)



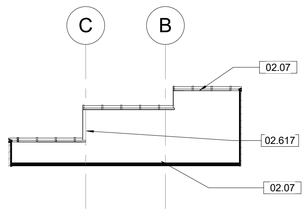
3 A2.4 Exterior Elevation - West Court

1/8" = 1'-0" SCALE (A)



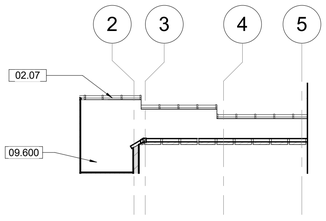
4 A2.4 Exterior Elevation - East Court Looking East

1/8" = 1'-0" SCALE (A)



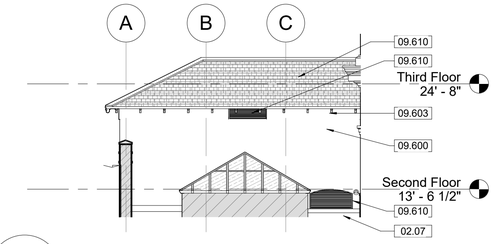
5 A2.4 North Court - North Parapet Wall

1/8" = 1'-0" SCALE (A)



6 A2.4 North Court - East Parapet Wall

1/8" = 1'-0" SCALE (A)



7 A2.4 North Elevation - North Court

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL ELEVATION NOTES:

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D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.07	REFERENCE THE ROOF PLAN FOR ALL WORK REQUIRED AT THE ROOFS AND SKYLIGHTS.
02.617	024296 - CAREFULLY DEMOLISH AND SALVAGE HISTORIC WOOD WINDOW FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
08.11	080152.61, 099113, 099123 - RESTORE HISTORIC WOOD WINDOW. REFERENCE WINDOW SCHEDULE FOR REQUIRED REPAIRS. PREP, PRIME, AND PAINT ALL EXISTING WOOD WINDOW TO REMAIN. INSTALL NEW EXTERIOR STORM WINDOW. REFERENCE WINDOW SCHEDULE.
09.600	099113 - PREP AND PAINT EXTERIOR WALLS (ROUGHLY 2050 SF).
09.603	062013, 099113 - REPAIR EAVES. PREP, PRIME, AND PAINT.
09.610	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING LOUVERS.

ELEVATION TREATMENT LEGEND

REPLACEMENT MATERIAL INSTALLED (INCLUDING WINDOWS, DOORS, RETAINING WALLS, ETC)

TILE

TL-1 — REPAIR AREAS OF CRACKED TILE GROUT, EXISTING TILE TO REMAIN IN PLACE (50 SF). CONTRACTOR TO TAKE GREAT CARE OF EXISTING HISTORIC TILES. REPLACEMENT HISTORIC TILES ARE NOT AVAILABLE.

STUCCO

ST-1 — REMOVE LOOSE, DAMAGED AND /OR STRUCTURAL UNSOUND STUCCO AND REPLACE WITH NEW STUCCO.

ST-2 — REMOVE BIOLOGICAL GROWTH FROM STUCCO (N-20 SF, W-15 SF: TOTAL 150 SF). PER SECRETARY OF INTERIOR'S STANDARDS USE THE GENTLEST MEANS POSSIBLE IN ORDER TO PRESERVE THE HISTORIC FABRIC. NO SANDBLASTING, CHEMICALS, OR HIGH PRESSURE SPRAY. REFERENCE SPECIFICATIONS.

REPAIR CRACKS

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STATE OF ARKANSAS
10.18.2023

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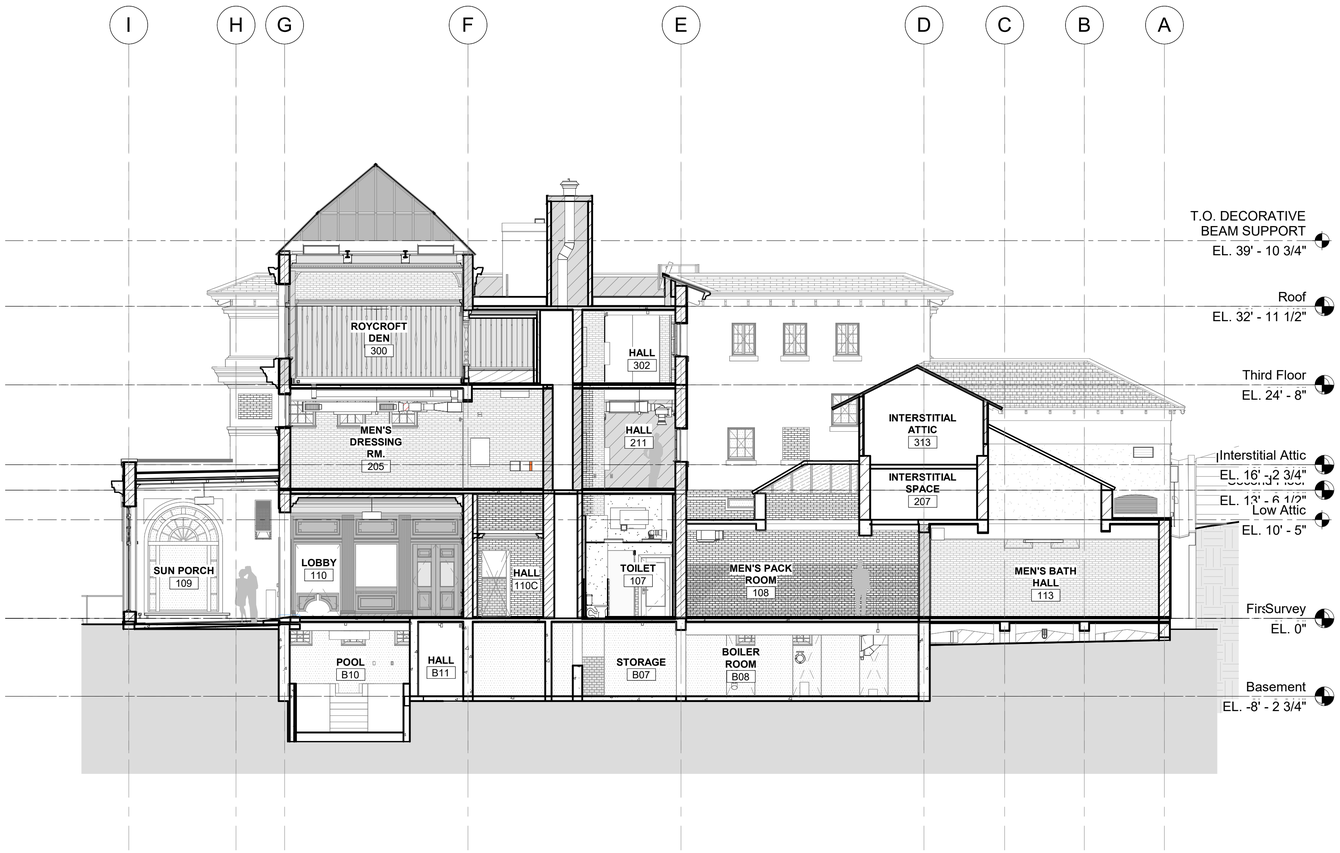
SUB SHEET NO. 01 A2.4

TITLE OF SHEET
MAURICE BATHHOUSE
COURT ELEVATIONS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	57 OF 286

11/6/2023 5:39:47 PM



1 / A3.0 Building Section E-W

1/8" = 1'-0" SCALE (A)

SCALE (A) 0 2 4 6 8 16 32

SCALE OF FEET

GENERAL ELEVATION NOTES:

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REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

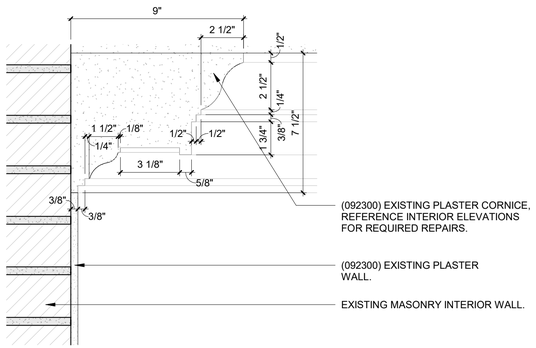
SUB SHEET NO. 01 A3.0

TITLE OF SHEET
MAURICE BATHHOUSE
BUILDING SECTION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

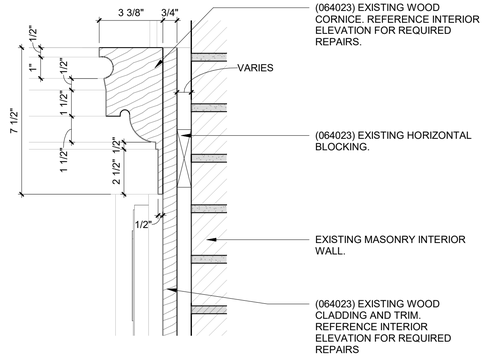
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 58 OF 286

11/6/2023 5:39:56 PM



1 A4.30 Section Detail 110C Hall E. - Cornice Detail

3" = 1'-0" SCALE (B)



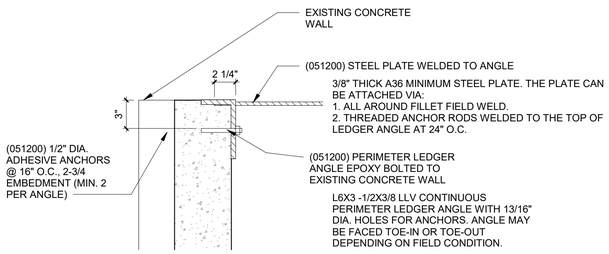
2 A4.30 Section Detail 300 Roycroft Den - Detail

3" = 1'-0" SCALE (B)

3 A4.30 300 Roycroft Den E. - Column Profile

1 1/2" = 1'-0" SCALE (A)

NOTES:
1. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL REBAR PRIOR TO ANCHORAGE INSTALLATION.
2. ALL STEEL COMPONENTS TO BE GALVANIZED PER EXTERIOR CONDITION.



4 A4.30 Section Detail - Bulk Head Detail

1 1/2" = 1'-0" SCALE (A)

SCALE (B) 6 3 0 6
SCALE OF INCHES

SCALE (A) 12 6 0 12
SCALE OF INCHES

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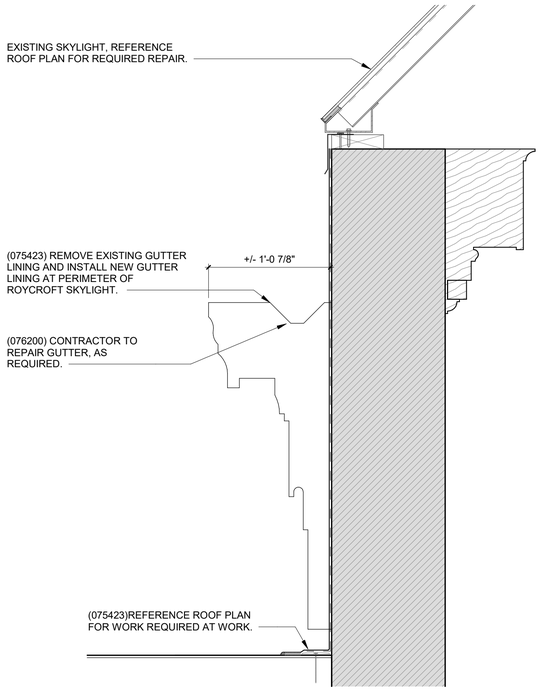
SUB SHEET NO. 01 A4.30

TITLE OF SHEET
MAURICE BATHHOUSE
SECTION DETAILS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

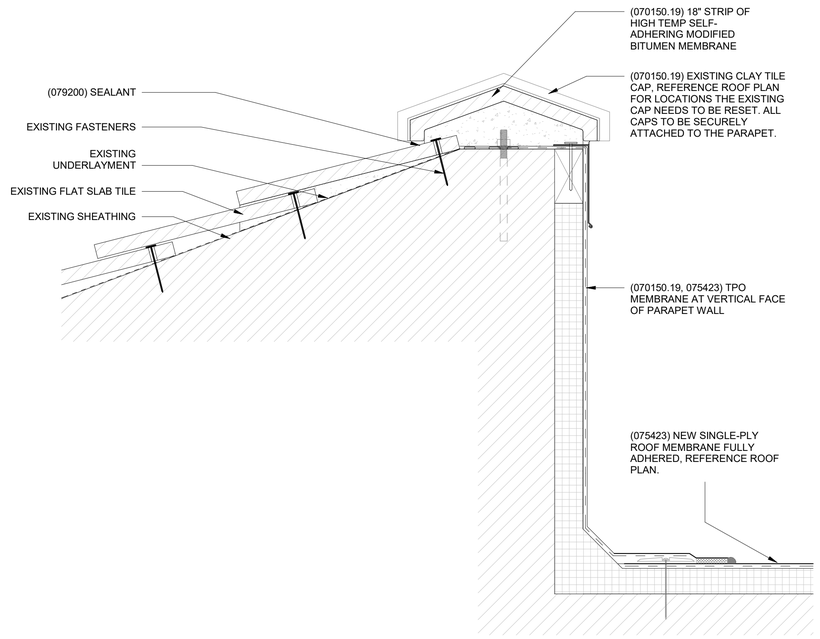
DRAWING NO. 128
182951
PMIS/PKG NO. 318915
SHEET 59 OF 286

11/6/2023 5:38:58 PM



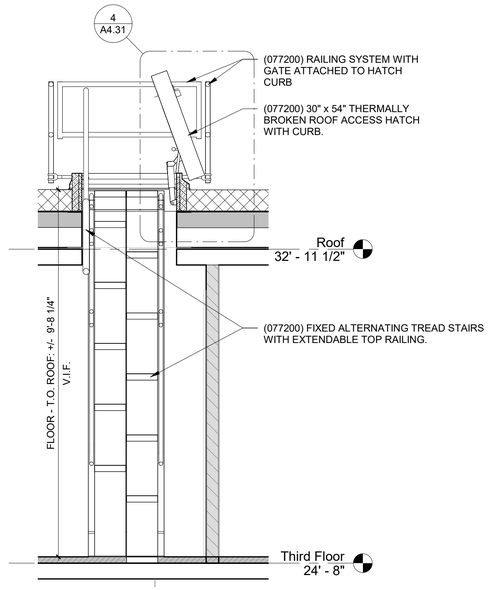
1 A4.31 **Section Detail - Roycroft Den Skylight Gutter**

1 1/2" = 1'-0" SCALE (A)



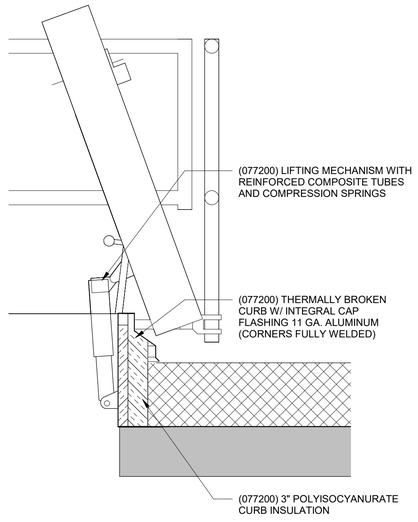
2 A4.31 **Section Detail - Parapet**

3" = 1'-0" SCALE (B)



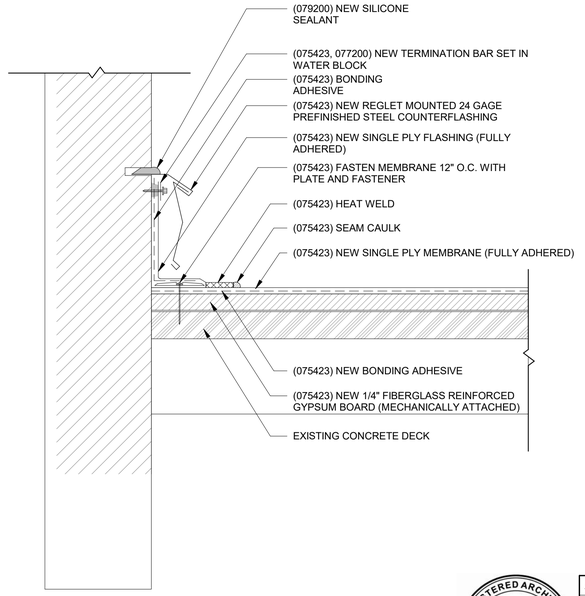
3 A4.31 **Enlarged Section - Roof Access Hatch**

1/2" = 1'-0" SCALE (C)



4 A4.31 **Section Detail - Roof Hatch**

1 1/2" = 1'-0" SCALE (A)



5 A4.31 **Section Detail - Chimney Reglet**

1 1/2" = 1'-0" SCALE (A)

SCALE (B) 6 3 0 6
SCALE OF INCHES

SCALE (A) 12 6 0 12
SCALE OF INCHES

SCALE (C) 2 0 2 4
SCALE OF FEET

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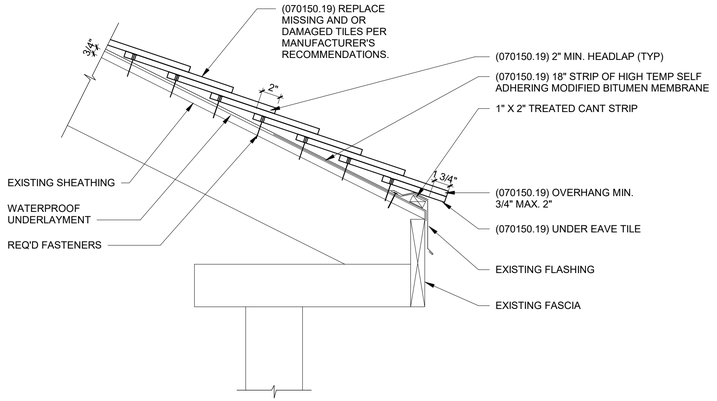
SUB SHEET NO. 01 A4.31

TITLE OF SHEET
MAURICE BATHHOUSE
SECTION DETAILS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

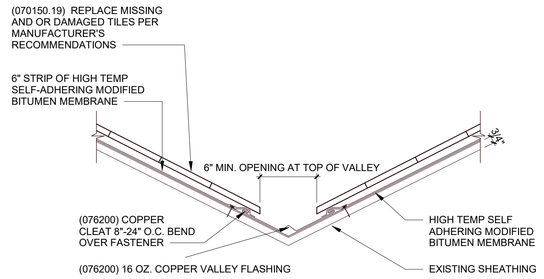
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 60 OF 286

11/6/2023 5:40:00 PM



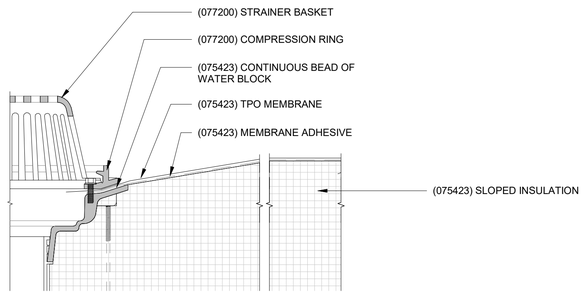
1 A4.32 Section Detail at Clay Roof Eave Tile

1 1/2" = 1'-0" SCALE (A)



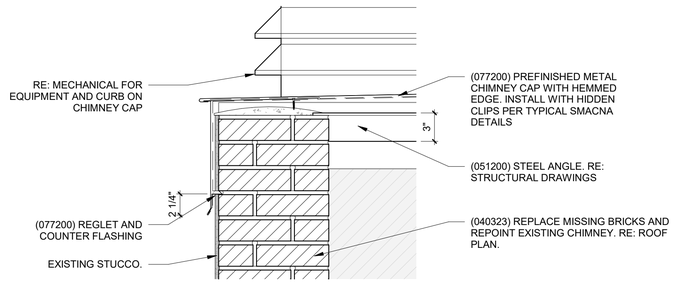
2 A4.32 Section Detail at Clay Roof Tile Valley

1 1/2" = 1'-0" SCALE (A)



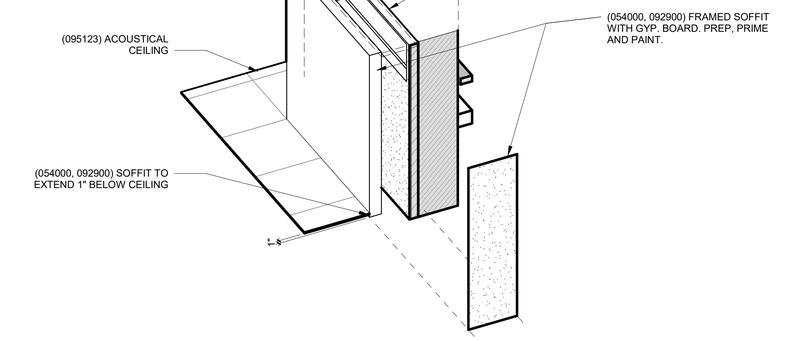
3 A4.32 Section Detail at TPO Roof Drain

3" = 1'-0" SCALE (B)



5 A4.32 Section Detail at Chimney Cap

1 1/2" = 1'-0" SCALE (A)



4 A4.32 AXON - 107 Window Well

NTS

SCALE (B) 6 3 0 6
SCALE OF INCHES

SCALE (A) 12 6 0 12
SCALE OF INCHES

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TITLE OF SHEET
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SECTION DETAILS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 61 OF 286

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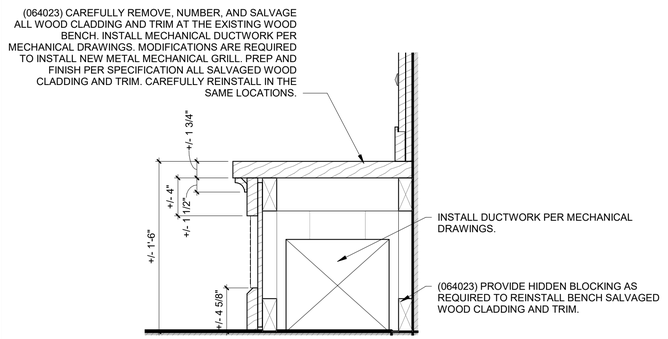
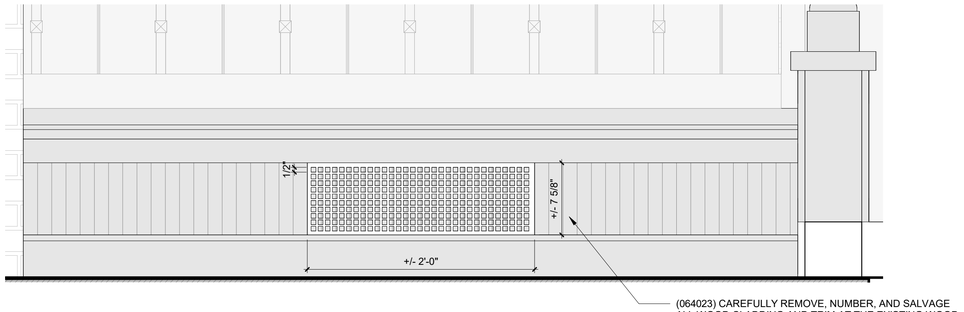


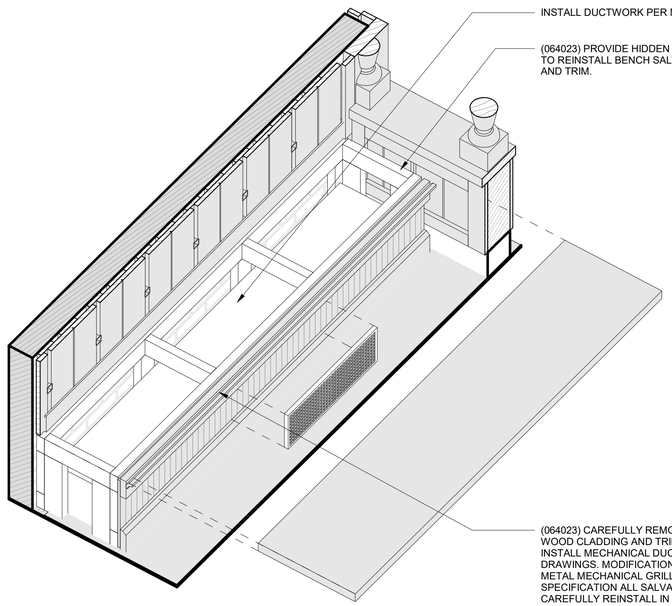
1 A4.33 — 300 Roycroft Nook E. - Bench Section

1 1/2" = 1'-0" SCALE (A)

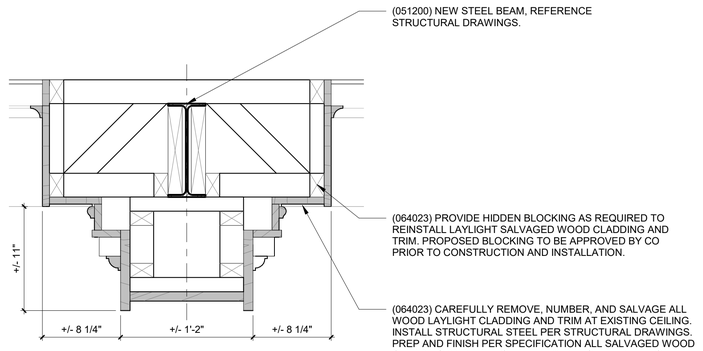


2 A4.33 — 300 Roycroft Nook S. - Bench Elevation

1 1/2" = 1'-0" SCALE (A)



3 A4.33 — AXON - Roycroft Bench



4 A4.33 — 300 Roycroft Den E. - Beam Section

1 1/2" = 1'-0" SCALE (A)

SCALE (B) 6 3 0 6
SCALE OF INCHES

SCALE (A) 12 6 0 12
SCALE OF INCHES

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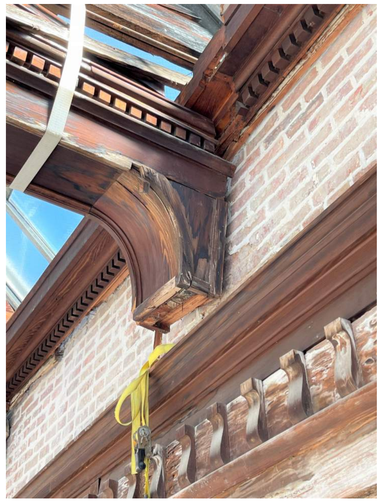
ROYCROFT BENCH



ROYCROFT BEAM AND LAYLIGHT

ROYCROFT LAYLIGHT

5 A4.33 — Photo Details - Roycroft Den

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SECTION DETAILS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 62 OF 286

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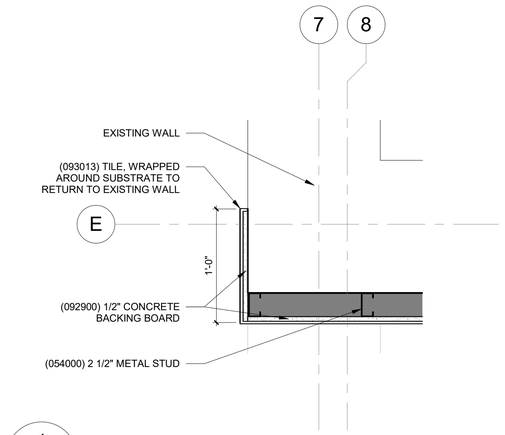
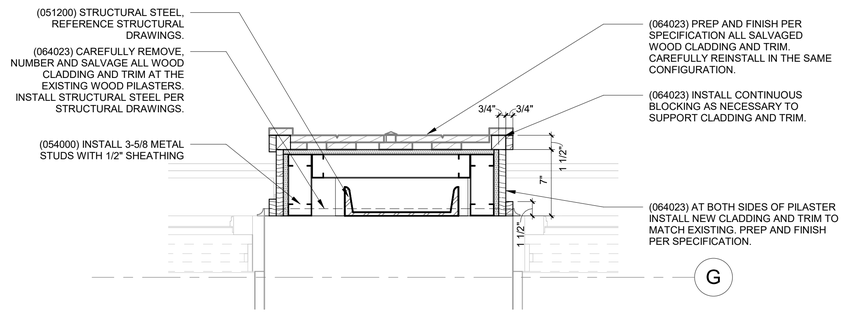


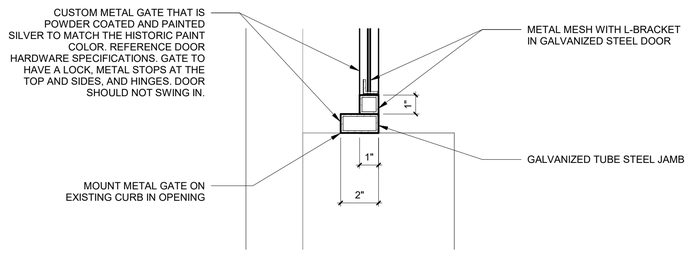
1 A4.50 Plan Detail - Tile Return at Restroom

1 1/2" = 1'-0" SCALE (A)



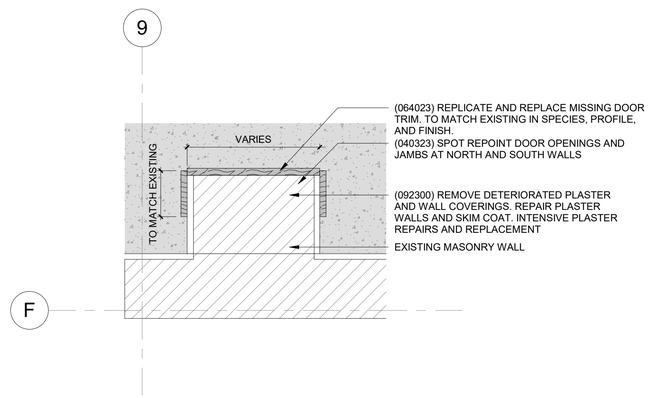
2 A4.50 Plan Detail - 300 Roycroft Den Pilaster West

1 1/2" = 1'-0" SCALE (A)



3 A4.50 Plan Detail - Elevator Pit Door Jamb

3" = 1'-0" SCALE (B)



4 A4.50 Plan Detail - Opening Frame

1 1/2" = 1'-0" SCALE (A)

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SCALE (B) 6 3 0 6
SCALE OF INCHES

SCALE (A) 12 6 0 12
SCALE OF INCHES

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DRAWING NO. 128 182951
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SHEET 63 OF 286

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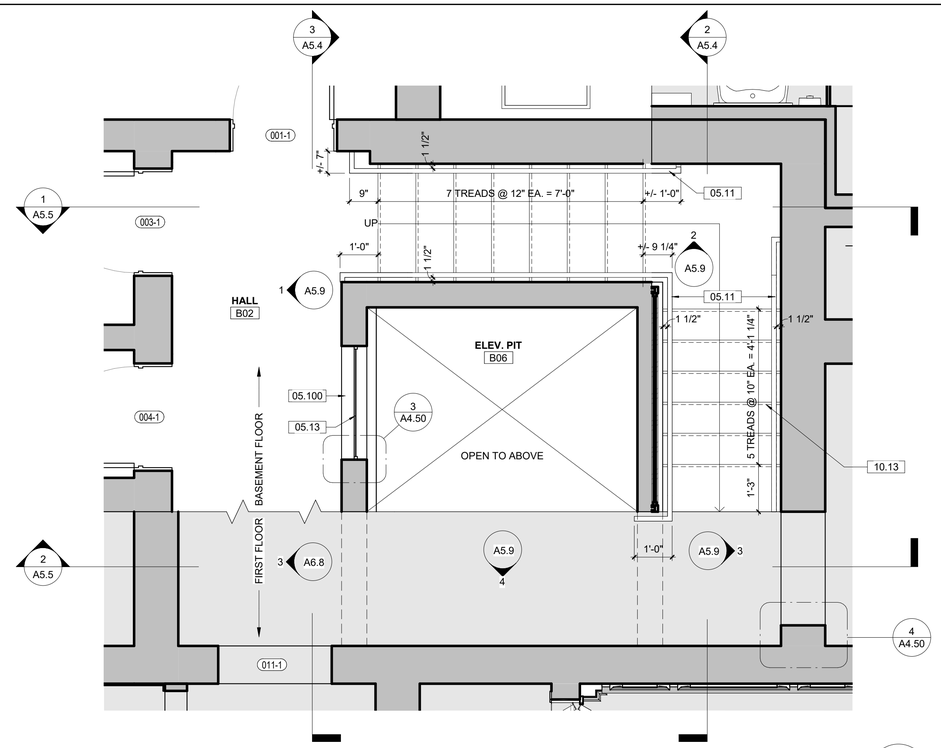
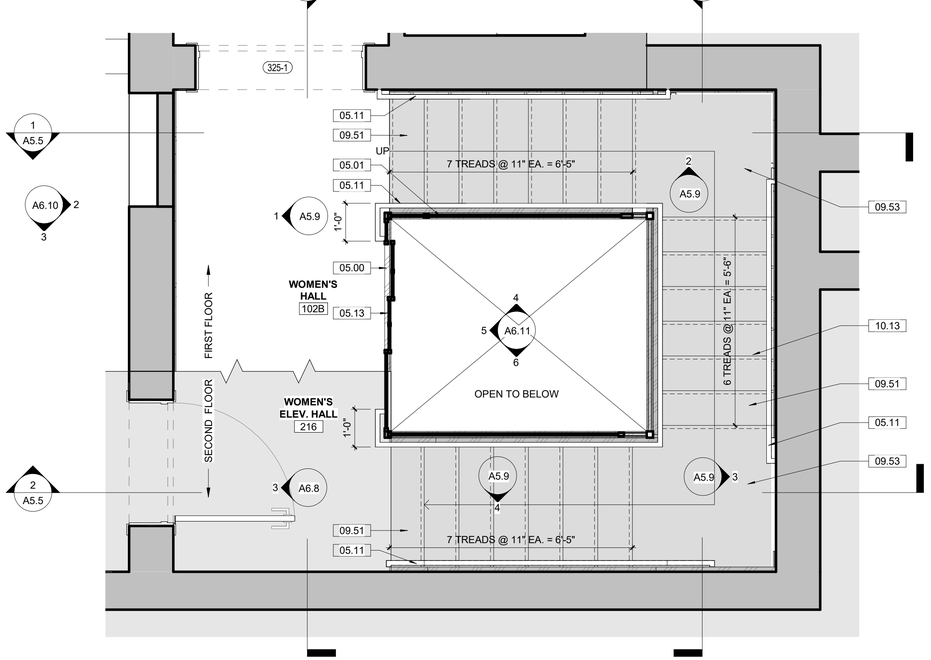


1 A5.0 Enlarged Plan - North Stair Basement Plan

1/2" = 1'-0" SCALE (A)



2 A5.0 Enlarged Plan - North Stair First Floor Plan

1/2" = 1'-0" SCALE (A)

BLDG:

SCALE (A) 2 0 2 4

SCALE OF FEET

HISTORIC ELEVATOR STABILIZATION WORK:

EXISTING HISTORIC WIRE CAGE ELEVATORS IN MEN'S AND WOMEN'S STAIR HALLS TO BE STABILIZED BY CONTRACTOR. CABS TO BE MOVED AND STABILIZED AT THE FIRST FLOOR LEVEL AND FULLY SUPPORTED WITH STEEL BEAM TO NOT MOVE. WEIGHTS TO BE DISENGAGED AND FIXED IN PLACE. CABLES TO BE DISCONNECTED AND INSTALLED TO BE NON-WORKING AND FIXED IN PLACE. CONTRACTOR TO CLEAN UP ALL DEBRIS AND LOOSE EQUIPMENT OR PARTS FROM ELEVATOR PITS. ALL PARTS TO BE BOXED, LABELED, AND DELIVERED TO PARK STORAGE. CONTRACTOR TO EMPTY ALL OIL FROM MOTORS, IF EXISTING. SLIDING DOORS TO BE WELDED INTO PLACE AT ALL FLOOR LEVELS TO PREVENT ACCESS INTO SHAFT. ALL SECTIONS OF THE SHAFT WIRE CAGE TO BE REPAIRED WITH SECTIONS OF NEW METAL MESH PANELING WHERE WIRE MESH IS MISSING OR DAMAGED.

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B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK.

C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

KEYNOTES

05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY, REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.
05.01	055213, 099123 - NORTH/SOUTH STAIRS: INSTALL METAL SUPPORT AT EXISTING ELEVATOR CAGE TO SUPPORT ANCHORING ON NEW HANDRAIL BRACKETS. PREP, PRIME, AND PAINT.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.
05.13	EXISTING ELEVATOR DOOR AT ALL FLOORS IS TO BE SECURED AND WELDED SHUT.
05.100	BASEMENT: INSTALL NEW METAL GATE AT ELEVATOR PIT OPENINGS (2 EA).
09.51	NORTH STAIRS: REPLACE MISSING MARBLE TREADS. START THE REPLACEMENT WITH THE 17 NON-HISTORIC MARBLE TREADS STORED IN MEN'S DRESSING ROOM 205. USE THE 10 HISTORIC MARBLE TREADS STORED IN WOMEN'S PACK ROOM 101 AND 12 HISTORIC MARBLE TREADS STORED IN HALL 211 TO FILL IN. ALL MARBLE TREADS TO BE CLEANED WITH BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.
09.53	NORTH STAIRS: REPLACE LANDINGS WITH MARBLE LANDINGS STORED IN WOMEN'S PACK ROOM 101, MEN'S DRESSING ROOM 205, AND HALL 211. INSTALL 3 NEW MARBLE LANDINGS TO MATCH EXISTING. MISSING MARBLE LANDINGS ARE ROUGHLY 42-INCHES BY 42-INCHES. FIELD MEASURE LANDINGS FOR FINAL DIMENSIONS FOR NEW REPLACEMENT LANDINGS. ALL MARBLE LANDINGS TO BE CLEANED WITH BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.
10.13	ADD ABA TEXTURED LOW VISION ANTI-SLIP TAPE ALONG TREAD EDGE, TYPICAL FOR ALL INTERIOR STAIRS.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET, SUITE 100
KANSAS CITY, MO
T: 816.474.0900

DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023

SUB SHEET NO. 01 A5.0

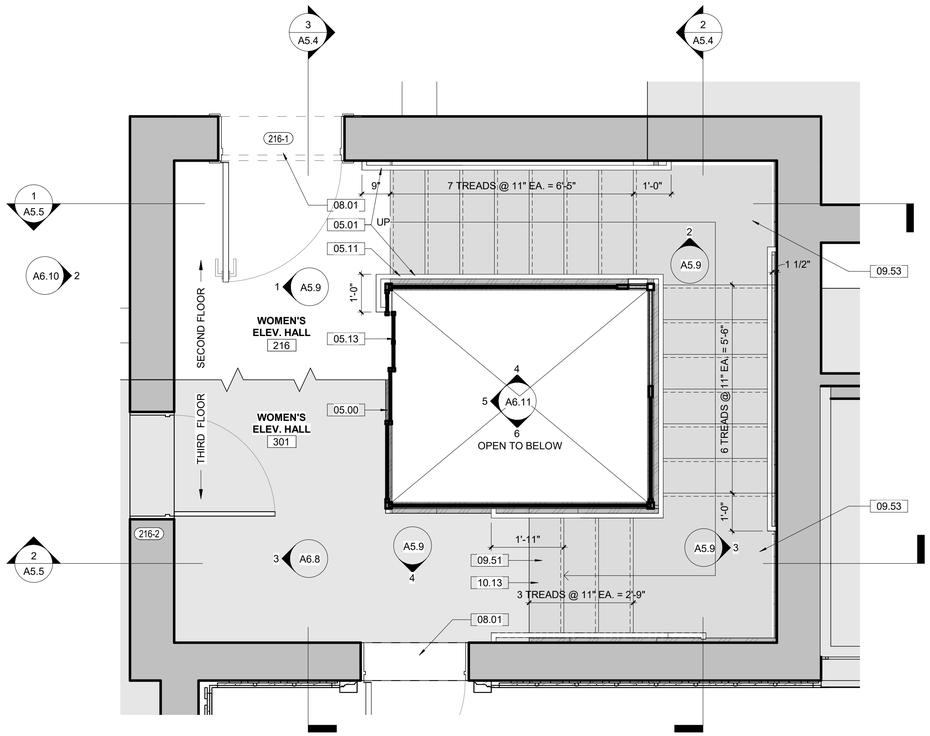
TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 64 OF 286

11/6/2023 5:40:12 PM

1 / A5.1 Photo Detail - Women's Elevator Hall 301 - Top Landing Looking South



2 / A5.1 Enlarged Plan - North Stair Second Floor Plan

1/2" = 1'-0" SCALE (A)

BLDG

SCALE (A) 2 0 2 4

SCALE OF FEET

GENERAL NOTES - TREATMENT:

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KEYNOTES

05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY, REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.
05.01	055213, 099123 - NORTH/SOUTH STAIRS: INSTALL METAL SUPPORT AT EXISTING ELEVATOR CAGE TO SUPPORT ANCHORING ON NEW HANDRAIL BRACKETS. PREP, PRIME, AND PAINT.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.
05.12	099123 - REPLACE DAMAGED METAL MESH IN KIND. NEW MESH SHOULD SPAN FROM METAL FRAME TO METAL FRAME (A FULL SHEET). NEW MESH TO MATCH EXISTING IN SPACING, MATERIAL, AND GAUGE. PREP, PRIME, AND PAINT. REUSE EXISTING FRAME. ATTACH PANEL MESH PANEL TO MATCH EXISTING ATTACHMENT.
05.13	EXISTING ELEVATOR DOOR AT ALL FLOORS IS TO BE SECURED AND WELDED SHUT.
05.14	024296 - REMOVE METAL PANELING SECURED TO THE EXISTING ELEVATOR CAGE THAT IS NOT ORIGINAL TO THE CAGE.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
09.51	NORTH STAIRS: REPLACE MISSING MARBLE TREADS. START THE REPLACEMENT WITH THE 17 NON-HISTORIC MARBLE TREADS STORED IN MEN'S DRESSING ROOM 205. USE THE 10 HISTORIC MARBLE TREADS STORED IN WOMEN'S PACK ROOM 101 AND 12 HISTORIC MARBLE TREADS STORED IN HALL 211 TO FILL IN. ALL MARBLE TREADS TO BE CLEANED WITH BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.
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10.13	ADD ABA TEXTURED LOW VISION ANTI-SLIP TAPE ALONG TREAD EDGE, TYPICAL FOR ALL INTERIOR STAIRS.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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1701 OAK STREET, SUITE 100
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DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023

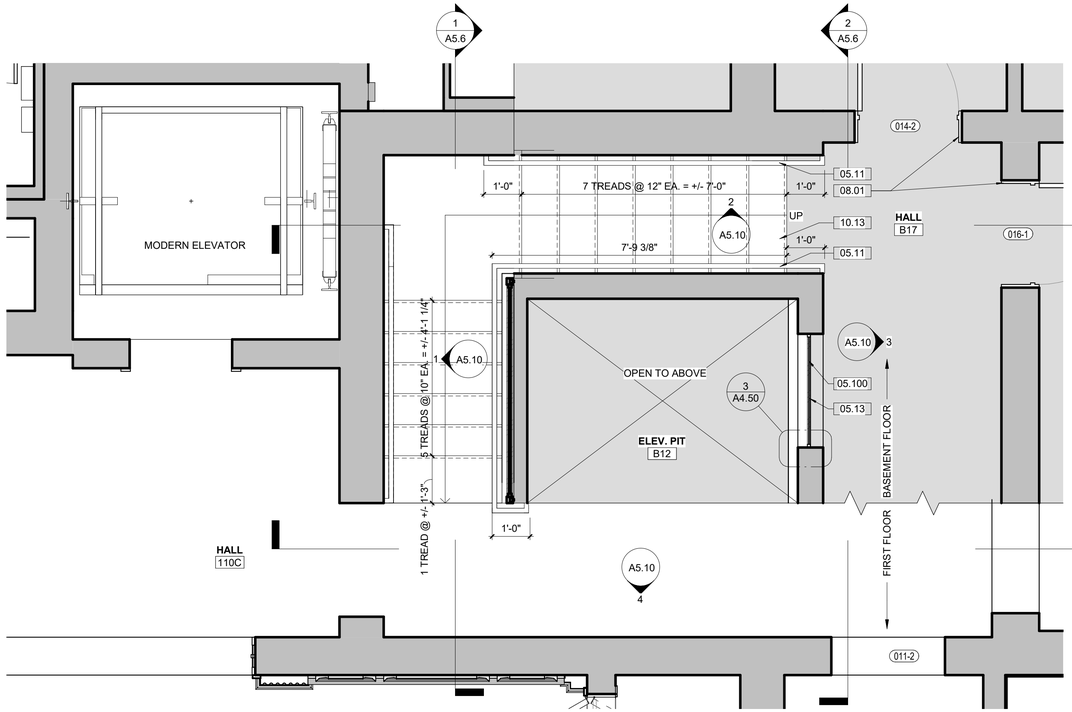
SUB SHEET NO. 01 A5.1

TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	65 OF 286

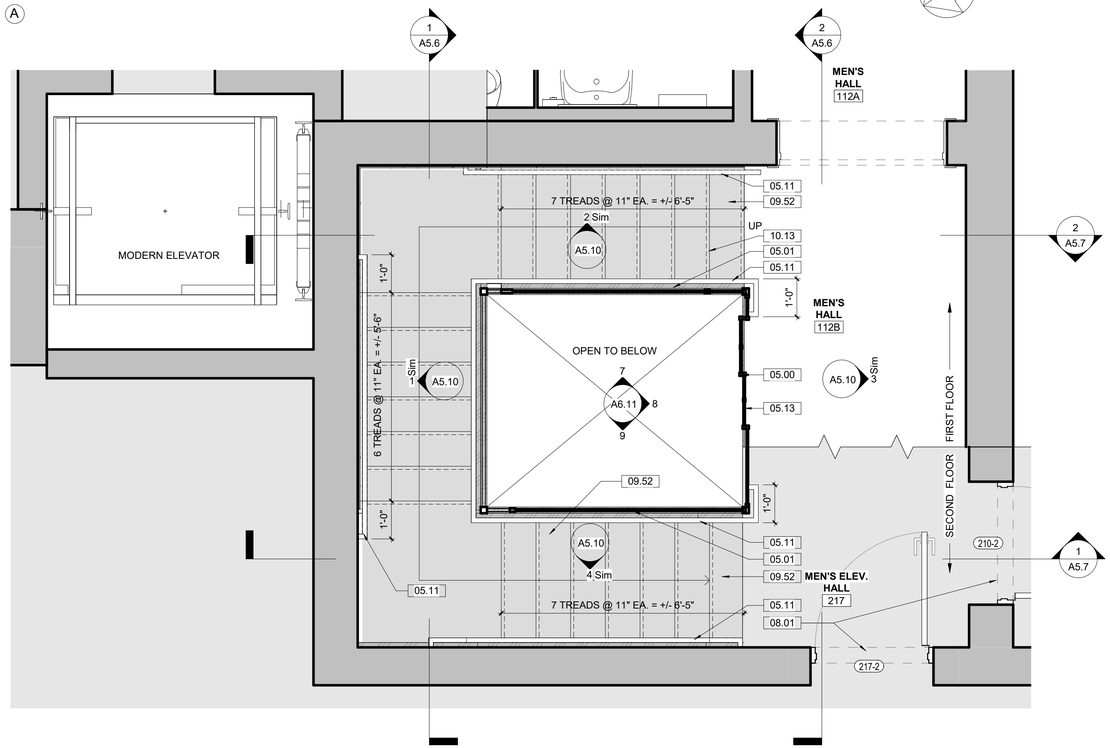
11/6/2023 5:40:15 PM



1 A5.2 Enlarged Plan - South Stairs and Elevator Basement Plan

1/2" = 1'-0" SCALE (A)

BLDG



2 A5.2 Enlarged Plan - South Stairs and Elevator First Floor Plan

1/2" = 1'-0" SCALE (A)

BLDG

SCALE (A) 2 0 2 4

SCALE OF FEET

HISTORIC ELEVATOR STABILIZATION WORK:

EXISTING HISTORIC WIRE CAGE ELEVATORS IN MEN'S AND WOMEN'S STAIR HALLS TO BE STABILIZED BY CONTRACTOR. CABS TO BE MOVED AND STABILIZED AT THE FIRST FLOOR LEVEL AND FULLY SUPPORTED WITH STEEL BEAM TO NOT MOVE. WEIGHTS TO BE DISENGAGED AND FIXED IN PLACE. CABLES TO BE DISCONNECTED AND INSTALLED TO BE NON-WORKING AND FIXED IN PLACE. CONTRACTOR TO CLEAN UP ALL DEBRIS AND LOOSE EQUIPMENT OR PARTS FROM ELEVATOR PITS. ALL PARTS TO BE BOXED, LABELED, AND DELIVERED TO PARK STORAGE. CONTRACTOR TO EMPTY ALL OIL FROM MOTORS, IF EXISTING. SLIDING DOORS TO BE WELDED INTO PLACE AT ALL FLOOR LEVELS TO PREVENT ACCESS INTO SHAFT. ALL SECTIONS OF THE SHAFT WIRE CAGE TO BE REPAIRED WITH SECTIONS OF NEW METAL MESH PANELING WHERE WIRE MESH IS MISSING OR DAMAGED.

GENERAL NOTES - TREATMENT:

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KEYNOTES

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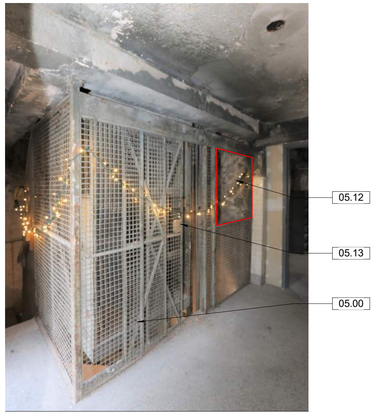
05.100	BASEMENT: INSTALL NEW METAL GATE AT ELEVATOR PIT OPENINGS (2 EA).
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
09.52	SOUTH STAIRS: CLEAN ALL MARBLE TREADS AND LANDINGS (1 LS). BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.
10.13	ADD ABA TEXTURED LOW VISION ANTI-SLIP TAPE ALONG TREAD EDGE, TYPICAL FOR ALL INTERIOR STAIRS.

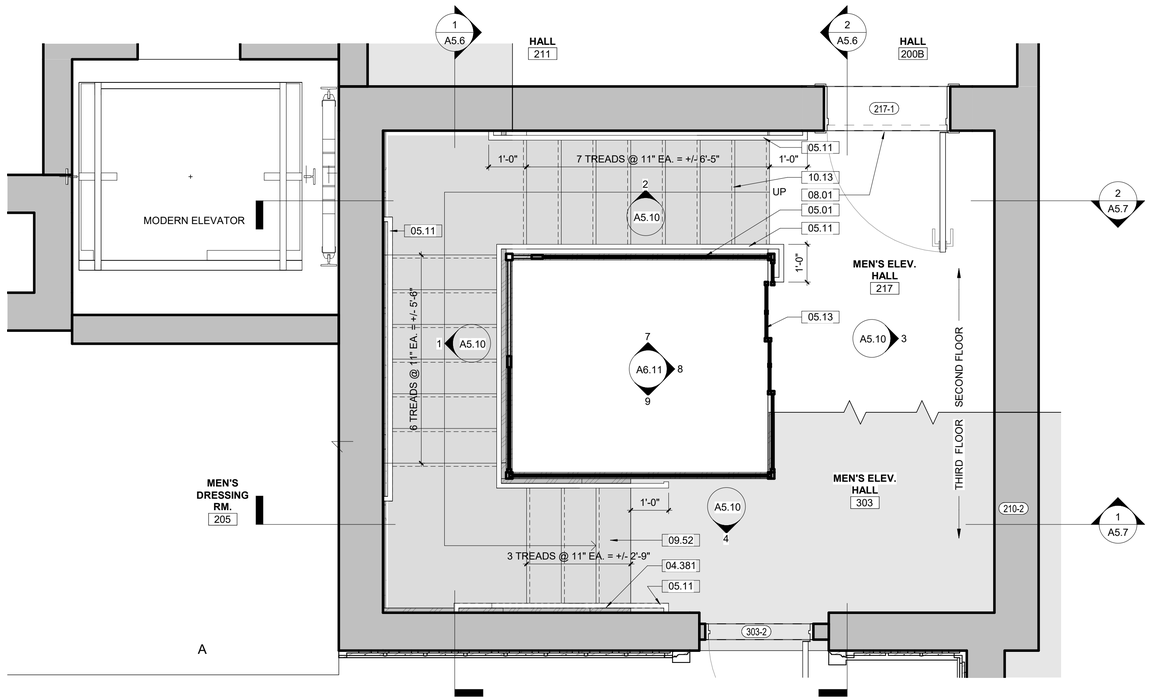
REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A5.2	TITLE OF SHEET MAURICE BATHHOUSE VERTICAL CIRCULATION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 66 OF 286

11/6/2023 5:40:18 PM



1
A5.3
Photo Detail - Men's Elevator Hall 303 - Top Landing Looking Northeast



2
A5.3
Enlarged Plan - South Stairs and Elevator Second Floor Plan
1/2" = 1'-0" SCALE (A)

BLDG.

SCALE (A) 2 0 2 4
SCALE OF FEET

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KEYNOTES

04.381	040323 - STAIR 217: INFILL SECTION OF BRICK WALL WHERE BRICK IS MISSING ON WEST SIDE (6 SF).
05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY, REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.
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10.13	ADD ABA TEXTURED LOW VISION ANTI-SLIP TAPE ALONG TREAD EDGE, TYPICAL FOR ALL INTERIOR STAIRS.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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DATE:	10.27.2023

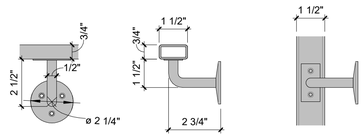
SUB SHEET NO.
01
A5.3

TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

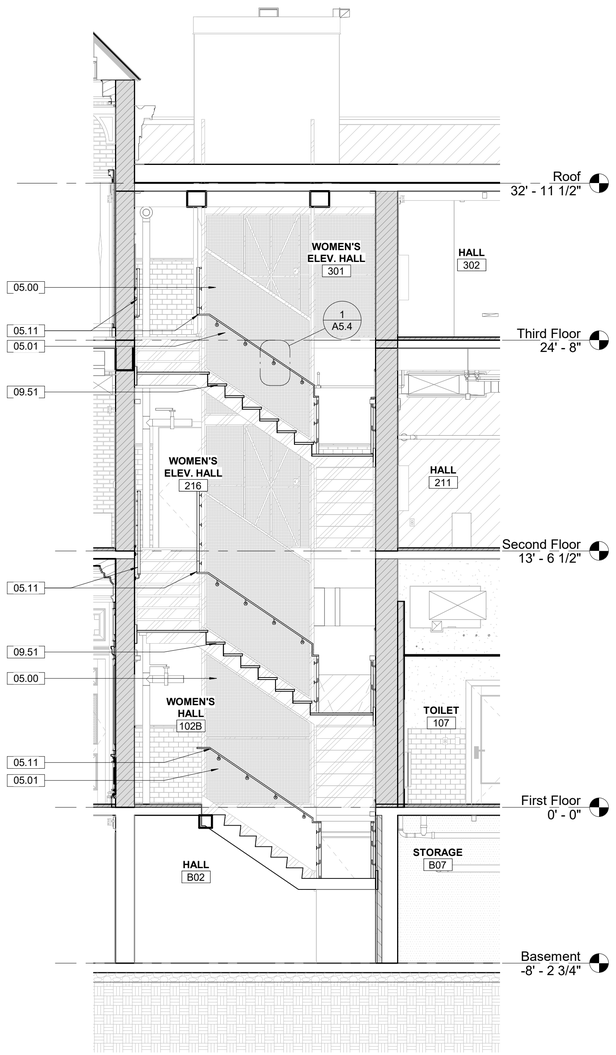
DRAWING NO.
128
182951
PMIS/PKG NO.
318915
SHEET
67 OF 286

11/6/2023 5:40:19 PM



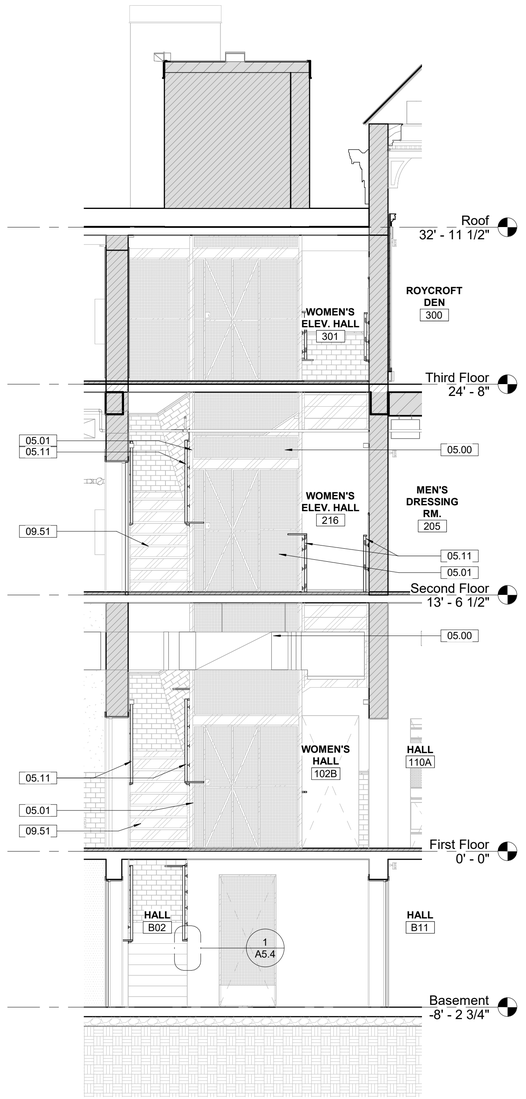
1 / A5.4 Typical Handrail Details

3" = 1'-0" SCALE (B)



2 / A5.4 Section - North Stair E-W, South

1/4" = 1'-0" SCALE (A)



3 / A5.4 Section - North Stair E-W, North

1/4" = 1'-0" SCALE (A)

SCALE (B) 6 3 0 6

SCALE OF INCHES

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

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KEYNOTES

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09.51	NORTH STAIRS: REPLACE MISSING MARBLE TREADS. START THE REPLACEMENT WITH THE 17 NON-HISTORIC MARBLE TREADS STORED IN MEN'S DRESSING ROOM 205. USE THE 10 HISTORIC MARBLE TREADS STORED IN WOMEN'S PACK ROOM 101 AND 12 HISTORIC MARBLE TREADS STORED IN HALL 211 TO FILL IN. ALL MARBLE TREADS TO BE CLEANED WITH BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.

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STATE OF ARKANSAS
10.18.2023

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DATE: 10.27.2023

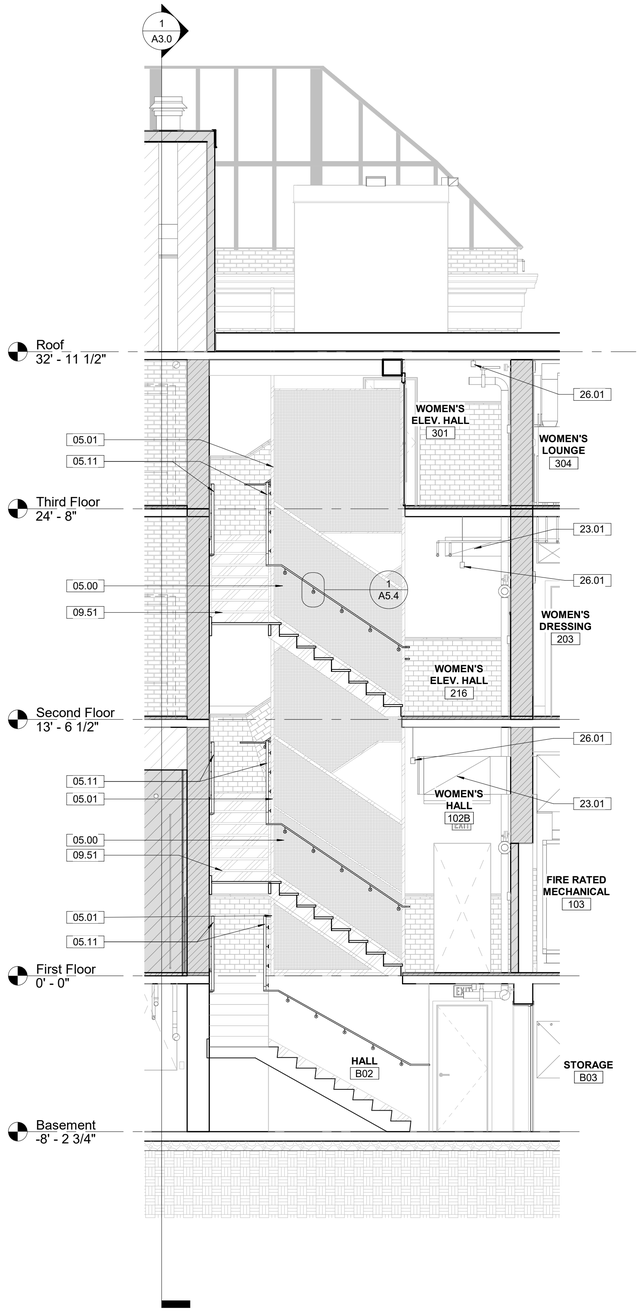
SUB SHEET NO. 01 A5.4

TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

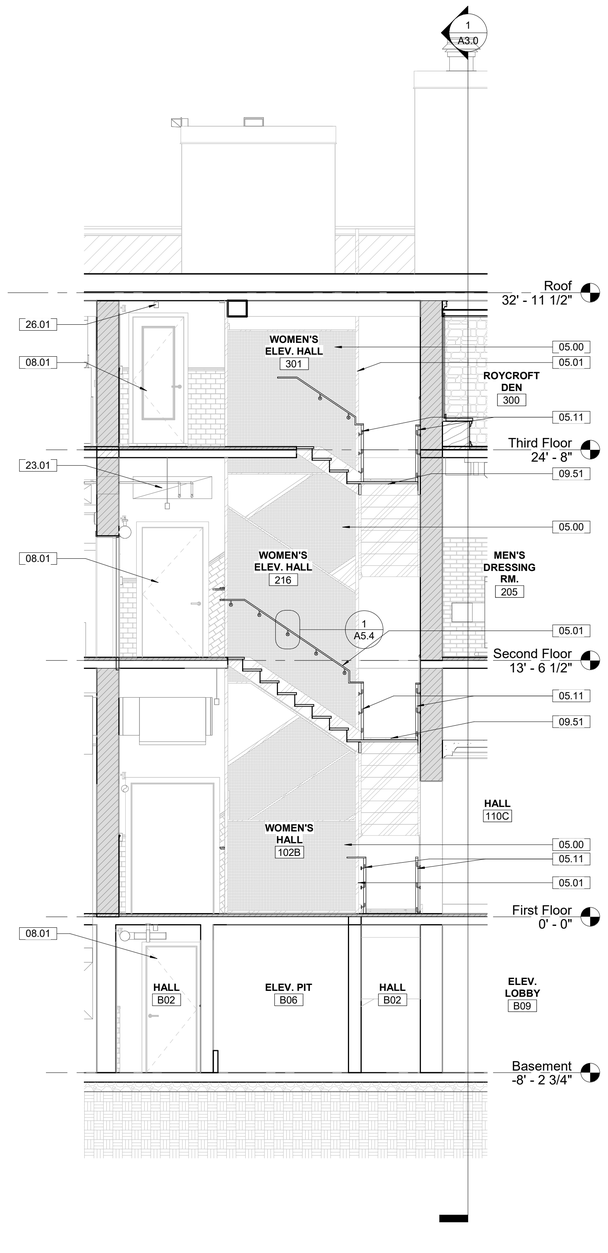
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 68 OF 286

11/6/2023 5:40:22 PM



1 A5.5 Section - North Stair N-S, East

1/4" = 1'-0" SCALE (A)



2 A5.5 Section - North Stair N-S, West

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

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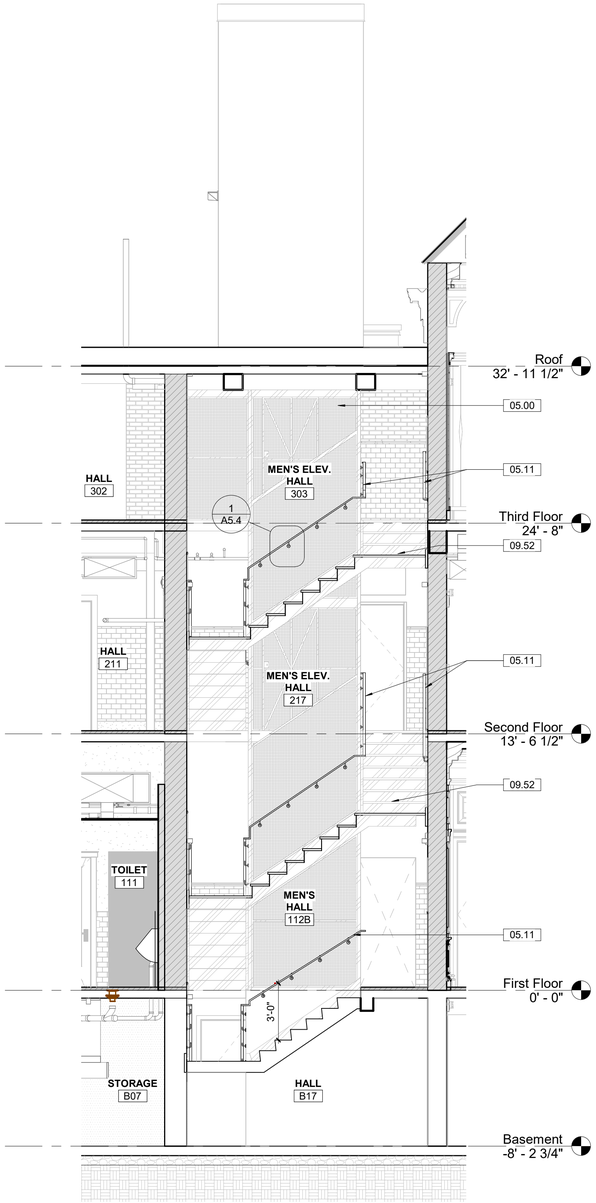
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

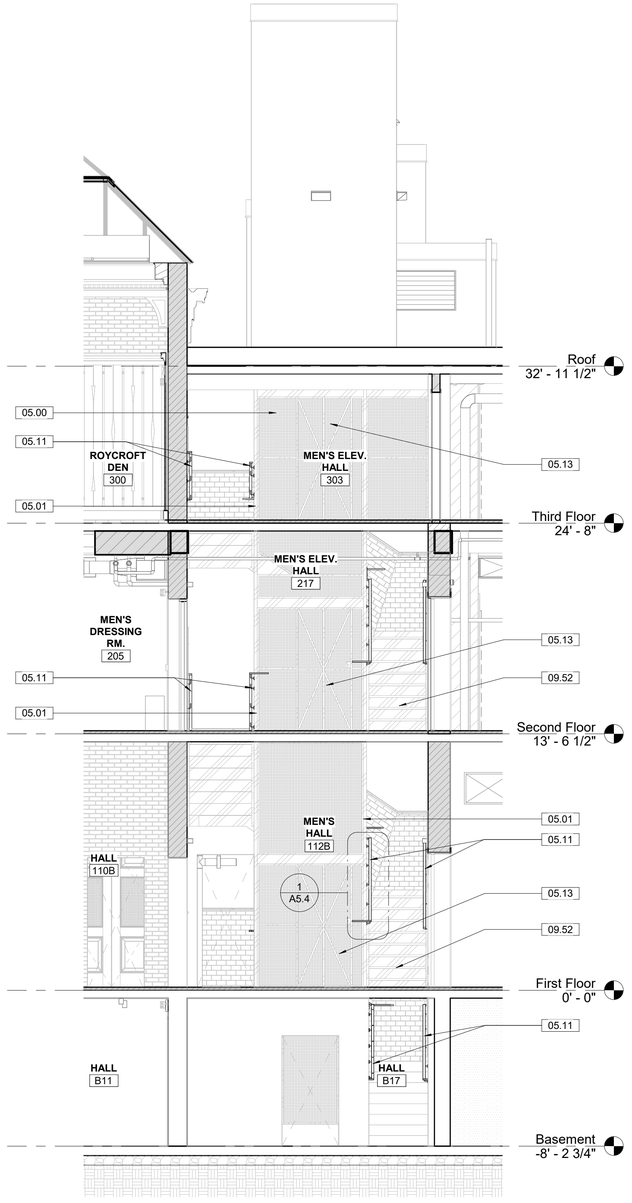
A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A5.5	TITLE OF SHEET MAURICE BATHHOUSE VERTICAL CIRCULATION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 69 OF 286

11/6/2023 5:45:24 PM



1 A5.6 Section - South Stair E-W, North

1/4" = 1'-0" SCALE (A)



2 A5.6 Section - South Stair E-W, South

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK.

C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

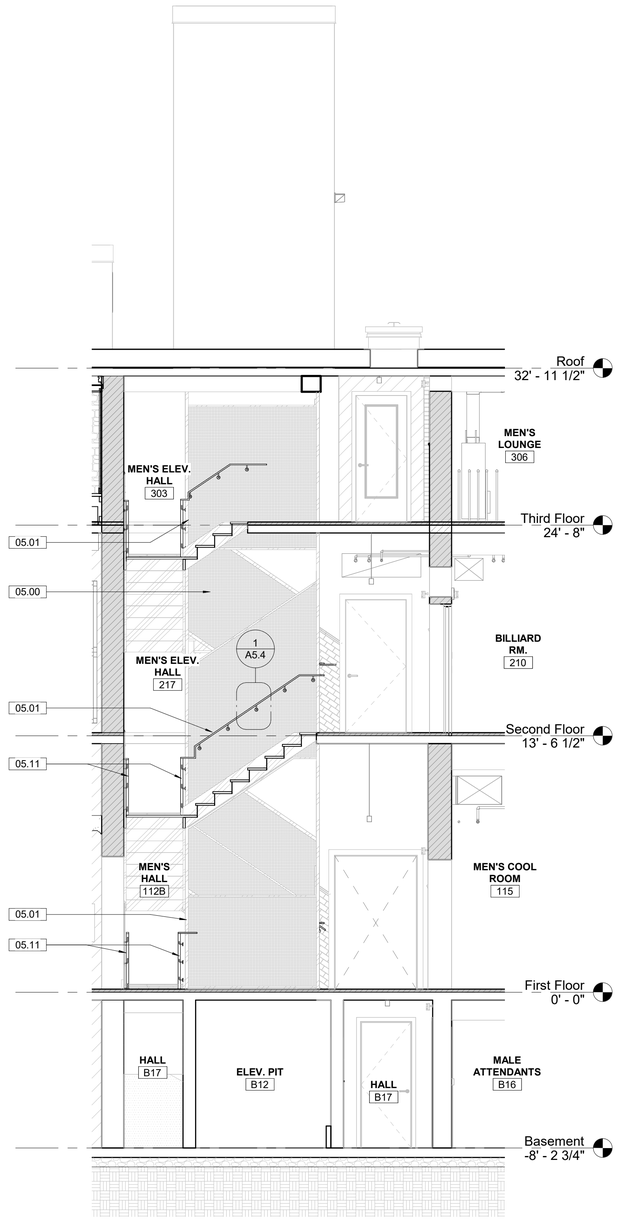
KEYNOTES

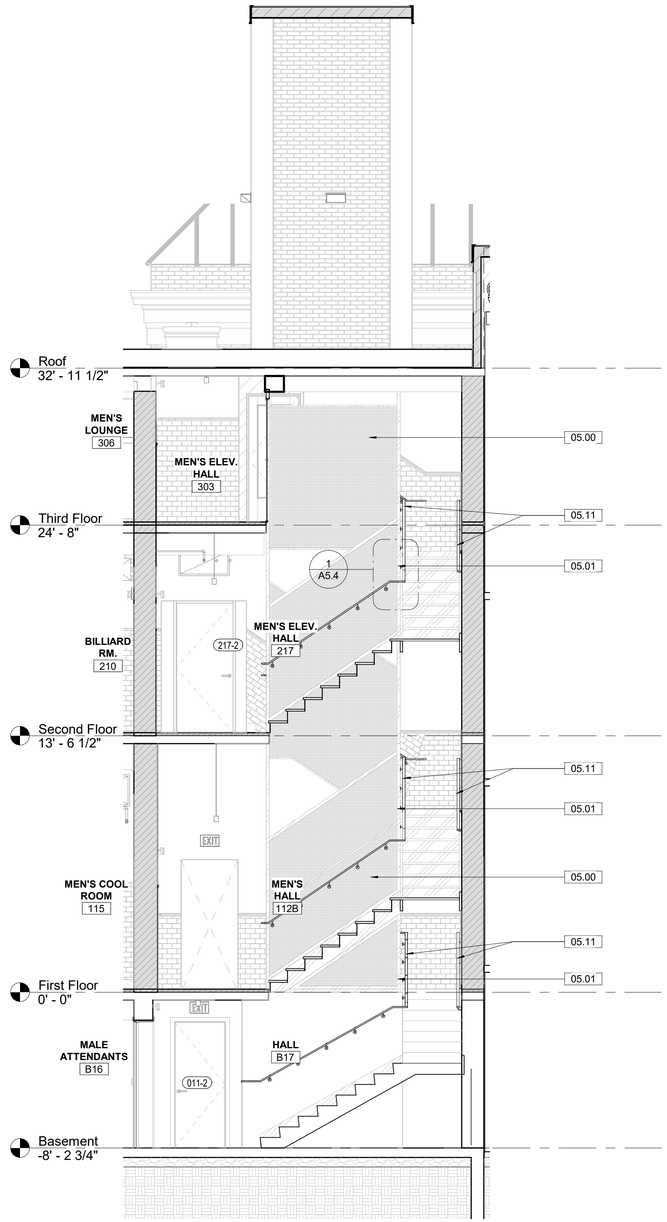
05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY, REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.
05.01	055213, 099123 - NORTH/SOUTH STAIRS: INSTALL METAL SUPPORT AT EXISTING ELEVATOR CAGE TO SUPPORT ANCHORING ON NEW HANDRAIL BRACKETS. PREP, PRIME, AND PAINT.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.
05.13	EXISTING ELEVATOR DOOR AT ALL FLOORS IS TO BE SECURED AND WELDED SHUT.
09.52	SOUTH STAIRS: CLEAN ALL MARBLE TREADS AND LANDINGS (1 LS). BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A5.6	TITLE OF SHEET MAURICE BATHHOUSE VERTICAL CIRCULATION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 70 OF 286

11/6/2023 5:40:27 PM





1 A5.7 Section - South Stair N-S
1/4" = 1'-0" SCALE (A)

2 A5.7 Section - South Stair and Elevator, N-S
1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

GENERAL NOTES - TREATMENT:

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KEYNOTES

05.00	055213, 099123 - NORTH/SOUTH STAIRS: STRIP AND REPAINT EXISTING HISTORIC ELEVATOR CAGE TO REMAIN (ALL LEVELS - BASEMENT THROUGH 3RD FLOOR). PAINT WITH COLOR FROM HISTORIC PAINT ANALYSIS. MAKE REPAIRS TO ELEVATOR CAGE FOR SAFETY. REFERENCE VERTICAL CIRCULATION INTERIOR ELEVATION. REFER TO MATERIALS TEST REPORT FOR LEAD PAINT TESTING.
05.01	055213, 099123 - NORTH/SOUTH STAIRS: INSTALL METAL SUPPORT AT EXISTING ELEVATOR CAGE TO SUPPORT ANCHORING ON NEW HANDRAIL BRACKETS. PREP, PRIME, AND PAINT.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A5.7	TITLE OF SHEET MAURICE BATHHOUSE VERTICAL CIRCULATION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 71 OF 286

11/6/2023 5:40:29 PM

GENERAL NOTES - TREATMENT:

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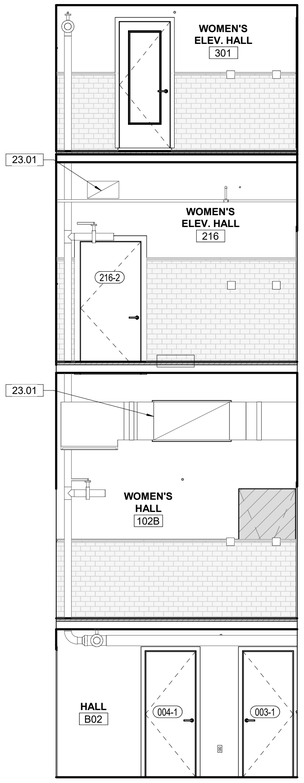
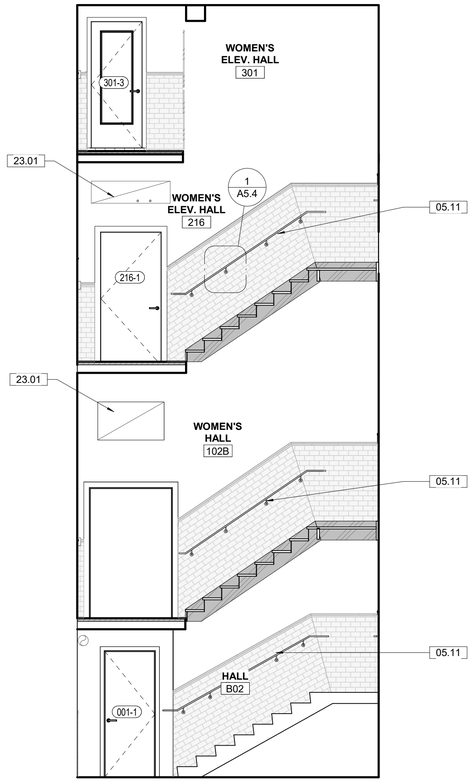
KEYNOTES

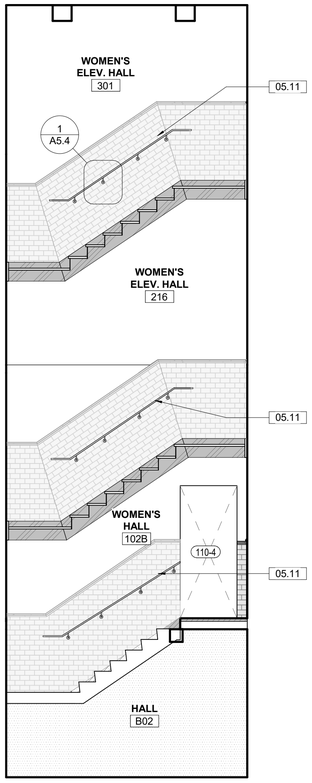
02.15	EXISTING CONCRETE WALL.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.



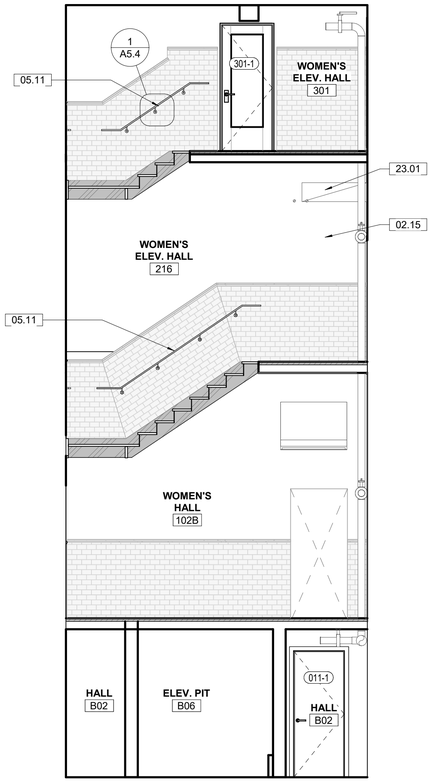
1 A5.9 North Stair - Looking North
1/4" = 1'-0" SCALE (A)



2 A5.9 North Stair, Looking East
1/4" = 1'-0" SCALE (A)



3 A5.9 North Stair, Looking South
1/4" = 1'-0" SCALE (A)



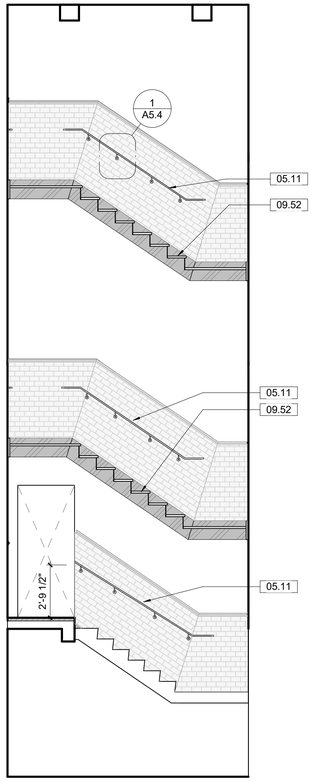
4 A5.9 North Stair - Looking West
1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

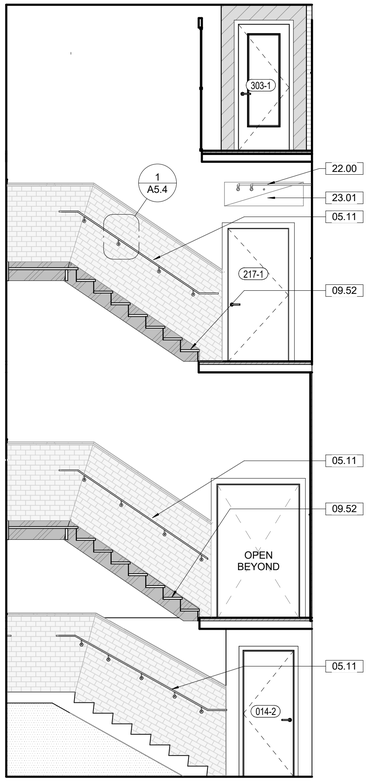
REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A5.9	MAURICE BATHHOUSE VERTICAL CIRCULATION	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 72 OF 286
	DATE: 10.27.2023			

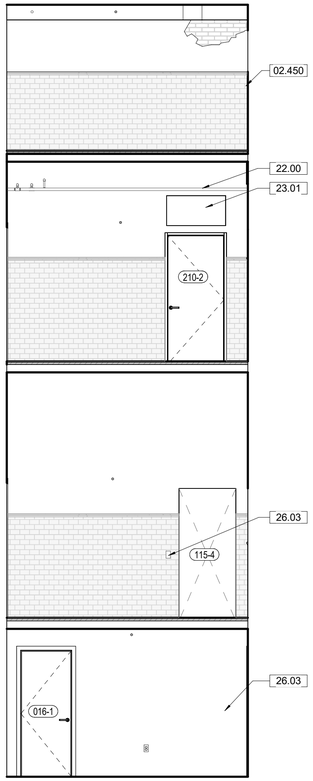
11/6/2023 5:40:31 PM



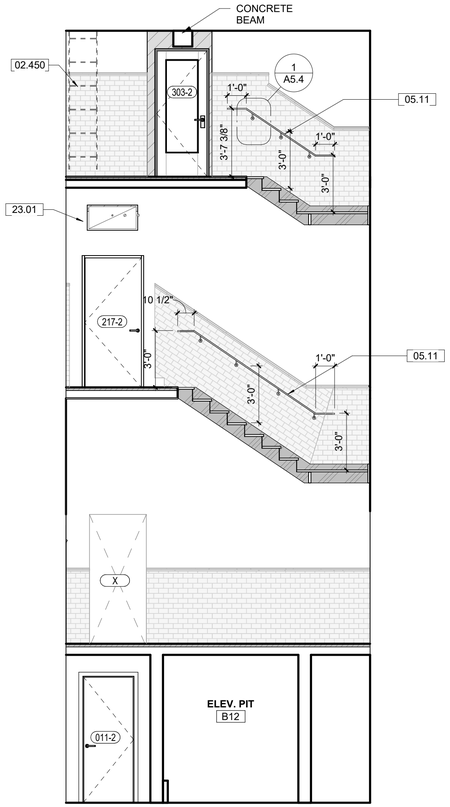
1 A5.10 South Stair - Looking North
1/4" = 1'-0" SCALE (A)



2 A5.10 South Stair - Looking East
1/4" = 1'-0" SCALE (A)



3 A5.10 South Stair - Looking South
1/4" = 1'-0" SCALE (A)



4 A5.10 South Stair - Looking West
1/4" = 1'-0" SCALE (A)

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KEYNOTES

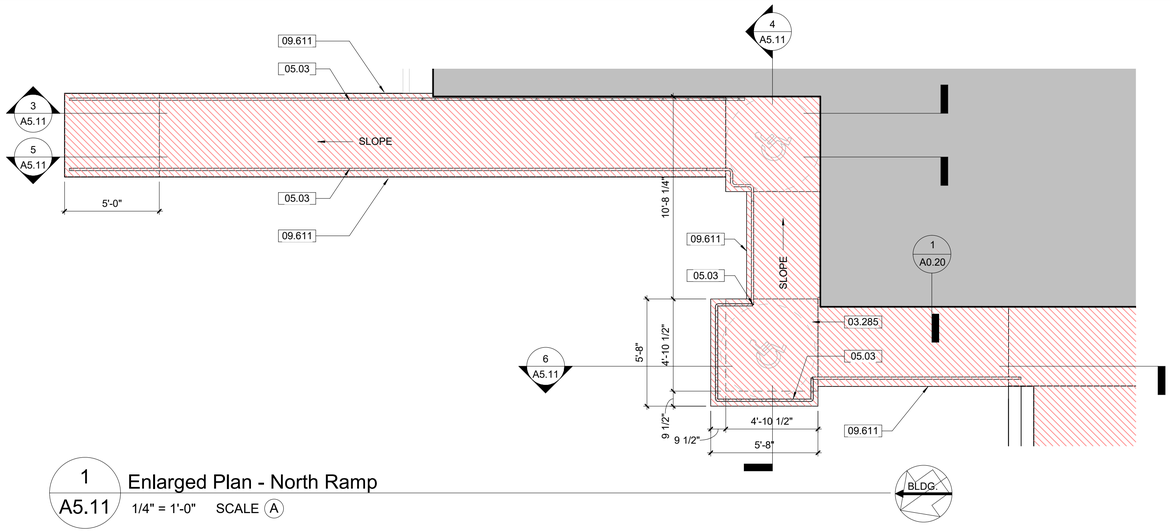
02.450	024296 - CAREFULLY REMOVE EXISTING ROOF HATCH LADDER AND ASSOCIATED ANCHORS.
05.11	055213, 099123 - NORTH/SOUTH STAIR: INSTALL NEW ABAAS COMPLIANT STEEL HANDRAIL AT ALL LEVELS - BASEMENT THROUGH 3RD FLOOR. PREP, PRIME AND PAINT IN THE FIELD. ALL ANCHORS TO BE STAINLESS STEEL.
09.52	SOUTH STAIRS: CLEAN ALL MARBLE TREADS AND LANDINGS (1 LS). BASIS OF DESIGN PROSOCO LIQUID MARBLE CLEANER, OR EQUAL, PER THE MANUFACTURER'S INSTRUCTIONS. REMOVE STAINING AND SOILING FROM MARBLE.
22.00	PLUMBING PIPES AND/0R ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

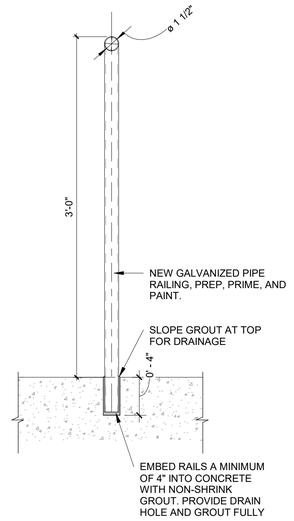
A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	DESIGNED: CA/AG CADD: CA/ZA/EM TECH. REVIEW: AG DATE: 10.27.2023	SUB SHEET NO. 01 A5.10	TITLE OF SHEET MAURICE BATHHOUSE VERTICAL CIRCULATION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 73 OF 286

11/6/2023 5:40:34 PM



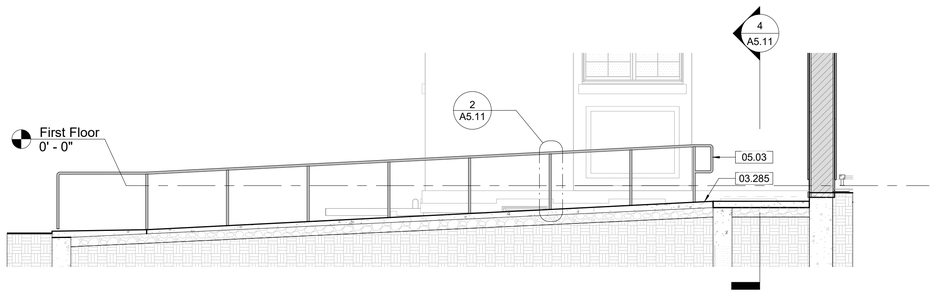
1 A5.11 Enlarged Plan - North Ramp

1/4" = 1'-0" SCALE (A)



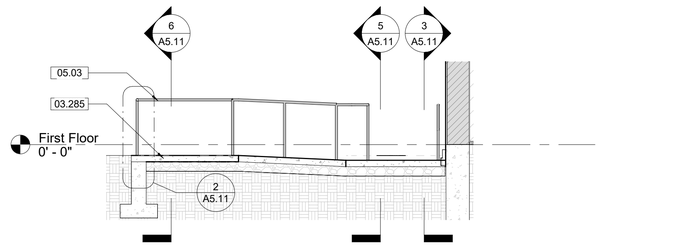
2 A5.11 Railing Embed Detail @ Concrete

1 1/2" = 1'-0" SCALE (B)



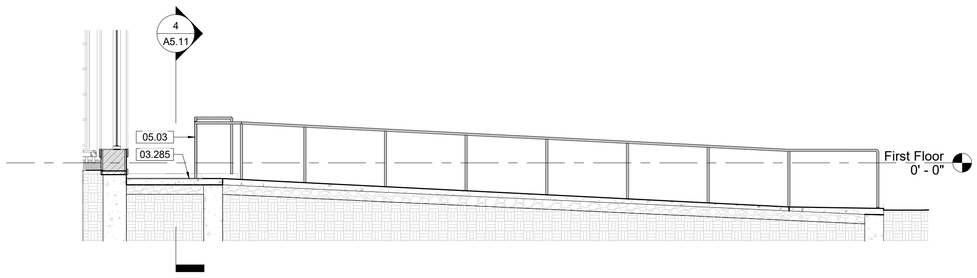
3 A5.11 Section - North Ramp 1

1/4" = 1'-0" SCALE (A)



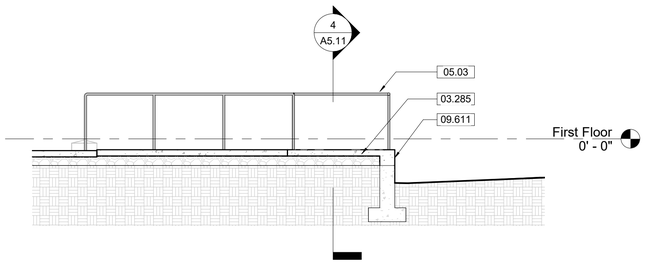
4 A5.11 Section - North Ramp 2

1/4" = 1'-0" SCALE (A)



5 A5.11 Section - North Ramp 3

1/4" = 1'-0" SCALE (A)



6 A5.11 Section - North Ramp 4

1/4" = 1'-0" SCALE (A)

SCALE (B) 12 6 0 12

SCALE OF INCHES

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

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KEYNOTES

03.285	033000, 055213 - INSTALL NEW CONCRETE SLAB AT THE EXISTING ACCESSIBLE RAMP TO MEET TURNING RADIUS REQUIREMENTS. REFERENCE CIVIL DRAWINGS AND SPECIFICATIONS. HANDRAIL AND RAMP CONFIGURATION TO BE APPROVED BY CONTRACTING OFFICER PRIOR TO INSTALLATION.
05.03	055213, 099113 - INSTALL NEW GALVANIZED METAL GUARDRAIL. PREP, PRIME, AND PAINT.
09.611	099113 - PREP, PRIME, AND PAINT OUTSIDE FACE OF ABA RAMP TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.

TREATMENT PLAN LEGEND

REPLACEMENT MATERIAL INSTALLED

AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION

NEW WALLS

EXISTING WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET,
SUITE 100
KANSAS CITY, MO
T: 816.474.0900

DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

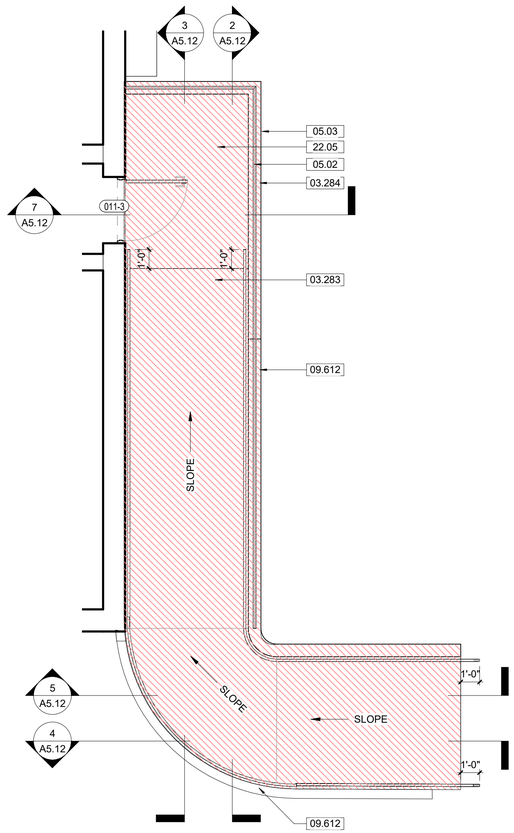
SUB SHEET NO. 01 A5.11

TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 74 OF 286

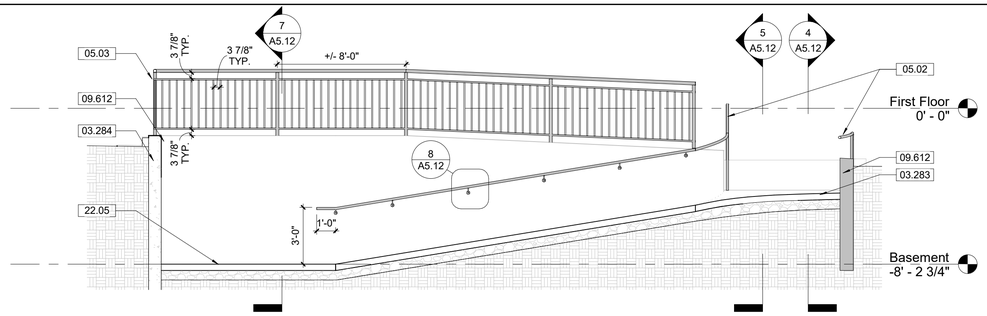
11/6/2023 5:40:35 PM



1 A5.12 Enlargé Plan - South Ramp

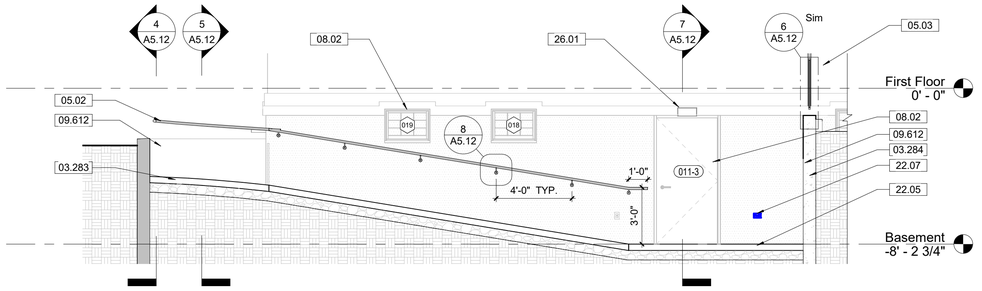
1/4" = 1'-0" SCALE (A)

BLDG:



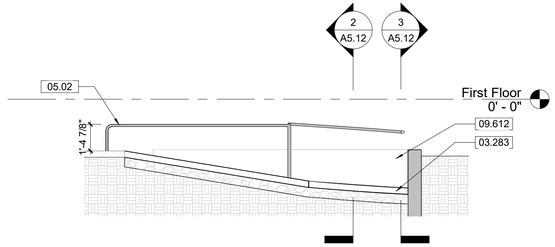
2 A5.12 Section - South Ramp 1

1/4" = 1'-0" SCALE (A)



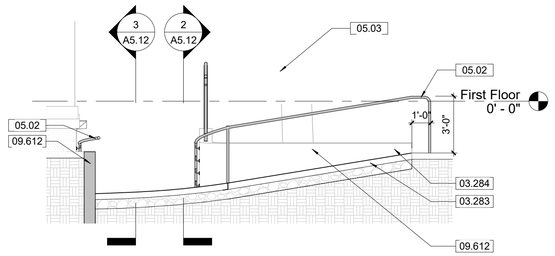
3 A5.12 Section - South Ramp 2

1/4" = 1'-0" SCALE (A)



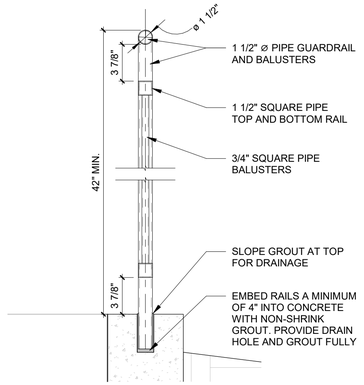
4 A5.12 Section - South Ramp 4

1/4" = 1'-0" SCALE (A)



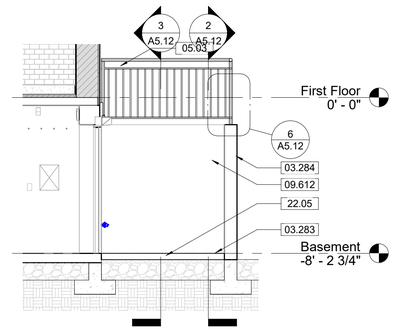
5 A5.12 Section - South Ramp 3

1/4" = 1'-0" SCALE (A)



6 A5.12 Section - South Ramp - Guardrail

1 1/2" = 1'-0" SCALE (B)



7 A5.12 Section - South Ramp

1/4" = 1'-0" SCALE (A)

SCALE (C) 6 3 0 6
SCALE OF INCHES

SCALE (B) 12 6 0 12
SCALE OF INCHES

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

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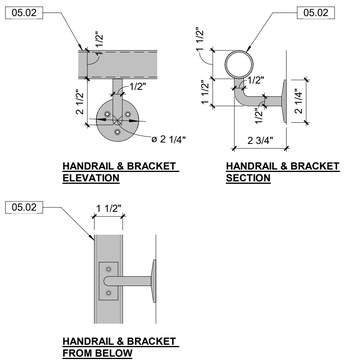
C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

KEYNOTES

03.283	033000 - REPLACE CONCRETE RAMP TO BASEMENT LEVEL WITH EXPANDED RAMP AND LOWER LANDING, REFERENCE CIVIL AND STRUCTURAL DRAWINGS.
03.284	033000 - REPLACE CONCRETE RETAINING WALLS AT NEW BASEMENT LEVEL RAMP. REFERENCE CIVIL AND STRUCTURAL DRAWINGS.
05.02	055213, 099123 - INSTALL NEW GALVANIZED METAL HANDRAILS. PREP, PRIME AND PAINT.
05.03	055213, 099113 - INSTALL NEW GALVANIZED METAL GUARDRAIL. PREP, PRIME, AND PAINT.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
09.612	099113 - PREP, PRIME, AND PAINT NEW AND EXISTING RETAINING WALL TO MATCH EXISTING. ENSURE REPLACEMENT CONCRETE HAS CURED PRIOR TO PAINTING.
22.05	INSTALL DRAINAGE AT THE BASE OF NEW RAMP, REFERENCE CIVIL DRAWINGS.
22.07	NEW HOSE BIB, REFERENCE PLUMBING DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.



8 A5.12 Typical Handrail Details - Round

3" = 1'-0" SCALE (C)

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING WALLS
- NEW HOLE IN EXISTING WALL
- NEW WALLS

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REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

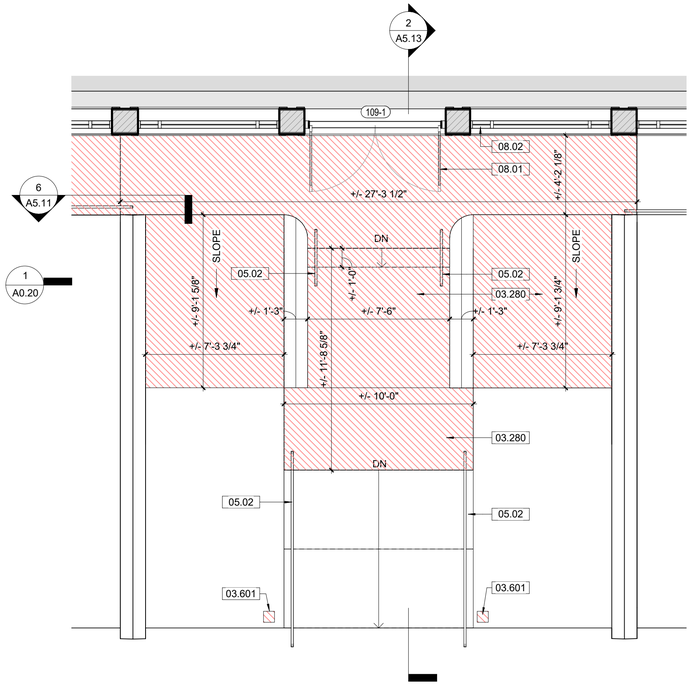
SUB SHEET NO. 01 A5.12

TITLE OF SHEET
MAURICE BATHHOUSE
VERTICAL CIRCULATION

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

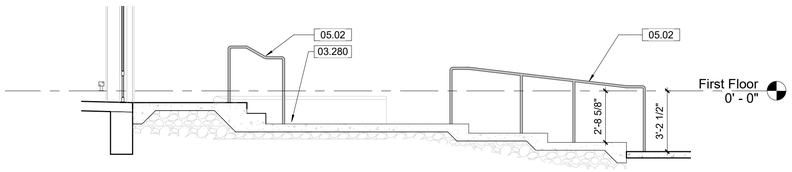
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 75 OF 286

11/6/2023 5:40:38 PM



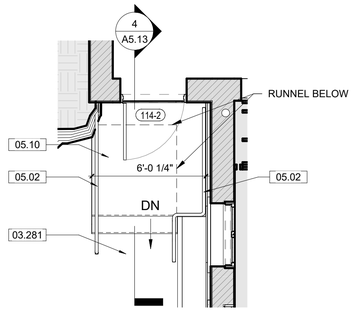
1 A5.13 Enlarged Plan - West Stairs

1/4" = 1'-0" SCALE (A)



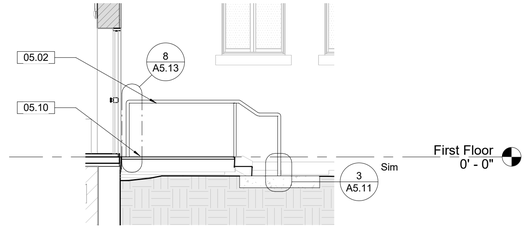
2 A5.13 Section - West Stairs

1/4" = 1'-0" SCALE (A)



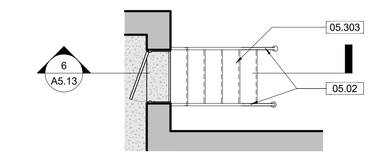
3 A5.13 Enlarged Plan - North Stair

1/4" = 1'-0" SCALE (A)



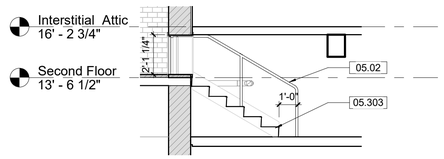
4 A5.13 Section - North Stair

1/4" = 1'-0" SCALE (A)



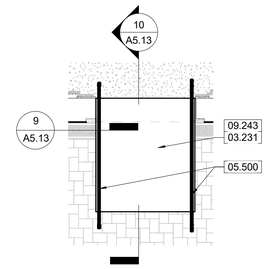
5 A5.13 Enlarged Plan - Interstitial Space Stairs

1/4" = 1'-0" SCALE (A)



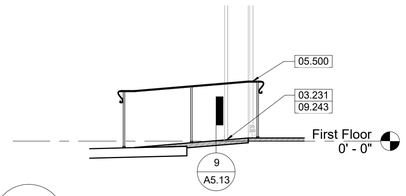
6 A5.13 Section - Interstitial Space Stairs

1/4" = 1'-0" SCALE (A)



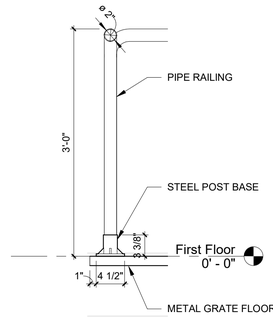
7 A5.13 Enlarged Plan - Sun Room 109 Ramp

1/4" = 1'-0" SCALE (A)



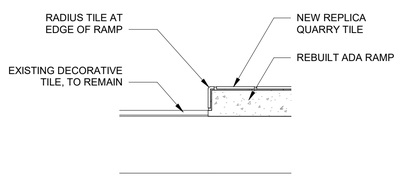
10 A5.13 Section - Sun Room 109 Ramp

1/4" = 1'-0" SCALE (A)



8 A5.13 Section Detail - North Stair Railing

1" = 1'-0" SCALE (B)



9 A5.13 Section Detail - ADA Ramp Tile

1 1/2" = 1'-0" SCALE (C)

SCALE (C) 12 6 0 12
SCALE OF INCHES

SCALE (B) 1 0 1 2
SCALE OF FEET

SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

GENERAL NOTES - TREATMENT:

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KEYNOTES

03.231	033000, 093013 - 109 SUNPORCH: REBUILD RAMP TO BE CONTINUOUS AND TO MEET ABA AND ADA REQUIREMENTS. REFERENCE STRUCTURAL DRAWINGS.
03.280	033000 - REPLACE PORTIONS OF WEST ENTRY LANDING, STAIR, AND RAMPS, REFERENCE CIVIL DRAWINGS.
03.281	033000 - PROVIDE CONCRETE LANDING AND SIDEWALK TO CONNECT NEW EGRESS STAIR AND EXISTING PAVED SIDEWALK, REFERENCE CIVIL DRAWINGS.
03.601	033000, 030130.52 – REPAIR CONCRETE RAMP WHERE EXISTING HANDRAILS WERE DEMOLISHED. CONCRETE PATCH TO BE FLUSH WITH EXISTING RAMP CONCRETE. REFERENCE STRUCTURAL DRAWINGS.
05.02	055213, 099123 - INSTALL NEW GALVANIZED METAL HANDRAILS. PREP, PRIME AND PAINT.
05.10	051200 - INSTALL NEW EXTERIOR GALVANIZED STAIR AND LANDING TO SPAN NEW CONCRETE RUNNEL, REFERENCE STRUCTURAL DRAWINGS. STAIR CONFIGURATION TO BE APPROVED BY CO PRIOR TO INSTALLATION.
05.303	051200 - INSTALL NEW METAL STAIR, REFERENCE STRUCTURAL DRAWINGS.
05.500	055213, 099123 - 109 SUNPORCH: INSTALL RAILING ON NORTH AND SOUTH SIDES OF NEW RAMP (24 LF)
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.243	093013 - 109 SUNPORCH: INSTALL REPLICA QUARRY TILE AT NEW INTERIOR ABA RAMPS (134 SQ).

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING WALLS
- NEW HOLE IN EXISTING WALL
- NEW WALLS

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DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023
SUB SHEET NO.	01 A5.13
TITLE OF SHEET	MAURICE BATHHOUSE VERTICAL CIRCULATION
	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	76 OF 286

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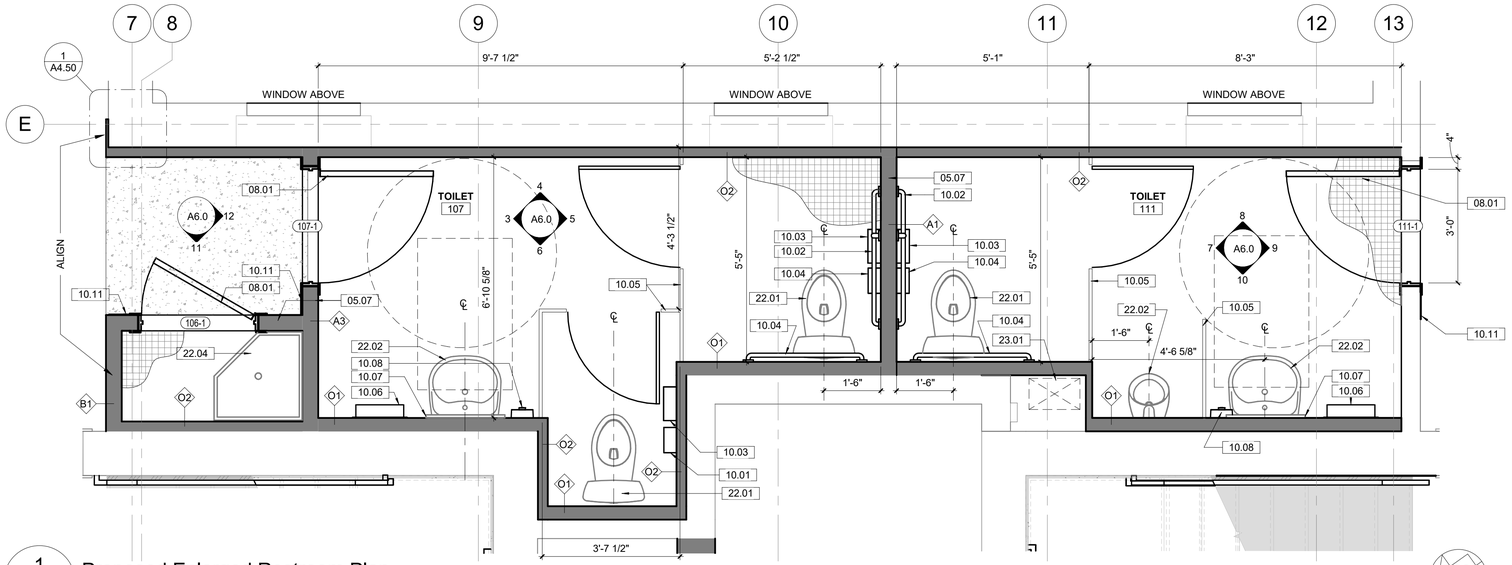
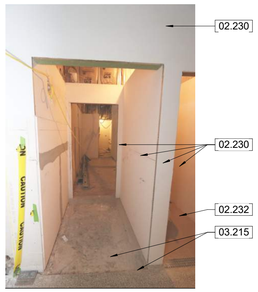


1 A6.0 Proposed Enlarged Restroom Plan

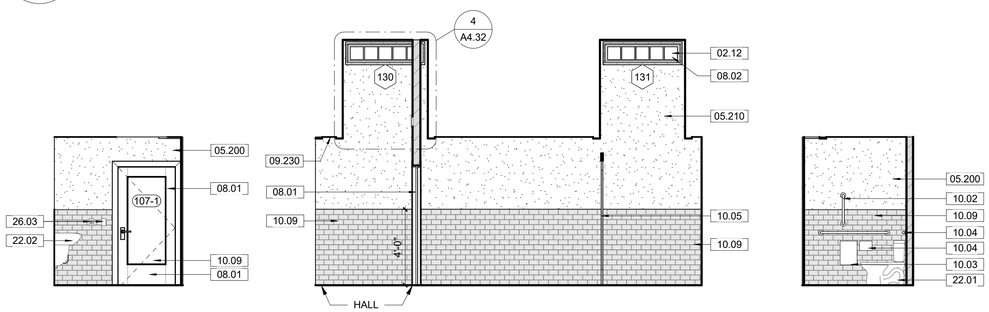
1/2" = 1'-0" SCALE (B)

BLDG



102A Women's Hallway, Looking South

2 A6.0 Photo Detail - 102A Women's Hall



3 A6.0 107 Women's Restroom N.

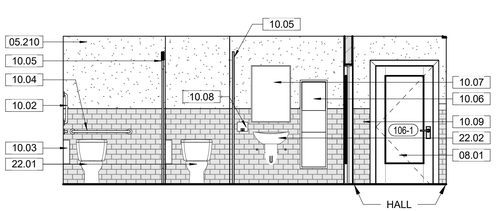
1/4" = 1'-0" SCALE (A)

4 A6.0 107 Women's Restroom E.

1/4" = 1'-0" SCALE (A)

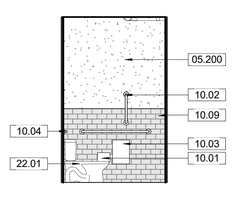
5 A6.0 107 Women's Restroom S.

1/4" = 1'-0" SCALE (A)



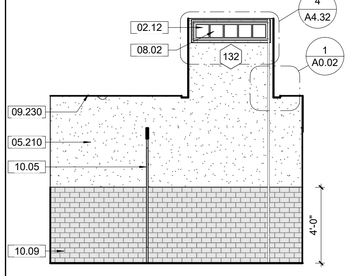
6 A6.0 107 Women's Restroom W.

1/4" = 1'-0" SCALE (A)



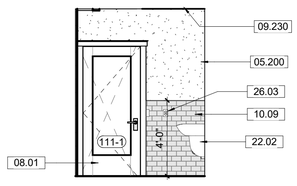
7 A6.0 111 Men's Restroom N.

1/4" = 1'-0" SCALE (A)



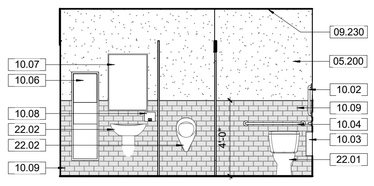
8 A6.0 111 Men's Restroom E.

1/4" = 1'-0" SCALE (A)



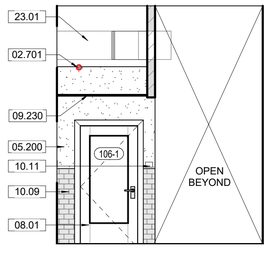
9 A6.0 111 Men's Restroom S.

1/4" = 1'-0" SCALE (A)



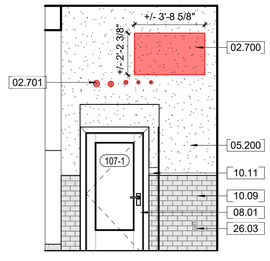
10 A6.0 111 Men's Restroom W.

1/4" = 1'-0" SCALE (A)



11 A6.0 (P) 102B Women's Hall Alcove W.

1/4" = 1'-0" SCALE (A)



12 A6.0 (P) 102B Women's Hall Alcove S.

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

SCALE (B) 2 0 2 4

SCALE OF FEET

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B. REFER TO THE SPECIFICATIONS FOR THE REQUIREMENT FOR WORKING IN AREAS WHERE LEAD PAINT HAS BEEN IDENTIFIED.

C. REFER TO THE SPECIFICATIONS FOR THE IDENTIFICATION AND DISPOSAL OF FLUORESCENT LIGHTS AND BALLASTS IN EXISTING FIXTURES.

D. REFER TO THE SPECIFICATIONS FOR REQUIRED SAFETY MEASURES REQUIRED FOR THE EXCAVATION OF SOILS SURROUNDING THE MAURICE STRUCTURE WHERE ELEVATED LEVELS OF METALS WERE IDENTIFIED.

KEYNOTES

02.12	024296, 028333, 017329 - CAREFULLY DEMOLISH PORTION OF EXISTING WALL FOR NEW MEP SYSTEM INSTALLATION. REFERENCE MEP DRAWINGS.
02.230	024296, 028333 - 106, 107, & 111: DEMOLISH EXISTING METAL FRAMING, DRYWALL, INSULATION AND ALL ASSOCIATED ANCHORS.
02.232	024296 - ROOM 111: DEMOLISH EXISTING TILE FLOORING AND GROUT(+/-200 SF).
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
03.215	REFERENCE ENLARGED FLOOR PLAN, NEW FRAMED HALL TO HAVE TERRAZZO FLOORING THAT MATCHES EXISTING. ENSURE THERE IS A TRANSITION BETWEEN THE NEW HALL AND THE EXISTING.
05.07	054000 - INSTALL NEW METAL STUDS TO CREATE NEW CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.200	054000 - 107 & 111 RESTROOMS: INSTALL NEW METAL STUD WALL, GYP FINISH, AND SOUND ATTENUATION BLANKETS (21 LF).
05.210	054000 - 107 & 111 RESTROOMS: INSTALL NEW METAL FURRING AND GYP FINISH (18 LF).
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.230	095123 - 107 & 111 RESTROOM: INSTALL NEW ACOUSTICAL CEILING, REFERENCE REFLECTED CEILING PLAN AND SPECIFICATIONS.
10.01	102800 - 107 & 111 RESTROOMS TOILET PAPER HOLDER
10.02	102800 - 107 & 111 RESTROOMS: 42" & 18" GRAB BAR
10.03	102800 - 107 & 111 RESTROOMS: SANITARY NAPKIN DISPOSAL
10.04	102800 - 107 & 111 RESTROOMS: 36" GRAB BAR
10.05	102113.14 - 107 & 111 RESTROOMS: STAINLESS STEEL TOILET PARTITION (WITH INTEGRAL COAT HOOK AT DOOR)
10.06	102800 - 107 & 111 RESTROOMS: SEMI-RECESSED PAPER TOWEL DISPENSER WITH INTEGRAL TRASH CAN
10.07	102800 - 107 & 111 RESTROOMS: WALL MOUNTED MIRROR 24"X36"
10.08	102800 - 107 & 111 RESTROOMS: WALL MOUNTED SOAP DISPENSER
10.09	093013 - 107 & 111 RESTROOMS: INSTALL CERAMIC WALL WAINSCOTTING, 4'-0" TALL WITH COVE BASE
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
22.01	07 & 111 RESTROOMS: FLOOR MOUNTED TOILET, REFERENCE PLUMBING DRAWINGS
22.02	107 & 111 RESTROOMS: WALL MOUNTED URINAL, REFERENCE PLUMBING DRAWINGS
22.04	106 CLOSET: MOP SINK, REFERENCE PLUMBING DRAWINGS
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

TREATMENT PLAN LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW TERRAZZO FLOORING
- NEW TILE FLOORING
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- NEW WALLS
- EXISTING WALLS

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REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CA/AG	01 A6.0	MAURICE BATHHOUSE INTERIOR ELEVATIONS - RESTROOMS	128 182951
	CADD: CA/ZA/EM			PMIS/PKG NO. 318915
	TECH. REVIEW: AG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 77 OF 286
	DATE: 10.27.2023			

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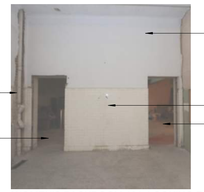
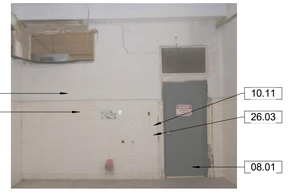


WOMEN'S PACKROOM 101, LOOKING EAST

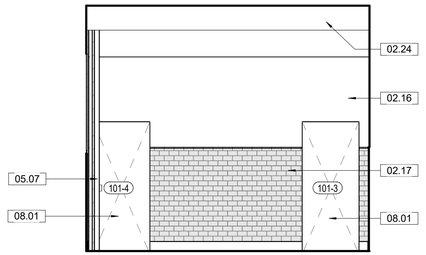
WOMEN'S PACKROOM 101, LOOKING NORTH

WOMEN'S PACKROOM 101, LOOKING SOUTH



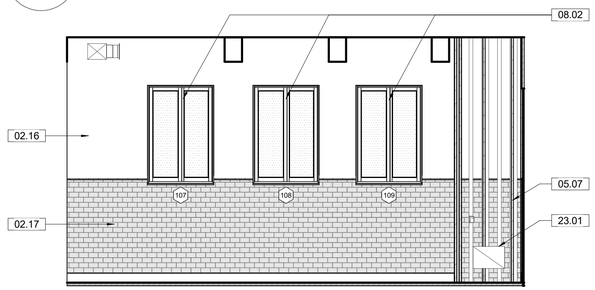
WOMEN'S PACKROOM 101, LOOKING WEST

1 A6.1 Photo Details - Women's Packroom 101



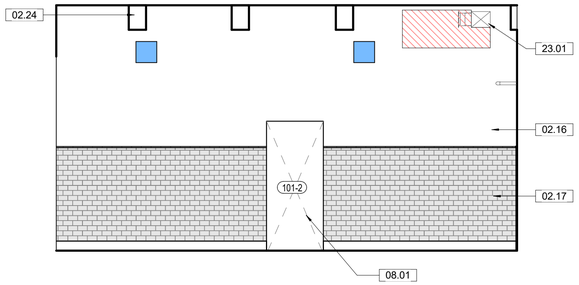
2 A6.1 101 Women's Packroom E.

1/4" = 1'-0" SCALE (A)



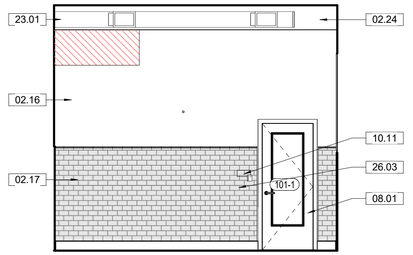
3 A6.1 101 Women's Packroom N.

1/4" = 1'-0" SCALE (A)



4 A6.1 101 Women's Packroom S.

1/4" = 1'-0" SCALE (A)



5 A6.1 101 Women's Packroom W.

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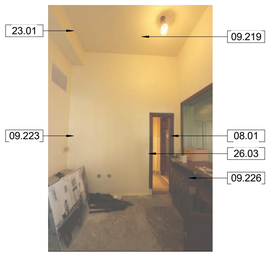
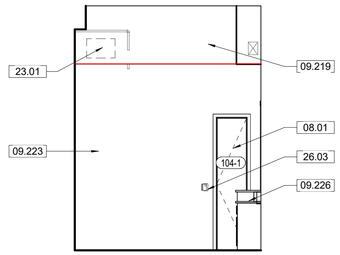


OFFICE 104, LOOKING EAST

OFFICE 104, LOOKING SOUTH

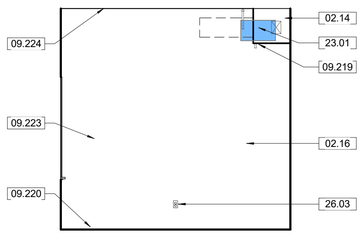
WOMEN'S PACKROOM 101, LOOKING EAST

6 A6.1 Photo Details - Office 104



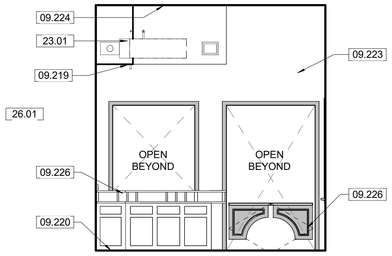
7 A6.1 104 Office E.

1/4" = 1'-0" SCALE (A)



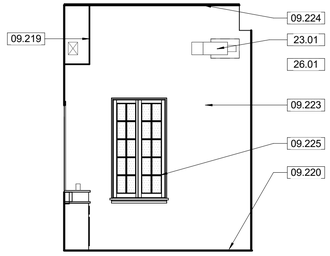
8 A6.1 104 Office N.

1/4" = 1'-0" SCALE (A)



9 A6.1 104 Office S.

1/4" = 1'-0" SCALE (A)



10 A6.1 104 Office W.

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
05.07	054000 - INSTALL NEW METAL STUDS TO CREATE NEW CHASE. STUDS TO SPAN FLOOR TO CEILING.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.219	054000, 092900, 099123 - INSTALL FRAMING AND GYPSUM BOARD FOR NEW MECHANICAL SOFFIT. PREP, PRIME, AND PAINT. REFERENCE REFLECTED CEILING.
09.220	093013 - 104 OFFICE: INSTALL REPLICA QUARRY TILE IN OFFICE.
09.223	099123 - 104 OFFICE: PREP, PRIME, AND PAINT ALL WALLS.
09.224	099123 - 104 OFFICE: PREP, PRIME, AND PAINT CEILING AND NEW SOFFIT.
09.225	099123 - 104 OFFICE: PREP, PRIME, AND PAINT WINDOW SASHES (2 EA).
09.226	099300 - 104 OFFICE: REFRESH FINISH ON COUNTER AND GATE (1 EA)
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.01	INSTALL NEW LIGHT FIXTURES, REFERENCE ELECTRICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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10.18.2023

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DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.1

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - 101 & 104
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 78 OF 286

11/6/2023 5:40:51 PM

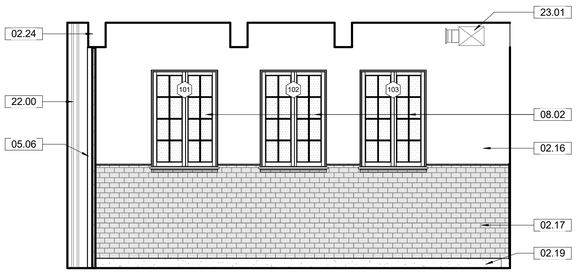
WOMEN'S COOLING ROOM 105, LOOKING WEST

WOMEN'S COOLING ROOM 105, LOOKING NORTH

WOMEN'S COOLING ROOM 105, LOOKING SOUTH

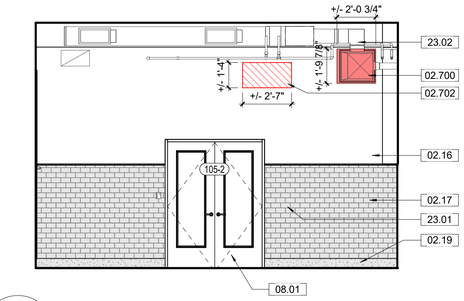
WOMEN'S COOLING ROOM 105, LOOKING WEST

1 / A6.2 Photo Details - Women's Cooling 105



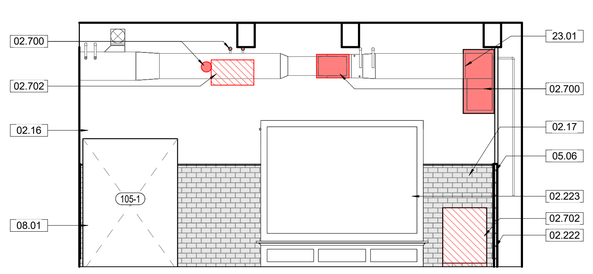
2 / A6.2 105 Women's Cool Room N.

1/4" = 1'-0" SCALE (A)



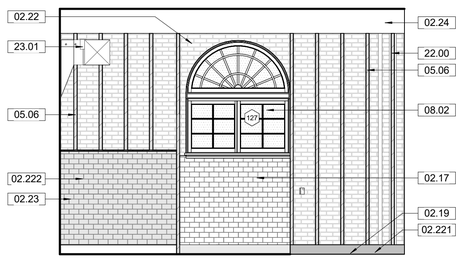
3 / A6.2 105 Women's Cool Room E.

1/4" = 1'-0" SCALE (A)



4 / A6.2 105 Women's Cool Room S.

1/4" = 1'-0" SCALE (A)



5 / A6.2 105 Women's Cool Room W.

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.03	024296, 028212, 028333 - DEMOLISH MECHANICAL, ELECTRICAL AND/OR PLUMBING EQUIPMENT, INCLUDING EXISTING HVAC AND ELECTRICAL EQUIPMENT, FIRE PROTECTION EQUIPMENT, CONDUIT, DUCTWORK, PIPING, ACCESSORIES, AND LIGHTING IN THEIR ENTIRETY. DISPOSE OF ALL ITEMS STORED IN THIS SPACE, INCLUDING BUILDING MATERIALS, FIXTURES, SHELVING, BOXES, AND OTHER SIMILAR ITEMS. REFERENCE MEP DRAWINGS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.22	EXISTING MASONRY WALL MISSING INTERIOR CLADDING. THE WALL IS TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.23	EXISTING CERAMIC TILE OVER PLASTER AND BLACK STEEL FRAMING.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.220	024296, 028333 - 105 WOMEN'S COOLING ROOM: DEMOLISH THE EXISTING RESTROOM IN THE NORTHEAST CORNER. REMOVE ALL WALLS, DOOR, FIXTURES, PIPING, AND ASSOCIATED ANCHORS AND HARDWARE.
02.221	105 WOMEN'S COOLING ROOM: EXISTING CHASE TERRAZZO BASE TO REMAIN IN PLACE. CAREFULLY REMOVE ALL DEBRIS WITHIN THE SHAFT AND PREP FOR NEW MEP UTILITIES AND NEW FRAMING. REFERENCE MEP DRAWINGS.
02.222	105 WOMEN'S COOLING ROOM: EXISTING CHASE TILED WALL AND TERRAZZO BASE TO REMAIN IN PLACE. CAREFULLY REMOVE ALL DEBRIS WITHIN THE SHAFT AND PREP FOR NEW MEP UTILITIES AND NEW FRAMING. REFERENCE MEP DRAWINGS.
02.223	105 WOMEN'S COOLING ROOM: EXISTING WOOD BENCH AND MIRROR TO REMAIN. PROTECT DURING CONSTRUCTION.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.702	054000, 092300 - INFILL EXISTING OPENING, REFERENCE STRUCTURAL DRAWINGS.
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
22.00	PLUMBING PIPES AND/OR ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

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DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.2

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - 105
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915
SHEET 79 OF 286

11/6/2023 5:40:58 PM

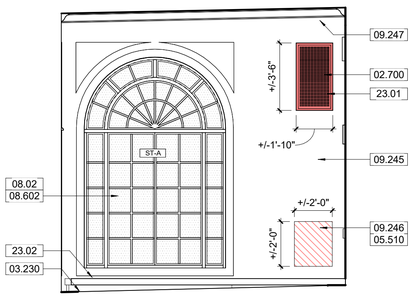
SUN PORCH 109, LOOKING EAST

SUN PORCH 109, LOOKING NORTH

SUN PORCH 109, LOOKING SOUTH

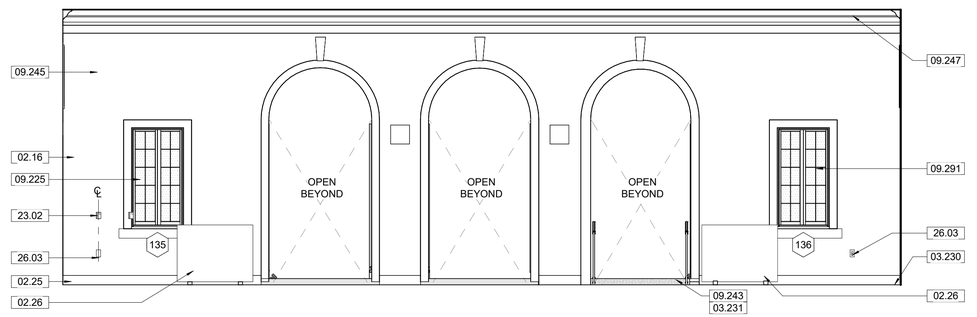
SUN PORCH 109, LOOKING WEST

1 A6.3 Photo Details - Sun Porch 109



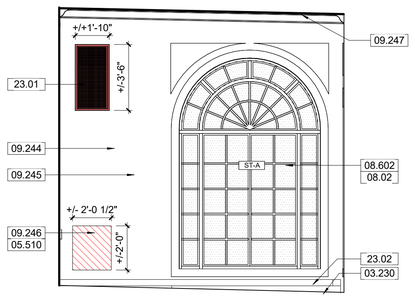
2 A6.3 109 Sun Porch N.

1/4" = 1'-0" SCALE (A)



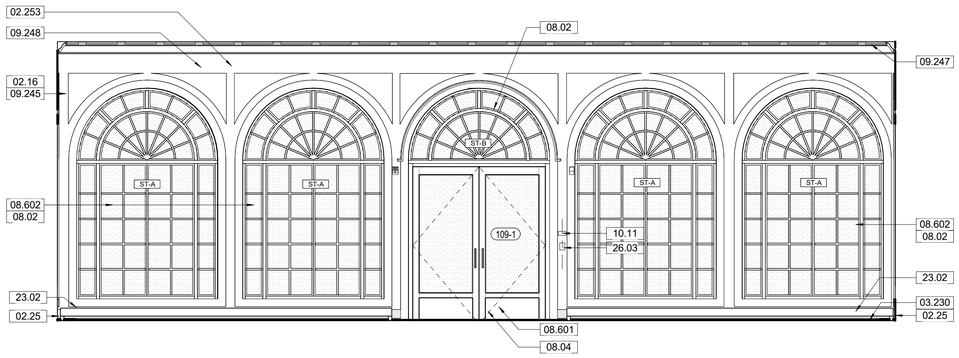
3 A6.3 109 Sun Porch E.

1/4" = 1'-0" SCALE (A)



4 A6.3 109 Sun Porch S.

1/4" = 1'-0" SCALE (A)



5 A6.3 109 Sun Porch W.

1/4" = 1'-0" SCALE (A)

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KEYNOTES

02.02	024119 - REMOVE EXISTING STOREFRONT WINDOWS AND ASSOCIATED ANCHORS. BE CAREFUL TO LIMIT DAMAGE TO BOTH INTERIOR PLASTER AND EXTERIOR STUCCO. REFERENCE WINDOW SCHEDULE AND SPECIFICATIONS. CONTRACTOR TO DISPOSE OF STOREFRONT WINDOWS AND ASSOCIATED COMPONENTS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.25	EXISTING QUARRY TILE WALL BASE.
02.26	099123 - EXISTING RADIATOR TO REMAIN. PROTECT DURING CONSTRUCTION. PREP, PRIME AND PAINT.
02.250	024119, 024296 - 109 SUNPORCH: CAREFULLY DEMOLISH EXISTING NON-HISTORIC RAMP SLAB AND TILE (+/-135 SF). SURROUNDING FINISHES AND STRUCTURE THAT ARE TO REMAIN SHALL BE PROTECTED.
02.251	024296 - 109 SUNPORCH: CAREFULLY REMOVE THROUGH-WALL GRILLES IN NORTH AND SOUTH WALLS (2 EA). PROTECT SURROUNDING FINISHES DURING REMOVAL.
02.252	024296 - 109 SUNPORCH: CAREFULLY REMOVE EXISTING BASE WALL RADIATORS, PIPES, AND ASSOCIATED ANCHORS. REFERENCE MEP DRAWINGS. PROTECT QUARRY TILE FLOORING DURING REMOVAL
02.253	024296 - 109 SUNPORCH: CAREFULLY REMOVE ABANDONED ANCHOR
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL. REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
03.230	030130.52, 033000 - 109 SUNPORCH: INFILL HOLES IN FLOOR WHERE OLD PIPES WERE PREVIOUSLY REMOVED (5 SQ - SCATTERED).
03.231	033000, 093013 - 109 SUNPORCH: REBUILD RAMP TO BE CONTINUOUS AND TO MEET ABA AND ADA REQUIREMENTS. REFERENCE STRUCTURAL DRAWINGS.
05.510	042000, 092400 - 109 SUNPORCH: INFILL GRILLE OPENING WITH NEW MASONRY TO MATCH. PATCH WALL FINISHES TO MATCH SURROUNDING STUCCO ON ROOM 109 SIDE (6 SF).
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
08.04	081113, 081433, 087100 - INSTALL NEW DOOR, REFERENCE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
08.601	092300, 092300, 092400 - PREP EXISTING DOOR OPENING FOR NEW CUSTOM STEEL ENTRY DOUBLE DOORS WITH ARCHED TRANSOM TO MATCH THE HISTORIC CONFIGURATION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
08.602	092300, 092400 - PREP EXISTING WINDOW OPENING FOR NEW CUSTOM STEEL WINDOWS TO MATCH THE HISTORIC CONDITION AT SUN PORCH. DAMAGED INTERIOR PLASTER AND EXTERIOR STUCCO DURING INSTALL SHALL BE REPAIRED IN KIND.
09.225	099123 - 104 OFFICE: PREP, PRIME, AND PAINT WINDOW SASHES (2 EA).
09.243	093013 - 109 SUNPORCH: INSTALL REPLICA QUARRY TILE AT NEW INTERIOR ABA RAMPS (134 SQ).
09.244	092300, 099123 - 109 SUNPORCH: REPAIR CRACK IN SOUTH PLASTER WALL (11 LF). PREP, PRIME, AND PAINT TO MATCH ADJACENT WALLS.
09.245	099123 - 109 SUNPORCH: PAINT ALL WALLS (480 SF).
09.246	092400, 099123 - 109 SUNPORCH: INSTALL NEW STUCCO PATCH AT NEW INFILL (6 SF). PREP, PRIME, AND PAINT TO MATCH ADJACENT WALLS.
09.247	099123 - 109 SUNPORCH: PREP, PRIME, AND PAINT EXISTING METAL CEILING GRID.
09.248	092400, 099123 - 109 SUNPORCH: REPAIR AREA OF STUCCO DAMAGE (10 SF).
09.291	099123 - 117 CLOAKROOM: PREP, PRIME, AND PAINT WINDOW SASHES (2 EA).
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

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SCALE (A) 0 1 2 4 8 16
SCALE OF FEET

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License Number 10286
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DATE: 10.27.2023

SUB SHEET NO. 01 A6.3

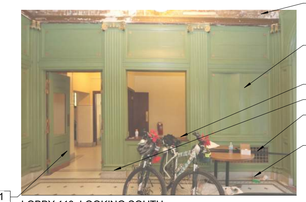
TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - SUN PORCH
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 80 OF 286

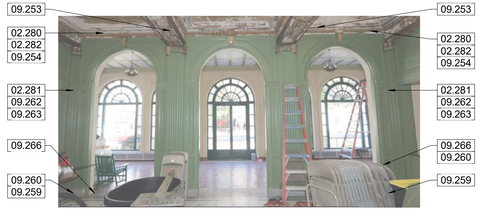
11/6/2023 5:41:00 PM

LOBBY 110, LOOKING EAST

LOBBY 110, LOOKING NORTH



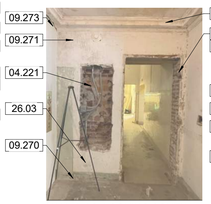
LOBBY 110, LOOKING SOUTH



LOBBY 110, LOOKING WEST

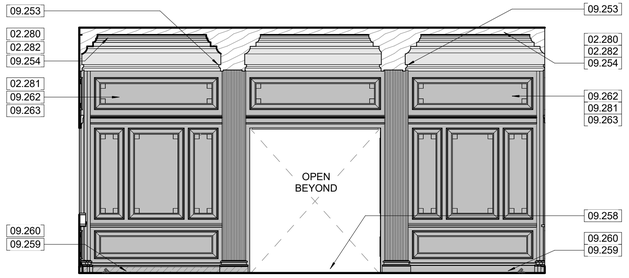
HALL 110C, LOOKING EAST

HALL 110C, LOOKING NORTH

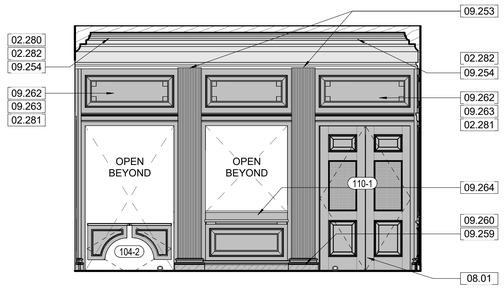


HALL 110C, LOOKING SOUTH

HALL 110C, LOOKING WEST

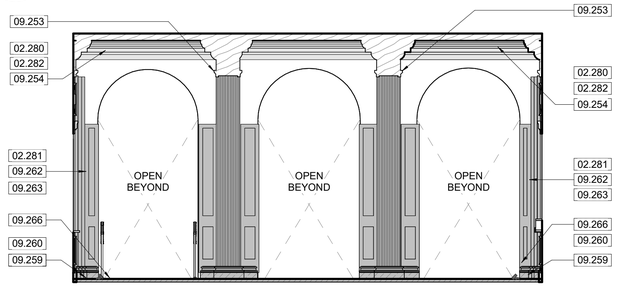


1 A6.4 Photo Details - Lobby 110



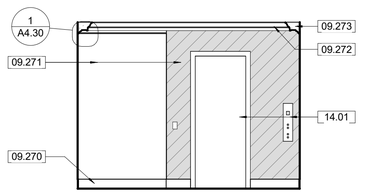
2 A6.4 110 Lobby E.

1/4" = 1'-0" SCALE (A)



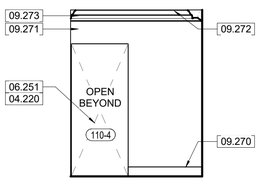
3 A6.4 110 Lobby N.

1/4" = 1'-0" SCALE (A)



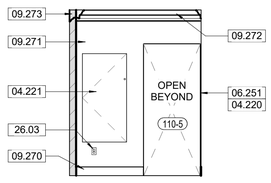
4 A6.4 110 Lobby S.

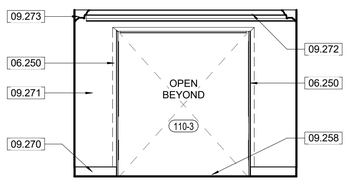
1/4" = 1'-0" SCALE (A)



5 A6.4 110 Lobby W.

1/4" = 1'-0" SCALE (A)





6 A6.4 110C Hall E.

1/4" = 1'-0" SCALE (A)

7 A6.4 110C Hall N.

1/4" = 1'-0" SCALE (A)

8 A6.4 110C Hall S.

1/4" = 1'-0" SCALE (A)

9 A6.4 110C Hall W.

1/4" = 1'-0" SCALE (A)

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK.

C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

D. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

E. PHOTOGRAPH AND VIDEO ALL PORTION OF THE WOOD PANELED WALLS, CEILING, AND BEAMS IN THE LOBBY PRIOR TO WORK. PHOTOGRAPHS TO BE FLAT TO CAPTURE AS MUCH DETAIL AS POSSIBLE OF ALL SECTIONS OF THE FLAT CEILING, ALL SIDES AND BOTTOMS OF THE BEAMS, AND DECORATIVE PLASTERWORK. PROVIDE ADEQUATE LIGHTING FOR THE DOCUMENTATION. PHOTOGRAPHS SHALL BE OF A RESOLUTION GREAT ENOUGH TO SEE DETAIL OF THE WOOD GRAINING AND LATER STENCILING THAT REMAINS INTACT. 2)02.280 STRIP ALL UPPER LAYERS OF PAINT TO REVEAL THE WOOD GRAIN DECORATIVE PAINTED FINISH BELOW, OR TO SOUND PLASTER MATERIAL. STRIP ALL WAX FROM THE WOOD GRAIN PAINTED FINISH, IN ORDER FOR NEW PRIMERS AND PATCHES TO BOND TO SURFACE.

F. PROVIDE A MOCK-UP OF THE DECORATIVE WOOD GRAIN PAINTING TO MATCH THE EXISTING HISTORIC WOOD GRAIN PAINTING ON ALL SURFACES OF THE BEAMS AND PLASTER MOLDINGS WITH A WAX COATING. CORRECT MOCK-UP, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE WOOD GRAINING PATTERN, COLORS, BLENDING, AND FINISH ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES, PER SPECIFICATIONS.

G. PROVIDE MOCK-UP OF THE FLAT PAINTED CEILING COFFERS, PER THE HISTORIC PAINT REPORT. PROVIDE MOCK-UPS, PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED HISTORIC FINISHES ON THE BEAMS AND CEILINGS, ONLY AFTER ALL OTHER REHABILITATION WORK IN THE LOBBY HAS BEEN COMPLETED.

H. INSPECT HISTORIC STAINED FINISH AND CREATE TWO MOCK-UPS OF THE PROPOSED NEW STAINED FINISH, INCLUDING NEW WAXED TOP COATING. MOCK-UPS TO INCLUDE ONE FOR THE STRIPPED AND RESTORED HISTORIC WOOD PANELING AND ONE FOR THE NEW. REPLACEMENT WOOD PANELING. CORRECT MOCK-UPS, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE MOCK-UPS ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED STAINED AND WAXED FINISHES ON THE WOOD WALL PANELING.

I. HISTORIC WOOD PILASTER CAPITALS HAVE ALL BEEN REMOVED FROM THE ROOM. SEVERAL OF THE ORIGINAL CAPITALS ARE IN PARK ARCHIVAL STORAGE FOR REFERENCE OF HISTORIC FINISHES. EXISTING PILASTER CAPITALS ARE GFRC.

J. PROVIDE A MOCK-UP OF THE DECORATIVE WOOD GRAIN PAINTING TO MATCH THE EXISTING HISTORIC WOOD GRAIN PAINTING ON ALL SURFACES OF THE BEAMS AND PLASTER MOLDINGS AND THE ADJACENT WOOD PANELING AND PILASTERS, AND TOPPED WITH A WAX COATING. CORRECT MOCK-UP, PER CONTRACTING OFFICER DIRECTIVE, UNTIL THE WOOD GRAINING PATTERN, COLORS, BLENDING, AND FINISH ARE APPROVED. PROVIDE MOCK-UPS AND SAMPLES, PER SPECIFICATIONS. UPON APPROVAL OF MOCK-UP, INSTALL APPROVED HISTORIC FINISHES ON THE PILASTER CAPITALS, ONLY AFTER ALL OTHER REHABILITATION WORK IN THE LOBBY HAS BEEN COMPLETED.

KEYNOTES

02.280	024296, 028333, 060312, 099123, 099300 - 110 LOBBY: STRIP ALL UPPER LAYERS OF PAINT TO REVEAL THE WOOD GRAIN DECORATIVE PAINTED FINISH BELOW, OR TO SOUND PLASTER MATERIAL. STRIP ALL WAX FROM THE WOOD GRAIN PAINTED FINISH, IN ORDER FOR NEW PRIMERS AND PATCHES TO BOND TO THE SURFACE.
02.281	024296, 028333, 060312, 099123, 099300 - 110 LOBBY: STRIP ALL UPPER LAYERS OF PAINT FROM WOOD PANELING AND MILLWORK TO REVEAL THE WOOD FINISH BELOW, OR TO SOUND PLASTER MATERIAL. STRIP ALL WAX FROM THE WOOD GRAIN PAINTED FINISH, IN ORDER FOR NEW STAIN AND VARNISHES TO BOND TO THE SURFACE."
02.282	024296, 028333, 090394 - 110 LOBBY: HISTORIC WOOD PILASTER CAPITALS HAVE ALL BEEN REMOVED FROM THE ROOM. SEVERAL OF THE ORIGINAL CAPITALS ARE IN PARK ARCHIVAL STORAGE FOR REFERENCE OF HISTORIC FINISHES. EXISTING PILASTER CAPITALS ARE GFRC OR PLASTER AND WILL BE REFINISHED AS PART OF THIS PROJECT. STRIP ALL EXISTING PAINTED FINISHES FROM THE PILASTER CAPITALS.
04.220	040323 - 110C ELEVATOR LOBBY: SPOT REPOINT DOOR OPENINGS AND JAMBS AT NORTH AND SOUTH WALLS (36 SF).
04.221	040323, 081113 - 110C ELEVATOR LOBBY: CLEAN-UP EXISTING OPENING. INSTALL NEW METAL FRAME AND ACCESS DOOR. REPAIR PLASTER SURROUNDING NEW ACCESS DOOR.
06.250	061000 - 110C ELEVATOR LOBBY: REPLICATE AND REPLACE MISSING DOOR TRIM. TO MATCH EXISTING IN SPECIES, PROFILE, AND FINISH.
06.251	061000 - 110C ELEVATOR LOBBY: REPLICATE TWO WOOD DOOR FRAMES (2 EA). REFERENCE DETAIL.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
09.253	090394 - 110 LOBBY: PREP AND PRIME THE PILASTER CAPITALS TO RECEIVE NEW DECORATIVE PAINTED FINISHES.
09.254	092300, 099123 - 110 LOBBY: REPAIR PLASTER CEILING, ONLY AFTER INSTALLATION OF NEW FIRE ALARM, ELECTRICAL CONDUIT, AND SPRINKLERS ARE INSTALLED. CEILING REPAIRS TO CONSIST OF SMALL PLASTER PATCHES AND SKIM COATINGS TO PROVIDE A SMOOTH, PAINTABLE SURFACE, FREE FROM DEFECTS AT 10 FEET DISTANCE. REPAIR DECORATIVE CAST AND RUN PLASTER MOLDINGS. CREATE PLASTER MOLDINGS FROM ADJACENT REMAINING PLASTER TO REPRODUCE MISSING PORTIONS OF THE DECORATIVE BEAM CORNICE.
09.258	093013 - 110 LOBBY: INSTALL NEW TILE THRESHOLD BETWEEN LOBBY AND ELEVATOR ROOM (1 EA)
09.259	110 LOBBY: CLEAN MARBLE BASE AND REMOVE PAINT (49 LF)
09.260	110 LOBBY: INSTALL NEW GROUT AT MARBLE BASE (49 LF)
09.261	110 LOBBY: RESET BASE ON SOUTH WALL PILASTER THAT IS INSTALLED UPSIDE DOWN (1 EA)
09.262	060312 - 110 LOBBY: REPAIR AND REPLACE EXISTING DAMAGED OR WARPED WOOD PANELING. REPLACEMENT WOOD PANELING TO MATCH THE HISTORIC WOOD PANELING OAK SPECIES AND CUT. WARPED OAK MAY BE ADHERED AS VENEER TO STABLE PLYWOOD BACKER. PROVIDE SAMPLES OF REPLACEMENT OAK PANELING TO MATCH THE HISTORIC FOR CONTRACTING OFFICER APPROVAL. (1 LS)
09.263	090394 - 110 LOBBY: RESTORE HISTORIC PAINT FINISHES BASED ON HISTORIC PAINT ANALYSIS REPORT. PRIME ALL SURFACES, PER SPECIFICATIONS. (1 LS)
09.264	099300 - 110 LOBBY: RESTORE FINISH ON WOOD COUNTER AND GATE (1 LS)
09.265	090394 - 110 LOBBY: REPAINT GRILLE BASED ON HISTORIC PAINT ANALYSIS. INSTALL STANDARD SCREWS (1 EA)
09.266	060312 - 110 LOBBY: REPAIR BASES OF DOOR TRIM IN WEST WALL (6 EA)
09.270	093013 - 110C ELEVATOR LOBBY: INSTALL NEW 6" QUARRY TILE BASE AT PERIMETER.
09.271	092300 - 110C ELEVATOR LOBBY: REMOVE DETERIORATED PLASTER AND WALL COVERINGS. REPAIR PLASTER WALLS AND SKIM COAT. INTENSIVE PLASTER REPAIRS AND REPLACEMENT.
09.272	092300 - 110C ELEVATOR LOBBY: REPAIR PLASTER CEILING AND SKIM COAT.
09.273	092300 - 110C ELEVATOR LOBBY: REPAIR DECORATIVE PLASTER CORNICE (38 LF).
09.281	092300 - REPAIR PLASTER CEILING AND BEAMS AFTER STRUCTURAL REPAIRS.
14.01	142400 - REFURBISH EXISTING ELEVATOR CAB AND INSPECT/REPAIR CONTROLS AND OPERATING MECHANISMS, REFERENCE SPECIFICATIONS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND ROYCROFT ROOM

REPLACEMENT MATERIAL INSTALLED

MISSING MATERIAL AND/OR HOLE

REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
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KANSAS CITY, MO
T: 816.474.0900

DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.4

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - LOBBY
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

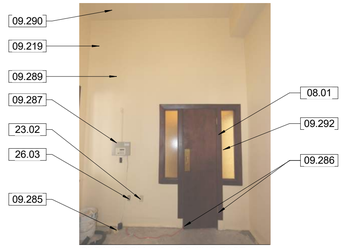
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 81 OF 286

11/6/2023 5:41:05 PM

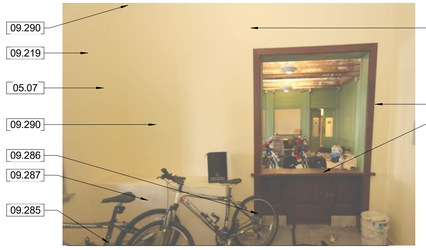
MASSAGE 116, LOOKING WEST

MASSAGE 116, LOOKING NORTH

MASSAGE 116, LOOKING EAST



CLOAKROOM 116, LOOKING EAST



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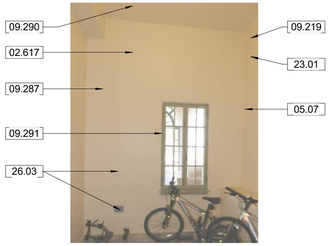
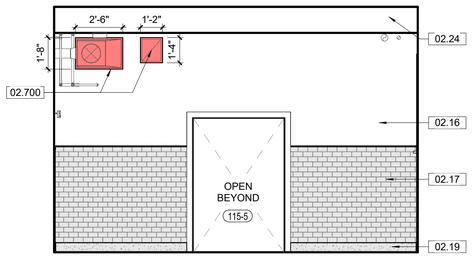


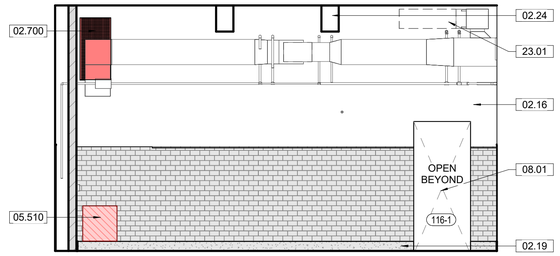
CLOAKROOM 117, LOOKING WEST

1 A6.5 Photo Details - Massage 116



2 A6.5 116 Massage E.

1/4" = 1'-0" SCALE (A)



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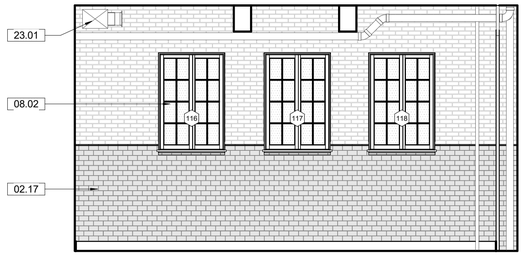

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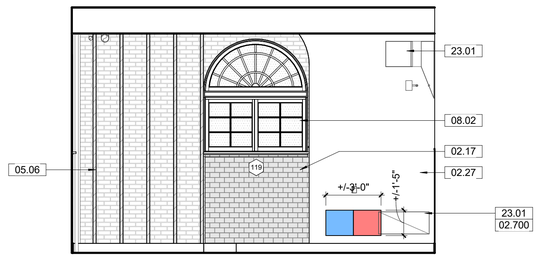

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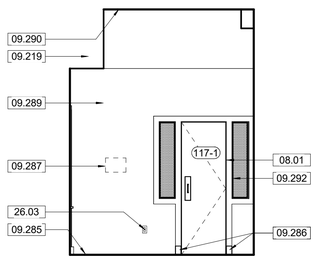
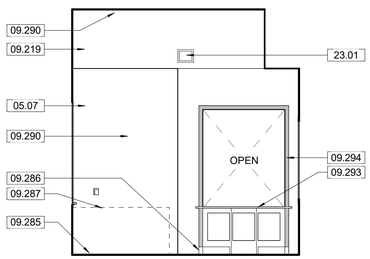


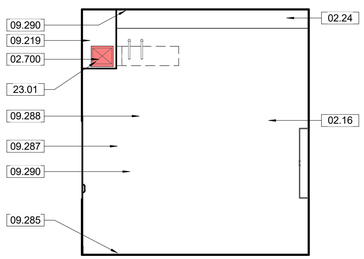
6 A6.5 117 Cloakroom E.

1/4" = 1'-0" SCALE (A)



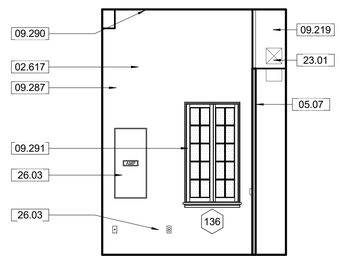
7 A6.5 117 Cloakroom N.

1/4" = 1'-0" SCALE (A)



8 A6.5 117 Cloakroom S.

1/4" = 1'-0" SCALE (A)



9 A6.5 117 Cloakroom W.

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.27	EXISTING PLASTER AND SHEATHING OVER BLACK STEEL FRAMING.
02.617	024296 - CAREFULLY DEMOLISH AND SALVAGE HISTORIC WOOD WINDOW FROM WINDOW OPENING AND ALL ASSOCIATED ANCHORS. HISTORIC WINDOW TRIM, STOOL, AND APRON TO REMAIN IN PLACE. REFERENCE EXTERIOR TREATMENT ELEVATIONS AND WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL. REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.07	054000 - INSTALL NEW METAL STUDS TO CREATE NEW CHASE. STUDS TO SPAN FLOOR TO CEILING.
05.510	042000, 092400 - 109 SUNPORCH: INFILL GRILLE OPENING WITH NEW MASONRY TO MATCH. PATCH WALL FINISHES TO MATCH SURROUNDING STUCCO ON ROOM 109 SIDE (6 SF).
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM.*
09.219	054000, 092900, 099123 - INSTALL FRAMING AND GYPSUM BOARD FOR NEW MECHANICAL SOFFIT. PREP, PRIME, AND PAINT. REFERENCE REFLECTED CEILING.
09.285	093013 - 117 CLOAKROOM: INSTALL NEW QUARRY TILE FLOORING (121 SF)
09.286	117 CLOAKROOM: REINSTALL MARBLE PLINTH BASE; STRIP PAINT FROM MARBLE PLINTHS (6 EA)
09.287	092300 - 117 CLOAKROOM: REPAIR PLASTER AT EAST, WEST, AND NORTH WALLS WHERE DUCT AND ALARM DEVICES ARE REMOVED (14 SF)
09.288	092300 - 117 CLOAKROOM: REPAIR DIAGONAL CRACK IN PLASTER ON SOUTH WALL (8 LF)
09.289	099123 - 117 CLOAKROOM: PREP, PRIME, AND PAINT ALL WALLS.
09.290	099123 - 117 CLOAKROOM: PREP, PRIME, AND PAINT THE CEILING.
09.291	099123 - 117 CLOAKROOM: PREP, PRIME, AND PAINT WINDOW SASHES (2 EA).
09.292	099300 - 117 CLOAKROOM: REFRESH FINISH ON DOOR AND SIDELIGHT (1 LS).
09.293	099300 - 117 CLOAKROOM: REFRESH FINISH ON COUNTER AND GATE (1 EA)
09.294	099300 - 117 CLOAKROOM: REFRESH FINISH ON ALL MILLWORK (1 LS)
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.5

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - 116 & 117
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 82 OF 286

11/6/2023 5:41:10 PM

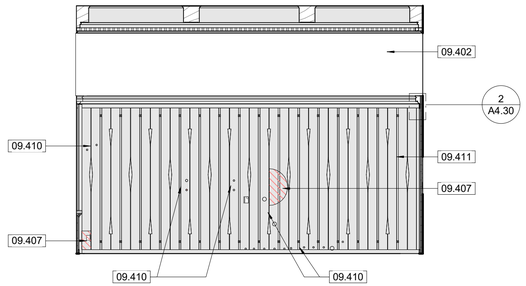
ROYCROFT DEN 300, LOOKING WEST

ROYCROFT DEN 300, LOOKING EAST

ROYCROFT DEN 300, LOOKING SOUTHWEST

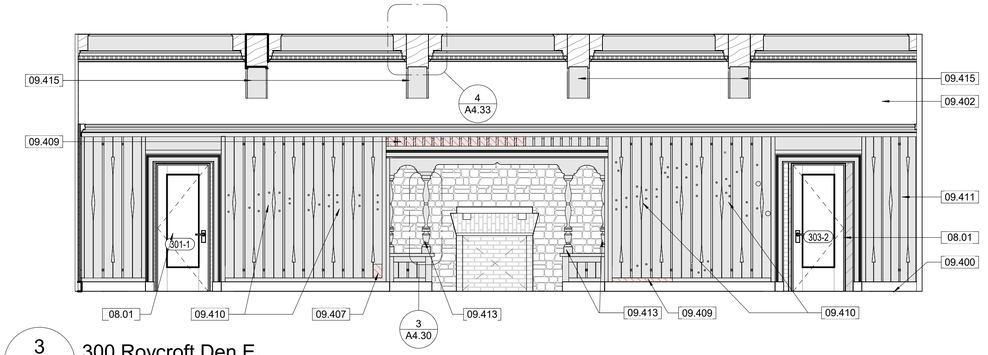
(090320) HISTORIC PLASTER BACCHUS CORBELS IN PARK STORAGE FOR REPLICATION.

1 A6.6 Photo Details - Roycroft Den 300



2 A6.6 300 Roycroft Den N.

1/4" = 1'-0" SCALE (A)



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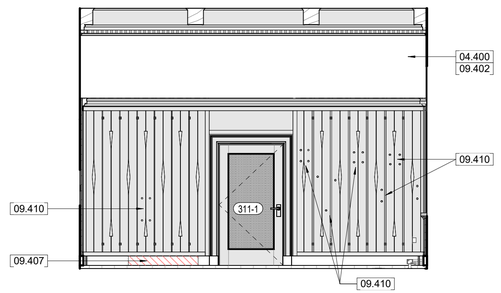
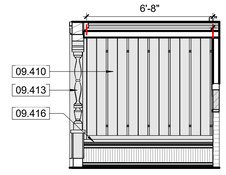


4 A6.6 300 Roycroft Den S.

1/4" = 1'-0" SCALE (A)

5 A6.6 300 Roycroft Den W.

1/4" = 1'-0" SCALE (A)



6 A6.6 300 Roycroft Nook N.

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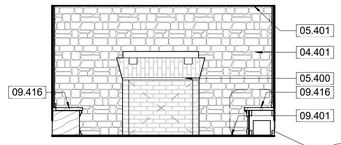

7 A6.6 300 Roycroft Nook E.

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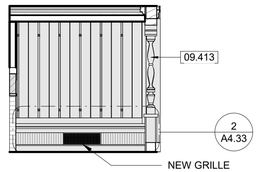

8 A6.6 300 Roycroft Nook S.

1/4" = 1'-0" SCALE (A)

SCALE (A) 0 1 2 4 8 16

SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.
B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK.
C. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.
D. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.
E. PHOTOGRAPH AND VIDEO ALL PORTION OF THE WOOD PANELED WALLS, MILLWORK, NOOK, AND WOODEN LAYLIGHT STRUCTURE PRIOR TO WORK. PHOTOGRAPHS TO BE FLAT TO CAPTURE AS MUCH DETAIL AS POSSIBLE OF ALL SECTIONS OF THE FLAT CEILING, ALL SIDES AND BOTTOMS OF THE BEAMS, AND DECORATIVE PLASTERWORK/ PROVIDE ADEQUATE LIGHTING FOR THE DOCUMENTATION. PHOTOGRAPHS SHALL BE OF A RESOLUTION GREAT ENOUGH TO SEE THE DETAIL OF THE WOOD GRAINING AND LATER STENCILING THAT REMAINS INTACT.
F. HISTORIC DECORATIVE WOOD PANELING AND MILLWORK IN THE ROYCROFT DEN DATE TO THE 1915 BUILDING RENOVATION. WOOD PANELING AND MILLWORK CONSIST OF CUSTOM DECORATIVE VERTICAL BOARD WOOD PANELING WITH WOOD ACCENTS AND DECORATIVE CAP, INSTALLED OVER WOOD FURRING. MILLWORK IS CUSTOM WITH MOLDED PROFILES, TURNED COLUMNS, PANELING, AND BENCHES. THE HISTORIC WOOD FRAMED LAYLIGHT CONSISTS OF WOOD BEAMS AND PROFILES MOLDINGS AND BRACKETS. ALL WOOD APPEARS TO BE FIR OR PINE AND IS STAINED A DARK BROWN AND WAS FINISHED WITH A THIN, SATIN VARNISH. ALL MILLWORK IS TO BE DOCUMENTED PRIOR TO REMOVAL. CAREFULLY SALVAGE ALL EXISTING HISTORIC WOOD PANELING AND MILLWORK FROM THE ROOM, INCLUDING WALLS, NOOK, AND CEILING LAYLIGHT STRUCTURE, TO BE RESTORED IN A CONDITIONED MILLWORK SHOP OFF SITE. ALL SECTIONS OF DAMAGED, DETERIORATED, OR MISSING MILLWORK ARE TO BE REPLICATED TO MATCH THE EXISTING HISTORIC MILLWORK OFF SITE.
G. PROVIDE SHOP DRAWINGS INDICATING THE OVERALL DIMENSIONS, PROFILES, AND CONSTRUCTION METHODOLOGY FOR ALL SECTIONS OF MILLWORK AND PANELING TO BE REPLICATED AND REPLACED, PER THE SPECIFICATIONS. PROVIDE SAMPLES OF REPLACEMENT WOOD TO MATCH HISTORIC WOOD PANELING AND MILLWORK WOOD SPECIES, GRAINING, AND CUT.
H. PROVIDE MOCK-UPS OF PROPOSED FINISHES. MOCK-UPS TO INCLUDE: SECTION OF REFINISHED EXISTING HISTORIC MILLWORK; SECTION OF DUTCHMAN WOOD PATCH / BLENDING EXISTING HISTORIC MILLWORK WITH NEW REPLACEMENT MILLWORK FINISHES; SECTION OF REPLACEMENT MILLWORK FINISHES. CORRECT MOCK-UP PER CONTRACTING OFFICER DIRECTIVE, UNTIL THEY ARE APPROVED. UPON APPROVAL OF MOCK-UPS, REINSTALL HISTORIC AND NEW PANELING AND MILLWORK INTO THE NEW SPACE, ONLY AFTER MAJOR REPAIRS IN THE ROOM AND THE TILE FLOORINGS HAVE BEEN COMPLETED AND INSTALLED. FURRING MAY BE A COMBINATION OF PRESSURE-TREATED WOOD OR LIGHT-GAUGE METAL FURRING. SUBMIT FURRING PRODUCTS FOR CONTRACTING OFFICER APPROVAL.

KEYNOTES

04.400	040323 - 300 ROYCROFT ROOM: REPAIR AND STABILIZE MASONRY WALLS, REFERENCE STRUCTURAL. REPOINT ALL OPEN MORTAR JOINTS.
04.401	300 ROYCROFT ROOM: CLEAN EXISTING STONE WALL, BRICK MASONRY FIREPLACE SURROUND AND BOX, AND STONE MANTEL WITH DETERGENT SOLUTION. SOLUTION TO BE JOB-MIXED BY PREPARING 2 CUPS OF TETRASODIUM PYROPHOSPHATE (TSP), ½ CUP OF LAUNDRY DETERGENT, AND 20 QUARTS OF HOT WATER FOR EVERY 5 GALLONS OF SOLUTION REQUIRED. PROTECT ALL NEARBY SURFACES TO PREVENT CLEANING SOLUTION FROM MAKING CONTACT WITH THE HISTORIC WOOD BENCH, SURROUNDING MILLWORK, AND FLOOR. CLEAN FROM TOP TO BOTTOM USING NATURAL BRISTLE BRUSHES (NO METAL). CLEAN MASONRY FOR UNIFORM APPEARANCE. SPOT CLEAN STAINED AREAS. RINSE ALL DETERGENT. REMOVE ALL TAPE AND ANY RESIDING RESIDUE UPON COMPLETION.
05.400	013591 - 300 ROYCROFT ROOM: RESTORE IRON LINTEL AT FIREPLACE OPENING (1 EA). REMOVE RUST, PREP, PRIME AND PAINT.
05.401	054000 - 300 ROYCROFT ROOM: INSTALL METAL CEILING FRAMING IN NOOK (77 SF)
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.400	093013 - 300 ROYCROFT ROOM: INSTALL NEW REPLICA RECTANGULAR 6"X9" RED QUARRY CLAY TILE THROUGHOUT TO MATCH HISTORIC PHOTOGRAPHS (823 SF)
09.401	093013 - 300 ROYCROFT ROOM: RESTORE TILE FLOORING IN NOOK. RE-GROUT, AS REQUIRED (77 SF)
09.402	092300 - 300 ROYCROFT ROOM: RESTORE AND INSTALL NEW 5-COAT PLASTER FINISHES OVER MASONRY ON AREAS ABOVE PANELING. SAND, PRIME AND PAINT. REFERENCE INTERIOR ELEVATIONS (378 SF)
09.406	300 ROYCROFT ROOM: INSTALL NEW MARBLE BASE THAT REPLICATE EXISTING IN MATERIAL, SIZE AND PROFILE. (24 LF)
09.407	064023, 099300 - 300 ROYCROFT ROOM: REMOVE DETERIORATED/DAMAGED WOOD BOARDS AND REPLACE WITH REPLICA BOARD THAT MATCHES EXISTING IN SPECIES, PROFILE, SIZE AND FINISH. (5 EA, LOCATION VARIES)
09.409	064023, 099300 - 300 ROYCROFT ROOM: REMOVE DETERIORATED/DAMAGED WOOD TRIM AND REPLACE WITH REPLICA BOARD THAT MATCHES EXISTING IN SPECIES, PROFILE, SIZE AND FINISH. (7 LF, LOCATION VARIES)
09.410	060312, 099300 - 300 ROYCROFT ROOM: INFILL HOLES 1/2-INCH DIAMETER AND BELOW WITH STAINABLE WOOD FILLER ON ALL BOARD TO BE REINSTALLED. PREP AND FINISH PER SPECIFICATIONS.
09.411	024296, 064023, 099300 - 300 ROYCROFT ROOM: CAREFULLY REMOVE, NUMBER, AND SALVAGE ALL WOOD CLADDING AND TRIM. TO BE RESTORED BY CONTRACTOR OFF SITE IN CONTROLLED CLIMATE WORKSHOP. PREP AND FINISH PER SPECIFICATIONS. CAREFULLY REINSTALL IN THE SAME LOCATIONS REMOVED.
09.412	300 ROYCROFT ROOM: EXISTING MARBLE BASE AT THE WEST WALL TO BE CAREFULLY REMOVED TO ALLOW FOR THE INSTALLATION OF THE FURRED-OUT PILASTERS. MARBLE BASE TO BE MODIFIED TO ACCOMMODATE NEW FURRED-OUT PILASTERS. CONTRACTOR TO PROVIDE NEW MARBLE MATERIAL TO MATCH FOR PILASTERS. REINSTALL MARBLE BASE.
09.413	064023, 099300 - 300 ROYCROFT ROOM: CAREFULLY REMOVE DECORATIVE TURNED WOOD COLUMNS AT WEST WALL OF ROYCROFT NOOK. INSTALL REPLICA DECORATIVE COLUMNS THAT MATCH THE SPECIES, SIZE, PROFILE AND FINISH OF HISTORIC COLUMNS. REFERENCE DETAIL AND SPECIFICATIONS.
09.414	064023, 099300 - 300 ROYCROFT ROOM: MISSING WOOD CORNICE AND TRIM AT THE TOP OF WOOD PANELING. INSTALL REPLICA CORNICE AND TRIM THAT MATCHES EXISTING IN SPECIES, SIZE, PROFILE AND FINISH.
09.415	092300, 099123 - 300 ROYCROFT ROOM: PROVIDE AND INSTALL REPLICA PLASTER BACCHUS AND SCROLL CORBELS (8 TOTAL) TO MATCH EXISTING FOUND IN PARK ARCHIVE. DECORATIVE PAINTING TO MATCH EXISTING (ASSUME 8-10 COLORS).
09.416	064023, 099300 - 300 ROYCROFT ROOM: INSTALL REPLICA WOOD BENCH AT THE ROYCROFT NOOK THAT MATCH EXISTING IN SPECIES, SIZE, PROFILE AND FINISH. (2 EA).

INTERIOR ELEVATION LEGEND ROYCROFT ROOM

REPLACEMENT MATERIAL INSTALLED

MISSING MATERIAL AND/OR HOLE

REMOVE, RESTORE AND REINSTALL EXISTING WALL PANELING

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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10.18.2023

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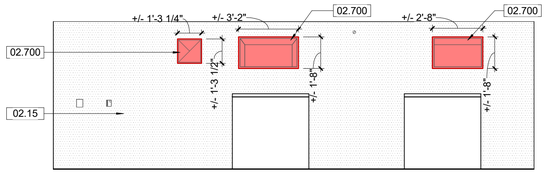
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.6

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - ROYCROFT ROOM
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 83 OF 286

11/6/2023 5:41:16 PM



1 A6.7 (P) B01 Basement Rm. E.
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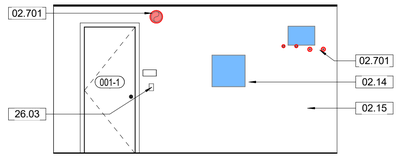

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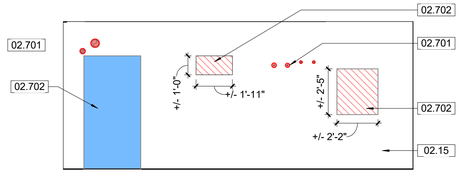

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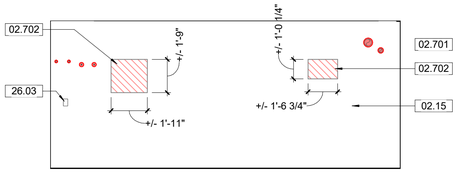

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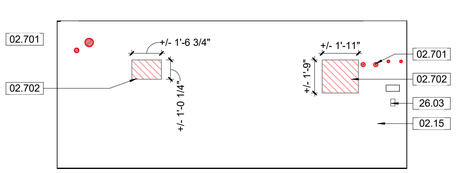

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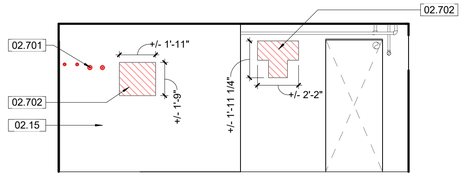

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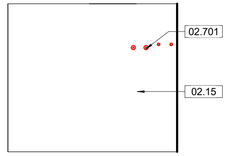

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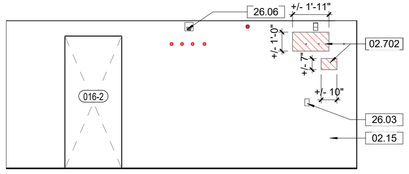

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9 A6.7 (P) B13 Workroom W.
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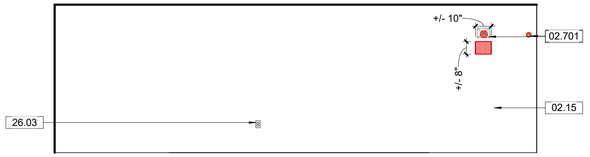

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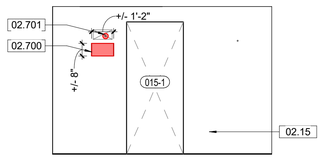

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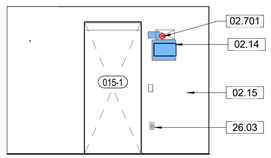

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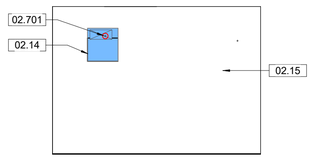

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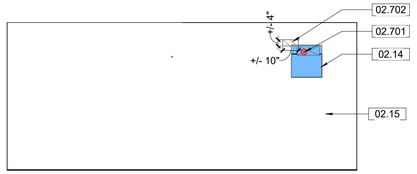

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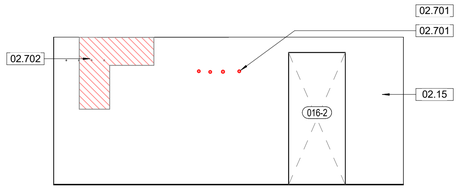

15 A6.7 (P) B16 Male Attendants W.
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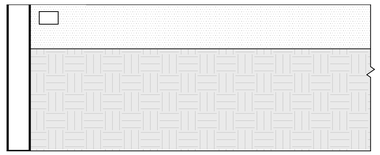

16 A6.7 (P) B19 Crawl Space W.
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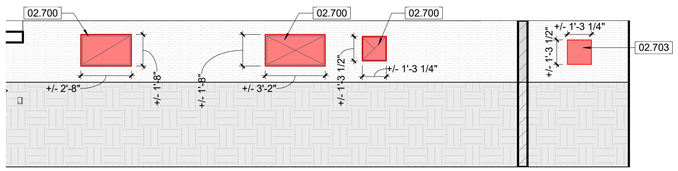

SCALE A 0 1 2 4 8 16
SCALE OF FEET

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C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.15	EXISTING CONCRETE WALL.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
02.702	054000, 092300 - INFILL EXISTING OPENING, REFERENCE STRUCTURAL DRAWINGS.
02.703	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING EXTERIOR WALL, REFERENCE STRUCTURAL, MEP, AND CIVIL DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.
26.06	NEW FIRE ALARM DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- EXISTING WALLS
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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10.18.2023

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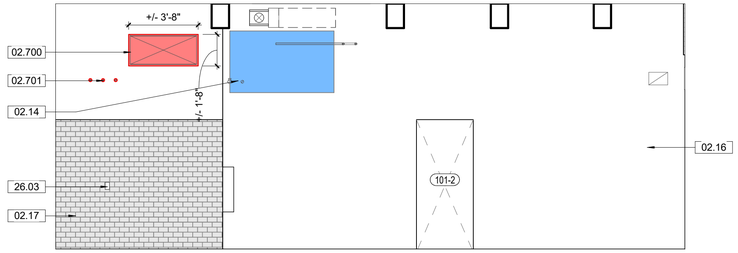
DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.7

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - PENETRATIONS
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 84 OF 286

11/6/2023 5:41:19 PM



1 A6.8 (P) 102A Women's Hall N.
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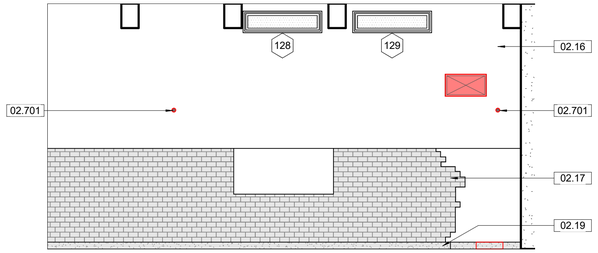

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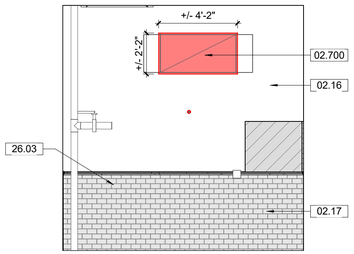

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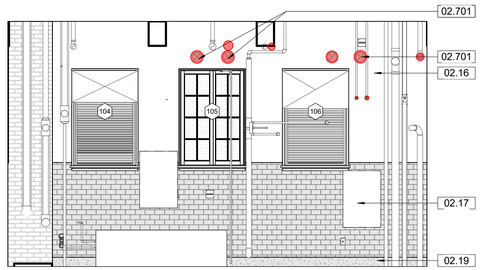
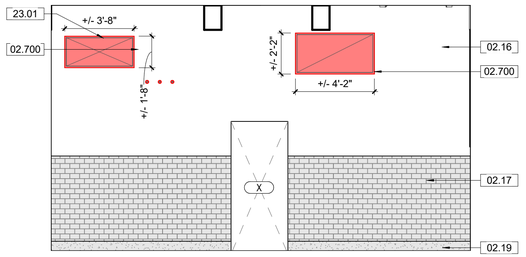
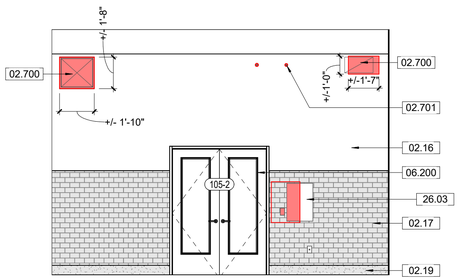


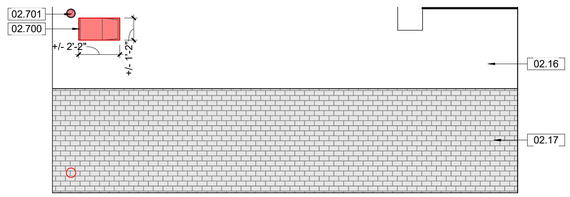
4 A6.8 (P) 103 Fire Rated Mechanical N.
1/4" = 1'-0" SCALE (A)



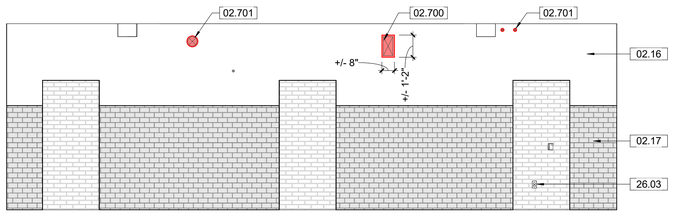
5 A6.8 (P) 103 Fire Rated Mechanical S.
1/4" = 1'-0" SCALE (A)



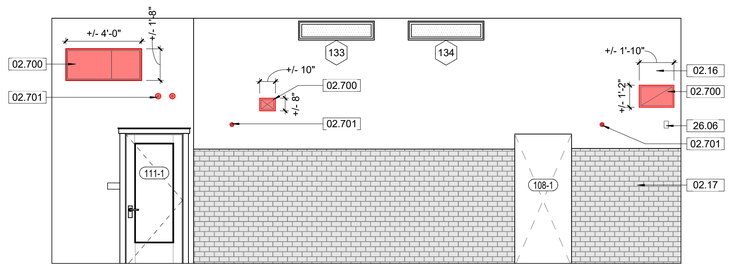
6 A6.8 (P) 103 Fire Rated Mechanical W.
1/4" = 1'-0" SCALE (A)



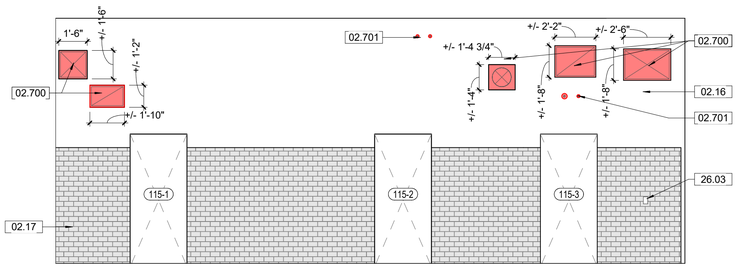
7 A6.8 (P) 108 Men's Pack Room N.
1/4" = 1'-0" SCALE (A)



8 A6.8 (P) 108 Men's Pack Room W.
1/4" = 1'-0" SCALE (A)



9 A6.8 (P) 112A Men's Hall N.
1/4" = 1'-0" SCALE (A)



10 A6.8 (P) 112A Men's Hall S.
1/4" = 1'-0" SCALE (A)

SCALE A 0 1 2 4 8 16
SCALE OF FEET

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
06.200	061000 - 103 MECHANICAL: REPLACE MISSING TRIM TO MATCH EXISTING AT DOOR 2/105.
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.
26.06	NEW FIRE ALARM DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING WALLS
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
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KANSAS CITY, MO
T: 816.474.0900

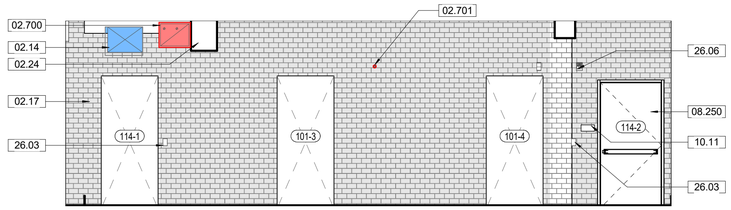
DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.8

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - PENETRATIONS
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

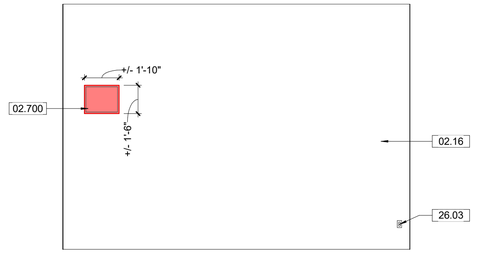
DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 85 OF 286

11/6/2023 5:41:22 PM



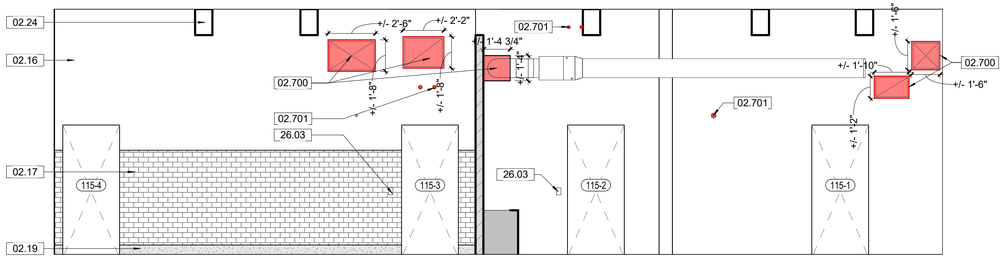
1 A6.9 (P) 114 Women's Bath Hall W.

1/4" = 1'-0" SCALE (A)



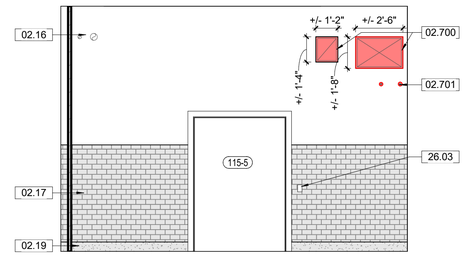
2 A6.9 (P) 115 Men's Cool Room E.

1/4" = 1'-0" SCALE (A)



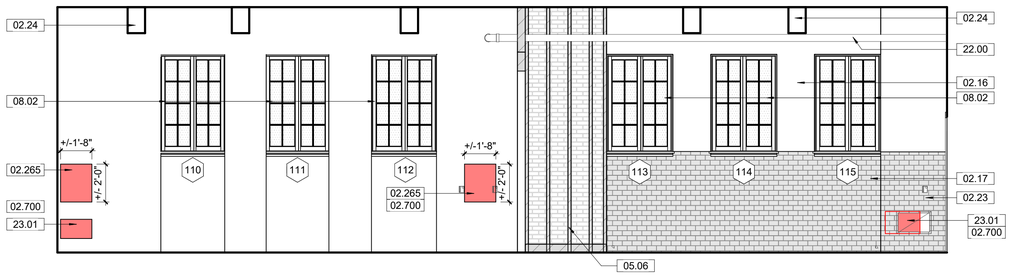
3 A6.9 (P) 115 Men's Cool Room N.

1/4" = 1'-0" SCALE (A)



4 A6.9 (P) 115 Men's Cool Room W.

1/4" = 1'-0" SCALE (A)



5 A6.9 (P) 115 Men's Cool Room S.

1/4" = 1'-0" SCALE (A)

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.23	EXISTING CERAMIC TILE OVER PLASTER AND BLACK STEEL FRAMING.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.265	017329, 024296 - 115/116: CUT A HOLE INTO THE EXISTING CHASE WALL TO ALLOW ACCESS FOR INSTALLING NEW MEP SYSTEMS. THE HOLE SHOULD BE CLEAN CUT AND ALLOW FOR AN EASY INSTALLATION OF ACCESS DOOR. PROVIDE SUPPORT AS REQUIRED FOR INSTALLATION. PRIOR TO CUTTING HOLE, COORDINATE THE REQUIRED HEIGHT OF HOLE WITH MEP ALL TRADES. REFERENCE MEP DRAWINGS.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
05.06	054000 - INSTALL NEW METAL STUDS AT OLD CHASE. STUDS TO SPAN FLOOR TO CEILING.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
08.250	087100, 099113 - 114 WOMEN'S BATH HALL: DOOR 2/114 - INSTALL NEW HARDWARE ON EXIT DOOR. PREP, PRIME, AND PAINT EXISTING DOOR AND FRAME (1 EA)
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
22.00	PLUMBING PIPES AND/0R ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.
26.06	NEW FIRE ALARM DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING HOLE TO REMAIN
- EXISTING WALLS
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

SCALE A 0 1 2 4 8 16
SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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SUB SHEET NO. 01 A6.9

TITLE OF SHEET
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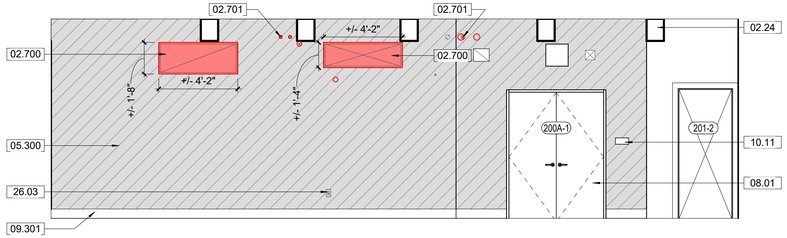
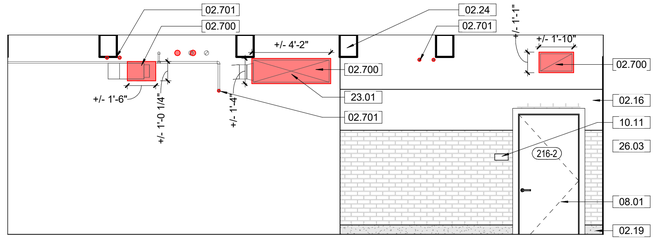
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 86 OF 286

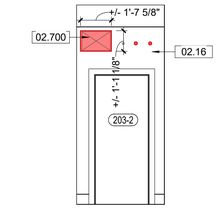
11/6/2023 5:41:24 PM



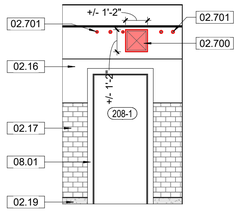
1 A6.10 (P) 200A Hall N.
1/4" = 1'-0" SCALE (A)



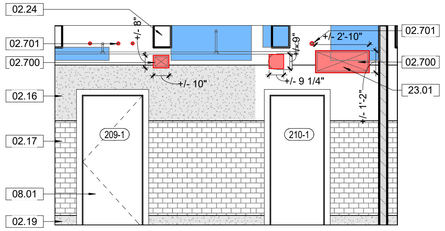
2 A6.10 (P) 200A Hall S.
1/4" = 1'-0" SCALE (A)



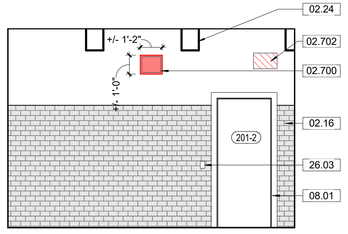
3 A6.10 (P) 200A Hall W.
1/4" = 1'-0" SCALE (A)



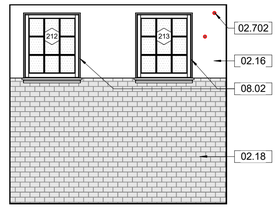
4 A6.10 (P) 200B Hall E.
1/4" = 1'-0" SCALE (A)



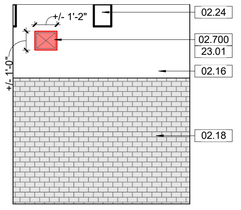
5 A6.10 (P) 200B Hall S.
1/4" = 1'-0" SCALE (A)



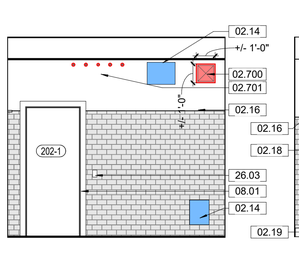
6 A6.10 (P) 201 Massage S.
1/4" = 1'-0" SCALE (A)

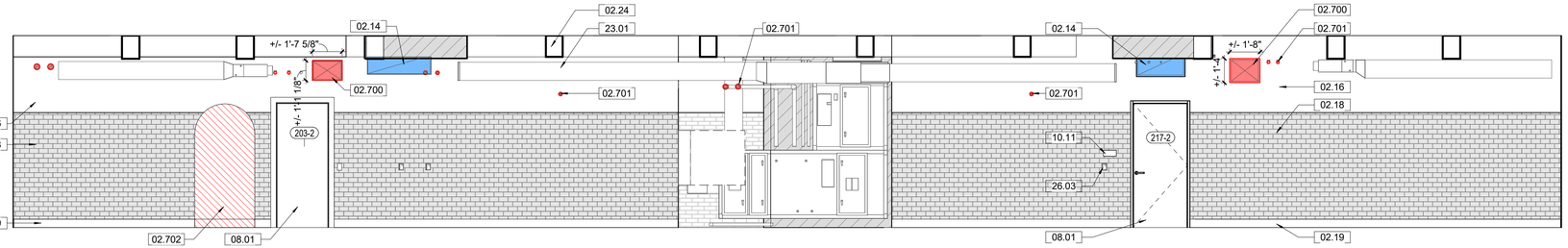


7 A6.10 (P) 202 Massage E.
1/4" = 1'-0" SCALE (A)



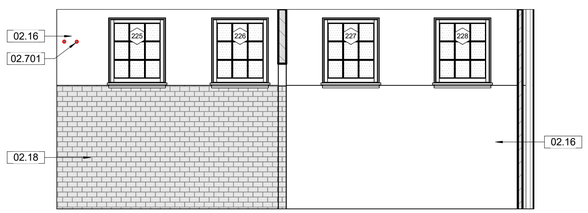
8 A6.10 (P) 202 Massage N.
1/4" = 1'-0" SCALE (A)



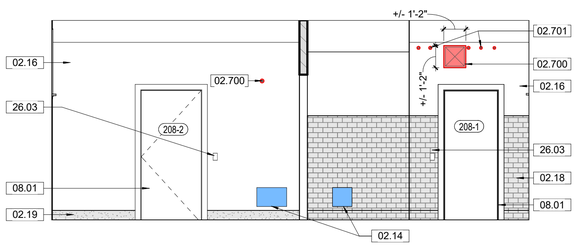


9 A6.10 (P) 202 Massage W.
1/4" = 1'-0" SCALE (A)

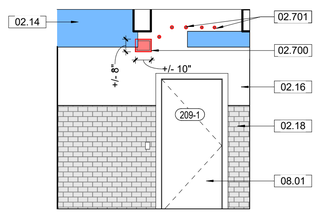
10 A6.10 (P) 205 Men's Dressing Rm E.
1/4" = 1'-0" SCALE (A)



11 A6.10 (P) 208 Employee Lounge E.
1/4" = 1'-0" SCALE (A)



12 A6.10 (P) 208 Employee Lounge W.
1/4" = 1'-0" SCALE (A)



13 A6.10 (P) 209 Male Staff N.
1/4" = 1'-0" SCALE (A)

SCALE A 0 1 2 4 8 16
SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

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KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
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02.18	EXISTING MASONRY WALL WITH DECORATIVE PLASTER SCORED TO REPLICATE CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
02.702	054000, 092300 - INFILL EXISTING OPENING, REFERENCE STRUCTURAL DRAWINGS.
05.300	054000, 078443, 092900, 099123 - SECOND FLOOR MECHANICAL ROOM: INSTALL 6" FIRE RATED WALL. FIRE CAULK AND FIRE STOPS TO BE INCLUDED AT ALL WALL OPENINGS. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (35 LF)
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
08.02	080152.61, 088000 - REFERENCE EXTERIOR TREATMENT ELEVATIONS, THE WINDOW SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR ALL EXTERIOR WINDOWS AND WINDOW TRIM."
09.301	096513 - INSTALL RESILIENT BASE AT NEW WALL, TYPICAL.
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
23.01	MECHANICAL DUCT AND/OR ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- EXISTING WALLS
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023
SUB SHEET NO.	01 A6.10
TITLE OF SHEET	MAURICE BATHHOUSE INTERIOR ELEVATIONS - PENETRATIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	87 OF 286

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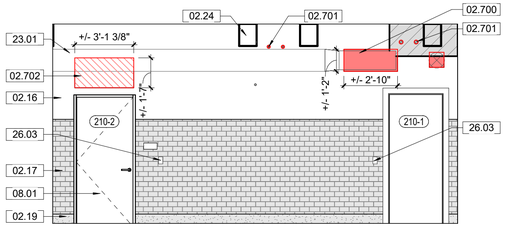
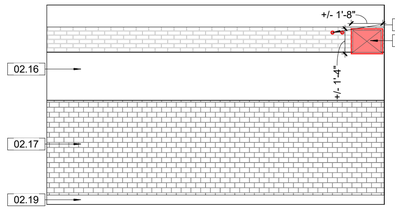


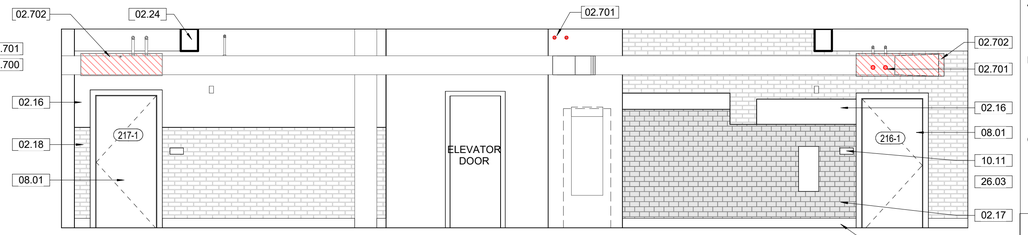
1 A6.11 (P) 210 Billiard Rm. N.

1/4" = 1'-0" SCALE (A)



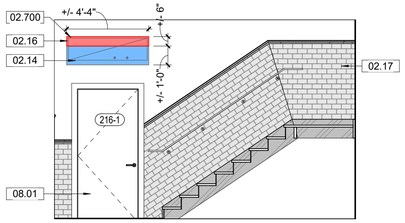
2 A6.11 (P) 210 Billiard Rm. W.

1/4" = 1'-0" SCALE (A)



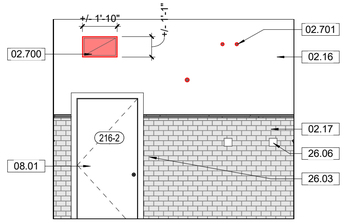
3 A6.11 (P) 211 Hall W.

1/4" = 1'-0" SCALE (A)



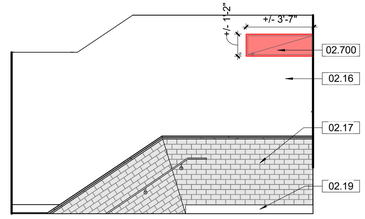
4 A6.11 (P) 216 Women's Elev. Hall E.

1/4" = 1'-0" SCALE (A)



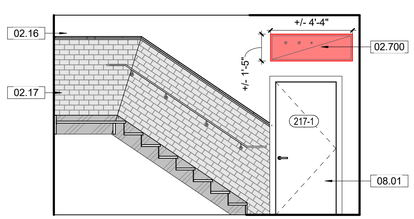
5 A6.11 (P) 216 Women's Elev. Hall N.

1/4" = 1'-0" SCALE (A)



6 A6.11 (P) 216 Women's Elev. Hall W.

1/4" = 1'-0" SCALE (A)



7 A6.11 (P) 217 Men's Elev. Hall E.

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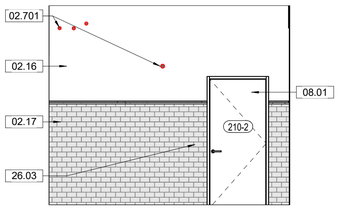

8 A6.11 (P) 217 Men's Elev. Hall S.

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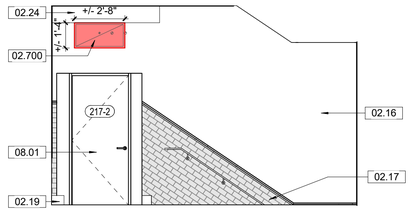

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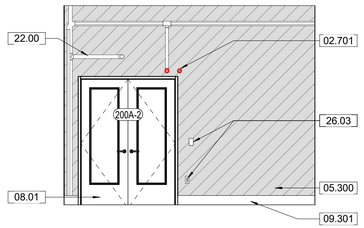
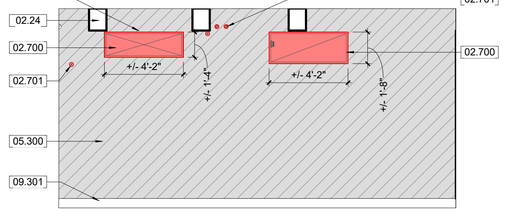


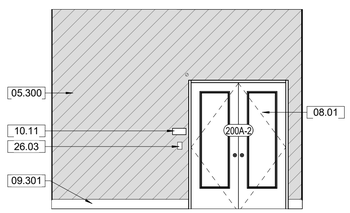
10 A6.11 (P) New (Fire Rated) Mechanical E.

1/4" = 1'-0" SCALE (A)



11 A6.11 (P) New (Fire Rated) Mechanical S.

1/4" = 1'-0" SCALE (A)



12 A6.11 (P) New Electrical W.

1/4" = 1'-0" SCALE (A)

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

B. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXITING CONDITIONS, IDENTIFYING ADDITIONAL TREATMENT WORK THAT MY BE REQUIRED FOR THE INSTALLATION OF NEW WORK. EXISTING CONDITIONS INCLUDE UTILITY LOCATIONS, EXISTING STRUCTURE LOCATIONS, AND EXISTING FIELD DIMENSIONS. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES DETRIMENTAL TO THE PROPER EXECUTION OF NEW WORK.

C. ASSUME ALL PAINTED SURFACES CONTAIN LEAD BASED PAINT. TAKE ALL PRECAUTIONS WHEN WORKING WITH PAINTED MATERIALS TO MEET FEDERAL AND STATE REGULATIONS, PER SPECIFICATIONS.

KEYNOTES

02.14	210503 - EXISTING HOLE IN THE WALL TO REMAIN. CREATE SMOKE SEAL AROUND ALL MEP ELEMENTS ENTERING STAIRWELLS.
02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.17	EXISTING MASONRY WALL WITH CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.18	EXISTING MASONRY WALL WITH DECORATIVE PLASTER SCORED TO REPLICATE CERAMIC TILE. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
02.19	EXISTING TERRAZZO BASE TO REMAIN. THE EXISTING CONDITION OF BASE IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED.
02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
02.701	017329, 024296, 028333 - CORE NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTOR AND CO PRIOR TO INSTALLATION.
02.702	054000, 092300 - INFILL EXISTING OPENING, REFERENCE STRUCTURAL DRAWINGS.
05.300	054000, 078443, 092900, 099123 - SECOND FLOOR MECHANICAL ROOM: INSTALL 6" FIRE RATED WALL. FIRE CAULK AND FIRE STOPS TO BE INCLUDED AT ALL WALL OPENINGS. WALL TO EXTEND FROM SLAB TO UNDERSIDE OF THIRD FLOOR DECK. (35 LF)
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
09.301	096513 - INSTALL RESILIENT BASE AT NEW WALL, TYPICAL.
10.11	1014223 - INTERIOR: INSTALL ROOM SIGNAGE
22.00	PLUMBING PIPES AND/0R ASSOCIATED PARTS, REFERENCE PLUMBING DRAWINGS.
23.01	MECHANICAL DUCT AND/0R ASSOCIATED PARTS, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.
26.06	NEW FIRE ALARM DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- NEW HOLE IN THE EXISTING WALL
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING HOLE TO REMAIN
- EXISTING WALLS
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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SCALE OF FEET

REGISTERED ARCHITECT — REBECCA GAEBLER — License Number 10286 — STATE OF ARKANSAS — 10.18.2023

A/E FIRMS	PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900
DESIGNED:	CA/AG
CADD:	CA/ZA/EM
TECH. REVIEW:	AG
DATE:	10.27.2023
SUB SHEET NO.	01 A6.11
TITLE OF SHEET	MAURICE BATHHOUSE INTERIOR ELEVATIONS - PENETRATIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
SHEET	88 OF 286

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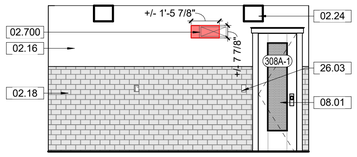
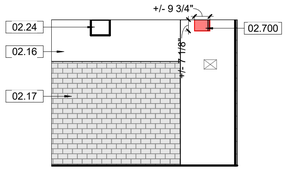


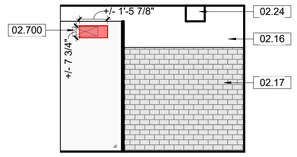
1 A6.12 (P) 307 Men's Lounge N.

1/4" = 1'-0" SCALE A



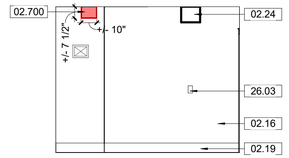
2 A6.12 (P) 308 Toilet N.

1/4" = 1'-0" SCALE A



3 A6.12 (P) 308 Toilet S.

1/4" = 1'-0" SCALE A



4 A6.12 (P) 310 Hall S.

1/4" = 1'-0" SCALE A

GENERAL NOTES - TREATMENT:

A. DO NOT SCALE FROM THE DRAWINGS. ALL DIMENSIONS ARE APPROXIMATE. ACTUAL FIELD VERIFIED DIMENSIONS SHALL BE OBTAINED BY THE GENERAL CONTRACTOR OR THE APPLICABLE SUB-CONTRACTORS BEFORE SUBMITTING SHOP DRAWINGS, ORDERING MATERIALS, OR THE COMMENCEMENT OF CONSTRUCTION.

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KEYNOTES

02.16	EXISTING MASONRY WALL WITH PLASTER. THE EXISTING CONDITION OF WALL FINISH IS NOT DEPICTED UNLESS REPAIRS ARE BEING RECOMMENDED. WALL TO REMAIN IN CURRENT CONDITION UNLESS OTHERWISE NOTED.
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02.24	EXISTING STRUCTURAL BEAM, REFERENCE STRUCTURAL DRAWINGS.
02.700	017329, 024296, 028333 - CUT NEW HOLE IN EXISTING WALL, REFERENCE STRUCTURAL AND MEP DRAWINGS, TYPICAL. ALL DIMENSIONS PROVIDED AT NEW HOLE LOCATIONS ARE ESTIMATES. CONTRACTOR TO COORDINATE REQUIRED HOLE DIMENSIONS WITH SUBCONTRACTORS AND CONTRACTING OFFICER PRIOR TO INSTALLATION.
08.01	081113, 081433, 087100 - REFERENCE FLOOR PLANS, THE DOOR SCHEDULE, AND SPECIFICATIONS FOR WORK REQUIRED FOR DOORS.
23.02	NEW MECHANICAL EQUIPMENT AND/OR ASSOCIATED DEVICES, REFERENCE MECHANICAL DRAWINGS.
26.03	NEW ELECTRICAL EQUIPMENT AND DEVICES, REFERENCE ELECTRICAL DRAWINGS.

INTERIOR ELEVATION LEGEND

- REPLACEMENT MATERIAL INSTALLED
- AREA REQUIRING RESTORATION DUE TO SIGNIFICANT MATERIAL DETERIORATION
- EXISTING WALLS
- NEW HOLE IN THE EXISTING WALL
- EXISTING HOLE TO REMAIN
- NEW WALLS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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SCALE OF FEET

REGISTERED ARCHITECT
REBECCA GAEBLER
License Number 10286
STATE OF ARKANSAS
10.18.2023

A/E FIRMS
PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET, SUITE 100
KANSAS CITY, MO
T: 816.474.0900

DESIGNED: CA/AG
CADD: CA/ZA/EM
TECH. REVIEW: AG
DATE: 10.27.2023

SUB SHEET NO. 01 A6.12

TITLE OF SHEET
MAURICE BATHHOUSE
INTERIOR ELEVATIONS - PENETRATIONS
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 89 OF 286

11/6/2023 5:41:28 PM

GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 INTERNATIONAL EXISTING BUILDING CODE AND 2021 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THESE GOVERNING CODES.
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. ANY DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS DOCUMENTATION, EXCLUDING ORIGINAL DRAWINGS, PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

FOUNDATIONS

1. NEW FOUNDATIONS SHALL BEAR ON UNDISTURBED SOIL HAVING A MINIMUM BEARING CAPACITY OF 3,000 PSF. NEW FOUNDATION DESIGNS ARE EXTRAPOLATED FROM SOIL PARAMETERS BASED ON THE FOLLOWING GEOTECHNICAL REPORTS: MCCLELLAND ENGINEERS PROJECT NO. LR83-167 DATED SEPTEMBER 21, 1983 ENTITLED INVESTIGATIVE STUDY OF FOUR BATHHOUSES AND TERRACON PROJECT NO. 35225081 DATED OCTOBER 27, 2022 FOR LIBBEY MEMORIAL CENTER FOUNDATION IMPROVEMENTS. ADEQUACY OF BEARING STRATUM SHALL BE VERIFIED IN FIELD PRIOR TO PLACING CONCRETE. ALL NECESSARY ADJUSTMENTS TO THE BOTTOM OF FOOTINGS TO BE REVIEWED AND APPROVED BY THE CONTRACTING OFFICER.
2. DO NOT PLACE BACKFILL AGAINST BASEMENT WALLS UNTIL ALL FLOORS BRACING THESE WALLS ARE IN PLACE AND HAVE ATTAINED THEIR 28-DAY STRENGTH.
3. ALL EXTERIOR FOOTINGS SHALL BE PLACED A MINIMUM OF 1' - 2" BELOW FINAL GRADE. PER CODE REQUIREMENTS. NEW FOUNDATIONS SHALL MATCH EXISTING FOUNDATIONS WHERE DIRECTLY ADJACENT. NEW FOUNDATIONS SHALL NOT UNDERMINE EXISTING STRUCTURE.
4. CONCRETE SHALL BE POURED IN DRY EXCAVATIONS. CONTRACTOR SHALL NOTE SOIL AND WATER CONDITIONS AS SHOWN BY BORINGS INCLUDED IN THE REFERENCED GEOTECHNICAL SUBSURFACE INVESTIGATION REPORT(S) AND DEPTHS OF FOOTING AS SHOWN ON FOUNDATION PLANS.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
   - B. ACI COLLECTION, LATEST EDITION
   - C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
2. ALL CONCRETE COMPOSITE ON METAL DECK SHALL BE LIGHT WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.)
5. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
6. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
7. WELDED WIRE REINFORCEMENT (W.W.R.) SHALL CONFORM TO ASTM A1064, WITH A MINIMUM YIELD STRENGTH OF 65,000 PSI.
8. COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ALL OTHER DISCIPLINES. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6".
9. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEP TRADE SUBMITTALS FOR CONTRACTING OFFICER REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAID INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS AND WALLS TOGETHER.
10. ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
11. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
    - A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3”
    - B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      - a. 2” (#6 THROUGH #18 BARS)
      - b. 1-1/2” (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
    - C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      - a. SLABS, JOISTS, AND WALLS:
        - 1-1/2” (#14 THROUGH #18 BARS)
        - 3/4" (#11 BAR AND SMALLER)
      - b. BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES (STIRRUPS, TIES, SPIRALS, HOOPS, AND PRIMARY REINFORCEMENT): 1-1/2”
    - D. SHEAR WALLS: SEE ELEVATIONS FOR SPECIFIED CONCRETE COVER.
12. SHOP DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL. NO CONCRETE WORK SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
13. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
14. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERTS, AND EMBED ITEMS.
15. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.
16. WELDED WIRE REINFORCEMENT IN COMPOSITE CONSTRUCTION SHALL HAVE TENSION SPLICES AND BE ANCHORED AT DISCONTINUOUS EDGES.
17. CONDUIT EMBEDDED IN CONCRETE SHALL FOLLOW THE GUIDELINES IN THE TYPICAL DETAILS. THE CONTRACTOR SHALL NOT VIOLATE THESE GUIDELINES WITHOUT WRITTEN APPROVAL BY THE CONTRACTING OFFICER. CONTRACTOR TO PROVIDE SHOP DRAWINGS SHOWING LAYOUT OF ALL EMBEDDED CONDUIT FOR APPROVAL BY CONTRACTING OFFICER BEFORE PLACEMENT.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS".
   - B. AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
   - C. AMERICAN WELDING SOCIETY (AWS D1.1) "STRUCTURAL WELDING CODE - STEEL".
   - D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) “SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS”.
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
   - A. WIDE FLANGE BEAMS, COLUMNS, AND STRUCTURAL TEES: ASTM A992.
   - B. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C.
   - C. STRUCTURAL PIPE SECTIONS: ASTM A53, GRADE B.
   - D. CHANNELS, ANGLES, AND PLATES: ASTM A36 UNLESS OTHERWISE NOTED.
   - E. STRUCTURAL STEEL PLATE SHALL BE ASTM A572 GRADE 50 HAVING A MINIMUM YIELD POINT OF 50,000 PSI. GRADE 42 HAVING A MINIMUM YIELD POINT OF 42,000 PSI FOR THICKNESS GREATER THAN 4".
   - F. BOLTED CONNECTIONS SHALL BE PER ASTM F3125. GRADES ARE TO BE SELECTED AS FOLLOWS:
     - a. STANDARD BEAM TO BEAM/GIRDER: ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN SNUG-TIGHTENED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
     - b. BEAM/GIRDER TO COLUMN CONNECTIONS, COLUMN SPLICES AND BOLTS EXPERIENCING TENSION LOADS (UNLESS OVERSIZED OR SLOTTED HOLES ARE USED, IN WHICH CASE SLIP-CRITICAL JOINTS SHALL BE USED): ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN PRETENSIONED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
     - c. PER AISC 341, ALL BOLTS SHALL BE INSTALLED AS PRETENSIONED HIGH STRENGTH BOLTS AND MEET THE REQUIREMENTS FOR SURFACE PREPARATION FOR SLIP CRITICAL CONNECTIONS WITH CLASS A SLIP COEFFICIENT OR HIGHER. THE AVAILABLE SHEAR STRENGTH OF BOLTED JOINTS USING STANDARD HOLES SHALL BE CALCULATED AS THAT FOR BEARING TYPE JOINTS.
   - G. ANCHOR RODS: ASTM F1554, GRADE 36.
   - H. STRUCTURAL STEEL NOTED TO BE STAINLESS STEEL SHALL BE ASTM A276 STAINLESS STEEL TYPE 316L [304L], UNLESS NOTED OTHERWISE.
   - I. ALL STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593 GRADE B8/B8M FOR TYPE 304/316, RESPECTIVELY, TO MATCH MATERIAL JOINED.
   - J. ALL STAINLESS STEEL NUTS SHALL CONFORM TO ASTM F594 GRADE 8/8M FOR TYPE 304/316, RESPECTIVELY, TO MATCH BOLT MATERIAL.
3. STEEL CONNECTIONS SHALL BE STANDARD AISC FRAMED BEAM CONNECTIONS, AND SHALL BE
   - DESIGNED BY A LICENSED ENGINEER WORKING FOR THE FABRICATOR, WHO SHALL PROVIDE CALCULATIONS,
   - UTILIZING LRFD LOADS AND PROCEDURES.
   - A. WHERE CONNECTIONS HAVE BEEN DESIGNED BY A LICENSED ENGINEER, STEEL CONTRACTOR IS RESPONSIBLE FOR INTEGRATING RESULTS OF ALL CALCULATIONS INTO THE SHOP DRAWINGS.
   - B. UNLESS OTHERWISE NOTED ON PLAN, PROVIDE CONNECTIONS BASED ON MINIMUM SHEAR CAPACITY REQUIREMENTS IN THE FOLLOWING TABLE
     - WHICH ARE BASED ON AISC SINGLE SHEAR TAB CONNECTIONS.

MINIMUM SHEAR CAPACITY REQUIREMENTS		
BEAM DEPTH (NOMINAL)	MIN. SHEAR CAPACITY LRFD (Kips)	MIN. NUMBER OF BOLT ROWS
8", 10"	24	2
12", 14"	42	3
16"	62	3
18"	78	4
21"	88	4
24"	90	5
27"	108	6
30"	126	7
33"	142	7
36"	155	8
40"+	165	9

   - B. REINFORCING IS TO BE PROVIDED AT CONNECTIONS WHERE CUTS REDUCE THE SHEAR OR MOMENT CAPACITY BELOW THAT REQUIRED TO SUSTAIN THE REACTION. FLANGES AND WEBS ARE TO BE REINFORCED WHERE THE LOCAL CAPACITY TO SUSTAIN CONNECTION LOADS ARE INADEQUATE. CUTS OR COPES MAY PREVENT MINIMUM NUMBER OF BOLT ROWS SHOWN ABOVE FROM BEING ACHIEVED, WHICH IS ACCEPTABLE PENDING WRITTEN APPROVAL AND CONFIRMATION THAT MINIMUM SHEAR CAPACITY HAS BEEN MET.
   - C. CONNECTIONS SHALL BE DESIGNED FOR SHEAR AND ECCENTRICITY, CONSIDERING THAT THE CONNECTIONS ARE AN EXTENSION OF THE BEAMS AND GIRDERS.
4. MINIMUM WELD SIZE IS 1/4" FILLET UNLESS NOTED OTHERWISE.
5. ALL BEAMS EXCEPT CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED SO THAT NATURAL CAMBER RAISES CANTILEVER END.
6. FIELD CUTTING OR BURNING OF STEEL IS PROHIBITED EXCEPT WITH THE EXPRESS WRITTEN APPROVAL OF THE CONTRACTING OFFICER. (IN WHICH CASE ALL BURNING OF STEEL MUST CONFORM TO THE THERMAL CUTTING REQUIREMENTS OF AISC AND AWS)
7. WELDING SHALL BE PERFORMED BY CERTIFIED, AWS-QUALIFIED WELDERS. WELDING ELECTRODES FOR CARBON STEEL SHALL BE AWS 5.1, CLASS E70XX. FOR ASTM A572 GRADE 50 KSI PLATE USE ELECTRODE E7018 OR APPROVED EQUAL. WELDING ELECTRODES FOR ASTM A276 STAINLESS STEEL, TYPE 304, SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E308; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER308. WELDING ELECTRODES FOR ASTM A276 TYPE 316L STAINLESS STEEL SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E316; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER316. WELDING ELECTRODES FOR JOINING STAINLESS STEEL TO CARBON STEEL SHALL CONFORM TO ELECTRODE CLASS E309/ER309.
8. ALL EXTERIOR EXPOSED STEEL AND STEEL SUPPORTING EXTERIOR SHALL BE HOT DIPPED GALVANIZED. HOT DIP GALVANIZING SHALL CONFORM TO ASTM A123, REPAIR SCRATCHES OR ABRADED GALVANIZED SURFACE WITH ZINC RICH PAINT.

STRUCTURAL STEEL (CONT.)

11. LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:

MASONRY OPENING	LINTEL
4' - 0" OR LESS	L4x3-1/2x5/16 LLV
4' - 1" TO 7' - 0"	L6x3-1/2x5/16 LLV

    - A. 3-1/2" LEGS ARE HORIZONTAL.
    - B. PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS.
    - C. PROVIDE L5x5x5/16 ANGLES FOR 6" THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 6' - 0".
    - D. PROVIDE MINIMUM 6" BEARING AT EACH END.
1. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
2. SHOP DRAWING SUBMITTALS SHALL FOLLOW THE FOLLOWING SEQUENCE (WITH EACH NOT BEING SUBMITTED UNTIL THE PREVIOUS ONE IS APPROVED):
   - A. JOB STANDARDS (BASIS OF DESIGN AND REPRESENTATIVE CALCULATIONS FOR VARIOUS CONNECTION TYPES)
   - B. ERECTION PLANS
   - C. PIECE DETAILS AND PIECE-SPECIFIC CONNECTION CALCULATIONS
3. PROVIDE MECHANICALLY GALVANIZED BOLTS FOR EXTERIOR APPLICATIONS.

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS

1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY CONTRACTING OFFICER PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSUMPTIONS AND CONDITIONS OF THE MPII. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.
2. INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND CONTRACTING OFFICER WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.
   - A. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPII AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.
3. EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE CONTRACTING OFFICER.
4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF CONCRETE, AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.
5. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY, GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.
6. SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACTING OFFICER. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPII. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACTING OFFICER PRIOR TO USE.

SPECIAL INSPECTIONS (IBC)

1. REFERENCE NPS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR FULL LIST OF REQUIREMENTS.
2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

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STRUCTURAL SYSTEM DESCRIPTION

NO ORIGINAL STRUCTURAL DRAWINGS HAVE BEEN FOUND. BASED ON 1973 HABS DRAWINGS, 1984 INVESTIGATIVE STUDY BY PITTS & ASSOCIATES ENGINEERS, 2002 STABILIZATION DRAWINGS, 2006 REHABILITATION DRAWINGS, 2022 SD REHAB DRAWINGS BY SEA, AND SITE OBSERVATIONS PERFORMED BY SILMAN IN FEBRUARY & JULY 2023, THE STRUCTURAL DESCRIPTION IS AS FOLLOWS:
THE GRAVITY SYSTEM OF THE BUILDING IS GENERALLY COMPRISED OF REINFORCED CONCRETE SLABS AND BEAMS SUPPORTED BY INTERIOR AND EXTERIOR MASONRY BEARING WALLS. SUBGRADE STRUCTURE, INCLUDING WALLS AND SLAB ON GRADE, CONSISTS OF CONCRETE WITH UNKNOWN REINFORCEMENT. BASEMENT SLAB ON GRADE. STRUCTURAL WALLS ARE ASSUMED TO BEAR ON CONCRETE WALL FOOTINGS.
MAURICE BATHHOUSE WAS CONSTRUCTED IN 1911. MOST BUILDINGS CONSTRUCTED IN THIS REGION AND ERA WERE NOT DESIGNED WITH AN EXPLICITLY DEFINED LATERAL FORCE RESISTING SYSTEM. AN ACCEPTABLE STRUCTURAL SYSTEM TO RESIST LATERAL FORCES WAS A CONCRETE FRAMED BUILDINGS DESIGNED TO SUPPORT GRAVITY LOADS SURROUNDED BY WELL-PROPORTIONED MASONRY OR CONCRETE WALLS.
THE SCOPE OF WORK WITHIN THESE DOCUMENTS DOES NOT ALTER THE EXISTING STRUCTURAL BEHAVIORS OR LOAD PATHS. THEREFORE, PER 2021 INTERNATIONAL EXISTING BUILDING CODE SECTION 805 AND 1205, REPAIRS CAN BE INSTALLED TO BRING THE BUILDING BACK TO THE ORIGINAL CAPACITY AT THE TIME OF CONSTRUCTION. REFERENCE SILMAN MEMO DATED JULY 5, 2023 FOR SEISMIC SAFETY CONSIDERATIONS PER STANDARDS OF SEISMIC SAFETY FOR EXISTING FEDERALLY OWNED AND LEASED BUILDINGS; ICSSC RECOMMENDED PRACTICE 10 (RP 10-22). NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.

TEMPORARY SHORING

1. ANY TEMPORARY SHORING SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS IS PROVIDED TO SHOW GENERAL INTENT IN A QUALITATIVE, SCHEMATIC, AND NON-COMPREHENSIVE MANNER, FOR THE PURPOSES OF ASSISTING IN COORDINATION AND GENERAL SCOPE/PRICING.
2. DETERMINATION OF THE FULL SCOPE AND EXTENT OF ALL TEMPORARY SHORING WORK AND SEQUENCING REQUIRED TO SAFELY EXECUTE THE STRUCTURAL WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. THE DESIGN OF TEMPORARY SHORING BY THE CONTRACTOR'S ENGINEER SHALL ABIDE BY THE REQUIREMENTS IN THE GENERAL NOTES.
4. THE DESIGN OF TEMPORARY SHORING, AND DETERMINATION OF THE EXTENT OF TEMPORARY SHORING, ARE NOT THE RESPONSIBILITY OF SILMAN.
5. SEE STRUCTURAL DRAWINGS FOR SPECIAL AREAS OF THE PROJECT THAT REQUIRE TEMPORARY SHORING FOR STABILITY DURING CONSTRUCTION OR ERECTION. IN ACCORDANCE WITH SHORING GENERAL NOTES 1-4 IN THIS SECTION, TEMPORARY SHORING OF SUCH AREAS IS ONLY NOTED SCHEMATICALLY AND SUBCONTRACTORS ARE RESPONSIBLE FOR DETERMINING ALL FINAL MEANS AND METHODS FOR SAFE ERECTION OF THE STRUCTURE. ALL TEMPORARY SHORING WORK AND SEQUENCING ARE THE COMPLETE RESPONSIBILITY OF THE CONTRACTOR, AND IS NOT DESIGNED OR COMPREHENSIVELY IDENTIFIED BY SILMAN. CONTRACTOR SHALL ALLOW FOR ANY SUCH REQUIRED SHORING IN BIDS.

ROCK ANCHORS

1. ROCK ANCHORS ARE NOT EXPECTED AS PREVIOUS GEOTECHNICAL REPORTS STATE PRESENCE OF HIGHLY WEATHERED SHALE AND TUFA ROCK WITHIN THE BOUNDS OF ANTICIPATED NEW CONSTRUCTION. HOWEVER, THIS SECTION IS INCLUDED IN CASE A FIELD CONDITION SHOULD OCCUR WHEREBY NEW CONCRETE FOUNDATIONS CONFLICT WITH EXISTING ROCK THAT CANNOT BE EXCAVATED.
2. ALL ROCK ANCHORS SHALL BE INSTALLED BY A CONTRACTOR HAVING A MINIMUM OF FIVE (5) YEARS OF INSTALLATION AND TESTING EXPERIENCE. CONTRACTOR SHALL PROVIDE THE OWNER AND CONTRACTING OFFICER WITH DOCUMENTATION OF PROJECT PARTICIPATION.
3. CONTRACTOR SHALL SUBMIT THE PROPOSED MATERIAL, INSTALLATION AND TESTING PROCEDURE. ALL ANCHORS ARE TO BE TESTED TO TWO (2) TIMES THE INDICATED SERVICE LOAD PLUS FIFTY PERCENT (50%) OF SAID SERVICE LOAD.
4. ANCHORS MAY BE "PRESTRESSED BONDED ANCHORS" OR "PRE-STRESS MECHANICAL ANCHORS". HOWEVER, ALL ANCHORS SHALL BE INSTALLED HAVING MULTIPLE CORROSION PROTECTION.
5. CORROSION PROTECTION SYSTEM, FAST RESIN BOND MATERIAL AND REQUIRED BOND LENGTH, AND SLOW SET RESIN UTILIZED FOR RESIN ANCHORING SHALL BE BY THE SAME MANUFACTURER AND SHALL BE SUBMITTED TO THE OWNER AND CONTRACTING OFFICER PRIOR TO USE. DRILL HOLE DIAMETER AS RECOMMENDED BY THE MANUFACTURER.
6. MECHANICAL ROCK ANCHOR HEAD ASSEMBLIES SHALL BE MANUFACTURED AND SUPPLIED BY THE SAME COMPANY.
7. STRESS ANCHORS SHALL BE PLACED WITHIN THE DRILL HOLE USING A PVC CENTRALIZER. CENTRALIZERS SHALL BE AS RECOMMENDED BY THE ANCHOR MANUFACTURER.
8. TIE DOWN STRESS ANCHORS SHALL HAVE A MINIMUM DIAMETER PROVIDING A MAXIMUM STRESS OF NOT GREATER THAN SIXTY PERCENT (60%) OF THE ANCHORS ULTIMATE STRENGTH. BAR MATERIAL SHALL HAVE A MINIMUM STRENGTH OF 75 KSI.
9. MINIMUM FREE STRESSING LENGTH SHALL BE 8 FEET.

STANDARD ABBREVIATIONS

ADD'L	ADDITIONAL
ADJ.	ADJACENT
A/E	DESIGN TEAM OF RECORD
ALT.	ALTERNATE
APPROX.	APPROXIMATE/APPROXIMATELY
ARCH.	ARCHITECT/ARCHITECTURAL
BLDG.	BUILDING
B.O.	BOTTOM OF
BOT.	BOTTOM
BRG.	BEARING
BSMT.	BASEMENT
CANT.	CANTILEVER
C.I.P.	CAST IN PLACE
C.J.	CONTRACTION JOINT
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE/COORDINATION
COTR	CONTRACT OFFICER'S TECHNICAL REPRESENTATIVE
CTR.	CENTER
DBL.	DOUBLE
DEMO	DEMOLITION/DEMOLISH
DIA.	DIAMETER
DIM.	DIMENSION
DWG(S)	DRAWING(S)
DWL.	DOWEL
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEV.	ELEVATOR
EMBED.	EMBEDMENT
E.O.R.	ENGINEER OF RECORD
EQ.	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXP.	EXPANSION
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH
FLR.	FLOOR
F.S.	FAR SIDE
FT.	FEET
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
G.B.	GRADE BEAM
HORIZ.	HORIZONTAL
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
I.F.	INSIDE FACE
I.J.	ISOLATION JOINT
INFO	INFORMATION
INT.	INTERIOR
JT.	JOINT
K	KIP
LB.	POUND
L.L.	LIVE LOAD
LLBB	LONG LEGS BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
L.W.	LIGHTWEIGHT
L.W.	LONG WAY
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECH., ELECT., PLUMBING, & FIRE PROTECTION
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
N.F.	NEAR FACE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.	NORMAL WEIGHT
O.C.	ON CENTER
O.F.	OUTSIDE FACE
OPNG.	OPENING
OPP.	OPPOSITE
PC.	PIECE
PL.	PLATE
PLF	POUNDS PER LINEAR FOOT
PREFAB.	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REINF.	REINFORCE(D)/REINFORCEMENT
REQ'D	REQUIRED
REV.	REVISION
SCHED.	SCHEDULE
SECT.	SECTION
SLBB	SHORT LEGS BACK-TO-BACK
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATION
SQ.	SQUARE
S.S.	STAINLESS STEEL
STD.	STANDARD
STIFF.	STIFFENER
STL.	STEEL
S.W.	SHORT WAY
T & B	TOP & BOTTOM
TEMP.	TEMPORARY/TEMPERATURE
THK.	THICK(NESS)
T.O.	TOP OF
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W.W.R.	WELDED WIRE REINFORCEMENT
#	NUMBER/SIZE
Ø	DIAMETER

STANDARD ABBREVIATIONS FOR EXISTING STRUCTURES

(E)	EXISTING MEMBER OR DIMENSION
EXIST.	EXISTING
T.C.	TERRA COTTA
U-P	UNDERPINNING
V.I.F.	VERIFY IN FIELD

LEGEND

- EXISTING CONCRETE FOOTING, GRADE BEAM, OR PILE CAP
- CONCRETE FOOTING, GRADE BEAM, OR PILE CAP
- UNDERPINNING
- WALL OR CONCRETE BEAM BELOW
- CONCRETE WALL
- EXISTING WALL, BEAM FLOOR, OR FOUNDATION (SEE NOTES FOR MATERIAL)
- EXISTING CONCRETE COLUMN
- STEEL COLUMN
- EXISTING WOOD BEAM
- WOOD BEAM
- EXISTING STEEL BEAM
- STEEL BEAM
- LEDGER ANGLE (SEE DETAIL)
- SHEAR CONNECTION
- BP-# — BEAM BEARING PLATE IN CONCRETE OR MASONRY (SEE DETAIL)
- 3" THICK LIGHTWEIGHT CONCRETE TOPPING SLAB, REFER TO DETAIL 1/S5.8 OPEN ARROW INDICATES SPAN DIRECTION
- S.O.G. — SLAB ON GRADE (SEE SCHEDULE)
- RAMP/SLOPED FLOOR (TAIL INDICATES HIGH END)
- STEP IN SLAB
- SLAB SLOPE TRANSITION
- #' - #" — TOP OF SLAB ELEVATION
- #' - #" — SPOT ELEVATION
- OPENING IN SLAB; REFER TO TYPICAL DETAILS FOR SUPPORT OF EXIST. CUT SLAB
- EXISTING OPENING IN EXISTING SLAB
- 0 — COLUMN LINE
- 0 — EXISTING COLUMN LINE. (DIMENSIONS BETWEEN EXISTING COLUMN LINES ARE FOR REFERENCE ONLY.)
- # — KEYNOTE
- 1 — REVISION
- [##' - ##"] — TOP/BOTTOM OF FOOTING ELEVATION RELATIVE TO DATUM
- <##' - ##"> — TOP OF FRAMING ELEVATION RELATIVE TO DATUM
- RW__ — RETAINING WALL, SEE SCHEDULE & DETAILS
- S__ — CONCRETE SLAB OR CONCRETE SLAB ON METAL DECK, SEE SCHEDULE & DETAILS
- W__ — CONCRETE WALL, SEE SCHEDULE & DETAILS
- WF__ — WALL FOOTING, SEE SCHEDULE & DETAILS
- CONFINED, LIMITED ACCESS, OR INACCESSIBLE AREA
- (E) SLAB — EXISTING ONE WAY FLOOR SLAB OPEN ARROW INDICATES SPAN DIRECTION
- L — STEEL LINTEL; REFER TO GENERAL NOTES - STRUCTURAL STEEL AND TYPICAL DETAILS

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 14877 — 10/27/2023 — NATHANIEL OPPENHEIMER

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	DESIGNED: KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	SUB SHEET NO. 01 S0.2	TITLE OF SHEET MAURICE BATHHOUSE GENERAL STRUCTURAL NOTES, LEGEND, ABBREVIATIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 91 OF 286

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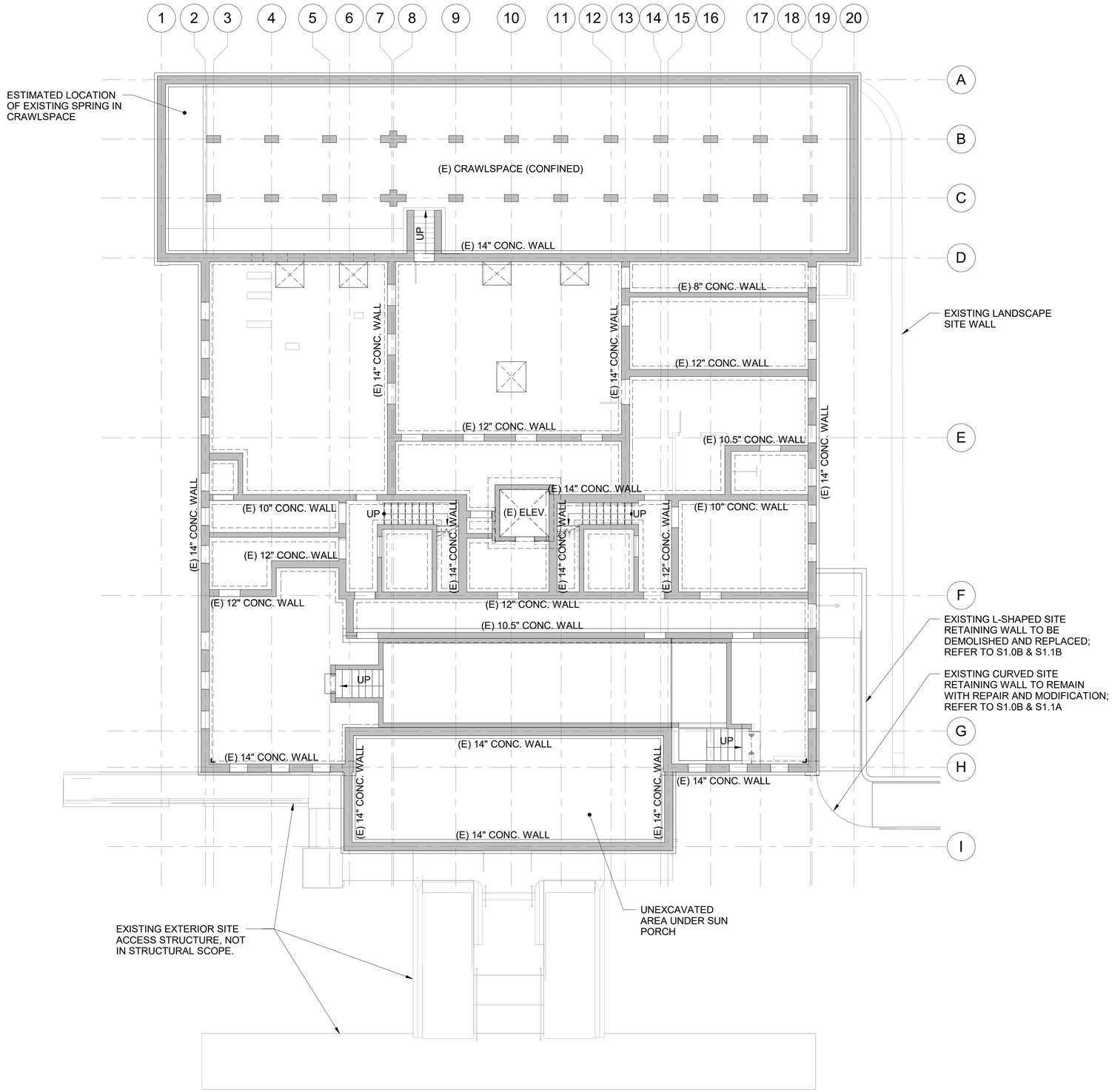
CONCRETE MIX DESIGN								
AREA	F'c AT 28 DAYS (psi)	NOTES	DENSITY	DURABILITY EXPOSURE CATEGORIES AND CLASSES (ACI 318 TABLE 4.2.1.)				NOTES
				FREEZING AND THAWING (F) / WATER CONTACT (W)	SULFATE (S)	PERMEABILITY (P)	CORROSION PROTECTION OF REINFORCEMENT (C)	
SITE CONCRETE (LIGHT POSTS, FENCE POSTS, ETC.)	3500	MAX w/c = 0.45	NORMAL WEIGHT	F3	S0	P0	C1	
WALL FOOTINGS, SPREAD FOOTINGS, & BELOW GRADE PIERS	4000			F1 / W1	S0	P1	C1	
SITE RETAINING WALLS	4000	MAX w/c = 0.40		F3	S0	P1	C1	
EXTERIOR SLAB ON GRADE	5000			F3	S0	P0	C2	REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR SLABS
INTERIOR SLAB ON GRADE	4000			F0	S0	P0	C1	FINISH AS INDICATED IN ARCHITECTURAL DRAWINGS PER SPECIFICATION
STRUCTURED SLAB	6000			F0	S0	P0	C0	FINISH AS INDICATED IN ARCHITECTURAL DRAWINGS PER SPECIFICATION
STRUCTURED ROOF SLAB	6000			F2	S0	P0	C0	FINISH AS INDICATED IN ARCHITECTURAL DRAWINGS PER SPECIFICATION

DESIGN PARAMETER TABLE		
GOVERNING CODES:		2021 INTERNATIONAL BUILDING CODE & 2021 INTERNATIONAL EXISTING BUILDIN...
RISK CATEGORY:		III (ASSUMED BASED ON THE BUILDING'S FUTURE ASSEMBLY OCCUPANCY...
SNOW LOAD:		
10	Pg	GROUND SNOW LOAD
9	Pf	FLAT-ROOF SNOW LOAD
1.1	Ce	SNOW EXPOSURE FACTOR
1.1	Is	SNOW LOAD IMPORTANCE FACTOR
1.1	Ct	THERMAL FACTOR (ASSUMED)
11	Pm	MINIMUM SNOW LOAD FOR LOW-SLOPE ROOFS
WIND LOAD:		
111	Vult	ULTIMATE DESIGN WIND SPEED
86	Vasd	NOMINAL DESIGN WIND SPEED
1.0	I	WIND IMPORTANCE FACTOR
C		WIND EXPOSURE CATEGORY
0.18	GCPi	INTERNAL PRESSURE COEFFICIENT
SEISMIC DESIGN:		
1.25	I	SEISMIC IMPORTANCE FACTOR
0.237	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.111	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
C		SITE CLASS
0.206	S(ds)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIODS
0.111	S(d1)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND PERIODS
B		SEISMIC DESIGN CATEGORY
SEE STRUCTURAL DESCRIPTION ON S0.2. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.		BASIC SEISMIC FORCE RESISTING SYSTEM

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

10/24/2023 1:41:11 PM

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900	KH	01	MAURICE BATHHOUSE DESIGN TABLES	128 182951
ENG: **SUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH	S0.3	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			92 OF 286



1 S1.0 EXISTING FOUNDATION / BASEMENT PLAN

1/8" = 1'-0" SCALE (A)

10/24/2023 1:41:11 PM

SHEET NOTES

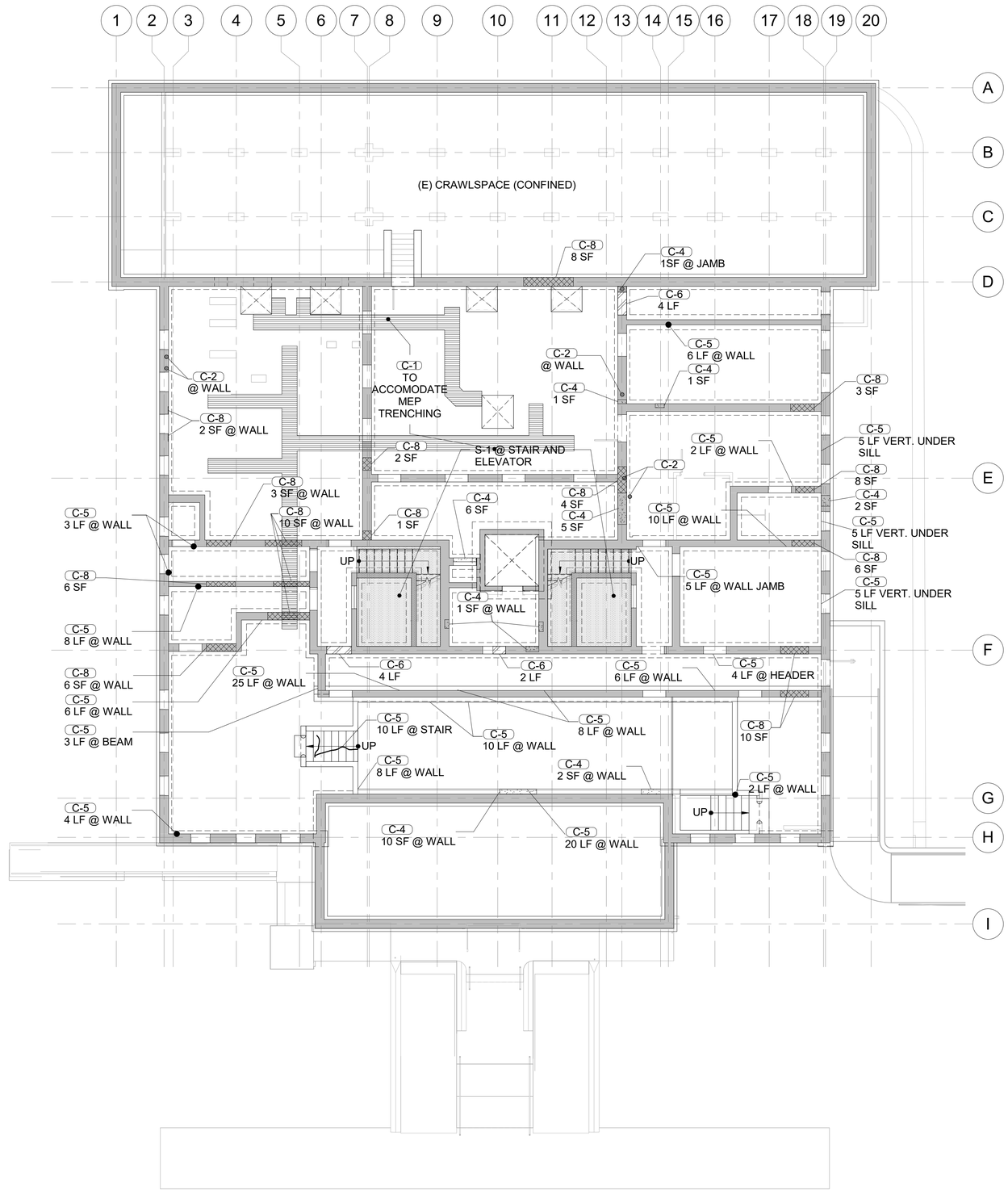
1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MINIMUM BEAM SIZE.
8. WALL FOOTINGS ARE SHOWN SCHEMATICALLY; CONFIGURATION AND ELEVATION ARE UNKNOWN. INVESTIGATION IS REQUIRED WHERE NEW SUBGRADE STRUCTURE IS ADJACENT TO EXISTING FOUNDATIONS. BOTTOM OF NEW FOUNDATIONS SHALL MATCH EXISTING. DO NOT UNDERMINE EXISTING STRUCTURE.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 NATHANIEL OPPENHEIMER 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.0	MAURICE BATHHOUSE EXISTING FOUNDATION / BASEMENT PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			93 OF 286



1 S1.0A FOUNDATION / BASEMENT REPAIR PLAN

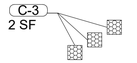
1/8" = 1'-0" SCALE (A)

SHEET NOTES

MASTER KEYNOTE LIST FOR REPAIRS

KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORKWITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
5. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

6. SUBGRADE PLUMBING SCOPE PER P1.0 REQUIRES EXISTING SLAB REMOVAL AND REPLACEMENT. PROVIDE 110 SF ALLOWANCE FOR C-1 REPAIR.
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NO. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.0A	MAURICE BATHHOUSE FOUNDATION / BASEMENT REPAIR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			94 OF 286

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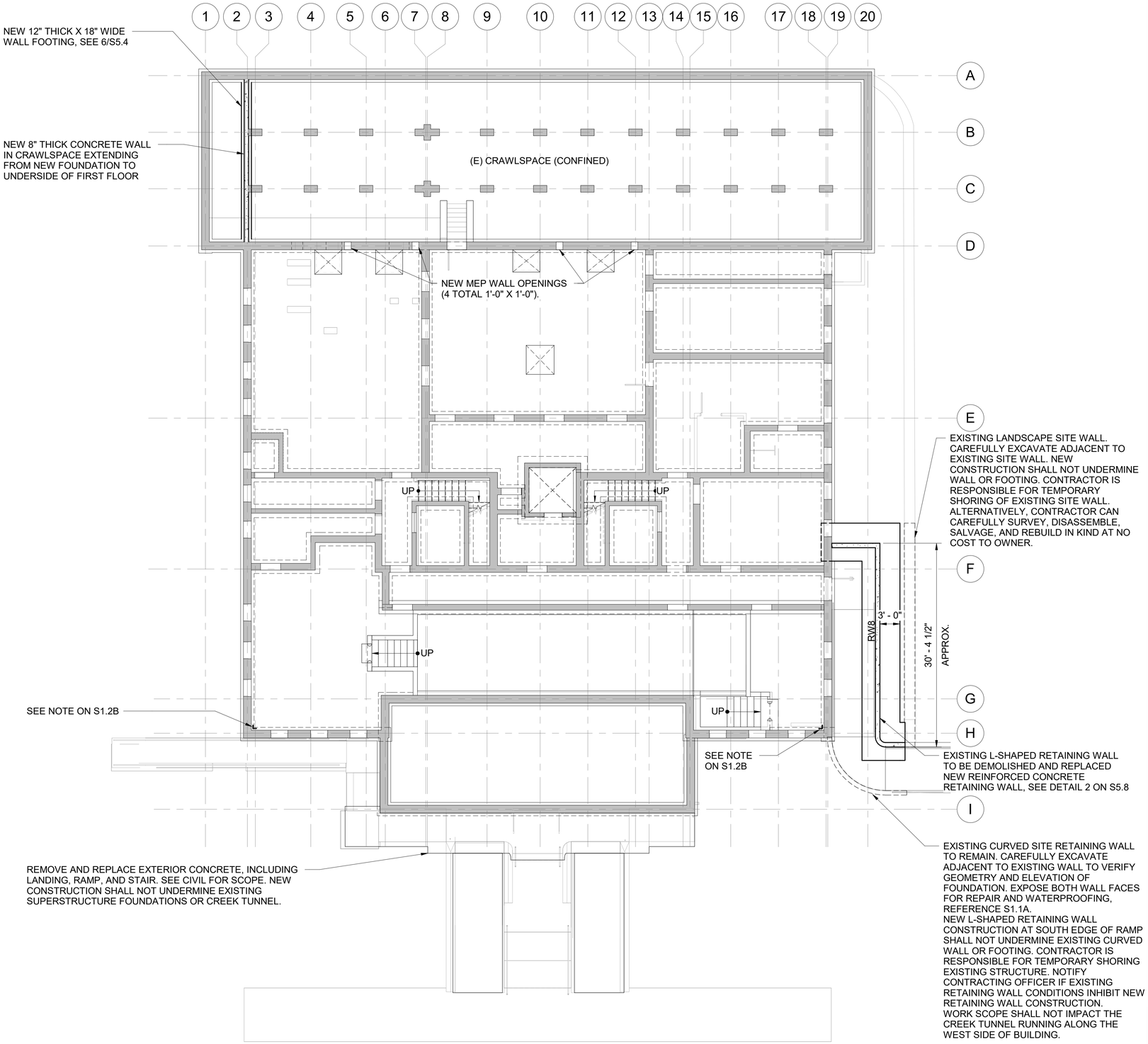

1 / S1.0B FOUNDATION / BASEMENT NEW CONSTRUCTION PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MINIMUM BEAM SIZE.
8. WALL FOOTINGS ARE SHOWN SCHEMATICALLY; CONFIGURATION AND ELEVATION ARE UNKNOWN. INVESTIGATION IS REQUIRED WHERE NEW SUBGRADE STRUCTURE IS ADJACENT TO EXISTING FOUNDATIONS. BOTTOM OF NEW FOUNDATIONS SHALL MATCH EXISTING. DO NOT UNDERMINE EXISTING STRUCTURE.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NO. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01	MAURICE BATHHOUSE FOUNDATION / BASEMENT NEW CONSTRUCTION PLAN	128 / 182951
ENG: **SIMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM	S1.0B	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			95 OF 286
	DATE: 10.27.2023			

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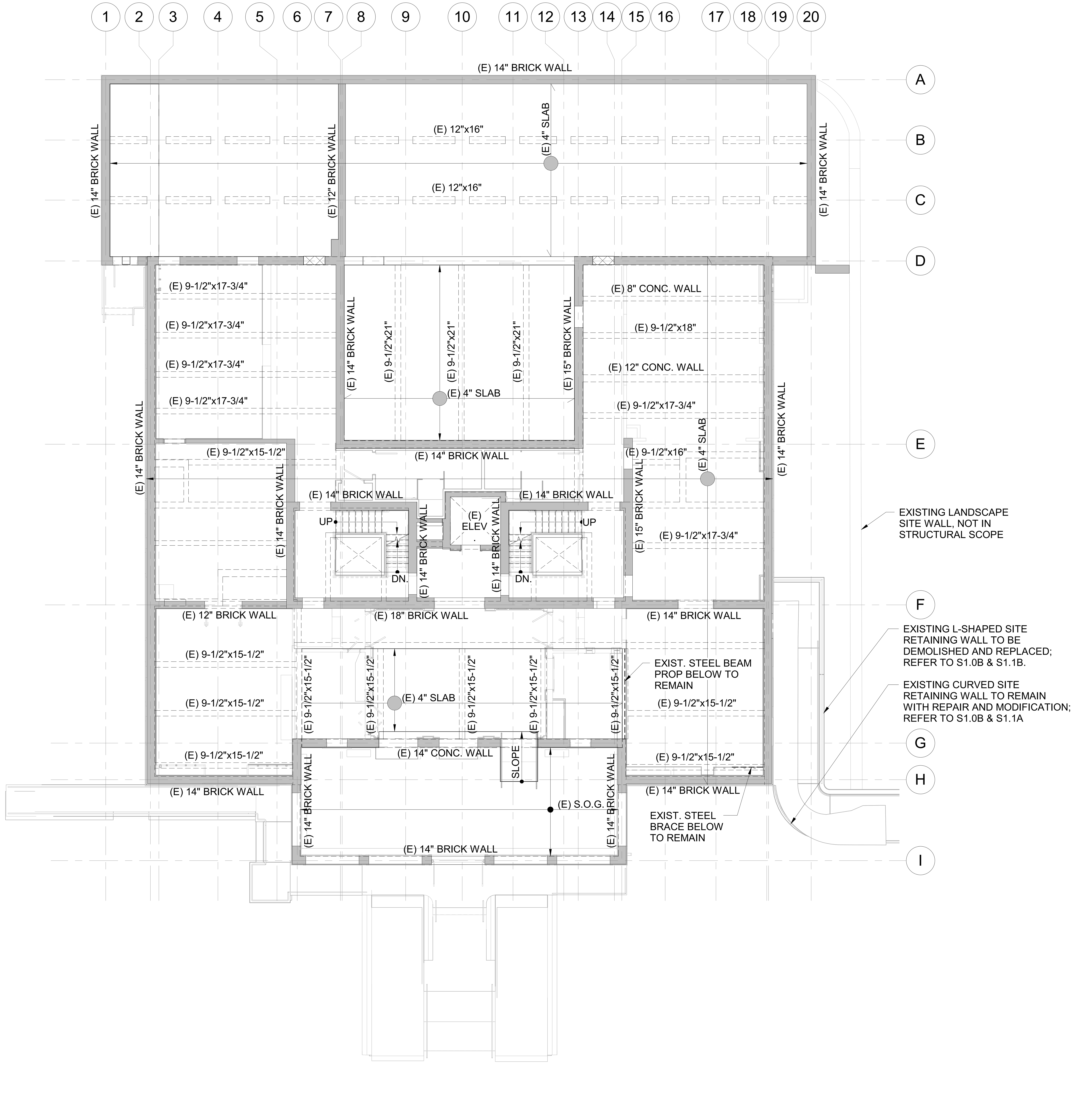

1 / S1.1 EXISTING FIRST FLOOR STRUCTURAL PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
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3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. FRAMING ELEMENTS DESIGNATED AS (E) #" X #" INDICATE EXISTING CONCRETE BEAMS OF APPROXIMATE #" WIDTH X #" DEPTH.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900
ENG: SILMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460

DESIGNED: KH
CADD: CM
TECH. REVIEW: NH
DATE: 10.27.2023

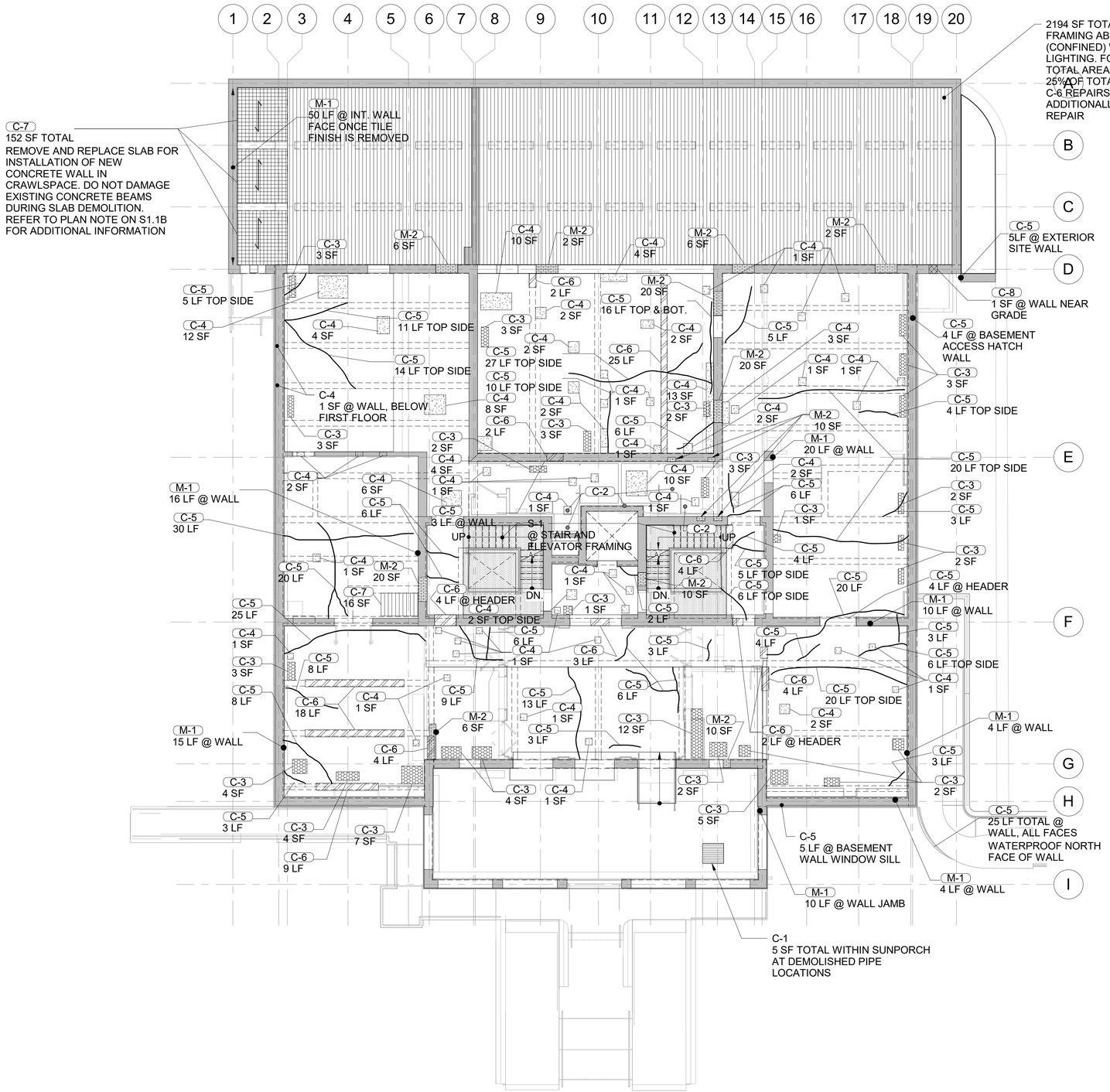
SUB SHEET NO. 01 S1.1

TITLE OF SHEET
MAURICE BATHHOUSE
EXISTING FIRST FLOOR PLAN

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915

10/24/2023 1:41:14 PM



1 S1.1A FIRST FLOOR REPAIR PLAN
1/8" = 1'-0" SCALE A

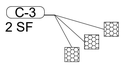
10/24/2023 1:41:16 PM

SHEET NOTES

MASTER KEYNOTE LIST FOR REPAIRS

KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

1. EXISTING 4" NON-STRUCTURAL PARTITION WALLS ARE PRESENT AND MAY REMAIN FOR THIS PROJECT PHASE. THESE WERE ORIGINALLY CONSTRUCTED WITHOUT POSITIVE ATTACHMENT AT THE TOP OF WALL. REFER TO ARCHITECTURAL FOR FULL EXTENT OF WALL INFILL AND REPAIR. FOR WALLS THAT WILL REMAIN, SEE TOP OF WALL CLIP ATTACHMENT RECOMMENDATION DETAIL 3/S5.5. COORDINATE NEW WALL OPENINGS WITH MEP DRAWINGS.
2. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
3. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
4. CONTRACTOR SHALL COORDINATE REPAIR WORKWITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
5. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
6. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

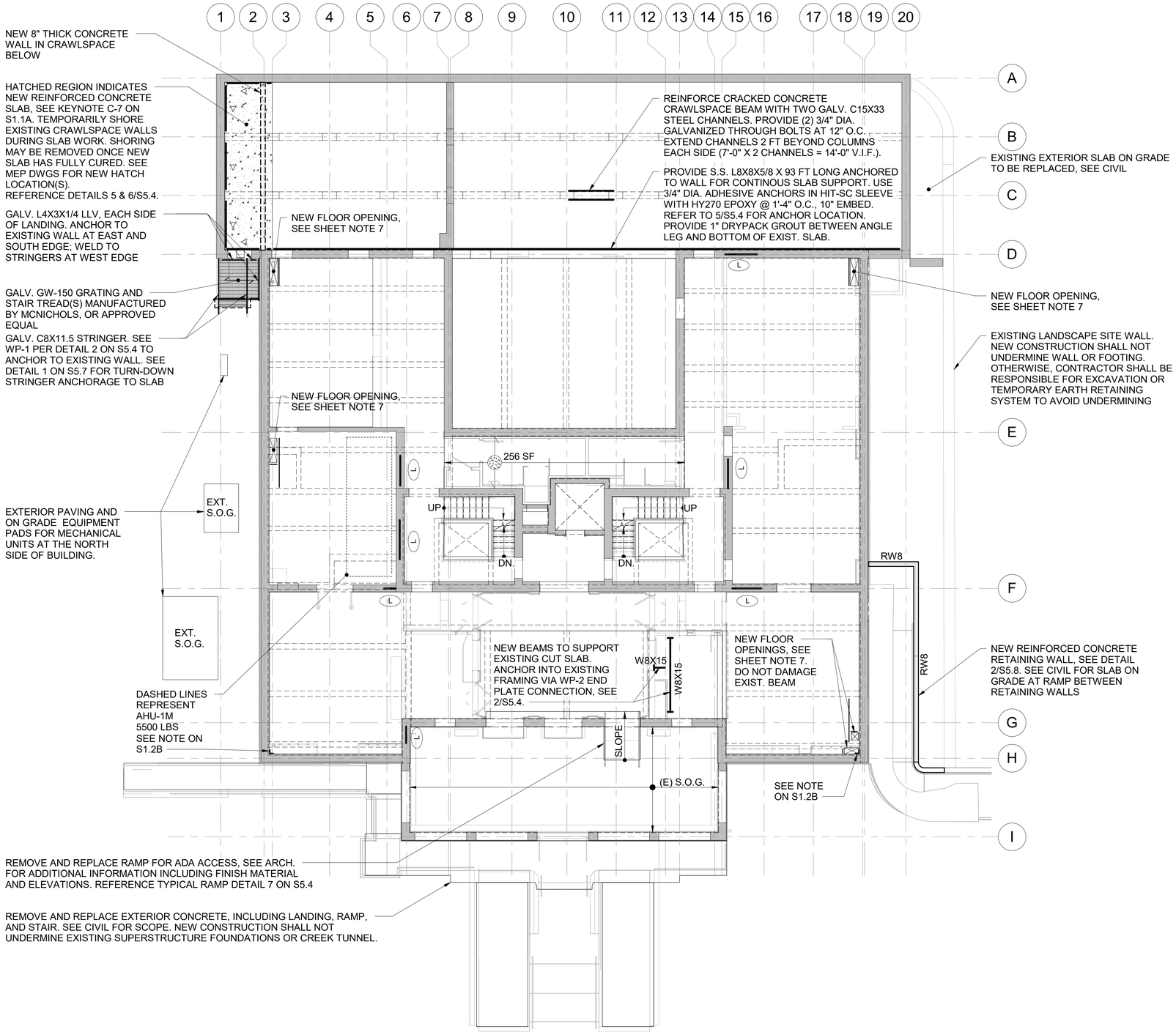
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

SCALE A 8 0 8 16
SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.1A	MAURICE BATHHOUSE FIRST FLOOR REPAIR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	97 OF 286
	DATE: 10.27.2023			



1 S1.1B FIRST FLOOR NEW CONSTRUCTION PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
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4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MIN. BEAM SIZE.

SCALE (A) 8 0 8 16
SCALE OF FEET

BLDG:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.1B	MAURICE BATHHOUSE FIRST FLOOR NEW CONSTRUCTION PLAN	128 182951
ENG: **SUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			98 OF 286
	DATE: 10.27.2023			

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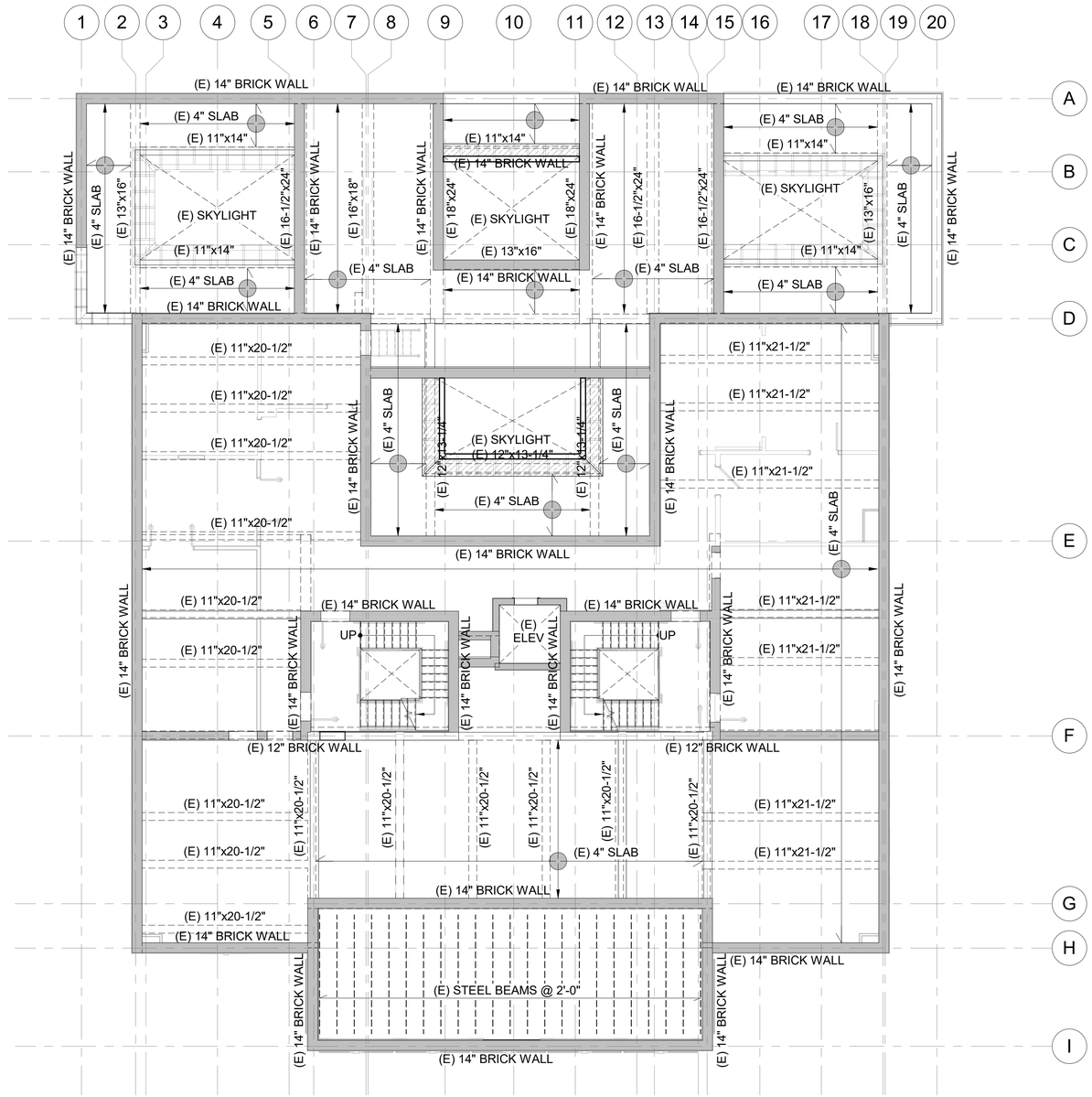

1 / S1.2 EXISTING SECOND FLOOR STRUCTURAL PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. FRAMING ELEMENTS DESIGNATED AS (E) #" X #" INDICATE EXISTING CONCRETE BEAMS OF APPROXIMATE #" WIDTH X #" DEPTH.

SCALE (A) 8 0 8 16
SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.2	MAURICE BATHHOUSE EXISTING SECOND FLOOR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	99 OF 286
	DATE: 10.27.2023			

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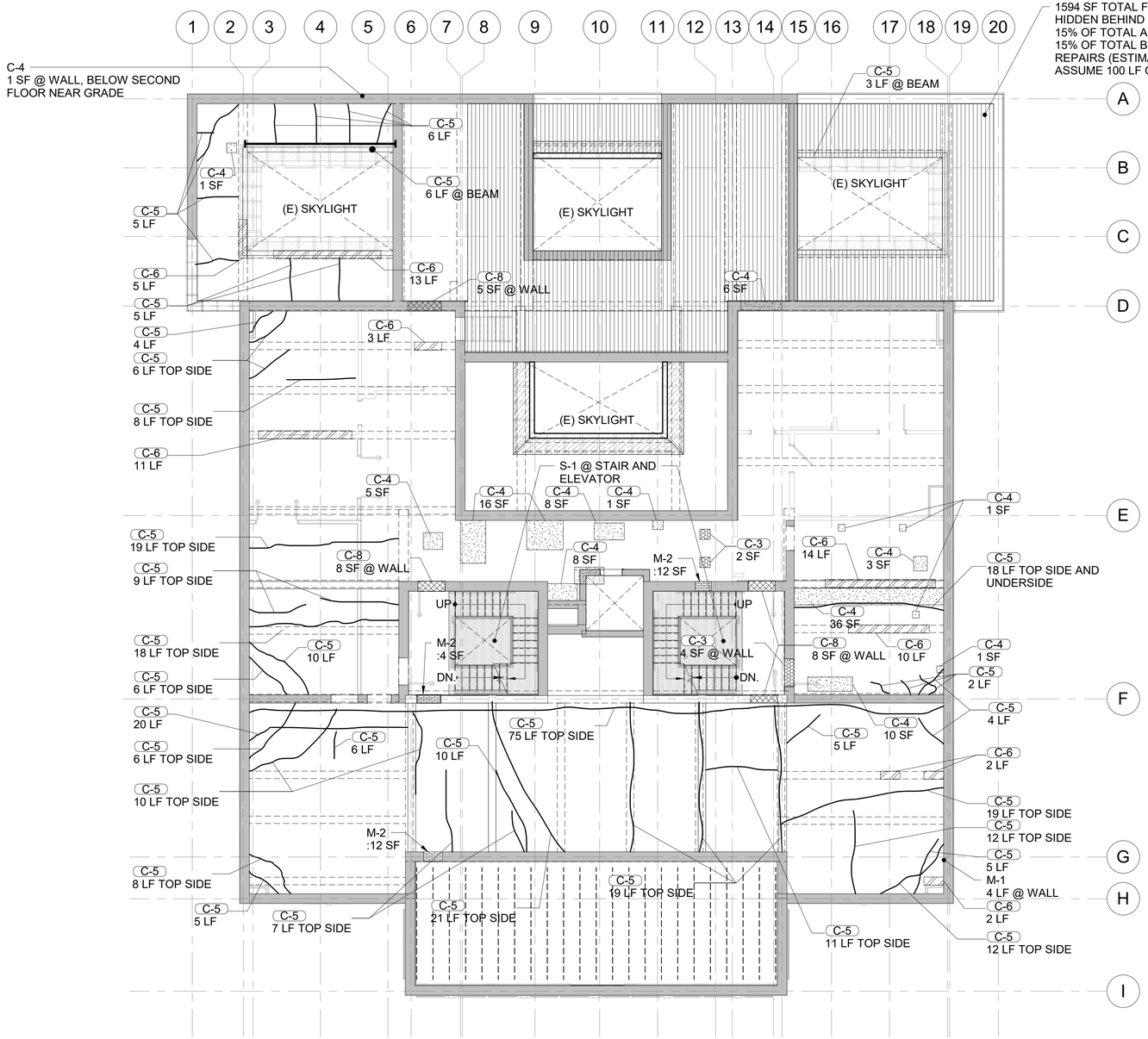


1 S1.2A SECOND FLOOR REPAIR PLAN

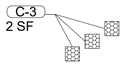
1/8" = 1'-0" SCALE A

SHEET NOTES

MASTER KEYNOTE LIST FOR REPAIRS

KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

1. PROVIDE APPROXIMATELY TWO CRACK MONITORS NEAR THE NORTHEAST CORNER OF BUILDING.
2. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
3. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
4. CONTRACTOR SHALL COORDINATE REPAIR WORKWITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
5. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
6. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

7. EXISTING 4" NON-STRUCTURAL PARTITION WALLS ARE PRESENT AND MAY REMAIN FOR THIS PROJECT PHASE. THESE WERE ORIGINALLY CONSTRUCTED WITHOUT POSITIVE ATTACHMENT AT THE TOP OF WALL. REFER TO ARCHITECTURAL FOR FULL EXTENT OF WALL INFILL AND REPAIR. FOR WALLS THAT WILL REMAIN, SEE TOP OF WALL CLIP ATTACHMENT RECOMMENDATION DETAIL 3/S5.5. COORDINATE NEW WALL OPENINGS WITH MEP DRAWINGS.
8. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

SCALE A 8 0 8 16 SCALE OF FEET

BLDG:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NO. 14877 10/27/2023 MATHIAS L. OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 ENG: SILMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	01 S1.2A	MAURICE BATHHOUSE SECOND FLOOR REPAIR PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 100 OF 286

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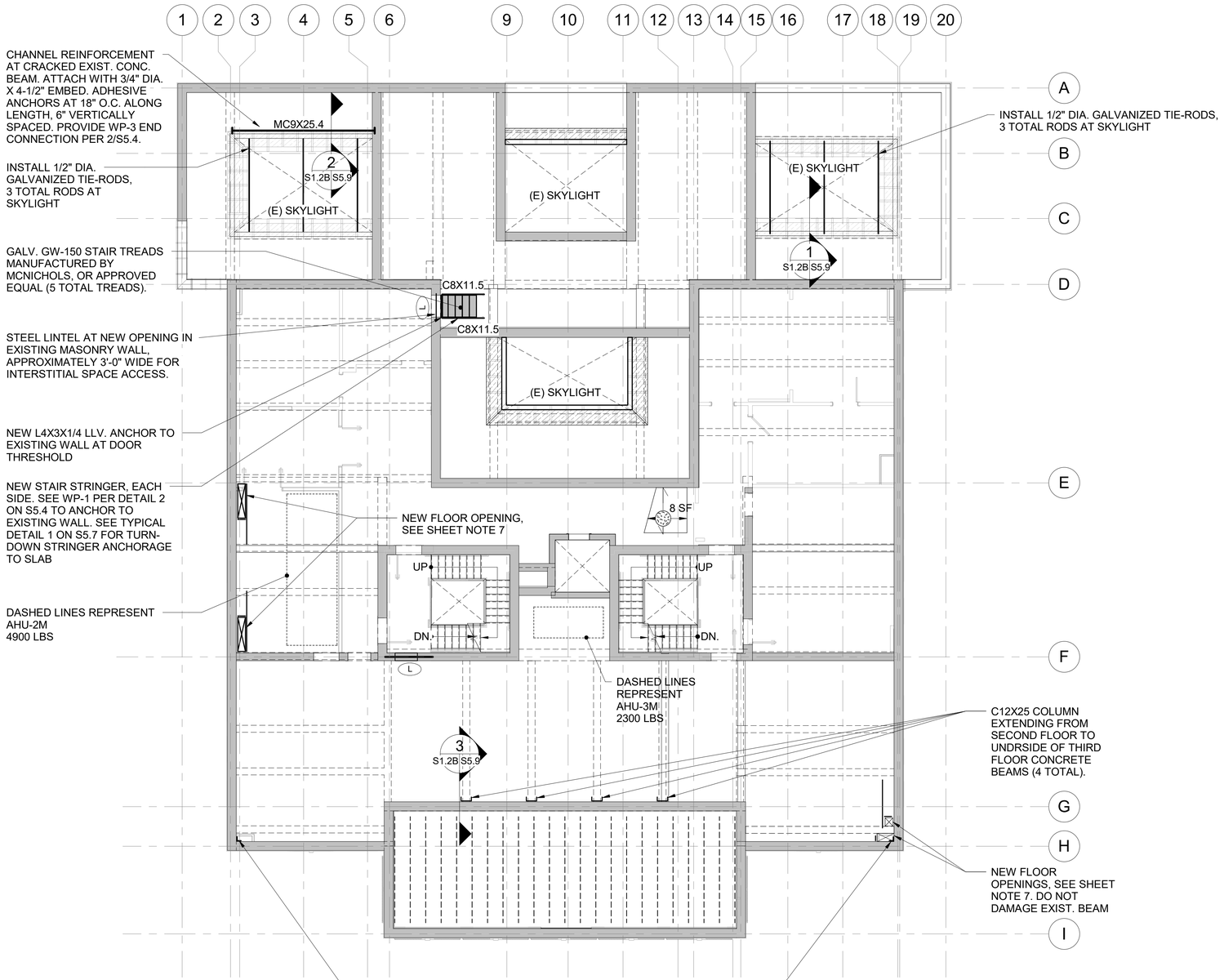


1 S1.2B SECOND FLOOR NEW CONSTRUCTION PLAN

1/8" = 1'-0" SCALE A

10/24/2023 1:41:21 PM

SHEET NOTES

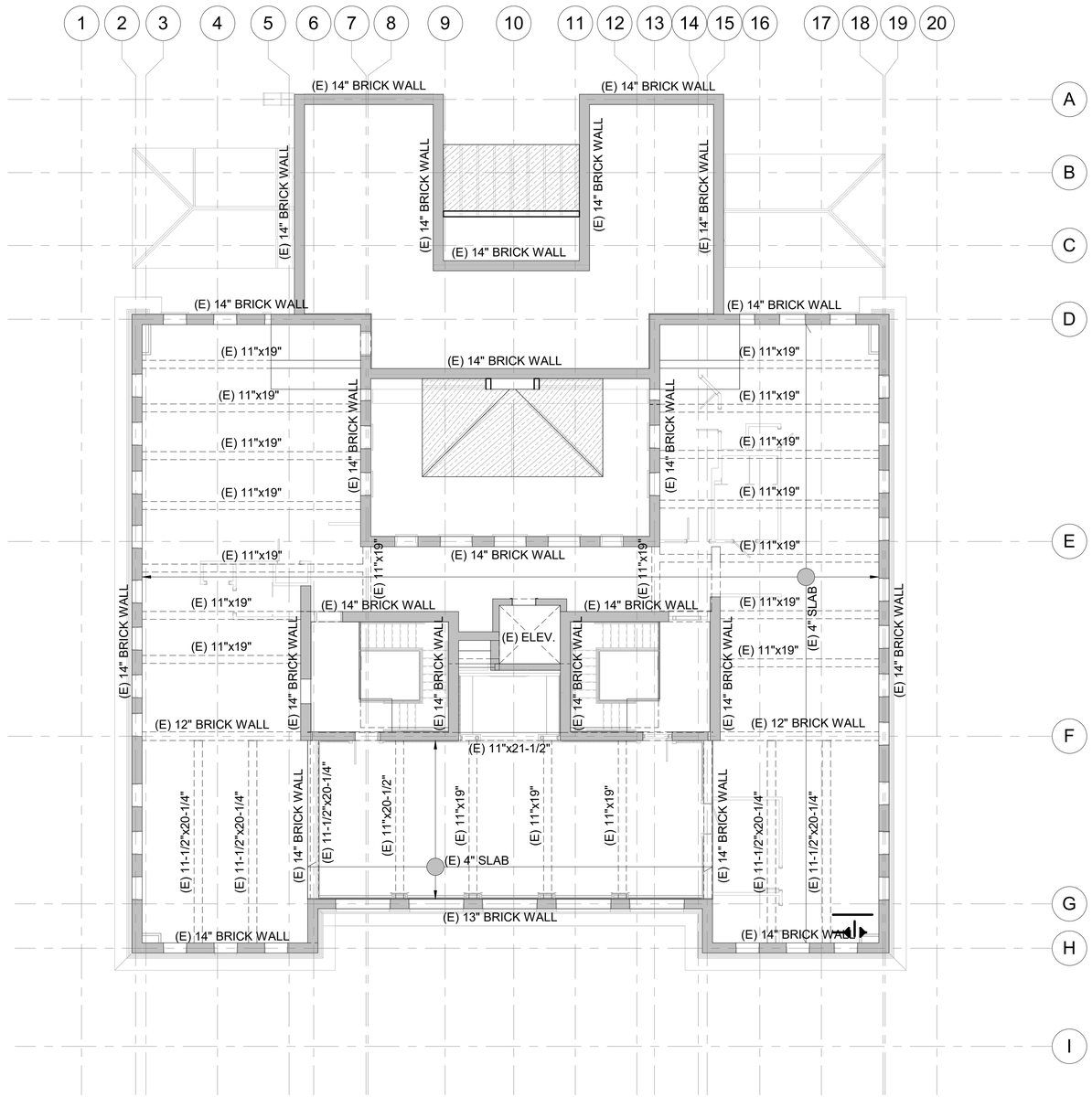
1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MIN. BEAM SIZE.

SCALE A 8 0 8 16
SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14857 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.2B	MAURICE BATHHOUSE SECOND FLOOR NEW CONSTRUCTION PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE, ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			101 OF 286



1 S1.3 EXISTING THIRD FLOOR STRUCTURAL PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. FRAMING ELEMENTS DESIGNATED AS (E) #" X #" INDICATE EXISTING CONCRETE BEAMS OF APPROXIMATE #" WIDTH X #" DEPTH.

SCALE (A) 8 0 8 16
SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NO. 14857 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.3	MAURICE BATHHOUSE EXISTING THIRD FLOOR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE, ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			102 OF 286

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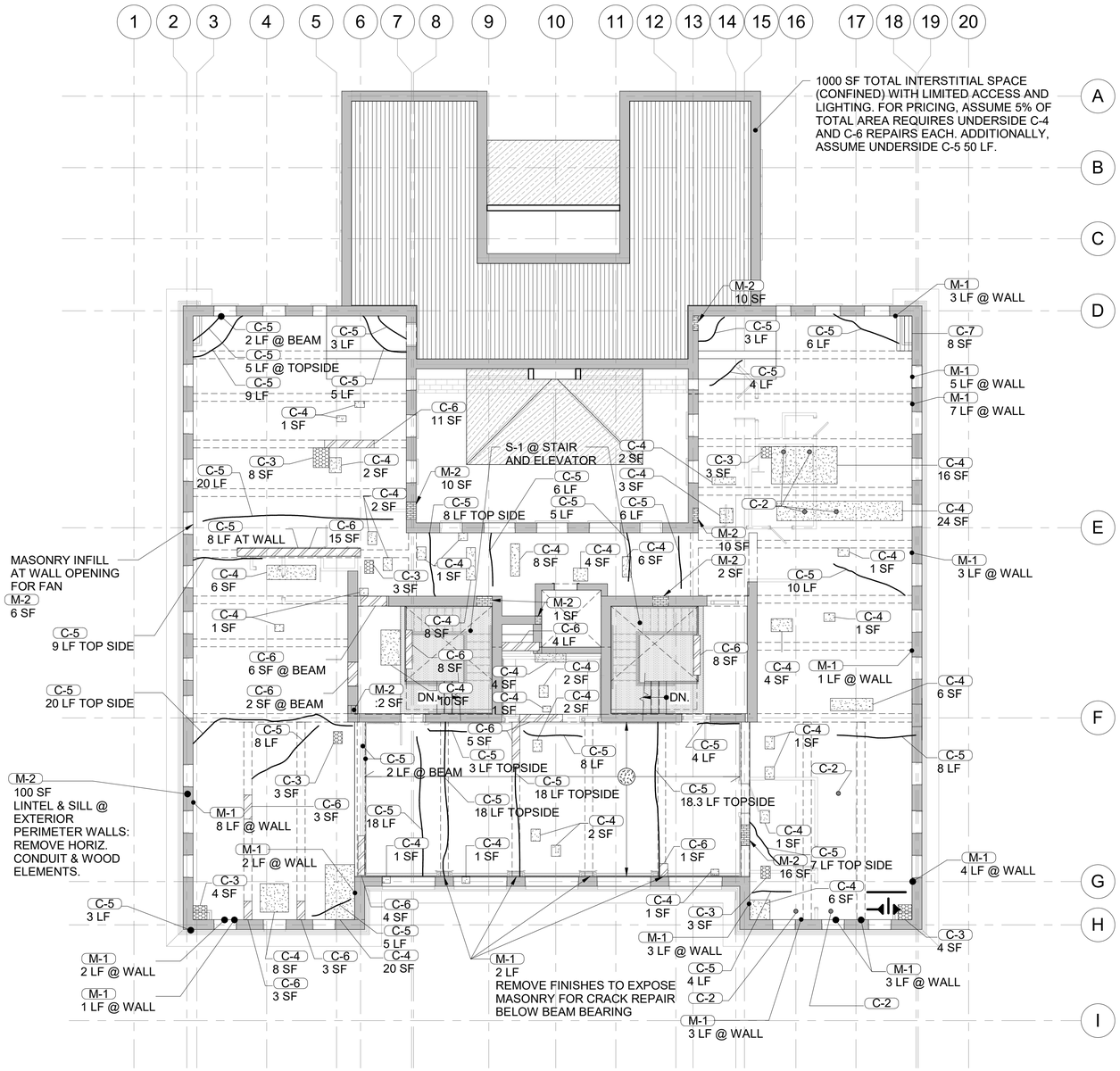


1 S1.3A THIRD FLOOR REPAIR PLAN
1/8" = 1'-0" SCALE A

10/24/2023 1:41:23 PM

SHEET NOTES

MASTER KEYNOTE LIST FOR REPAIRS

KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

1. PROVIDE APPROXIMATELY TWO CRACK MONITORS NEAR THE NORTHEAST CORNER OF BUILDING.
2. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
3. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
4. CONTRACTOR SHALL COORDINATE REPAIR WORKWITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
5. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
6. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:

INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

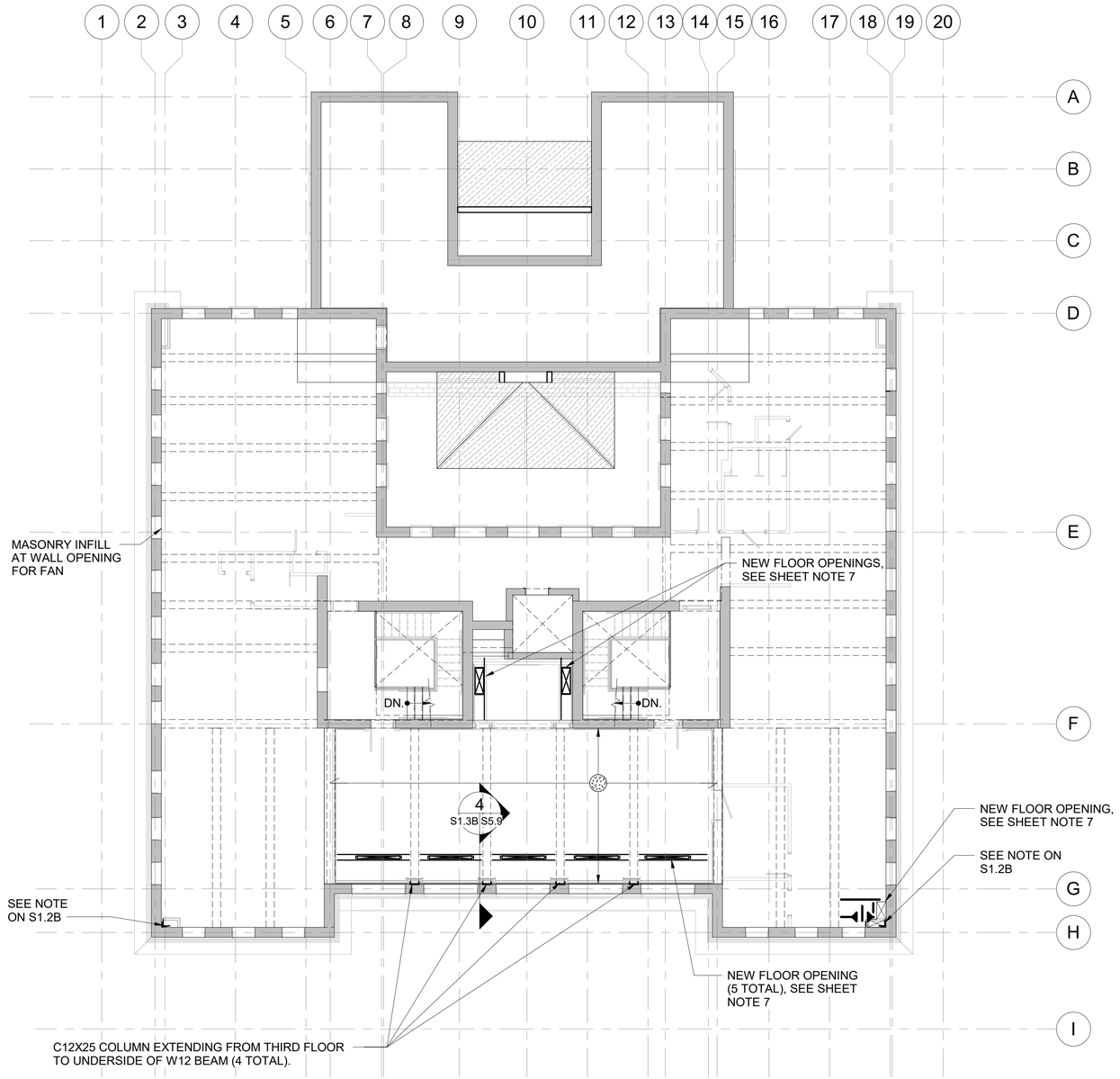
7. EXISTING 4" NON-STRUCTURAL PARTITION WALLS ARE PRESENT AND MAY REMAIN FOR THIS PROJECT PHASE. THESE WERE ORIGINALLY CONSTRUCTED WITHOUT POSITIVE ATTACHMENT AT THE TOP OF WALL. REFER TO ARCHITECTURAL FOR FULL EXTENT OF WALL INFILL AND REPAIR. FOR WALLS THAT WILL REMAIN, SEE TOP OF WALL CLIP ATTACHMENT RECOMMENDATION DETAIL 3/S5.5. COORDINATE NEW WALL OPENINGS WITH MEP DRAWINGS.
8. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

SCALE A 8 0 8 16
SCALE OF FEET

BLDG:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER MATTHEW R. OPPENHEIMER NO. 14877 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.3A	MAURICE BATHHOUSE THIRD FLOOR REPAIR PLAN	128 / 182951
ENG: **SIUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			103 OF 286



1 S1.3B THIRD FLOOR NEW CONSTRUCTION PLAN

1/8" = 1'-0" SCALE (A)

10/24/2023 1:41:24 PM

SHEET NOTES

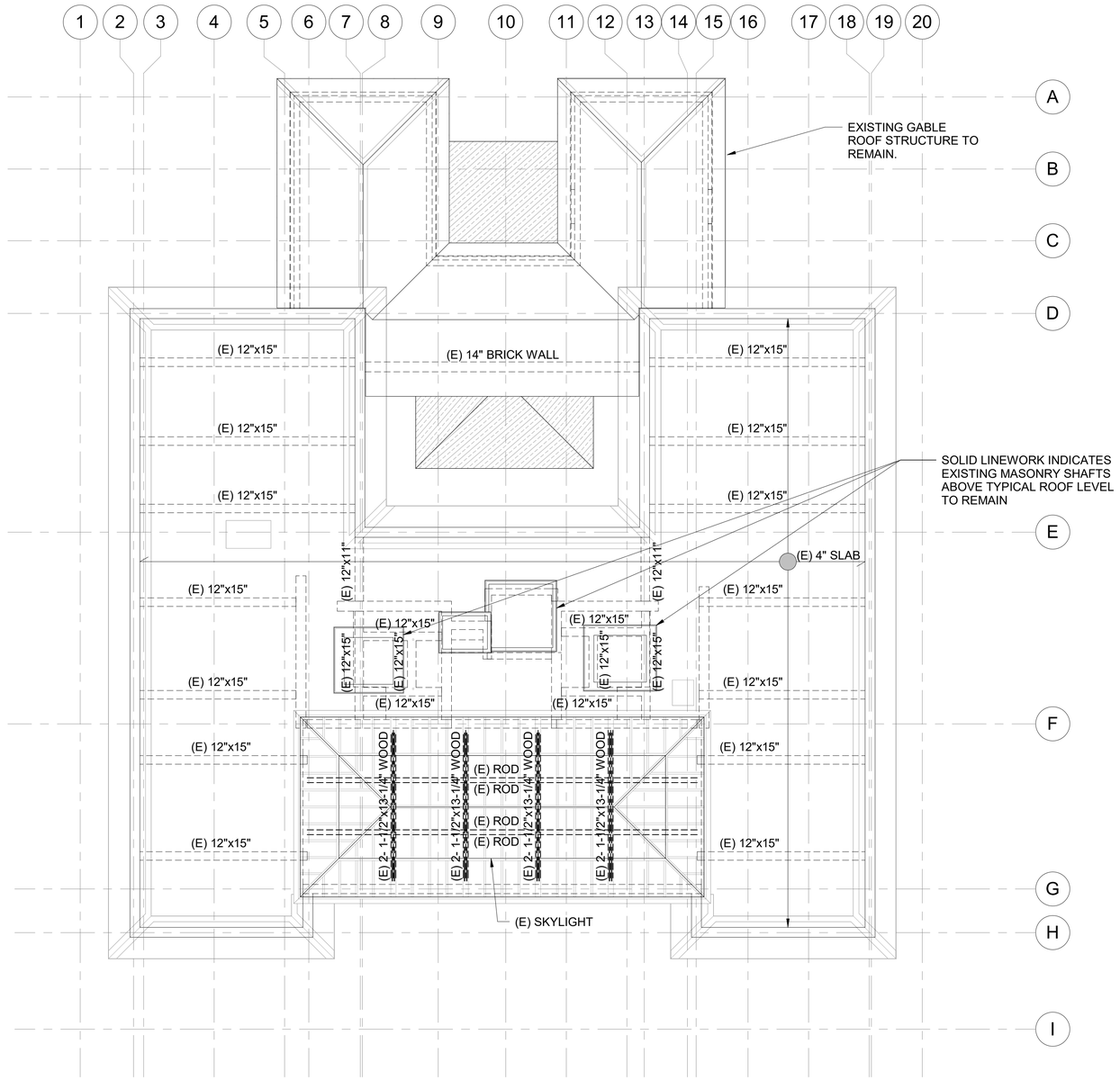
1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MIN. BEAM SIZE.

SCALE (A) 8 0 8 16
SCALE OF FEET

BLDG

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14857
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01	MAURICE BATHHOUSE THIRD FLOOR NEW CONSTRUCTION PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE, ANN ARBOR, MI T: 734.800.2460	CADD: CM	S1.3B	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			
	DATE: 10.27.2023			104 OF 286



1 / S1.4 EXISTING ROOF STRUCTURAL PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
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3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. FRAMING ELEMENTS DESIGNATED AS (E) #" X #" INDICATE EXISTING CONCRETE BEAMS OF APPROXIMATE #" WIDTH X #" DEPTH.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.4	MAURICE BATHHOUSE EXISTING ROOF PLAN	128 182951
ENG: **SUMAN** 211 N 4TH AVE, ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			105 OF 286

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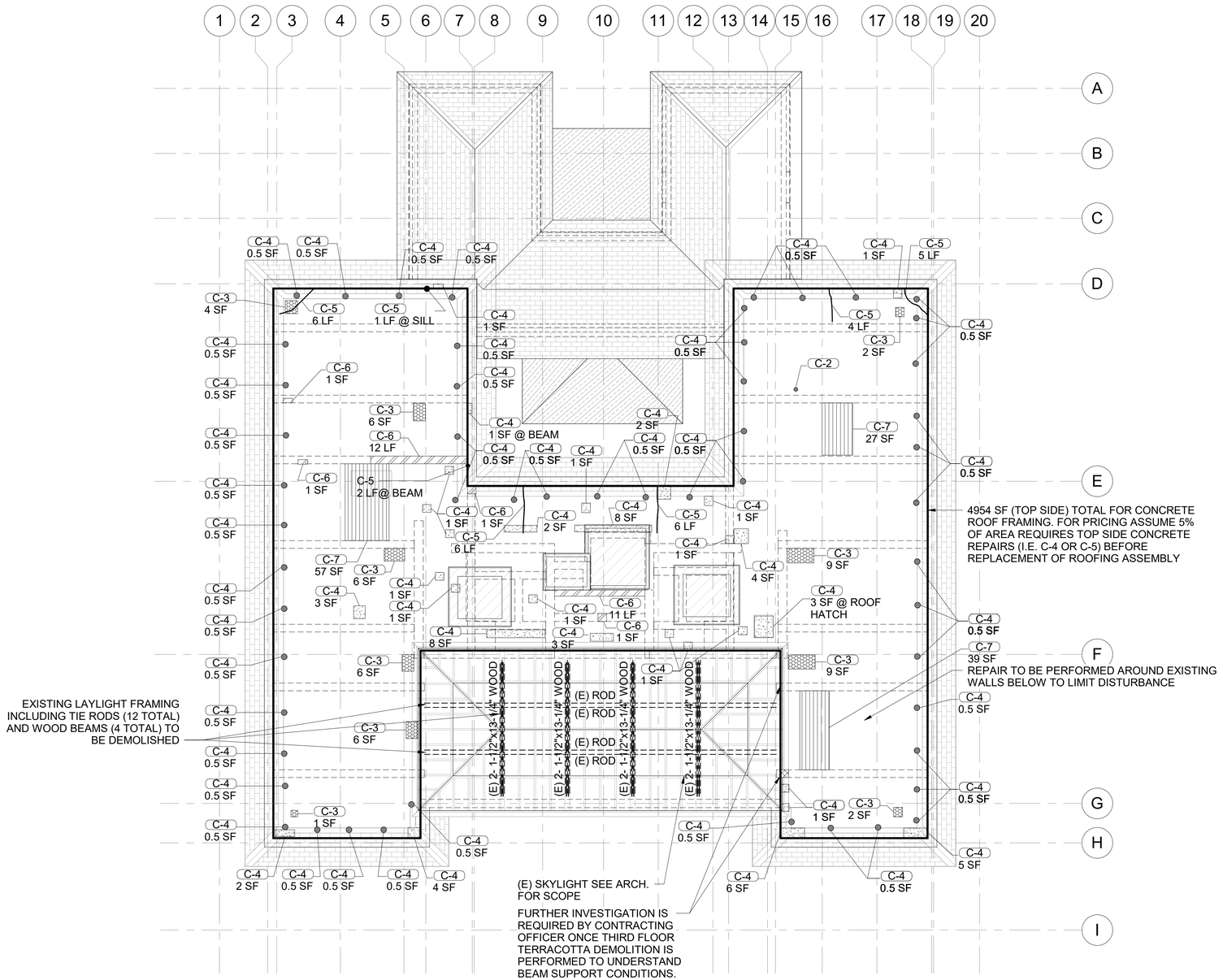

1 S1.4A ROOF REPAIR PLAN

1/8" = 1'-0" SCALE (A)

SHEET NOTES

MASTER KEYNOTE LIST FOR REPAIRS

KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORKWITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
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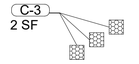

INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

6. SUBGRADE PLUMBING SCOPE PER P1.0 REQUIRES EXISTING SLAB REMOVAL AND REPLACEMENT. PROVIDE 110 SF ALLOWANCE FOR C-1 REPAIR.
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

SCALE (A) 8 0 8 16 SCALE OF FEET

BLDG

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NO. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.4A	MAURICE BATHHOUSE ROOF REPAIR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			106 OF 286

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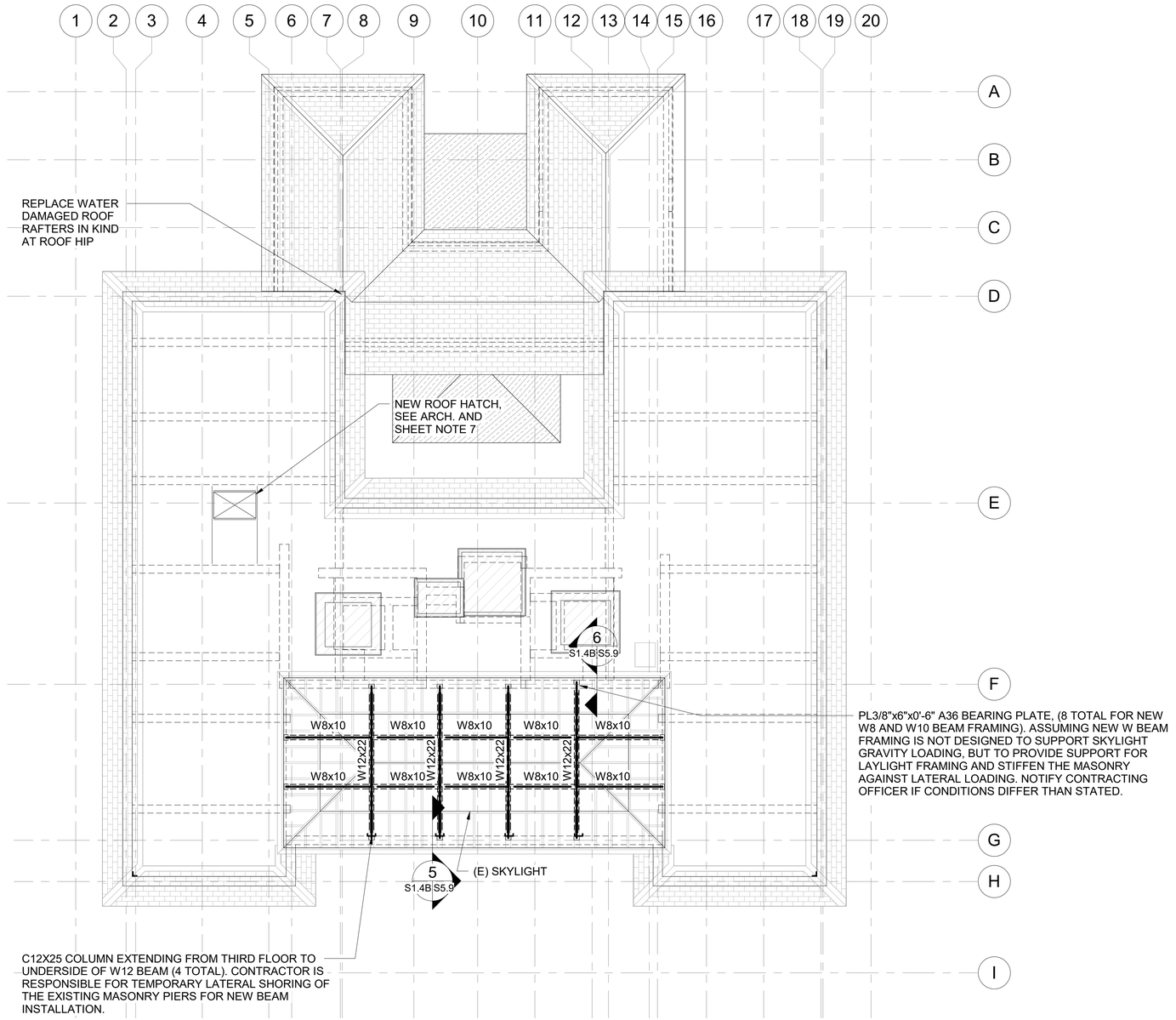

1 / S1.4B ROOF NEW CONSTRUCTION PLAN

1/8" = 1'-0" SCALE A

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
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3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO NEW STEEL MEMBERS OR ASSOCIATED CONNECTION ANCHORAGE INSTALLATION.
6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. NEW FLOOR AND WALL OPENINGS INDICATED ON PLAN ARE NOT ALL INCLUSIVE. COORDINATE ALL OPENINGS WITH ARCH, CIVIL, AND MEP DRAWINGS. REFER TO GENERAL NOTES AND TYPICAL DETAILS ON S5.7 RELATED TO CORING AND MASONRY LINTELS. REFER TO DETAILS ON S5.4 FOR FLOOR SUPPORT AT NEW OPENINGS; PROVIDE W8X15 MIN. BEAM SIZE.

SCALE A 8 0 8 16 SCALE OF FEET

BLDG:

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S1.4B	MAURICE BATHHOUSE ROOF NEW CONSTRUCTION PLAN	128 / 182951
ENG: **SUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			107 OF 286
	DATE: 10.27.2023			

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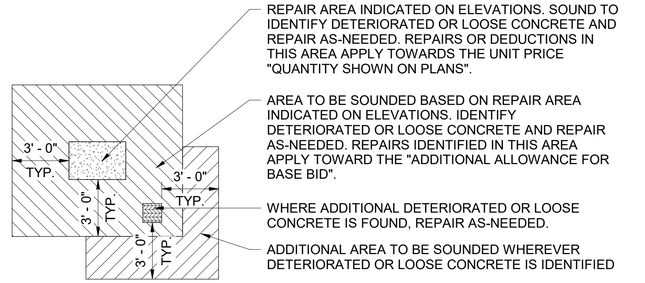
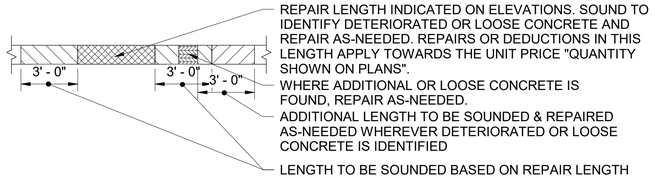
NOTES - CONCRETE REPAIRS:

1. TYPICAL DETAILS
   A. THE DETAILS SHOWN ON THIS SHEET ARE REFERENCED ON PLANS AND ELEVATIONS FOR SPECIFIC CONCRETE REPAIRS AND ARE BASED ON LIMITED FIELD INVESTIGATION. CONTRACTOR TO PROVIDE A UNIT PRICE FOR REPAIR WORK BASED ON UNITS AS IDENTIFIED IN KEYNOTE TABLE.
   B. REFER TO SPECIFICATION SECTION 03 0130 "MAINTENANCE OF CONCRETE" FOR ADDITIONAL REQUIREMENTS.
2. PROCEDURE
   A. THE FOLLOWING SEQUENCE DESCRIBES THE EXPECTED PROCEDURE AT CONCRETE AND CONCRETE-ENCASED MEMBERS:
      a. SOUND MEMBER TO IDENTIFY ANY LOOSE OR DETERIORATED CONCRETE. SOUNDING SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE EXTENTS OF LENGTHS OR AREAS INDICATED ON ELEVATIONS. WHERE ADDITIONAL LOOSE OR DETERIORATED MATERIAL IS FOUND, SOUND AN ADDITIONAL 3 FEET IN ALL DIRECTIONS BEYOND THE LENGTH OR AREA OF ADDITIONAL DETERIORATION. SEE DETAIL TO RIGHT.
      b. REMOVE ANY LOOSE OR DETERIORATED CONCRETE MATERIAL PER THE SPECIFICATIONS.
      c. ALL OXIDIZED AND CORRODED BARS SHALL BE EXPOSED AND CLEANED WITH WIRE BRUSHING, SANDBLASTING, OR OTHER APPROVED METHODS PER THE SPECIFICATIONS. AFTER CLEANING CORRODED BARS SHALL BE REVIEWED FOR STRUCTURAL ADEQUACY BY THE CONTRACTOR, USING THE INFORMATION BELOW IN THE SECTION "CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES." CONTRACTOR IS TO NOTIFY CONTRACTING OFFICER IF ASSESSMENT REQUIRES ADDITIONAL SUPPORT FROM CONTRACTING OFFICER.
      d. PROVIDE ADDITIONAL REINFORCEMENT IF REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER PER THE DETAILS AND SPECIFICATIONS (SEE NOTE 5.E BELOW).
      e. PREPARE CONCRETE SURFACES TO BE RESTORED PER THE DETAILS, SPECIFICATIONS, AND MANUFACTURER'S PRINTED INSTRUCTIONS.
      f. PLACE NEW REPAIR MORTAR AS NOTED IN THE DETAILS, AND SPECIFICATIONS. COORDINATE FINISH REQUIREMENTS WITH THE CONTRACTING OFFICER.
3. INSPECTIONS & QUALITY CONTROL
   A. REFER TO THE SPECIFICATIONS FOR INSPECTIONS AND QUALITY CONTROL REQUIREMENTS.
4. CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES

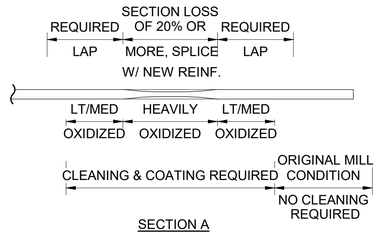
   A. PREPARE SURFACES TO BE RESTORED IN COMPLIANCE WITH PRODUCT MANUFACTURER'S PRINTED INSTRUCTIONS AND AS SPECIFIED. CLEAN AREAS TO BE RESTORED WITH WIRE BRUSH AND COMPRESSED AIR OR WATER TO REMOVE ALL LOOSE MATERIALS, INCLUDING OIL, DIRT, DUST, OR OTHER FOREIGN MATERIAL FROM SURFACES TO BE REPAIRED.
   B. REMOVE LOOSE AND DETERIORATED CONCRETE BY MECHANICAL MEANS DOWN TO SOUND CONCRETE SUBSTRATE. DO NOT CUT EXISTING REINFORCING. DETAIL THE EDGE OF THE PATCH TO A 1/2" MINIMUM DEPTH TO PREVENT FURTHER EDGING. CHIP CONCRETE SUBSTRATE TO OBTAIN A FRACTURED AGGREGATE SURFACE WITH A MINIMUM SURFACE PROFILE OF 1/8" DEPTH. SEE TYPICAL REPAIR DETAILS ON S5.2 AND S5.3 FOR ADDITIONAL CONCRETE PREP PER CONDITION.
   C. ALL OXIDIZED AND CORRODED BARS SHALL BE UNDERCUT A MINIMUM OF 3/4" OR 1/4" LARGER THAN THE LARGEST SIZE AGGREGATE IN THE PATCHING CONCRETE, WHICHEVER IS GREATER. EXPOSED BARS WHICH ARE NOT OXIDIZED OR CORRODED DO NOT HAVE TO BE UNDERCUT IF LESS THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED AND THE BOND BETWEEN THE BAR AND CONCRETE IS INTACT. IF THE BOND IS BROKEN OR MORE THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED, THEN THE BAR SHALL BE UNDERCUT AS DESCRIBED IN SECTION C.
   D. CLEAN REINFORCING STEEL OF OXIDATION USING A WIRE BRUSH. THE REINFORCING BARS SHALL BE CLEANED TO BRIGHT METAL. APPLY ANTI-CORROSION PRIMER AND BONDING BRIDGE. COAT THE REINFORCEMENT OR OTHER STEEL TO REMAIN WITH CORROSION INHIBITOR.
   E. IF REDUCED SECTION OF REINFORCEMENT IS LESS THAN 80% OF ORIGINAL AREA, PROVIDE ADDITIONAL REINFORCING STEEL OF 1.5 x AREA LOST OR GREATER OR REPLACE WITH NEW.
   F. REINFORCING SHALL BE ADDED ACCORDING TO NOTES BELOW AND SECTIONS A AND B.
      1. SPLICE LENGTH SHOWN SHALL EXTEND ON BOTH ENDS OF HEAVILY OXIDIZED SECTION FROM THE POINT WHERE THE EXISTING BAR IS BEING SPLICED.
      2. IF LAP SPLICE OF ADDITIONAL STEEL EXTENDS BEYOND THE REPAIR AREA PERIMETER, CUT A NOTCH IN THE EXISTING CONCRETE TO PROVIDE A 3/4" CLEAR SPACE BEHIND AND ON EACH SIDE OF THE ADDED STEEL.
      3. BOTTOM BAR SPLICE NEED NOT EXTEND BEYOND THE FACE OF SUPPORT OF THE BEAM OR GIRDER.
      4. IF ADDED STEEL ENCOUNTERS END OF MEMBER, PROVIDE HOOK OR MECHANICAL ANCHOR TO DEVELOP THE STEEL TENSION CAPACITY. DRILL & GROUT AS REQ'D.
      5. IF OBSTRUCTION PREVENTS FULL SPLICE LENGTH, USE MECHANICAL TENSION SPLICE COUPLER. CUT AND CONNECT TO EXIST REINF.
   G. SATURATE THE SURFACE OF THE PREPARED CONCRETE WITH WATER FOR A MAXIMUM OF TWO HOURS PRIOR TO THE PLACEMENT OF THE NEW CONCRETE. NO STANDING WATER AT THE TIME OF PATCH INSTALLATION.
   H. JUST PRIOR TO NEW CONCRETE PLACEMENT, APPLY A SCRUB COAT OF A THIN CEMENT SLURRY WITH A STIFF BRUSH. SLURRY MUST BE SCRUBBED INTO SUBSTRATE, FILLING ALL PORES AND VOIDS.
   I. APPLY REPAIR MORTAR PER MANUFACTURER'S REQUIREMENTS. AT AREAS WHERE THE DEPTH OF REPAIR TO SOUND CONCRETE EXCEEDS THE MAXIMUM THICKNESS OF A SINGLE LIFT AS INDICATED BY THE MORTAR MANUFACTURER, APPLY THE PATCHING MORTAR IN MULTIPLE LIFTS WITH THICKNESS NOT EXCEEDING THE MAXIMUM. ALLOW SUFFICIENT CURING TIME AND SCORE MORTAR SURFACE BETWEEN LIFTS.
   J. PLACE CONCRETE TO REPAIR PATCH/MORTAR MINIMUM 3/4" COVER OVER REINFORCING BARS FOR INTERIOR CONDITIONS AND 1-1/2" FOR EXTERIOR CONDITIONS.
   K. STRIKE OFF SURFACES AS NECESSARY AND ALLOW CONCRETE REPAIR PATCH/MORTAR TO SET. COORDINATE WITH CONTRACTING OFFIVER FOR FINAL FINISH APPEARANCE, CURE BY COVERING EXPOSED SURFACES WITH WET BURLAP.



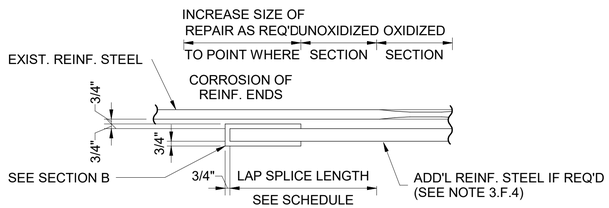
REPAIRS (BASED ON AREA)



REPAIRS (BASED ON LENGTH)



SECTION A



SECTION B

SLAB BAR REPAIR SPLICE SCHEDULE			
EXISTING BAR SIZE	BOT BARS	TOP BARS	REMARKS
#3	12"	16"	
#4	16"	22"	
#5	20"	27"	
#6	25"	35"	
#7	34"	48"	
#8	45"	63"	

REINFORCEMENT REPAIR

MASTER KEYNOTE LIST FOR REPAIRS	
KEY VALUE	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 3 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 4 ON S5.3.
C-8	INFILL OPENING IN CONCRETE WALL, SEE DETAIL 5 ON S5.3
S-1	STEEL MEMBER REPAIR, SCRAPE AND PAINT STAIR FRAMING, ELEVATOR CAGE, ETC AT ALL LEVELS. REFER TO STEEL REPAIR NOTES ON S5.4.
M-1	MASONRY CRACK REPAIR, SEE DETAIL 1 ON S5.5.
M-2	MASONRY WALL REPAIR/INFILL, SEE DETAIL 2 ON S5.5.

NOTES:

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.

REPAIR QUANTITY SUMMARY						
KEYNOTE	DETAIL / SHEET	REFRENCE SPEC.	UNIT OF MEASURE	QTY. ON PLANS (APPROX.)	ADD. ALLOWANCE FOR HIDDEN CONDITIONS	TOTAL FOR BID
C-1	S5.2	03 3000	SQUARE FEET	41	20%	50
C-2	S5.2	03 0130	EACH	8	20%	25
C-3	S5.2	03 0130	SQUARE FEET	194	20%	235
C-4	S5.2	03 0130	SQUARE FEET	1954	20%	2345
C-5	S5.3	03 0130	LINEAR FEET	1706	20%	2050
C-6	S5.2 & S5.3	03 0130	LINEAR FEET	458	20%	550
C-7	S5.3	03 0130	SQUARE FEET	299	20%	360
C-8	S5.3	03 3000	SQUARE FEET	111	20%	135
S-1*	S5.4	03 0130	SQUARE FEET	610	20%	735
M-1	S5.5	SEE ARCH.	LINEAR FEET	189	20%	230
M-2	S5.5	SEE ARCH.	SQUARE FEET	328	20%	395

* SQUARE FOOTAGE FOR S-1 KEYNOTE IS BASED ON THE TOTAL PLAN AREA OF NORTH/SOUTH STAIRS AND HISTORIC ELEVATOR CORES BASEMENT THROUGH 3RD FLOOR. CONTRACTOR SHALL SURVEY EXISTING STEEL IN THE FIELD PRIOR TO S-1 REPAIR PROCEDURE.

PRICING NOTES

1. THE CONTRACTOR SHALL PROIVDE SAFE ACCESS AND LIGHTING FOR THE OWNER'S REPRESENTATIVE, CONTRACTING OFFICER, AND INSPECTORS TO OBSERVE ALL REPAIRS UPON REQUEST AND AS REQUIRED PER THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS. WHERE ACCESS IS VIA LIFT, THE CONTRACTOR SHALL PROVIDE A CERTIFIED LIFT OPERATOR UPON REQUEST.
2. QUANTITY SHOWN ON PLANS - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
3. ADDITIONAL ALLOWANCE - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
4. QUANTITIES SHOWN ON PLANS AND ADDITIONAL ALLOWANCES ARE APPROXIMATE. ACTUAL REPAIR QUANTITIES SHALL BE TRACKED BY THE OWNER'S REPRESENTATIVE AND/OR THE GENERAL CONTRACTOR TO DETERMINE ADDITIONS OR DEDUCTIONS FROM THE BASE BID. REFER TO THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS FOR REQUIREMENTS TO IDENTIFY ACTUAL REPAIR QUANTITIES.
5. PROVIDE UNIT PRICING FOR EACH KEYNOTE REPAIR TYPE INDICATED IN THE TABLE ABOVE.
6. PROVIDE UNIT PRICING FOR ADDITIONAL MATERIALS AND LABOR TO ACCOUNT FOR CHANGES IN WEIGHT OR VOLUME OF MATERIALS FROM THE ASSUMPTIONS IN THE BASE BID. REFER TO THE "STEEL REPAIR NOTES" AND "CONCRETE REPAIR NOTES" AND REPAIR DETAILS FOR ADDITIONAL INFO. BOTH THE QUANTITY SHOWN ON PLANS AND ADDITIONAL ALLOWANCE WILL BE ADJUSTED FROM THE SCHEDULED MATERIALS (SHOWN ON "PRICING DETAILS") TO ACTUAL MATERIALS (SHOWN ON "CONSTRUCTION DETAILS") TO ACCOUNT FOR CHANGES IN THE WEIGHT OR VOLUME OF THE REPAIR MATERIAL ONLY.
   A. FABRICATED STRUCTURAL STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR CHANNELS, ANGLES, AND PLATES TO BE USED FOR REINFORCEMENT OF EXISTING STEEL, SHOP FABRICATED, DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   B. CONCRETE REINFORCING STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR REINFORCING BARS USED FOR REPAIRS, CUT, BENT (AS NEEDED), DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   C. CONCRETE REPAIR VOLUME - PROVIDE A UNIT PRICE FOR EACH CUBIC FOOT OF CONCRETE REPAIR OR PATCHING PREPARED, FURNISHED AND INSTALLED. PRICE SHALL INCLUDE LABOR FOR CHIPPING CONCRETE, PLUS LABOR AND MATERIAL FOR INSTALLING REPAIR MORTAR OR SHOTCRETE.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

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DESIGNED: KH
CADD: CM
TECH. REVIEW: NH
DATE: 10.27.2023

SUB SHEET NO. 01 S5.1

TITLE OF SHEET
MAURICE BATHHOUSE
TYPICAL CONCRETE REPAIR DETAILS
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915

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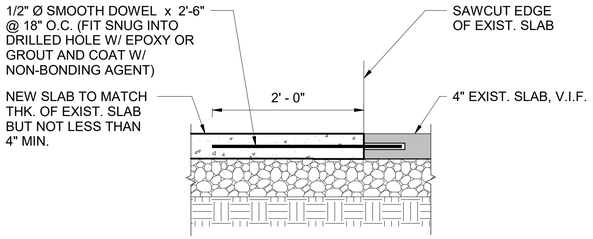
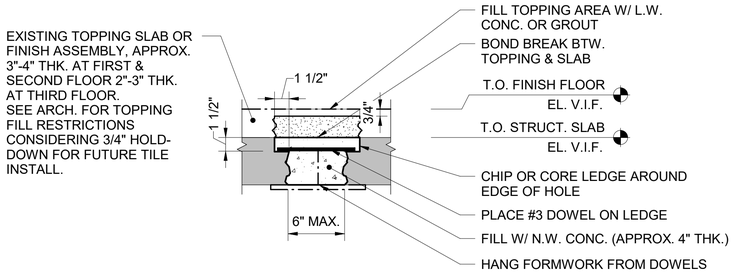


NOTE: DO NOT UNDERMINE EXIST. SLAB.

1 S5.2

TYPICAL ATTACHMENTS OF NEW SLAB ON GRADE TO EXISTING (KEYNOTE C-1)

NO SCALE



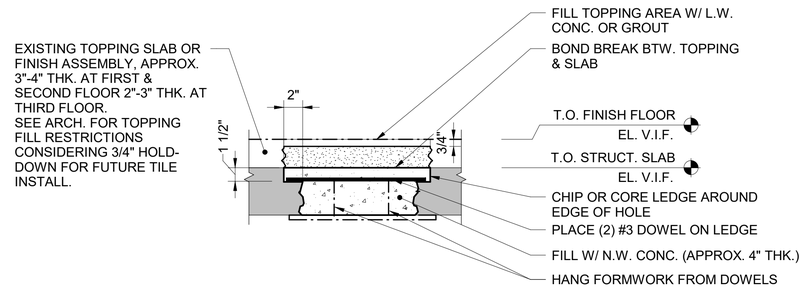
NOTES:

1. AS AN ALTERNATIVE TO LEDGE & DOWELS, CONTRACTOR MAY ROUGHEN VERT. SURFACES, AND USE PATCHING MORTAR FOR INFILL.
2. CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.

2 S5.2

TYPICAL SLAB PATCH AT EXIST. OPENING LESS THAN 6" (KEYNOTE C-2)

NO SCALE

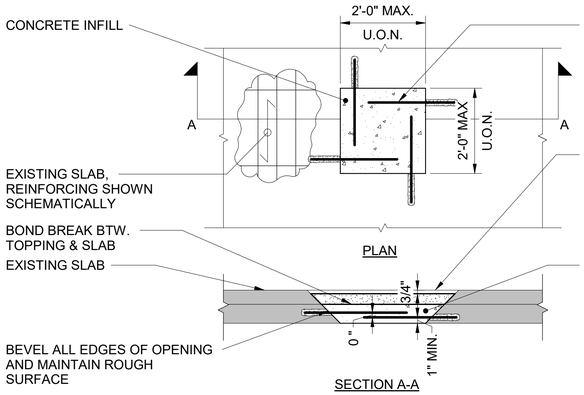


NOTE: CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.

3 S5.2

TYPICAL SLAB PATCH AT EXISTING OPENING 6" TO 12" (KEYNOTE C-3)

NO SCALE



NOTES:

1. CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.
2. WHEN BEVELING EDGES OF EXISTING OPENINGS, CONTRACTOR SHALL TAKE CARE TO AVOID EXCESSIVE SLAB REMOVAL OR DAMAGE TO SURROUNDING EXISTING SLAB.
3. CONTRACTOR SHALL USE HAND TOOLS FOR SLAB PREPARATION.
4. WHEN EXISTING REINFORCEMENT IS PRESENT, PROVIDE MININUM 1" COVER ALL AROUND BAR TO ALLOW NEW CONCRETE TO ENGAGE EXISTING BAR. REMOVE ANY CORROSION FROM EXISTING REINFORCING.

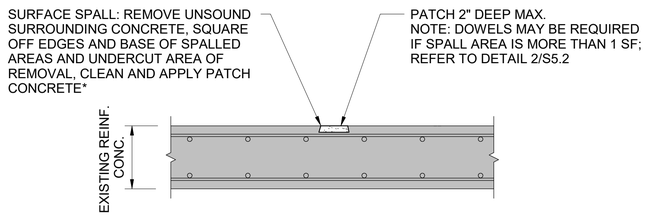
4 S5.2

TYPICAL SLAB PATCH AT EXISTING OPENING 12" TO 24" (KEYNOTE C-3)

NO SCALE

REPAIR PROCEDURE:

1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

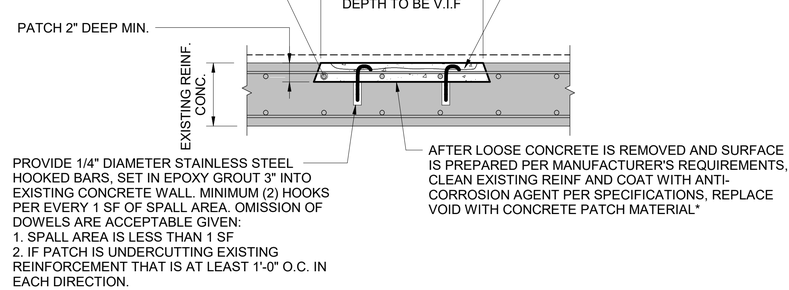
5 S5.2

TYPICAL DETAIL CONCRETE SPALL PATCH REBAR NOT EXPOSED (KEYNOTE C-4 & C-6)

NO SCALE

REPAIR PROCEDURE:

1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. REMOVE RUST, SCALE, OIL AND ANY OTHER FOREIGN MATERIALS FROM STEEL REINFORCING BARS.
3. COAT EXISTING CONCRETE AND STEEL WITH ANTI-CORROSION AGENTS AS SPECIFIED BY MANUFACTURER.
4. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.

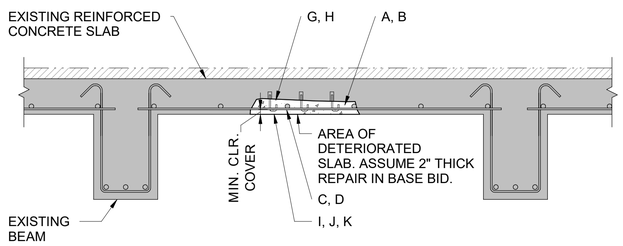


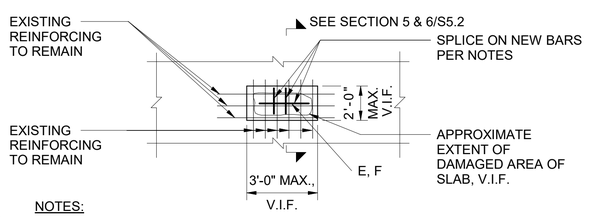
*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

6 S5.2

TYPICAL DETAIL CONCRETE SPALL PATCH REBAR EXPOSED BUT INTACT (KEYNOTE C-4 & C-6)

NO SCALE





NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. REFER TO DETAILS 5 & 6 ON S5.2 FOR ADDITIONAL REPAIR DIRECTIVES.
3. REPAIR MAY BE USED ON TOP OR BOTTOM SURFACE OF SLAB AND WALLS. SEE NOTES FOR CONCRETE PATCHING MATERIALS FOR HORIZONTAL AND VERTICAL APPLICATIONS.

PLAN

7 S5.2

TYPICAL DETAIL - BAR REINFORCED SLAB & WALL REPAIR (KEYNOTE C-4)

NO SCALE

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER NATHANIEL OPPENHEIMER No. 14917 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S5.2	MAURICE BATHHOUSE TYPICAL CONCRETE REPAIR DETAILS	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			109 OF 286

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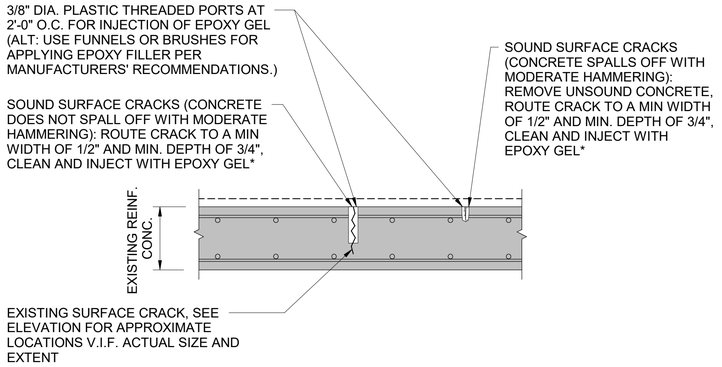
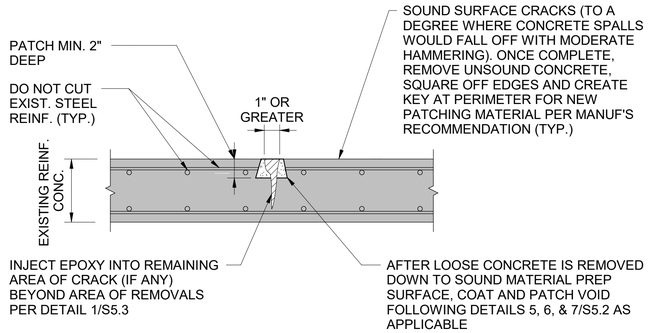


NOTE: FOR CRACKS SMALLER THAN 1/8" IN WIDTH/THICKNESS, NO REPAIR NECESSARY. FOR CRACKS LARGER THAN 1" IN WIDTH/THICKNESS, SEE DETAIL 2/S5.3

*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

1 S5.3 TYPICAL DETAIL CONCRETE CRACK REPAIR, SMALL (KEYNOTE C-5)

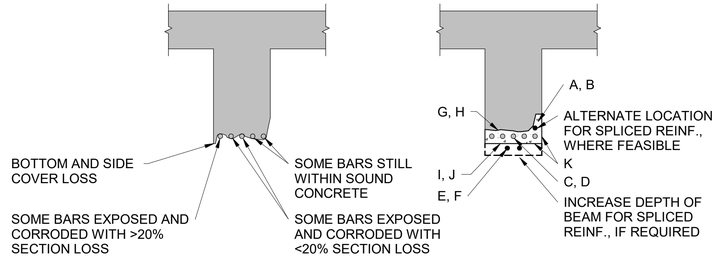
NO SCALE



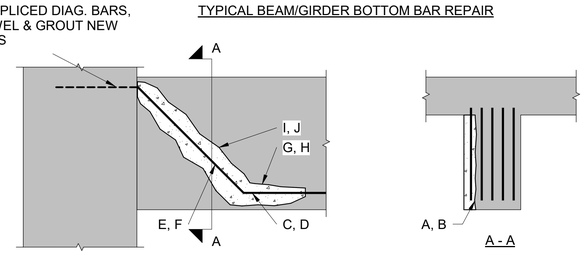
*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

2 S5.3 TYPICAL DETAIL CONCRETE CRACK REPAIR, LARGE (KEYNOTE C-5)

NO SCALE



TYPICAL BEAM/GIRDER BOTTOM BAR REPAIR



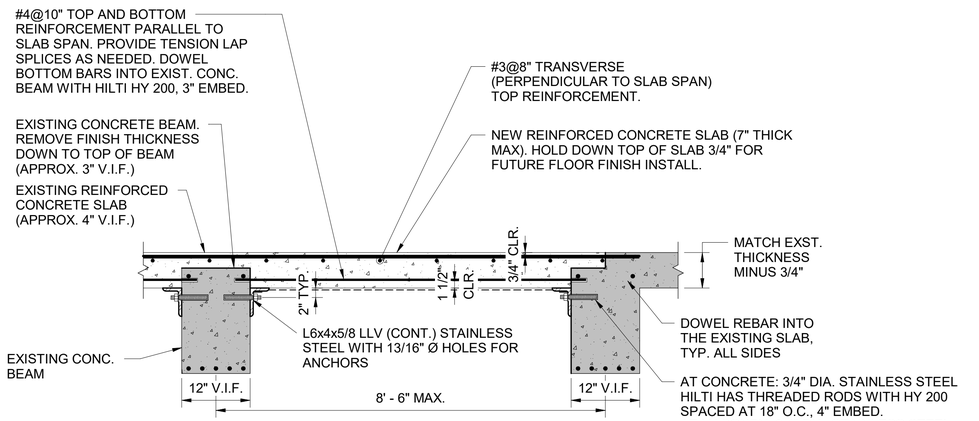
TYPICAL BEAM/GIRDER SHEAR END REPAIR

NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. WHERE ADDED SPLICED REINFORCEMENT IS REQUIRED, ASSUME (2) NEW SPLICED BARS.
3. REFER TO DETAILS 5 & 6 ON S5.2. FOR ADDITIONAL INFORMATION ON CONCRETE REPAIR SCOPE. PROVIDE STAINLESS STEEL HOOKED DOWELS SET IN REPAIR MATERIAL AT ALL C-6 APPLICATIONS

3 S5.3 TYPICAL DETAIL - CONCRETE BEAM/GIRDER REPAIR (KEYNOTE C-6)

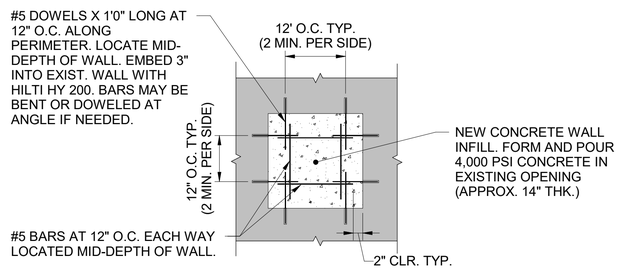
NO SCALE



NOTES:
1. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO STEEL INSTALLATION. DO NOT DAMAGE EXISTING REINFORCING STEEL.

4 S5.3 TYPICAL DETAIL - FULL BAY REPLACEMENT WITH FORMED CONCRETE (KEYNOTE C-7)

NO SCALE



5 S5.3 TYPICAL DETAIL - FORMED CONCRETE WALL INFILL (KEYNOTE C-8)

3/4" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S5.3	MAURICE BATHHOUSE TYPICAL CONCRETE REPAIR DETAILS	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			110 OF 286

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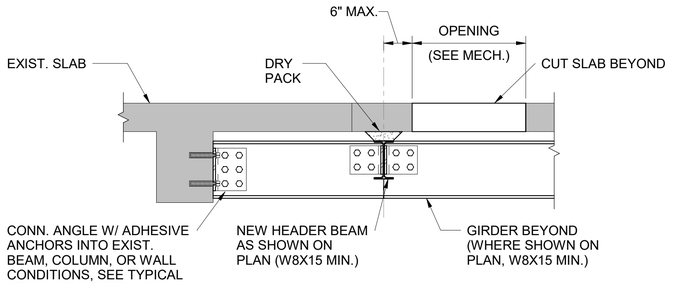
STEEL COATINGS NOTES - KEYNOTE S-1

1. STEEL PREPARATION
   A. PREPARE STEEL SURFACES. REFER TO ARCHITECTURAL SPECIFICATION FOR PREPARATION AND COATING REQUIREMENTS.
2. COATINGS
   A. PROVIDE COATINGS ON PREPARED STEEL SURFACES AS INDICATED. REFER TO ARCHITECTURAL SPECIFICATION FOR PREPARATION AND COATING REQUIREMENTS. ALL EXPOSED STEEL SHALL BE PAINTED.
      a. PROVIDE ALL COATS OF PAINTING SYSTEMS, INCLUDING PRIMERS AND FINISH COATS AS A COATING SYSTEM PRODUCED BY THE SAME MANUFACTURER TO ENSURE COMPATIBILITY AND OPTIMUM PERFORMANCE.
3. COATINGS SUBMITTALS
   A. BEFORE PAINT MATERIALS ARE DELIVERED TO SITE, SUBMIT MANUFACTURER'S PUBLISHED TECHNICAL DATA FOR EACH PRODUCT PROPOSED FOR USE IN WORK OF THIS SECTION INCLUDING MATERIAL DESCRIPTION, CHEMICAL COMPOSITION (INGREDIENTS AND PROPORTIONS), PHYSICAL PROPERTIES, RECOMMENDATIONS FOR APPLICATION AND USE, TEST REPORTS AND CERTIFICATES VERIFYING THAT PRODUCT COMPLIES WITH SPECIFIED REQUIREMENTS, AND MATERIAL SAFETY DATA SHEETS (MSDS).
4. APPLICATION
   A. COATINGS ARE TO BE APPLIED USING BRUSHES BY ONLY SKILLED JOURNEYMAN PAINTERS. DO NOT USE ROLLER, SPRAY, OR OTHER APPLICATORS UNLESS SPECIFICALLY APPROVED BY CONTRACTING OFFICER IN WRITING.
   B. DO NOT APPLY PAINT, OR OTHER STEEL COATINGS OVER DIRT, RUST, SCALE, GREASE, MOISTURE, SCUFFED SURFACES, OR CONDITIONS DETRIMENTAL TO FORMATION OF A DURABLE PAINT FILM.
   C. COMPLY WITH SPECIFIED REQUIREMENTS AND MANUFACTURER'S RECOMMENDATIONS CONCERNING AMBIENT TEMPERATURES PRIOR TO, DURING, AND FOLLOWING APPLICATION OF COATINGS INDICATED.
   D. DO NOT APPLY SUCCEEDING COATS UNTIL PREVIOUS COAT HAS CURED AS RECOMMENDED BY MANUFACTURER. SAND BETWEEN COATS WHERE SANDING IS REQUIRED TO PRODUCE A SMOOTH EVEN SURFACE ACCORDING TO MANUFACTURER'S DIRECTIONS.
   E. APPLY MATERIALS NO THINNER THAN MANUFACTURER'S RECOMMENDED SPREADING RATE. PROVIDE TOTAL DRY FILM THICKNESS OF ENTIRE SYSTEM AS RECOMMENDED BY MANUFACTURER.
   F. PAINT PATCHES AT LOCATIONS FROM WHICH ANCHORS ARE REMOVED FROM LOCATIONS WITH PAINTED SURFACES AS SCAFFOLDING IS DISMANTLED WITH FULL COATING SYSTEM (PRIME COAT AND FINISH COATS) TO MATCH ADJACENT SURFACE.
   G. PROTECT ALL MATERIALS AND FINISHES AGAINST DAMAGE CAUSED BY PAINTING AND FINISHING WORK. CORRECT DAMAGE BY CLEANING, REPAIRING OR REPLACING, AND REPAINTING, AS ACCEPTABLE TO CONTRACTING OFFICER.

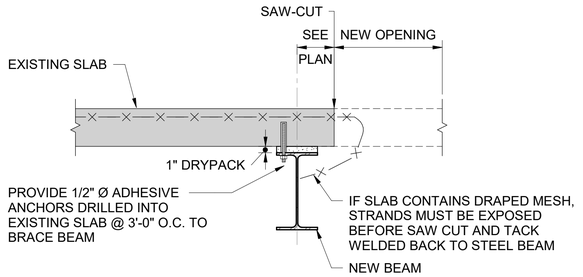
STEEL REPAIR NOTES - KEYNOTE S-1

1. THE CONTRACTOR MUST VERIFY FIELD CONDITIONS DURING STEEL SURFACE PREPARATION WORK. EXACT LOCATIONS AND DETAILS FOR STEEL REPAIRS WILL BE DETERMINED IN THE FIELD DURING CONSTRUCTION. SEE PROCEDURE BELOW FOR RECOMMENDED SEQUENCE FOR CONTRACTOR TO PROVIDE INFORMATION TO CONTRACTING OFFICER NECESSARY TO EVALUATE AND SPECIFY TYPE AND EXTENT OF CONSTRUCTION DETAIL REPAIRS.
2. PROCEDURE
   A. THE FOLLOWING SEQUENCE DESCRIBES THE EXPECTED PROCEDURE AT EXPOSED STEEL MEMBERS:
      a. REMOVE ALL SCALING AND PACK RUST FROM EXPOSED MEMBERS PER SPECIFICATIONS. AT MINIMUM, RUST SCALE SHALL BE REMOVED PER SSPC SP-3 "POWER TOOL CLEAN" AND GREASE OR OIL SHALL BE REMOVED PER SSPC SP-1 "SOLVENT CLEAN." SEE "NOTES - STEEL COATINGS" AND DETAILS FOR ADDITIONAL REQUIREMENTS.
      b. EXPOSED STEEL SHALL BE REVIEWED FOR STRUCTURAL ADEQUACY BY THE CONTRACTING OFFICER IF A STEEL MEMBER IS FOUND TO HAVE SECTION LOSS GREATER THAN 5%.
      c. REINFORCE MEMBER IF REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER. AT AREAS OF THROUGH-MEMBER CORROSION, CUT DETERIORATED MATERIAL BACK TO SOUND MATERIAL TO PERMIT WELDING OF REINFORCEMENT.
      d. AFTER COMPLETETION OF ALL REMEDIAL WORK, PREPARE AND PAINT EXPOSED STEEL SURFACES PER "NOTES - STEEL COATINGS". SURFACES TO BE ENCASED IN CONCRETE REQUIRE CLEANING BUT NEED NOT BE PAINTED.



1 S5.4 TYPICAL STEEL REINFORCING AT MECH. FLOOR PENETRATIONS

NO SCALE

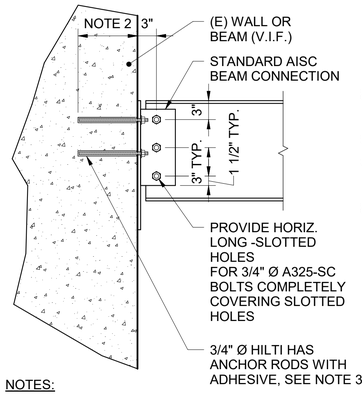


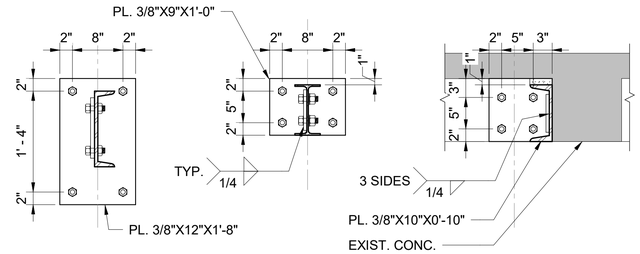
CONSTRUCTION SEQUENCE NOTE:

1. ERECT BEAM AND DRYPACK. DRYPACK SHALL BE (1) PART CEMENT + (2) PART SAND AND HAVE ZERO SLUMP.
2. AFTER DRYPACKING HAS CURED, SAW-CUT PERIPHERY OF OPENING AND REMOVE CONCRETE WITHIN SO AS NOT TO DAMAGE REMAINING FINISHES AND STRUCTURE.

3 S5.4 TYPICAL BEAM DRYPACKED BELOW EXISTING SLAB AT NEW OPENING

NO SCALE





WP-1: NEW STEEL STRINGER ANCHORED TO MASONRY WALL

WP-2: NEW STEEL BEAM ANCHORED TO CONCRETE WALL AT FLOOR SUPPORT

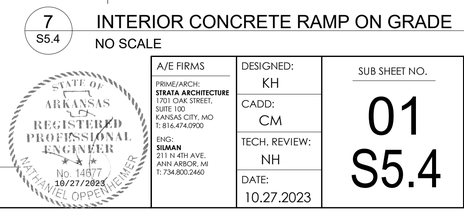
WP-3: CHANNEL REINFORCEMENT AT CRACKED SKYLIGHT BEAM

NOTES:

1. VERIFY ANCHORAGE SUBSTRATE MATERIAL AND INDICATE ON SHOP DRAWINGS.
2. MINIMUM EMBEDMENT FOR ADHESIVE ANCHORS SHALL BE AS FOLLOWS" 6" FOR CONCRETE, 8" FOR BRICK MASONRY, AND 3" (THOUGH THE FACE SHELL) FOR HOLLOW CMU.
3. ANCHORAGE DETAIL BASED UPON HILTI HIT-HY 200 FOR EMBEDMENT IN CONCRETE AND HILTI-HY 270 FOR EMBEDMENT IN MASONRY.
4. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO STEEL INSTALLATION. DO NOT DAMAGE EXISTING REINFORCING STEEL.
5. FIREPROOF STEEL AS REQUIRED. SEE SPECIFICATIONS (FIREPROOFING NOT SHOWN FOR CLARITY).

2 S5.4 END PLATE CONNECTION AT CONCRETE WALL AND MASONRY WALL

NO SCALE



NOTE: FILL HOLLOWS IN WALL UNDER BEARING PLATE SOLID WITH MORTARED BRICK BEFORE PLACING PLATE. (MINIMUM 2 COURSES)

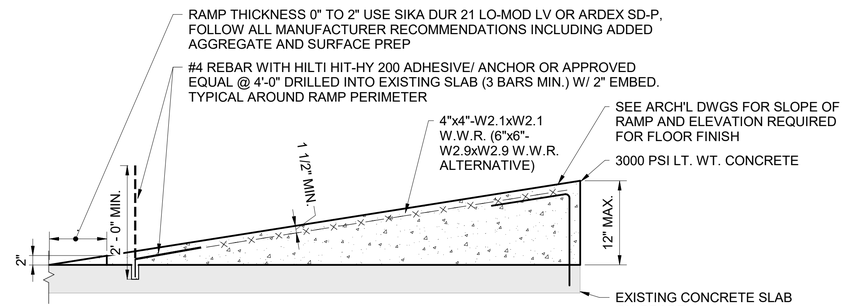
NOTE: CUT POCKET IN WALL AS SHOWN. AFTER BEAM IS INSTALLED BRICK UP POCKET SOLID. FULL MORTAR BEDDING IN ALL H & V BRICK JOINTS, TO POCKET FACES AND TO BEAM. CONTRACTOR RESPONSIBLE FOR PROVIDING MASONRY IN KIND IF EXISTING MATERIAL IS NOT SALVAGED OR USABLE. (ALTERNATE: GROUT SOLID)

SECTION

ELEVATION

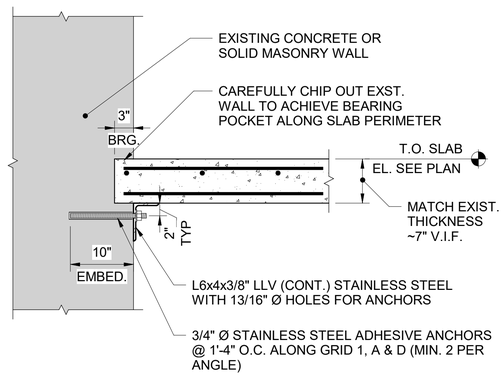
4 S5.4 TYPICAL BEAM BEARING ON EXISTING WALL

NO SCALE



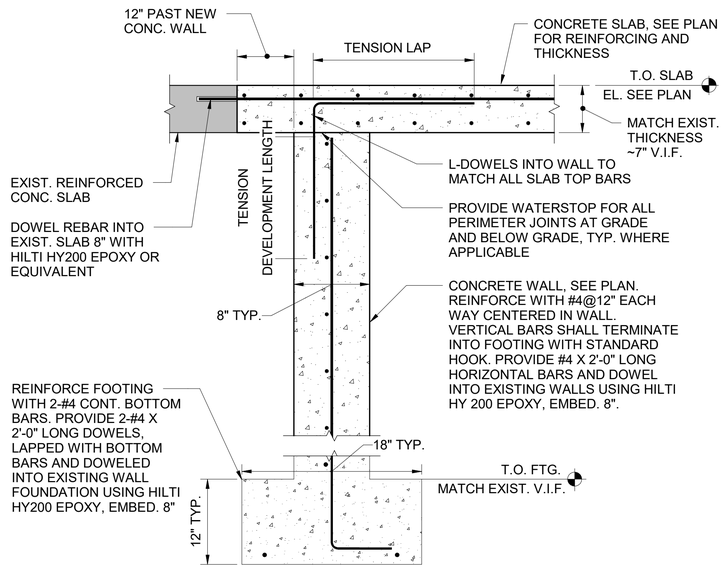
7 S5.4 INTERIOR CONCRETE RAMP ON GRADE

NO SCALE



5 S5.4 TYPICAL SHELF ANGLE AT EXISTING LOAD BEARING WALL

NO SCALE



6 S5.4 DETAIL AT SLAB/WALL JUNCTION (WALL STOPPING BELOW)

NO SCALE

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PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900	KH	01 S5.4	MAURICE BATHHOUSE TYPICAL STEEL REPAIR DETAILS	128 182951
ENG: **SIUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			
	DATE: 10.27.2023			111 OF 286

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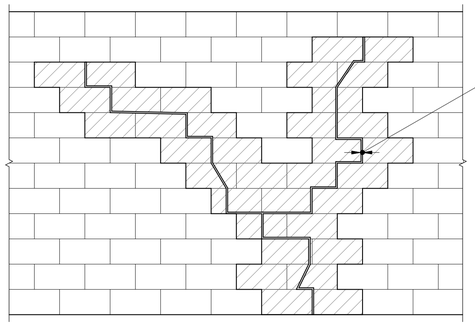
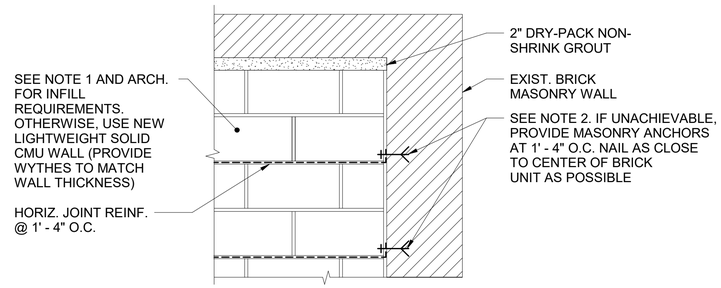


NOTES:

1. [▨] DENOTES BRICK TO BE REPLACED. WHERE CRACK IS THRU WALL REPLACE ALL WYTHES OF BRICK ON EACH SIDE OF CRACK TO 1ST MORTAR JOINT. REPLACE EXISTING HEADERS WITH NEW HEADERS. REPLACE LOOSE AND CRACKED BRICKS. WHERE CRACK IS ONLY IN OUTER WYTHE, REPLACE ONLY OUTER WYTHE.
2. WHERE CRACK IS OPEN AND 1/4" OR LESS AND IS PRESENT ONLY IN OUTER WYTHE AND ONLY IN JOINTS, RAKE AND REPOINT JOINTS ONLY.
3. CONTRACTOR TO INCLUDE MASONRY IN KIND WHERE DETERIORATED, MISSING, OR REQUIRED FOR REBUILD.
4. ALL MASONRY INFILL TO BE PROPERLY TOOTHED IN WITH LIKE MATERIAL.

1 S5.5 TYPICAL REPAIR IN BRICK MASONRY (KEYNOTE M-1)

NO SCALE

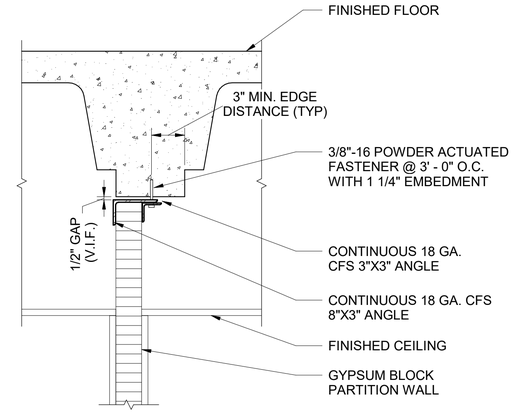


NOTES:

1. CONTRACTOR TO INCLUDE MASONRY IN KIND WHERE DETERIORATED, MISSING, OR REQUIRED FOR REBUILD.
2. ALL MASONRY INFILL TO BE PROPERLY TOOTHED IN WITH LIKE MATERIAL.

2 S5.5 TYPICAL WALL INFILL DETAIL (KEYNOTE M-2)

NO SCALE

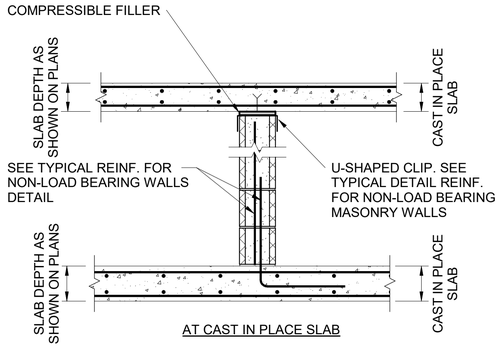


NOTES:

1. GAP ASSUMED AT TOP OF WALL BASED ON SITE OBSERVATIONS. IF GAP DOES NOT EXIST, INSTALL A CONT. 18 GA. 6" CFS PLATE AGAINST THE SURFACE OF THE GYPSUM BLOCK WALL AND CONCRETE BEAM. ANCHOR PLATE INTO CONCRETE USING 3/8"-16 POWDER ACTUATED FASTENERS @ 3'-0" O.C. WITH 1 1/4" EMBEDMENT.
2. CONTRACTOR TO INCLUDE MASONRY IN KIND WHERE DETERIORATED, MISSING, OR REQUIRED FOR REBUILD.
3. ALL MASONRY INFILL TO BE PROPERLY TOOTHED IN WITH LIKE MATERIAL.

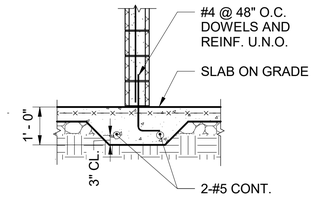
3 S5.5 LATERAL BRACING AT TOP OF INTERIOR MASONRY PARTITION WALL AT CONCRETE BEAM TYPICAL DETAIL

NO SCALE



4 S5.5 TYPICAL SUPPORT FOR MASONRY PARTITIONS AT CONCRETE SLAB

NO SCALE



NOTE: SEE TYPICAL SLAB ON GRADE DETAIL FOR ADDITIONAL INFORMATION.

5 S5.5 TYPICAL SUPPORT FOR MASONRY PARTITIONS AT SLAB ON GRADE

NO SCALE

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 NATHANIEL OPPENHEIMER 10/27/2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	DESIGNED: KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	SUB SHEET NO. 01 S5.5	TITLE OF SHEET MAURICE BATHHOUSE TYPICAL MASONRY REPAIR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 112 OF 286

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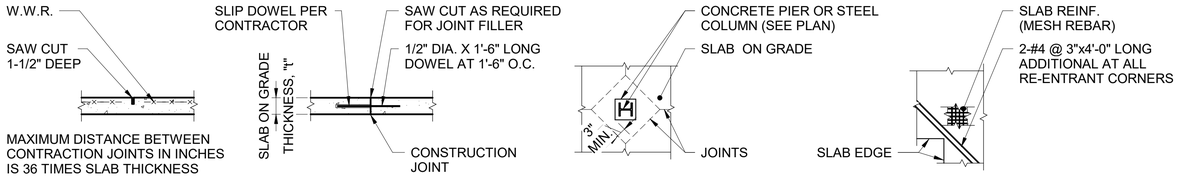
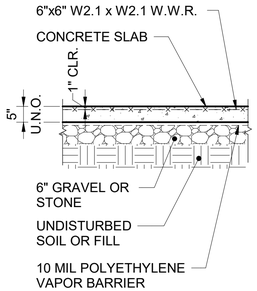
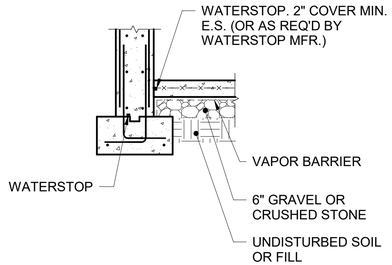


SAWED CONTRACTION JOINT | CONSTRUCTION JOINT | ISOLATION JOINT AT COLUMN | ADDITIONAL REINFORCEMENT AT ALL RE- ENTRANT CORNERS



SLAB ON GRADE

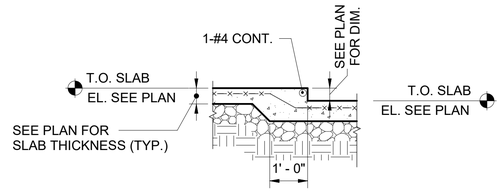


SLAB-ON-GRADE & WALL INTERFACE

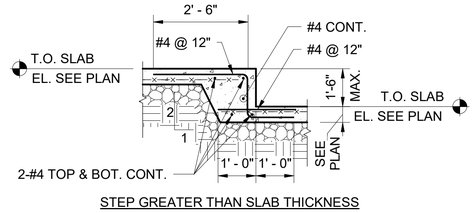
NOTES:

1. SLAB ON GRADE SHALL BE PLACED IN ALTERNATING STRIPS WHERE EACH SINGLE STRIP DOES NO EXCEED 36 TIMES SLAB THICKNESS WIDTH IN INCHES. ALTERNATIVELY, LARGE BLOCK PLACEMENTS WITH INTERIOR CONTRACTION JOINTS ARE ACCEPTABLE IF THE CONTRACTION JOINTS ARE MADE IN BOTH DIRECTIONS AT SPECIFIED INTERVALS IN A TIMELY MANNER.
2. SAWED CONTRACTION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING IN INCHES OF 36 TIMES THE SLAB THICKNESS. JOINTS SHALL BE SAWED NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED.
3. GRAVEL OR CRUSHED STONE BASE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

1 S5.6 TYPICAL SLAB ON GRADE
NO SCALE

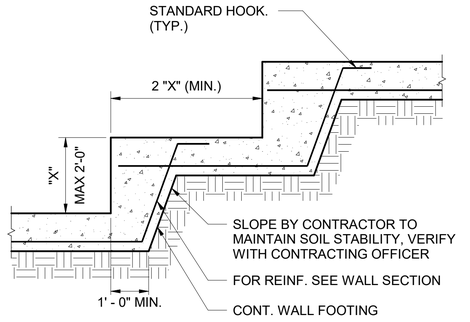


STEP LESS THAN OR EQUAL TO SLAB THICKNESS

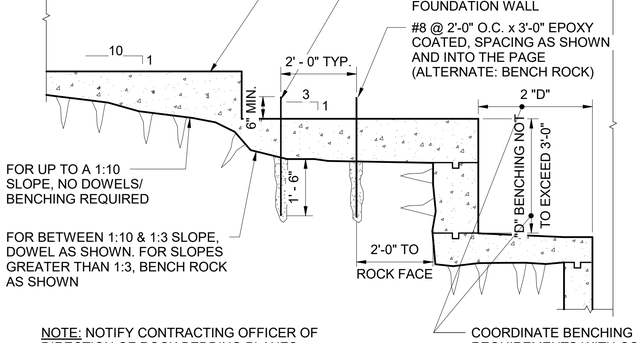


STEP GREATER THAN SLAB THICKNESS

2 S5.6 TYPICAL STEP IN SLAB ON GRADE
NO SCALE

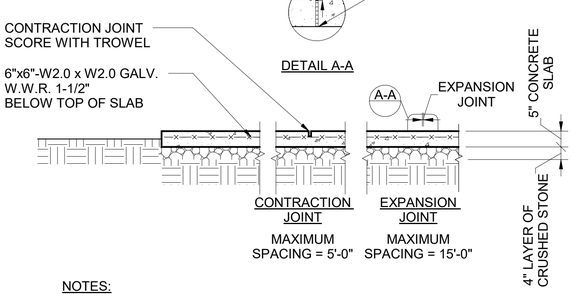


3 S5.6 TYPICAL STEPPED WALL FOOTING
NO SCALE



NOTE: NOTIFY CONTRACTING OFFICER OF DIRECTION OF ROCK BEDDING PLANES.

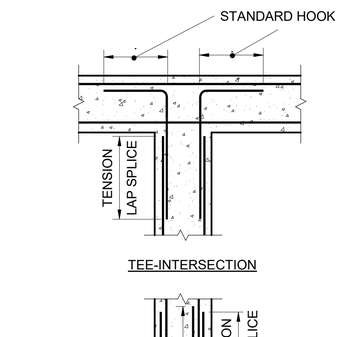
4 S5.6 TYPICAL FOUNDATION AT SLOPED ROCK CONDITIONS
NO SCALE



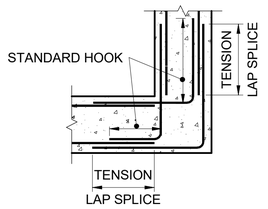
NOTES:

1. UNDISTURBED SOIL OR FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT REMOVE ORGANIC MATERIAL.
2. BROOM FINISH UNLESS NOTED OTHERWISE.

5 S5.6 TYPICAL EXTERIOR PAVING
NO SCALE



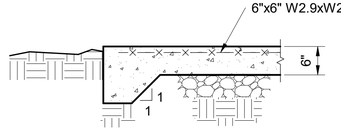
TEE-INTERSECTION



CORNER

NOTE: FOR TENSION LAP SPLICE LENGTH AND DEVELOPMENT LENGTH SEE TABLE.

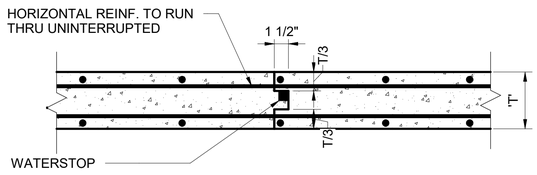
9 S5.6 TYPICAL HORIZONTAL REINFORCEMENT AT CORNERS & JUNCTIONS OF WALLS AND BEAMS
NO SCALE



NOTES:

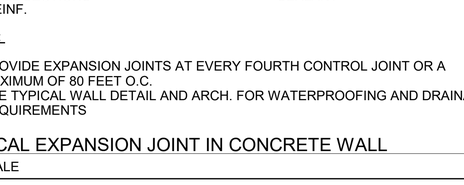
1. FOR SIZE AND LOCATION SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONCRETE FOR PADS SHALL BE NORMAL WEIGHT WITH f'c = 4000 PSI
3. THREADED RODS TO BE 3/8" Ø A-36 STEEL IN EXPANSION INSERTS @ 18" O.C. HY-200 ADHESIVE OR APPROVED EQUAL.

6 S5.6 TYPICAL EQUIPMENT PAD ON GRADE (EXTERIOR)
NO SCALE



NOTE: MAXIMUM POUR LENGTHS: FOUNDATION WALL = 80'-0"

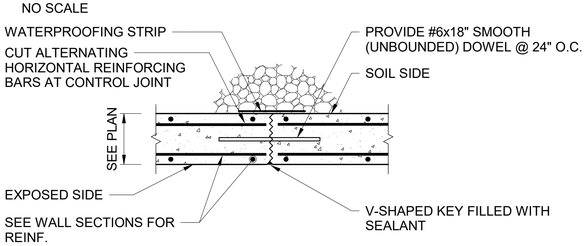
10 S5.6 TYPICAL CONSTRUCTION JOINT IN CONCRETE WALL
NO SCALE



NOTES:

1. PROVIDE EXPANSION JOINTS AT EVERY FOURTH CONTROL JOINT OR A MAXIMUM OF 80 FEET O.C.
2. SEE TYPICAL WALL DETAIL AND ARCH. FOR WATERPROOFING AND DRAINAGE REQUIREMENTS

8 S5.6 TYPICAL EXPANSION JOINT IN CONCRETE WALL
NO SCALE



NOTES:

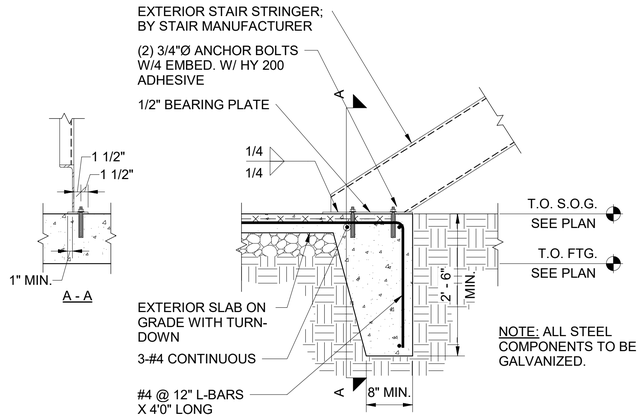
1. PROVIDE CONTROL JOINTS AT A MAXIMUM OF 20 FEET O.C. AND AT ALL CORNERS.
2. SEE TYPICAL WALL DETAIL AND ARCH. FOR WATERPROOFING AND DRAINAGE REQUIREMENTS

7 S5.6 TYPICAL CONTROL JOINT IN CONCRETE WALL
NO SCALE

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

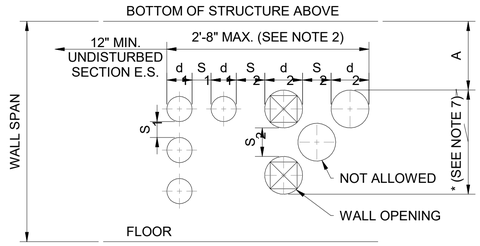
A/E FIRMS	
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	
ENG: **SIMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	
DESIGNED:	KH
CADD:	CM
TECH. REVIEW:	NH
DATE:	10.27.2023
SUB SHEET NO.	01 S5.6
TITLE OF SHEET	MAURICE BATHHOUSE TYPICAL DETAILS
	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 182951
PMIS/PKG NO.	318915
	113 OF 286

10/24/2023 1:41:30 PM



1 S5.7 TYPICAL FOOTING AT EXTERIOR STAIR

NO SCALE

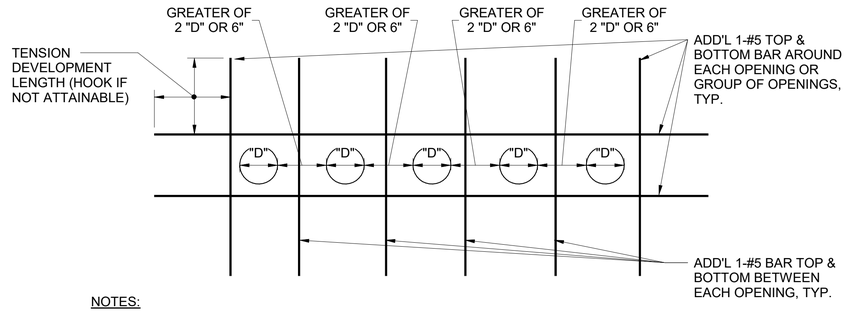


NOTES:

1. S=1.5d MIN., LARGER d GOVERNS.
2. NO BEAM BEARING ABOVE OPENINGS UNLESS DIMENSION A IS 4'-0" OR LARGER.
3. DIMENSION A IS NOT RESTRICTED FOR CONTINUOUS CONCRETE SLAB BEARING. A=0'-8" MIN. BELOW UNTOPPED DECK.
4. VERTICAL ALIGNMENTS OF STACKED OPENINGS IS REQUIRED. STACKING OPENINGS VERTICAL IN LIEU OF WIDE HORIZONTAL ROWS IS PREFERRED.
5. STEEL LINTELS MUST BE INSTALLED IF ABOVE LAYOUT CANNOT BE ACHIEVED, NOTIFY CONTRACTING OFFICER.
6. MAX. CORE SIZE = 12"
7. * DENOTES NO RESTRICTIONS IN NUMBER IF VERTICALLY ALIGNED
8. LOCATE AND COORDIANTE WALL PENETRATIONS WITH EXISTING WALL REBAR USING GPR OR OTHER NON-DESTRUCTIVE TECHNIQUES

2 S5.7 TYPICAL CORING RESTRICTIONS IN EXISTING WALL

NO SCALE

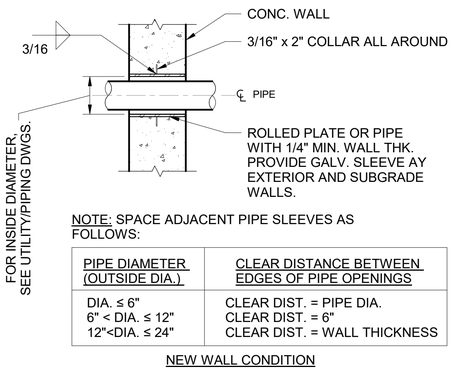


NOTES:

1. LIMIT 5 PENETRATIONS IN A ROW IN ANY DIRECTION.
2. COORDINATE WITH TYPICAL DETAIL FOR FORMED CONCRETE SLAB PIPE SLEEVE.
3. SHOULD PENETRATIONS BE CUT AFTER CONCRETE IS POURED, CONTRACTOR TO SUBMIT PLAN SHOWING ALL PROPOSED CORE DRILLING LOCATIONS TO CONTRACTING OFFICER FOR APPROVAL. CONTRACTOR TO USE NDE METHODS TO LOCATE REBAR PRIOR TO CUTTING SLAB.
4. FOR ANY GROUPS OF PENETRATIONS THAT EXCEED THE SPACING OR QUANTITY LIMITS IN THIS DETAIL, GROUP OF PENETRATIONS SHALL BE TREATED AS A SLAB OPENING. SEE "TYPICAL ADDITIONAL REINFORCEMENT AT OPENING IN FRAMED SLAB DETAIL" IN S-500 SERIES.
5. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEPS TRADE SUBMITTALS FOR CONTRACTING OFFICER REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAYED INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS TOGETHER.

3 S5.7 TYPICAL SLAB PENETRATION WITH SLEEVE DIAMETER LESS THAN 6"

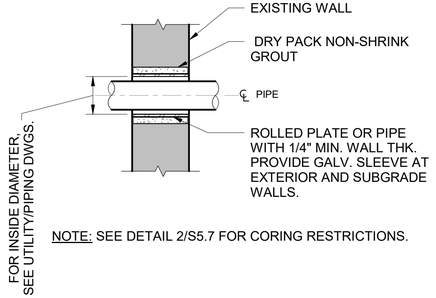
NO SCALE



NOTE: SPACE ADJACENT PIPE SLEEVES AS FOLLOWS:

PIPE DIAMETER (OUTSIDE DIA.)	CLEAR DISTANCE BETWEEN EDGES OF PIPE OPENINGS
DIA. ≤ 6"	CLEAR DIST. = PIPE DIA.
6" < DIA. ≤ 12"	CLEAR DIST. = 6"
12"<DIA. ≤ 24"	CLEAR DIST. = WALL THICKNESS

NEW WALL CONDITION

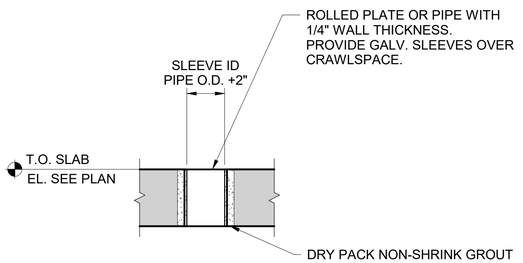


NOTE: SEE DETAIL 2/S5.7 FOR CORING RESTRICTIONS.

EXISTING WALL CONDITION

4 S5.7 TYPICAL PIPE SLEEVE IN WALL

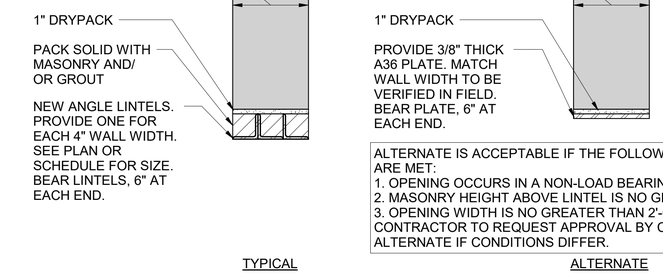
NO SCALE



NOTE: PROVIDE CLEAR SPACE BETWEEN PIPE AND/ OR OPENINGS A MINIMUM 6" OR PIPE SLEEVE DIAMETER APART (WHICHEVER IS GREATER.) SEE DETAIL 3/S5.7 FOR ADDITIONAL DIMENSIONAL RESTRICTIONS.

5 S5.7 TYPICAL PIPE SLEEVE IN CONCRETE SLAB

NO SCALE



TYPICAL

ALTERNATE IS ACCEPTABLE IF THE FOLLOWING CONDITIONS ARE MET:
1. OPENING OCCURS IN A NON-LOAD BEARING WALL.
2. MASONRY HEIGHT ABOVE LINTEL IS NO GREATER 2'-0".
3. OPENING WIDTH IS NO GREATER THAN 2'-6".
CONTRACTOR TO REQUEST APPROVAL BY COTR FOR USE OF ALTERNATE IF CONDITIONS DIFFER.

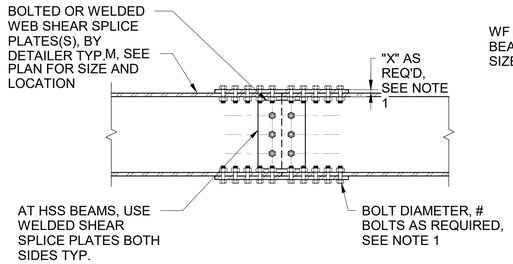
ALTERNATE

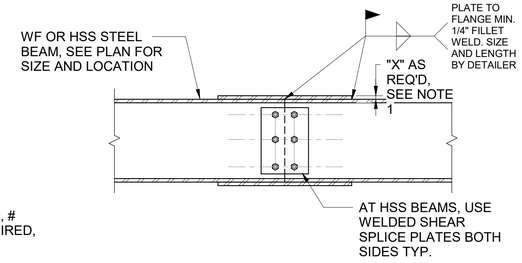
NOTES:

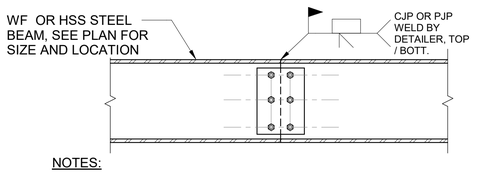
1. CONTRACTOR TO PROVIDE NEEDLE SHORING AS NEEDED FOR NEW LINTEL INSTALLATION.
2. CONTRACTOR TO INCLUDE MASONRY IN KIND WHERE DETERIORATED, MISSING, OR REQUIRED FOR REBUILD.
3. ALL MASONRY INFILL TO BE PROPERLY TOOTHED IN WITH LIKE MATERIAL.

6 S5.7 TYPICAL ANGLE LINTEL IN EXISTING MASONRY WALL

1" = 1'-0"







NOTES:

1. FLANGE AND WEB SPLICE CONNECTIONS TO BE SELECTED OR ENGINEERED BY DETAILER TO DEVELOP THE FULL CAPACITY OF THOSE BEAM ELEMENTS SIDE OF JOINT.
2. COORDINATE AND SUBMIT SPLICE LOCATIONS TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
3. ALL STEEL CONNECTIONS ARE SUBJECT TO SPECIAL INSPECTION INCLUDING ULTRASONIC TESTING OF PJP OR CJP GROOVE WELDS.

7 S5.7 TYPICAL STEEL BEAM SPLICE

3/4" = 1'-0"

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 NATHAN EL OPPENHEIMER 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S5.7	MAURICE BATHHOUSE TYPICAL DETAILS	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			114 OF 286

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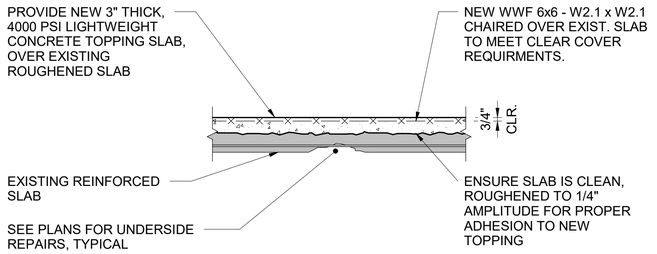
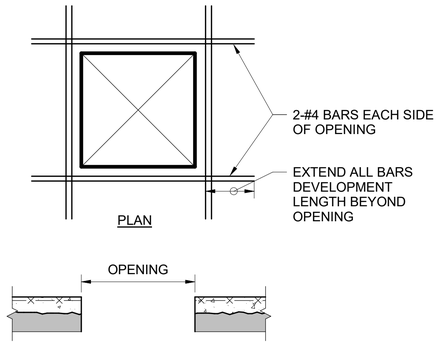
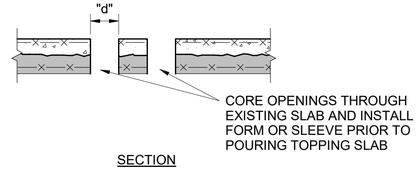


TYPICAL DETAIL OF STRUCTURAL TOPPING SLAB

(DETAIL SHOWN PARALLEL TO SLAB SPAN/PERPENDICULAR TO SLAB SUPPORT)



TYPICAL DETAIL OF NEW RECTANGULAR OPENINGS IN TOPPING SLAB



NOTES

1. SEE DETAILS ON S5.7 FOR SLAB CORING RESTRICTIONS.
2. ADJUST OPENING LOCATIONS OR REINFORCEMENT LOCATIONS SO OPENINGS DO NOT CONFLICT WITH EXISTING REINFORCEMENT. USE NON-DESTRUCTIVE TESTING TO SCAN AND LOCATION EXISTING REINFORCEMENT.
3. WHERE SPACING BETWEEN OPENINGS IS LESS THAN SHOWN ABOVE, TREAT THE GROUP OF OPENINGS AS A SINGLE LARGER OPENING WITH APPROPRIATE SUPPLEMENTAL STEEL SUPPORT OF EXISTING FLOOR ELEMENTS PER DETAILS ON S5.4.

TYPICAL DETAIL OF NEW PIPE OPENINGS IN TOPPING SLAB

1 S5.8 STRUCTURAL TOPPING AND FLOOR OPENINGS DETAIL

NO SCALE

DEFORMED BAR TENSION DEVELOPMENT LENGTH (Ld)				
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS				
BAR SIZE	4000 PSI CONCRETE		5000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II
#3	15	22	13	20
#4	19	29	17	26
#5	24	36	22	32
#6	29	43	26	39
#7	42	63	38	56
#8	48	72	43	64
#9	54	81	48	72
#10	61	91	54	81
#11	67	101	60	90

DEFORMED TENSION BAR NOTES:

1. FOR HORIZONTAL REINFORCEMENT WITH 12 INCH OR MORE FRESH CONCRETE CAST BELOW IT, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.3x THE VALUES GIVEN.
2. FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE, TENSION DEVELOPMENT LENGTH/TENSION LAP LENGTH SHALL BE 1.3x THE VALUES GIVEN.
3. FOR EPOXY-COATED BARS:
   A. WHERE CONCRETE COVER IS LESS THAN 3x BAR DIAMETER, OR CLEAR SPACING IS LESS THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.5x THE VALUES GIVEN.
   B. WHERE CONCRETE COVER IS EQUAL TO OR GREATER THAN 3x BAR DIAMETER AND CLEAR SPACING IS GREATER THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.2x THE VALUES GIVEN.
4. CASE I APPLIES WHEN EITHER OF THE FOLLOWING SETS OF CONDITIONS ARE MET:
   A. ALL THREE OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN DB AND
      b. CLEAR COVER IS NOT LESS THAN DB AND
      c. STIRRUPS OR TIES ARE PROVIDED THROUGHOUT THE DEVELOPMENT LENGTH AND THE QUANTITY IS NOT LESS THAN THE CODE MINIMUM.
   B. OR BOTH OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN 2DB AND
      b. CLEAR COVER IS NOT LESS THAN DB.

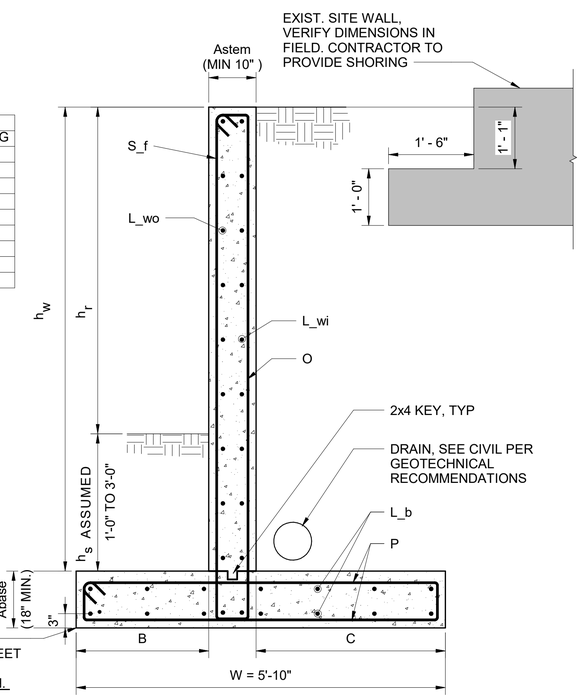
   CASE II APPLIES TO ALL OTHER CONDITIONS NOT DESCRIBED IN CASE I

DEFORMED BAR TENSION LAP SPLICE CLASS B				
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS				
BAR SIZE	4000 PSI CONCRETE		5000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II
#3	19	28	17	25
#4	25	37	23	34
#5	31	47	28	42
#6	37	56	34	50
#7	54	81	49	73
#8	62	93	56	83
#9	70	105	63	94
#10	79	118	71	106
#11	87	131	78	117

DEFORMED BAR COMPRESSION DEVELOPMENT LENGTH (Ldc)		
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS		
BAR SIZE	4000 PSI CONCRETE	5000 PSI CONCRETE
#3	8	8
#4	10	9
#5	12	12
#6	15	14
#7	17	16
#8	19	18
#9	22	21
#10	25	23
#11	27	26

DEFORMED BAR COMPRESSION LAP SPLICE		
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS		
BAR SIZE	4000 PSI CONCRETE	5000 PSI CONCRETE
#3	12	12
#4	15	15
#5	19	19
#6	23	23
#7	27	27
#8	30	30
#9	34	34
#10	39	39
#11	43	43

TYPE	h_r	REBAR		
RW8	8 FT MAX	BARS	BAR SIZE	BAR SPACING
		S_f	#4	18 IN O.C.
		O	#6	10 IN O.C.
		P	#6	12 IN O.C.
		L_wi	#4	18 IN O.C.
		L_wo	#4	18 IN O.C.
		L_b	#5	18 IN O.C.
		FOOTING DIMENSION		
		B	2.0 FT	
		C	3.0 FT	



BEARING ELEVATION TO MATCH EXIST. BUILDING FOUNDATION (V.I.F.) AND SHALL MEET MIN. FROST DEPTH. NOTIFY CONTRACTING OFFICER IF h_s > 3'-0" BEFORE INSTALLATION.

NOTES:

1. "O" BARS MAY BE SPLICED ABOVE BASE OF WALL AS AN ALTERNATE.
2. RETAINING WALL TO HAVE GRANULAR BACKFILL AND DRAIN LINE INSTALLED BEHIND THE BASE OF WALLS.
3. **NOTE: DESIGN IS BASED ON TERRACON SUPPLEMENTAL SEISMIC SITE CLASSIFICATION LETTER, PROJECT NO. 35225081, DATED 09/20/2023 FOR MAURICE BATHHOUSE. CONTRACTOR TO PLACE GRANULAR BACKFILL AGAINST THE STRUCTURE WITH MAXIMUM UNIT WEIGHT OF 130 PCF AND MINIMUM INTERNAL FRICTION ANGLE OF 32 DEGREES. CONTRACTOR TO PERFORM TEST PITS AT THE EXISTING BUILDING AND AT LANSCAPE SITE WALL TO DETERMINE FOUNDATION ELEVATIONS AND CONFIGURATION.**
4. DESIGN INCLUDES A SURCHARGE LOAD = 40 PSF.
5. DESIGN BASED ON 3,000 PSF SOIL BEARING CAPACITY.

2 S5.8 REINFORCED CONCRETE CANTILEVERED RETAINING WALL

NO SCALE

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	KH	01 S5.8	MAURICE BATHHOUSE TYPICAL DETAILS	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			115 OF 286

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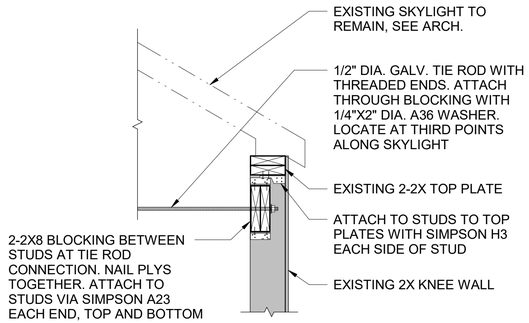
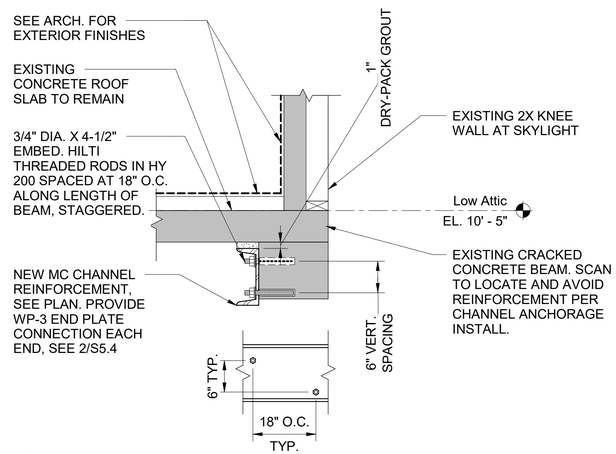


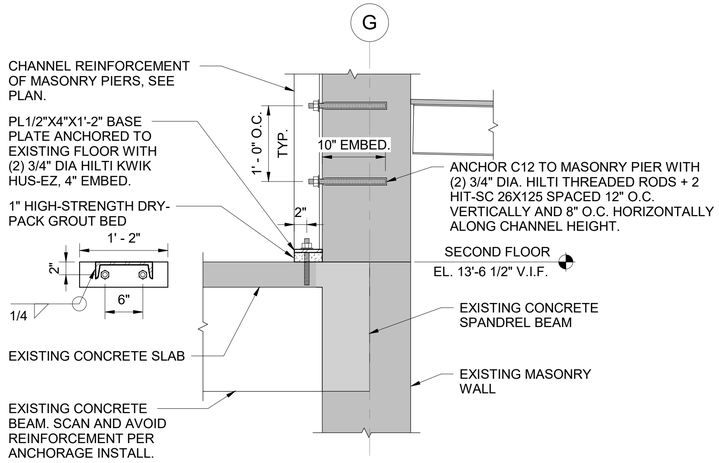
1 S5.9 SECTION 8

1" = 1'-0"



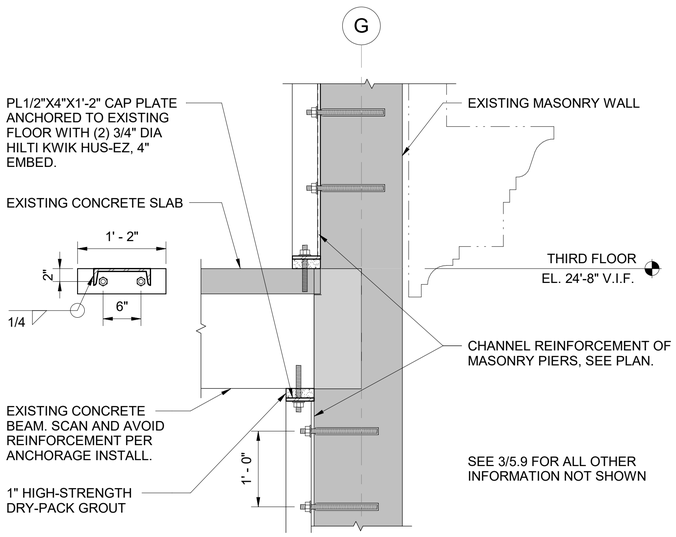
2 S5.9 SECTION 9

1" = 1'-0"



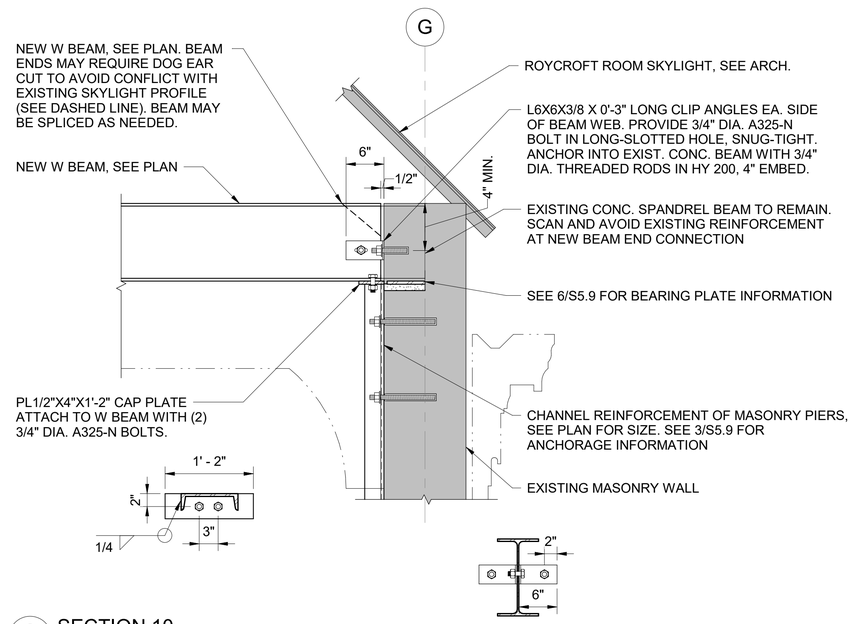
3 S5.9 SECTION 12

1" = 1'-0"



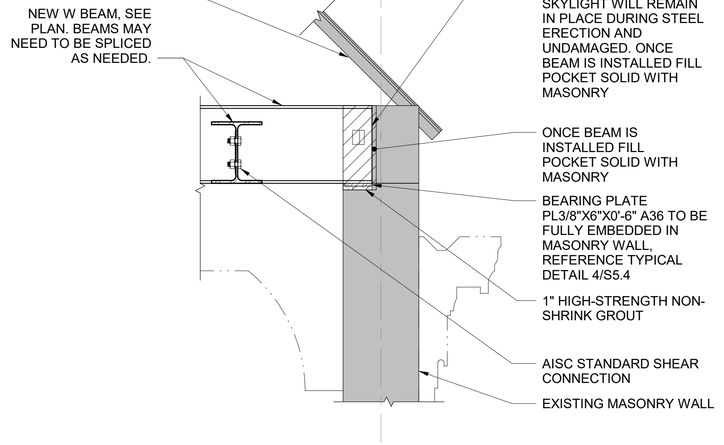
4 S5.9 SECTION 7

1" = 1'-0"



5 S5.9 SECTION 10

1" = 1'-0"



6 S5.9 SECTION 11

1" = 1'-0"

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STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14577 NATHANIEL OPPENHEIMER 10/27/2023

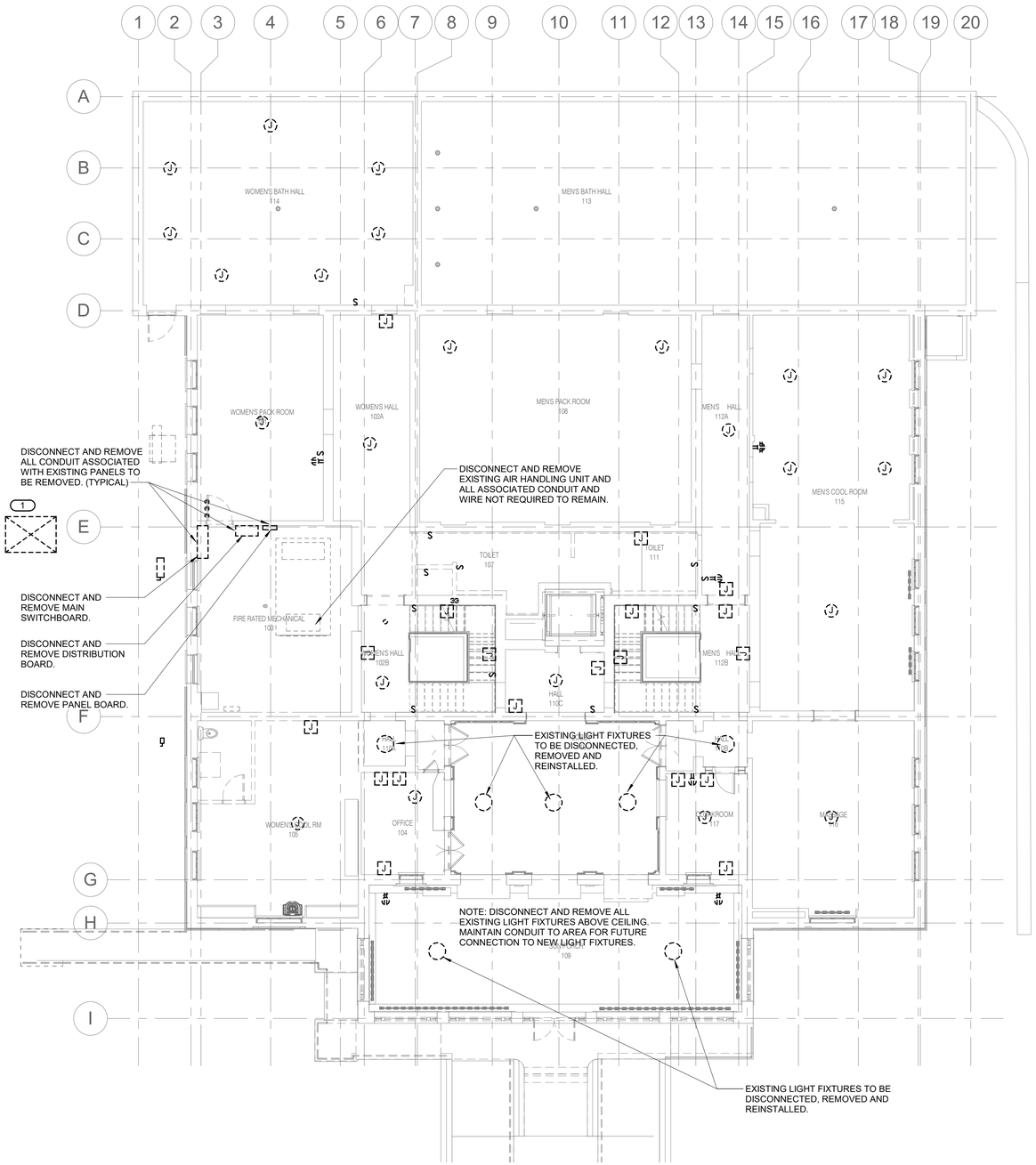
A/E FIRMS	
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	
DESIGNED:	KH
CADD:	CM
TECH. REVIEW:	NH
DATE:	10.27.2023
SUB SHEET NO.	01 S5.9
TITLE OF SHEET	MAURICE BATHHOUSE TYPICAL DETAILS
	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
	116 OF 286

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. FURNISH AND INSTALL WHITE COVER PLATES ON ALL JUNCTION BOXES THAT ARE EXISTING TO REMAIN. ALL JUNCTION BOXES ARE NOT SHOWN ON THIS PLAN.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT BE SHOWN ON PLANS.

KEYNOTES: (#)

1. EXISTING 300KVA TRANSFORMER LOCATED IN SOUTH YARD OF HOTEL HALE (LOCATION SHOWN ON PLANS IS ONLY TO INCLUDE TRANSFORMER IN SCOPE OF WORK). EXISTING TRANSFORMER SHALL BE DISCONNECTED AND REMOVED. ASSOCIATED CONDUIT SHALL REMAIN FOR RE-USE IN NEW WORK. COORDINATE REMOVAL OF TRANSFORMER WITH UTILITY COMPANY AND OWNER. NOTIFY HOTEL HALE OWNER OF SHUTDOWN AT LEAST 1 WEEK PRIOR TO WORK.



1 / EX1.1 FIRST FLOOR ELECTRICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

GEOGRAPHIC OF AUTHORITY — IMEG Consultants Corp. No. 4306 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EX1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR ELECTRICAL DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 117 OF 286

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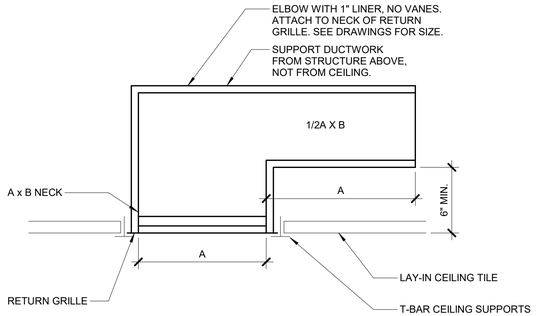
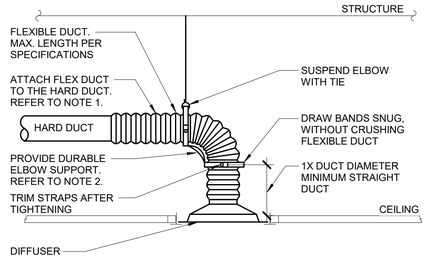


NOTES:

1. THIS DETAIL APPLIES TO ALL RETURN GRILLES WHERE BOOTS ARE SHOWN

1 AIR TERMINAL - CEILING RETURN SOUND BOOT

NO SCALE

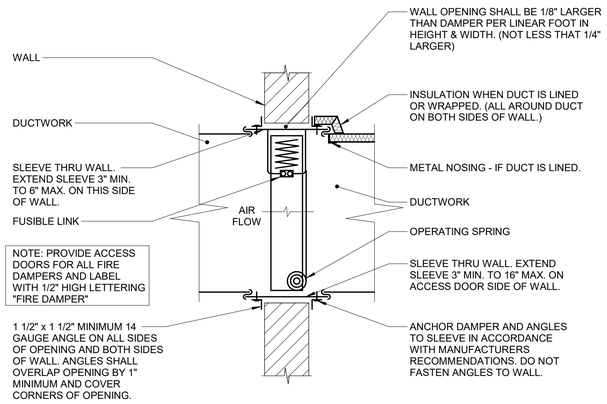


NOTES:

1. TO ATTACH FLEX DUCT TO THE HARD DUCT, TAPE THE INNER LINER TO THE HARD DUCT THEN ATTACH WITH TWO NYLON TIE WRAPS; ONE FOR THE INNER LINER AND ONE FOR THE OUTER SHELL. FOLD THE OUTER SHELL INSIDE ITSELF SO IT HAS NEAT EDGES PRIOR TO TIE WRAPPING.
2. DURABLE ELBOW SUPPORT ACCEPTABLE MANUFACTURER AND MODEL: HART AND COOLEY - SMARTFLOW, THERMAFLEX - FLEXFLOW, TITUS - FLEXRIGHT, OR APPROVED EQUAL.

2 DIFFUSER CONNECTION DETAIL (W/ RADIUS FORMING ELBOW)

NO SCALE



TYPE "A"

3 FIRE DAMPER - DYNAMIC WALL CURTAIN TYPE A

NO SCALE

TYPE "B"

4 FIRE DAMPER - DYNAMIC WALL CURTAIN TYPE B

NO SCALE

TYPE "B"

5 FIRE DAMPER - DYNAMIC CURTAIN - WALL GRILLE

NO SCALE

6 TYPICAL DETAIL OF BRANCH CONNECTION FROM MAIN SUPPLY DUCT

NO SCALE

7 TYPICAL DETAIL OF BRANCH TAKE OFF AND RECT. NECK DIFFUSER CONN.

NO SCALE

8 DEHUMIDIFIER WITH REMOTE CONDENSING UNIT SKETCH OF CONNECTIONS

NO SCALE

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 20309 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M5.1	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 118 OF 286

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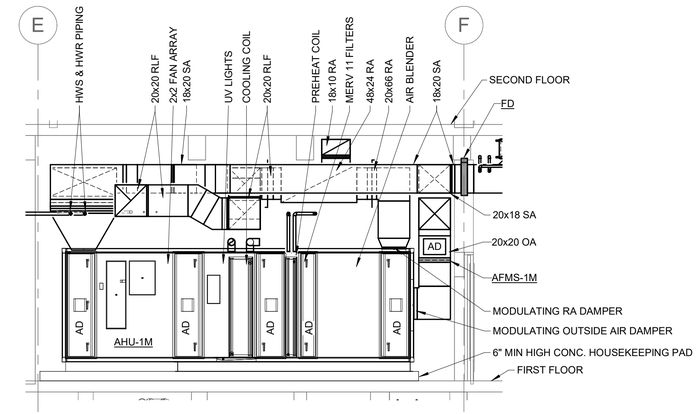
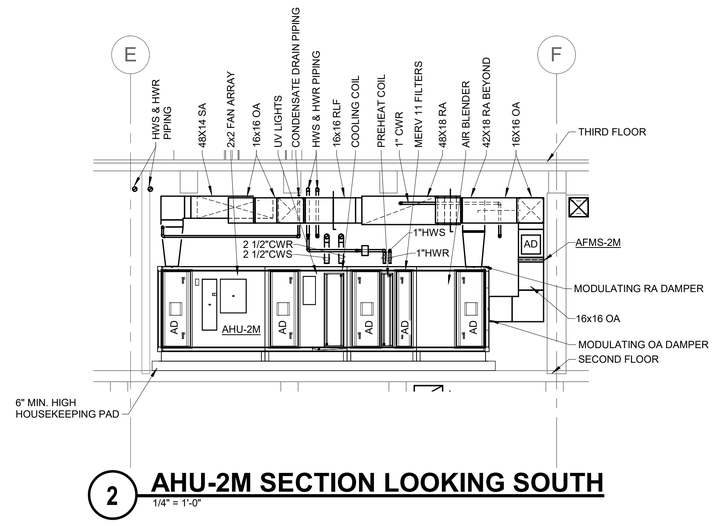
SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECTARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .



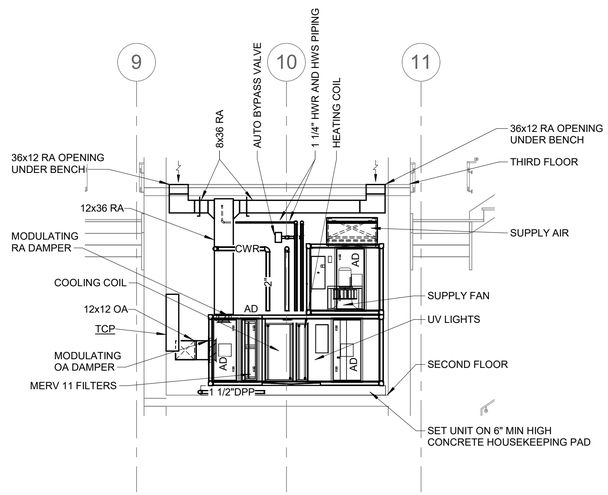
1 AHU-1M SECTION LOOKING SOUTH

1/4" = 1'-0"



2 AHU-2M SECTION LOOKING SOUTH

1/4" = 1'-0"



3 AHU-3M SECTION LOOKING EAST

1/4" = 1'-0"

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4308
IN KANSAS

LICENSED PROFESSIONAL ENGINEER
No. 26909
DAVID W. BODLEWSKI

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M3.0	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL PLANS - SECTIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 119 OF 286

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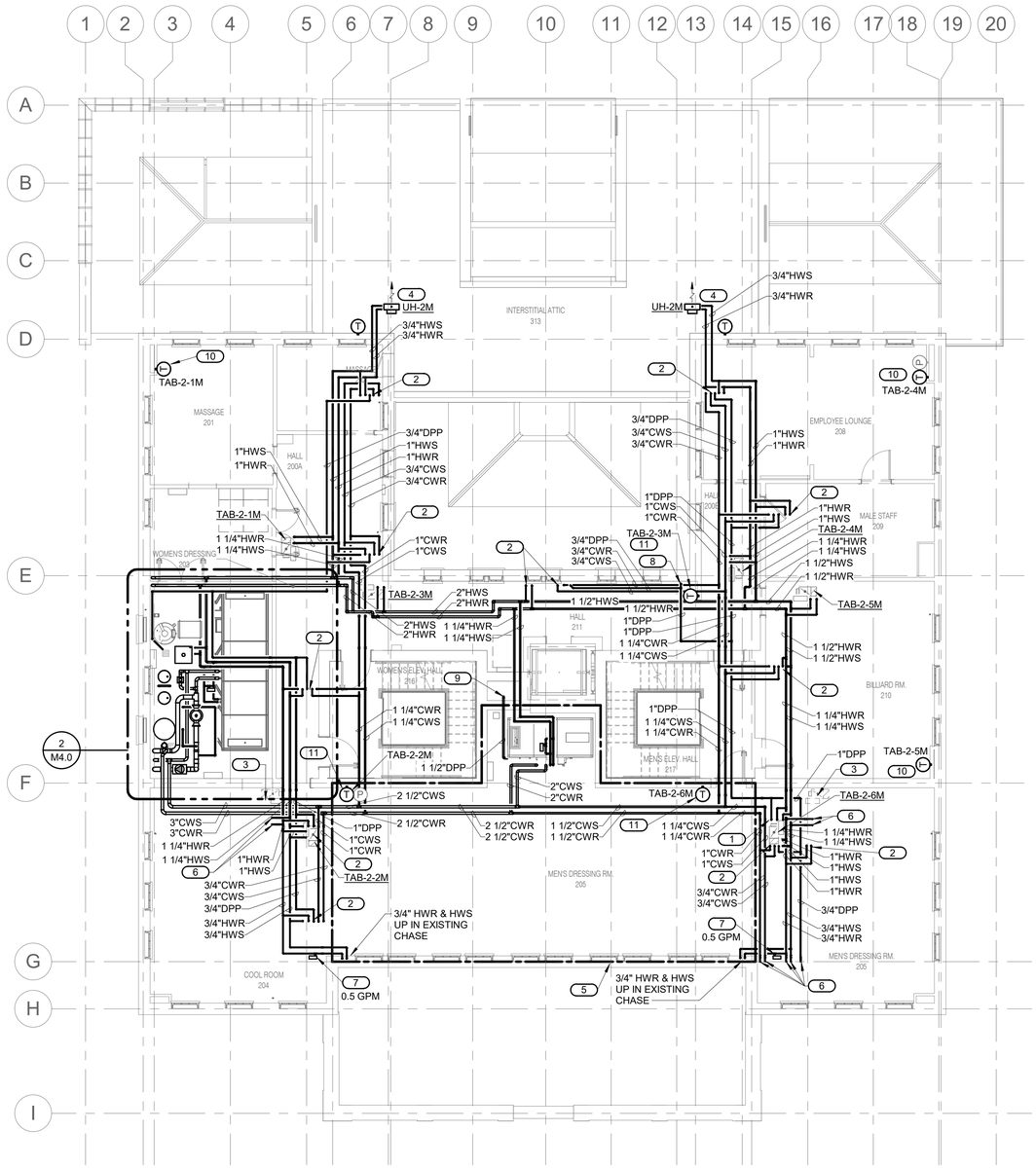

1 MP1.2 SECOND FLOOR MECHANICAL PIPING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 3/4" HWS, HWR, DPP AND 1" CWS, CWR UP TO FCU ABOVE.
2. 3/4" HWS, HWR, CWS, CWR, DPP UP TO FCU ABOVE.
3. FUTURE VAV BOX.
4. HORIZONTAL HOT WATER UNIT HEATER.
5. NO PIPING OR DUCTWORK SHALL PENETRATE THE SECOND FLOOR IN THIS AREA.
6. VALVE & CAP FOR FUTURE CONNECTION.
7. RADIATOR CONTROL VALVE. SEE PLAN FOR GPM.
8. ROUTE DPP DN WALL TO FLOOR BELOW.
9. ROUTE DPP DN IN CHASE TO BASEMENT.
10. INSTALL RECESSED THERMOSTAT ON CHASE WALL AND ROUTE WIRING IN CHASE. IF NEW CHASE WITHOUT SHEATHING, ALLOW FOR FUTURE PLASTER/GYP. BD. COORDINATE LOCATION AND CONDUIT/WIRING ROUTING WITH CO BEFORE INSTALLATION.
11. RECESSED THERMOSTAT. CHANNEL EXISTING PLASTER TO ROUTE WIRING TO TAB. COORDINATE LOCATION AND CONDUIT/WIRING ROUTING WITH CO BEFORE INSTALLATION. PATCH WALL TO MATCH EXISTING.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER ARKANSAS No. 20902 DAVID W. BODLIN

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 MP1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR MECHANICAL PIPING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 120 OF 286

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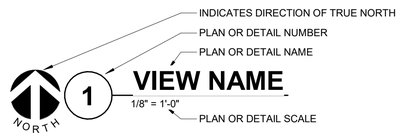
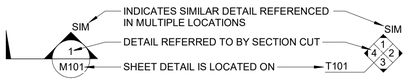
VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E	TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING
TAG	UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST
	INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

PLUMBING SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
—CW—	COLD WATER - POTABLE
—D—	DRAIN
—DPP—	DRAIN - PIPING
—HW—	HOT WATER - POTABLE
—HWC—	HOT WATER CIRCULATING - POTABLE
—PD—	PUMPED DISCHARGE
—SAN—	SANITARY DRAINAGE
—SCW—	SOFT COLD WATER
—SHW—	SOFT HOT WATER
—ST—	STORM DRAINAGE
—STS—	STORM DRAINAGE (SECONDARY)
—STW—	SOFT TEMPERED WATER
—SV—	SAFETY RELIEF VENT
—TW—	TEMPERED WATER
—V—	VENT
	PIPE CONTINUATION
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
FD	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
RD-1 6"(1000)	ROOF DRAIN PROPERTIES SYMBOL / SIZE (ROOF SQ. FT.)
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
	THROTTLING VALVE
	BALANCING VALVE (NUMBER INDICATES GPM)
	AUTOMATIC BALANCING VALVE
	MIXING VALVE
	CONTROL VALVE (THREE-WAY)
	CONTROL VALVE (TWO-WAY)
	SOLENOID VALVE
	CHECK VALVE
	SAFETY/RELIEF VALVE
	PRESSURE REDUCING VALVE (LIQUID/GAS)
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	BACKFLOW PREVENTER
	VACUUM BREAKER
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
M	METER
	ALIGNMENT GUIDE
	PIPE ANCHOR
EJ-# (#.#")	EXPANSION JOINT #.#" IS THE EXPANSION TRAVEL INCHES
NO HATCH	LIGHT HAZARD
	ORDINARY GROUP 1
	ORDINARY GROUP 2
	DEMOLITION
	EXTRA GROUP 1
	EXTRA GROUP 2

PLUMBING ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
CB	CATCH BASIN
CI	CAST IRON
CO	CLEANOUT
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
E	EXISTING
EE	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FM	FLOW METER
FS	FLOOR SINK
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
NIC	NOT IN CONTRACT
NT	NEUTRALIZATION TANK
OS	OIL SEPARATOR
RD	ROOF DRAIN
SCCR	SHORT CIRCUIT CURRENT RATING
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
UB	UTILITY BOX
UON	UNLESS OTHERWISE NOTES
YCO	YARD CLEANOUT

PLUMBING ROUGH-IN SCHEDULE

NOTES: (APPLIES TO ALL PLUMBING FIXTURES LISTED BELOW)
1) SIZES SHOWN ARE MINIMUMS. LARGER SIZES SHOWN ON THE DRAWING SHALL DICTATE THE ROUGH-IN SIZE.
2) SANITARY RISERS UP IN WALL TO FIXTURES SHALL BE A MINUMUM OF 2".
3) DOMESTIC WATER BRANCH PIPING OUTSIDE OF THE WALL/CHASE SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE. ONLY THE FINAL RISE-DROP SHALL BE SMALLER.
4) FINAL SANITARY SIZE SHALL MATCH P-TRAP SIZE (REFER TO MATERIAL LIST).

TAG NAME	DESCRIPTION	COLD WATER	HOT WATER	SANITARY	VENT
AD-1	AREA DRAIN			4"	
FD-1	FLOOR DRAIN			3"	1 1/2"
FS-1	FLOOR SINK			4"	2"
FS-2	FLOOR SINK			3"	1 1/2"
JS-1	MOP BASIN	3/4"	3/4"	3"	1 1/2"
L-1	LAVATORY (ACCESSIBLE)	1/2"	1/2"	1 1/2"	1 1/2"
UR-1	URINAL	3/4"	-	2"	1 1/2"
WC-1	WATER CLOSET	1/2"	-	4"	2"
WC-2	WATER CLOSET	1/2"	-	4"	2"

PLUMBING GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
5. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK.
6. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES.
7. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH ROOM WITH FIXTURES. ANGLE STOPS SHALL NOT BE CONSIDERED SHUTOFF VALVES.
8. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
9. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

FIRE PROTECTION GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN.
3. CENTER SPRINKLERS IN CEILING TILES IN BOTH DIRECTIONS IN ALL AREAS. IN AREAS WITH 2'X4' CEILING TILES CENTERING USING A 2'X2' CEILING PATTERN IS ACCEPTABLE. SPRINKLER HEADS SHALL BE ALIGNED WITH OTHER SPRINKLER HEADS, LIGHTING, DIFFUSERS, AND ANY OTHER FEATURES IN THE CEILING.
4. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK RESPONSE SPRINKLERS IN UNPARTITIONED SPACES.
5. PROVIDE COVERAGE ABOVE AND BELOW ALL DUCTWORK GREATER THAN 48" WIDE.
6. PROVIDE COVERAGE ABOVE (IF APPLICABLE) AND BELOW FLOATING CEILINGS, REFER TO ARCHITECTURAL PLANS.
7. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING.
8. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED TO MEET OWNER'S INSURANCE COMPANY STANDARDS WHERE APPLICABLE. THE MORE STRINGENT OF THE OWNER'S INSURANCE UNDERWRITER'S DESIGN CRITERIA AND THE NFPA STANDARDS SHALL BE USED.
9. EACH ASSEMBLY SHALL INCLUDE BUTTERFLY CONTROL VALVE INDICATING "OPEN" OR "CLOSED" POSITION, TEST INSPECTION VALVE, FLOW SWITCH AND PRESSURE GAUGES.
10. WHERE FEASIBLE INSTALL PIPES HIGH AS POSSIBLE TO AVOID CONFLICT WITH OTHER DISCIPLINES.
11. INSTALL SYSTEM DRAINS AT LOW POCKET AREAS CONTAINING FIVE GALLONS OF WATER OR MORE, PROVIDE WITH ISOLATION VALVE AND THREADED HOSE CONNECTION.
12. MAIN PIPING PASSING BELOW SKYLIGHTS OR CLERESTORIES ARE NOT PERMITTED.
13. FOLLOW STRUCTURAL DETAILS WHEN PENETRATING OR PASSING THROUGH STRUCTURAL ELEMENTS. ALTERNATE DESIGNS WILL NEED TO BE APPROVED THROUGH THE STRUCTURAL ENGINEER.
14. PROVIDE INTERMEDIATE TEMPERATURE SPRINKLER HEADS WHERE REQUIRED BY NFPA 13 UNLESS OTHERWISE NOTED.
15. FINAL HEAD LOCATION, TYPE AND FINISH SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT.
16. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY THE ARCHITECT.
17. THE OWNER MUST BE NOTIFIED PRIOR TO EACH AND EVERY DRAINING OR RECHARGING OF THE SPRINKLER SYSTEM.
18. THE CONTRACTOR SHALL PREPARE A COORDINATED SET OF SHOP DRAWINGS AND SHALL OBTAIN APPROVAL FROM THE AUTHORITIES HAVING JURISDICTION AND THE LOCAL FIRE DEPARTMENT PRIOR TO ANY INSTALLATION.
19. DRAWING SHOW LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
20. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS. INCLUDING THOSE OF OTHER TRADES.

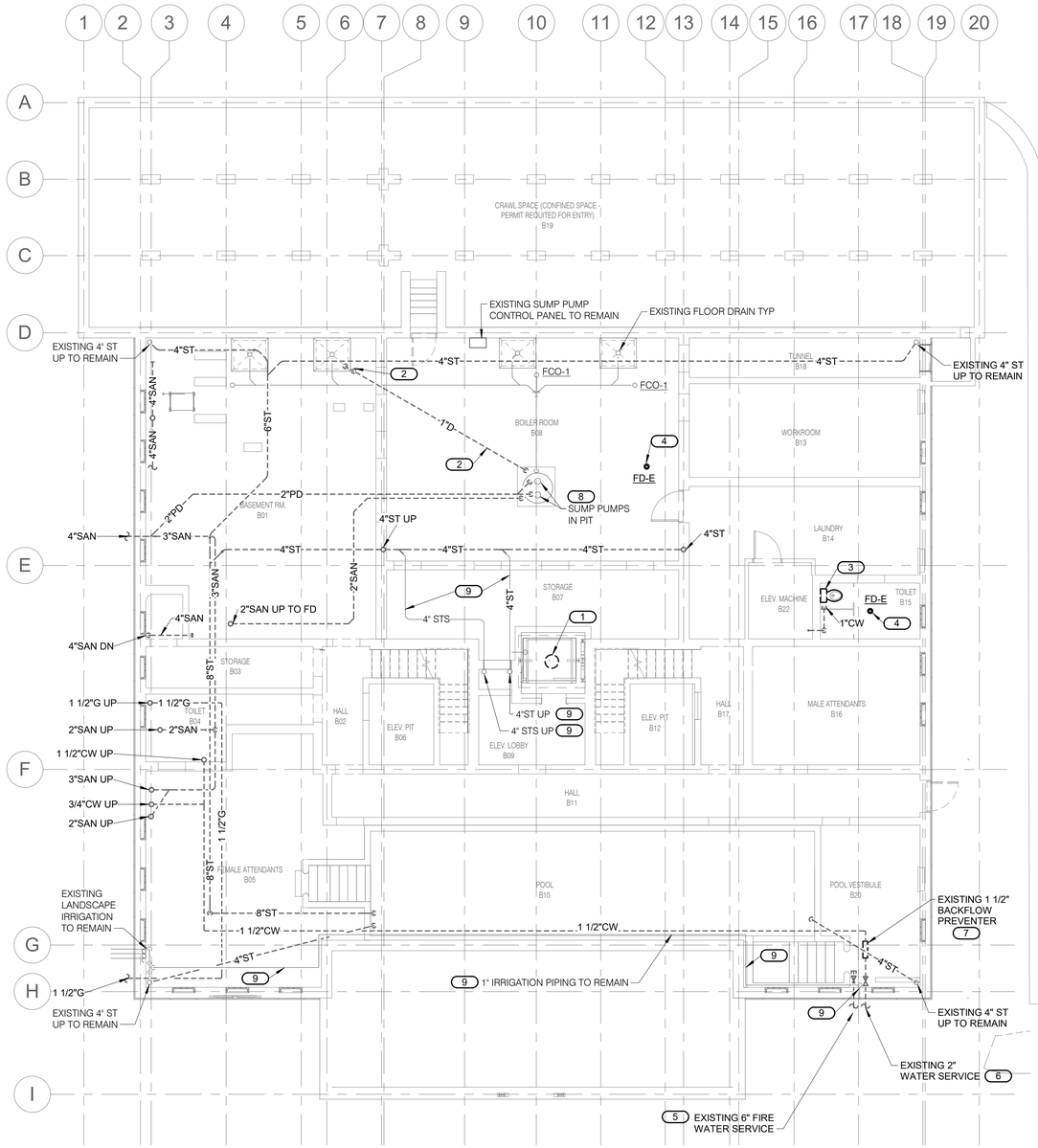
CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — IN KANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODLINE — KANSAS

10.27.2023

10/27/2023 1:15:01 PM

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 P0.0	TITLE OF SHEET MAURICE BATHHOUSE PLUMBING COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 121 OF 286



SHEET NOTES:

1. ALL DARK AND DASHED FIXTURES, EQUIPMENT, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING ELEVATOR SUMP PUMP & ASSOCIATED CONTROLLER.
2. DISCONNECT AND REMOVE EXISITNG SYPHON DRAIN PIPING.
3. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURES AND ASSOCIATED PIPING TO SOURCE.
4. DISCONNECT EXISITNG FLOOR DRAIN BODY AND PATCH FLOOR TO MATCH EXISTING.
5. DISCONNECT AND REMOVE EXISTING FIRE WATER SERVICE PIPING AND PATCH WALL PENETRATION.
6. DISCONNECT AND REMOVE EXISTING 2" DOMESTIC WATER SERVICE AND PATCH WALL PENETRATION.
7. DISCONNECT AND REMOVE EXISTING BACKFLOW PREVENTER.
8. DISCONNECT AND REMOVE EXISTING PUMP DISCHARGE PIPING TO EXISTING PUMPS. EXISTING PUMPS ARE TO REMAIN.
9. EXISTING PIPING TO REMAIN.

1 / PX1.0 BASEMENT PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 26909 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 PX1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT PLUMBING DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 122 OF 286

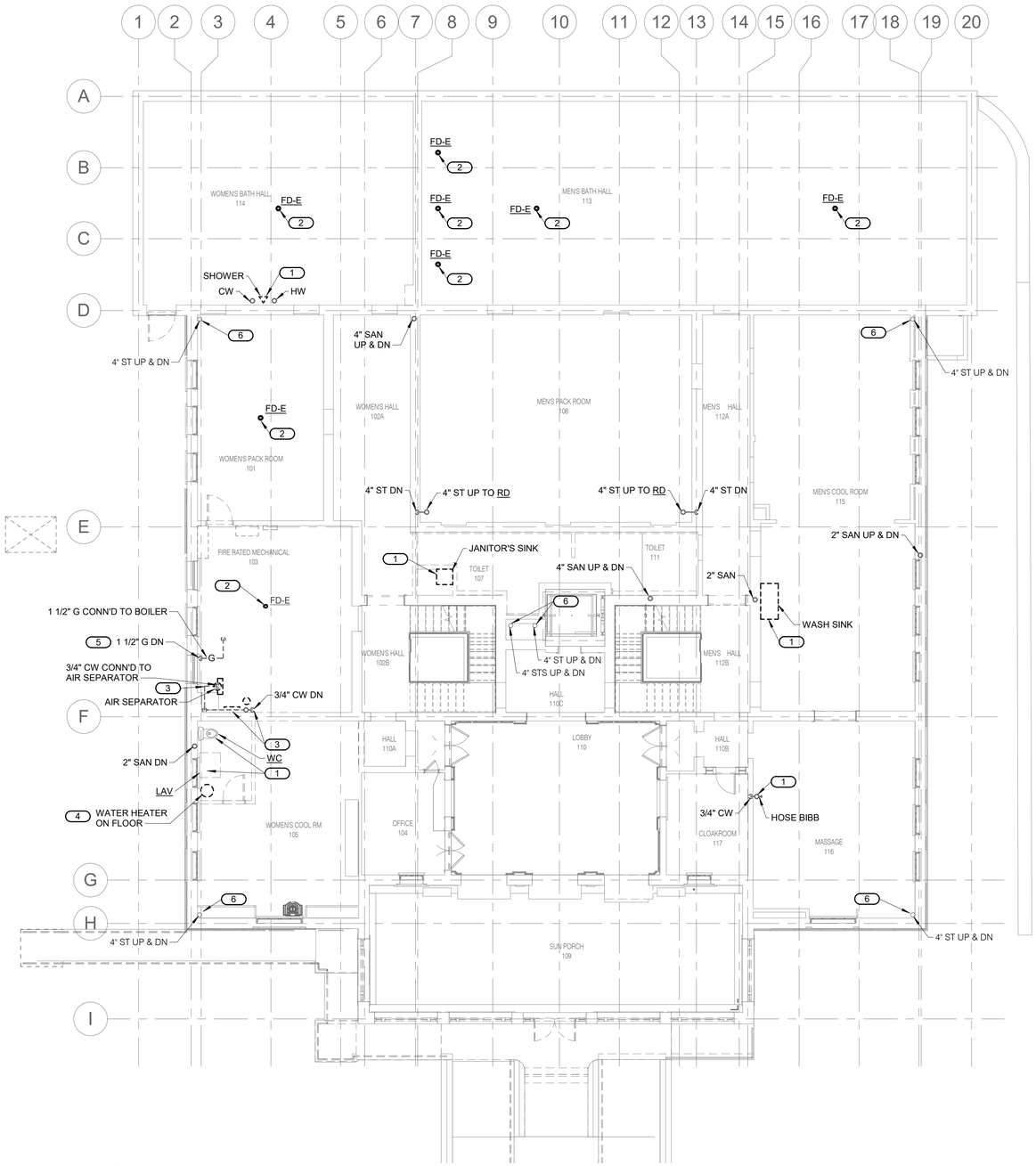
10/27/2023 1:15:18 PM

SHEET NOTES:

1. ALL DARK AND DASHED FIXTURES, EQUIPMENT, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED REMAINING PIPING TO SOURCE AND SUPPORTS. COR RESERVES FIRST RIGHT OF REFUSAL.
2. DISCONNECT AND REMOVE EXISTING FLOOR DRAIN BODY AND PATCH FLOOR TO MATCH EXISTING.
3. DISCONNECT AND REMOVE EXISTING 3/4" BACKFLOW PREVENTER, HEATING WATER SYSTEM MAKEUP WATER ASSEMBLY AND ASSOCIATED PIPING.
4. DISCONNECT AND REMOVE EXISTING WATER HEATER AND ASSOCIATED PIPING.
5. DISCONNECT AND REMOVE EXISTING GAS SERVICE TO BOILER.
6. EXISTING TO REMAIN.



1 / PX1.1 FIRST FLOOR PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 David W. BODENHAMER

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 PX1.1	MAURICE BATHHOUSE FIRST FLOOR PLUMBING DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 123 OF 286
	DATE: 10.27.2023			

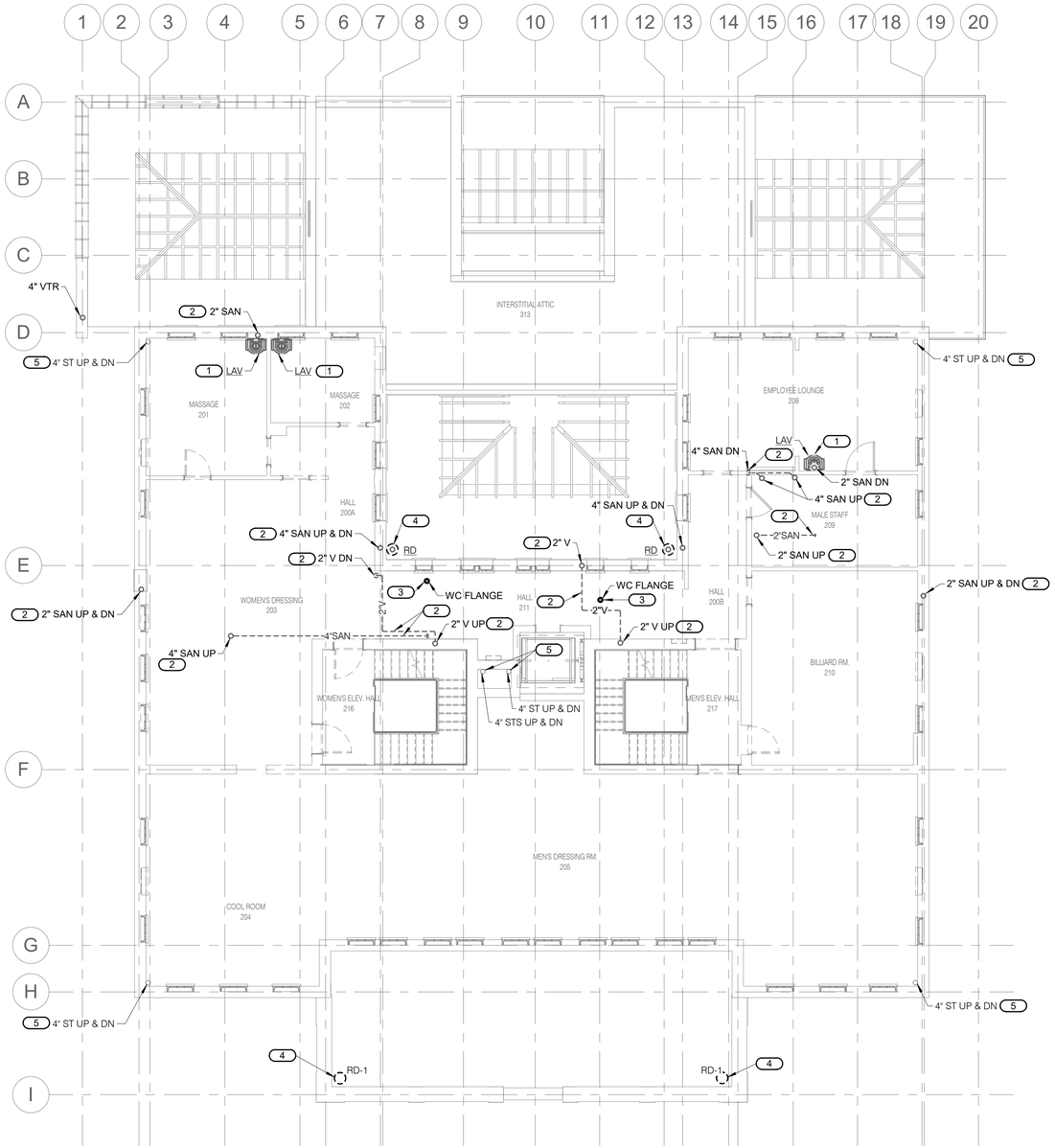
10/27/2023 1:15:20 PM

SHEET NOTES:

1. ALL DARK AND DASHED FIXTURES, EQUIPMENT, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED REMAINING PIPING AND SUPPORTS. CO RESERVES FIRST RIGHT OF REFUSAL.
2. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.
3. REMOVE EXISTING WATER CLOSET FLANGE AND PATCH FLOOR TO MATCH EXISTING.
4. DISCONNECT AND REMOVE EXISTING ROOF DRAIN AS REQUIRED FOR ROOF REPLACEMENT.
5. EXISTING TO REMAIN.



1 / PX1.2 SECOND FLOOR PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

IMEG Consultants Corp. No. 4306 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 PX1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR PLUMBING DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 124 OF 286

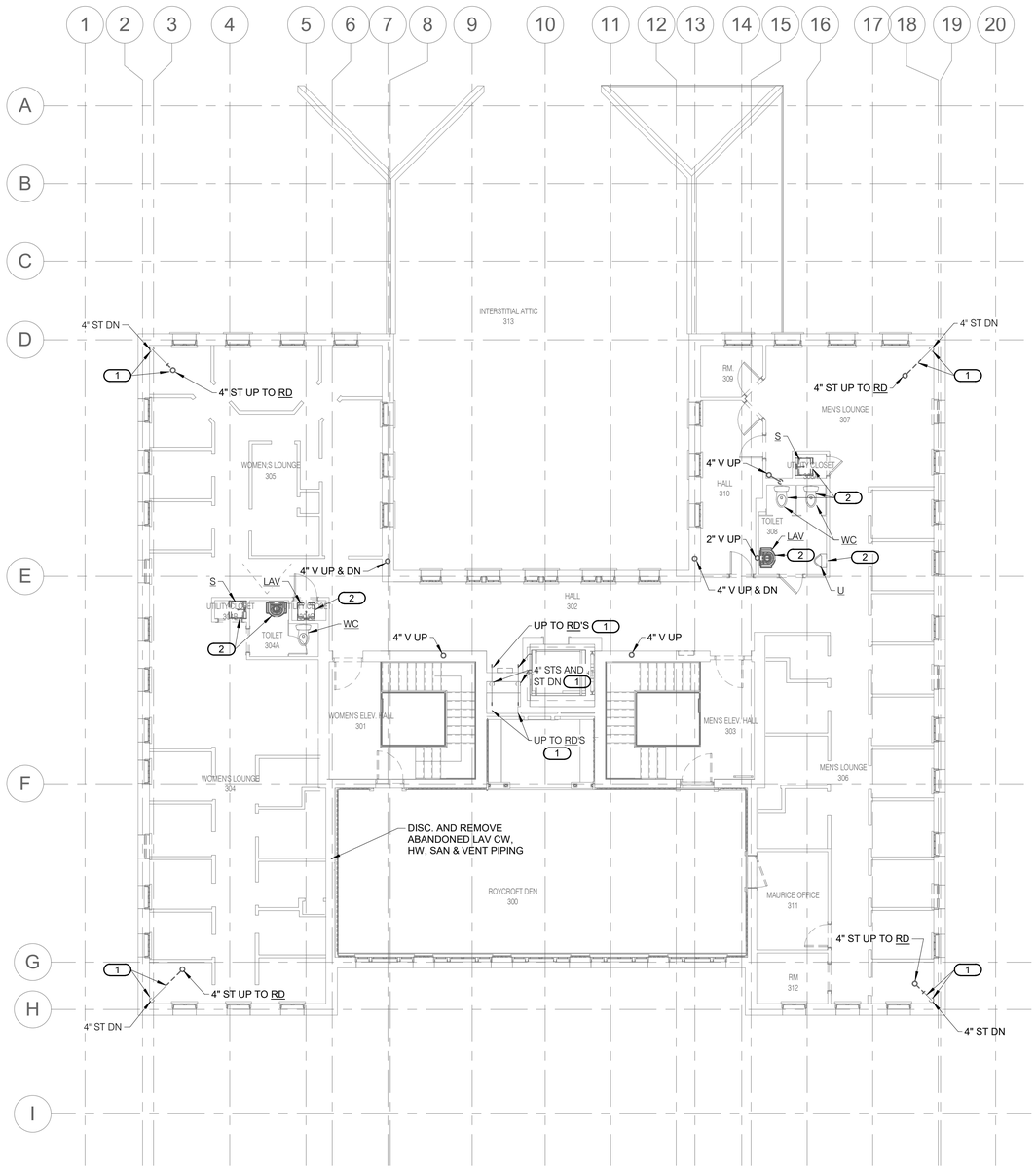
10/27/2023 1:15:21 PM

SHEET NOTES:

1. ALL DARK AND DASHED FIXTURES, EQUIPMENT, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. EXISTING TO REMAIN.
2. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED REMAINING PIPING AND SUPPORTS. CO RESERVES FIRST RIGHT OF REFUSAL.



1 / PX1.3 THIRD FLOOR PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

IMEG Consultants Corp. No. 4306 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHEIMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 PX1.3	TITLE OF SHEET MAURICE BATHHOUSE THIRD FLOOR PLUMBING DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 125 OF 286

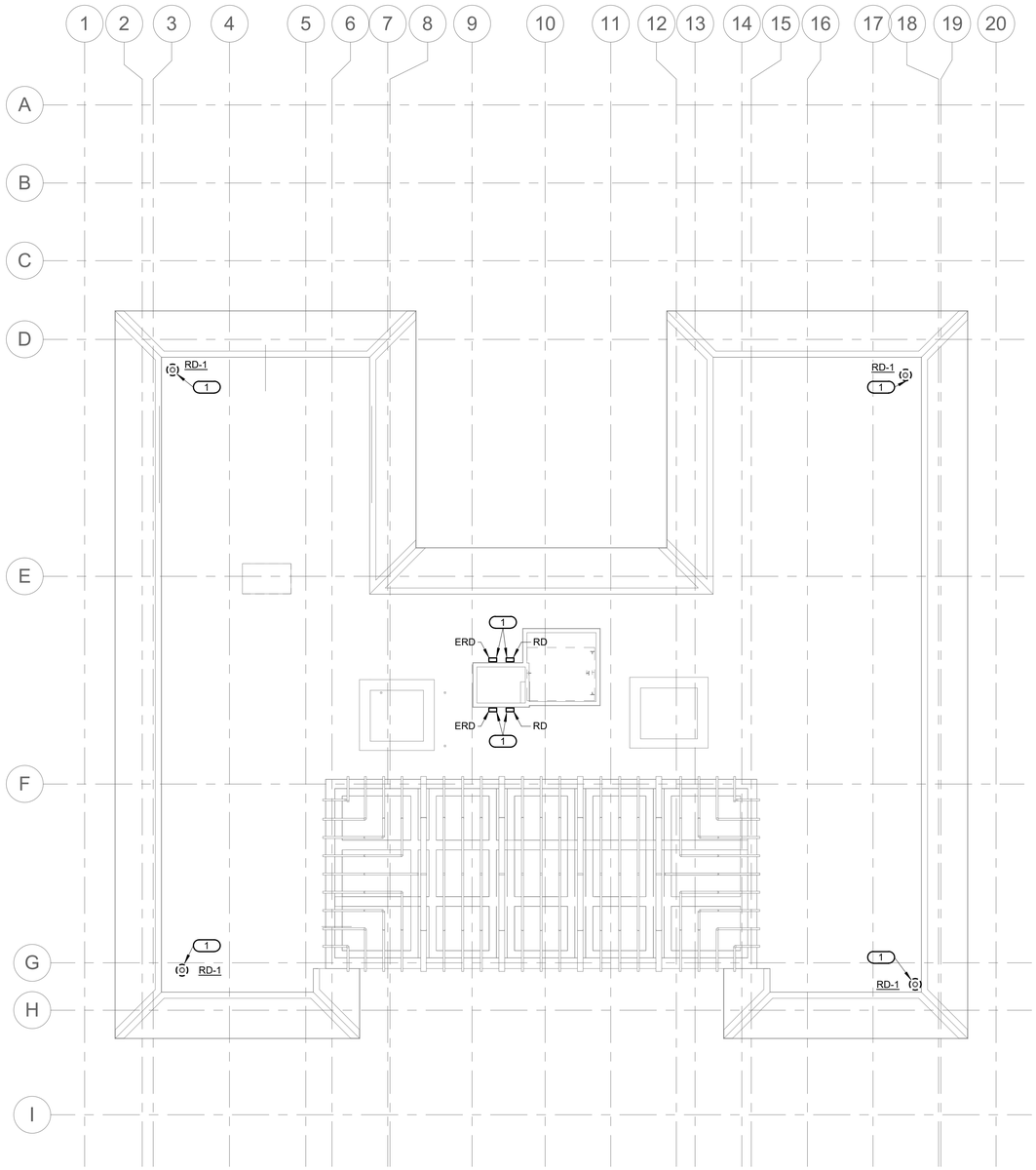
10/27/2023 1:15:23 PM

SHEET NOTES:

1. ALL DARK AND DASHED FIXTURES, EQUIPMENT, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING ROOF DRAIN AS REQUIRED FOR ROOF REPLACEMENT.



1 / PX1.4 ROOF PLUMBING DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 PX1.4	MAURICE BATHHOUSE ROOF PLUMBING DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 126 OF 286
	DATE: 10.27.2023			

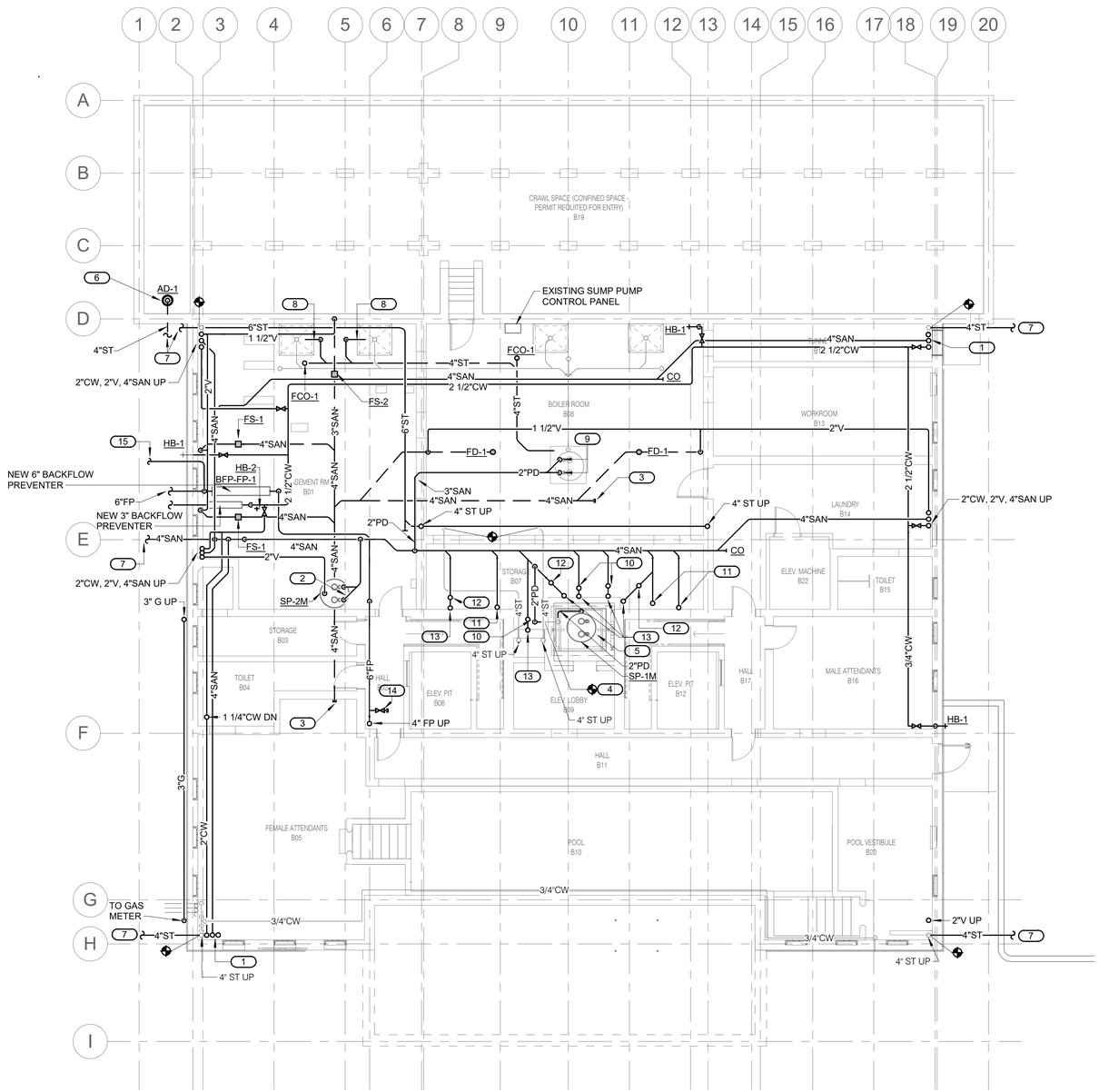
10/27/2023 1:15:24 PM

SHEET NOTES:

1. ROUTING OF PLUMBING EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 4" SAN, 2" VENT AND 2" CW UP. CAP VENT PIPING 6" BELOW 1ST FLOOR SLAB.
2. DUPLEX SANITARY SEWAGE EJECTOR PUMPS IN BASIN.
3. CAP BELOW GRADE SANITARY SEWER IN BLOCKED OUT SECTION FOR FUTURE TENANT EXTENSION.
4. CONNECT NEW 2" PD PIPING TO EXISTING PD PIPING STUBBED OUT OF ELEVATOR SHAFT WALL.
5. INSTALL NEW ELEVATOR OIL MINDER SUMP PUMP IN EXISTING BASIN AND CONNECT TO EXISTING DISCHARGE PIPING. INSTALL NEW CONTROLLER.
6. INSTALL AREA DRAIN INLET BASIN AT LOW POINT OF THERMAL SPRING POOL.
7. STORM WATER PIPING EXTENDED UNDER CIVIL WORK.
8. INSTALL 4" STORM PIPING INLET THROUGH SIDE WALL OF EXISTING CONCRETE BASIN WITH MECHANICAL SLEEVE SEAL 12" MIN ABOVE FLOOR OF BASIN. DROP PIPING BELOW SLAB AND ROUTE TO EXISTING SUMP PUMP BASIN.
9. CONNECT NEW PUMP DISCHARGE PIPING TO EXISTING SUMP PUMPS AND EXTEND TO EXISTING SANITARY MAIN.
10. 4" SAN UP TO FIXTURE ABOVE.
11. 2" SAN UP TO FIXTURE ABOVE.
12. 3" SAN UP TO FIXTURE ABOVE.
13. 2" SAN VENT UP TO FIRST FLOOR.
14. FIRE PROTECTION RISER UP. SPRINKLER ZONE THIS NEW FLOOR.
15. PIPE ROUTING FROM 5'-0" BEYOND BUILDING FOOTPRINT TO THE FIRE DEPARTMENT CONNECTION FDC-1 IS UNDER CIVIL WORK. PROVIDE STORZ CONNECTION AT FDC-1, REFER TO CIVIL DRAWINGS FOR EXACT LOCATION.



1 / P1.0 BASEMENT PLUMBING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLINE HAT ARKANSAS

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 P1.0	MAURICE BATHHOUSE BASEMENT PLUMBING PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 127 OF 286
	DATE: 10.27.2023			

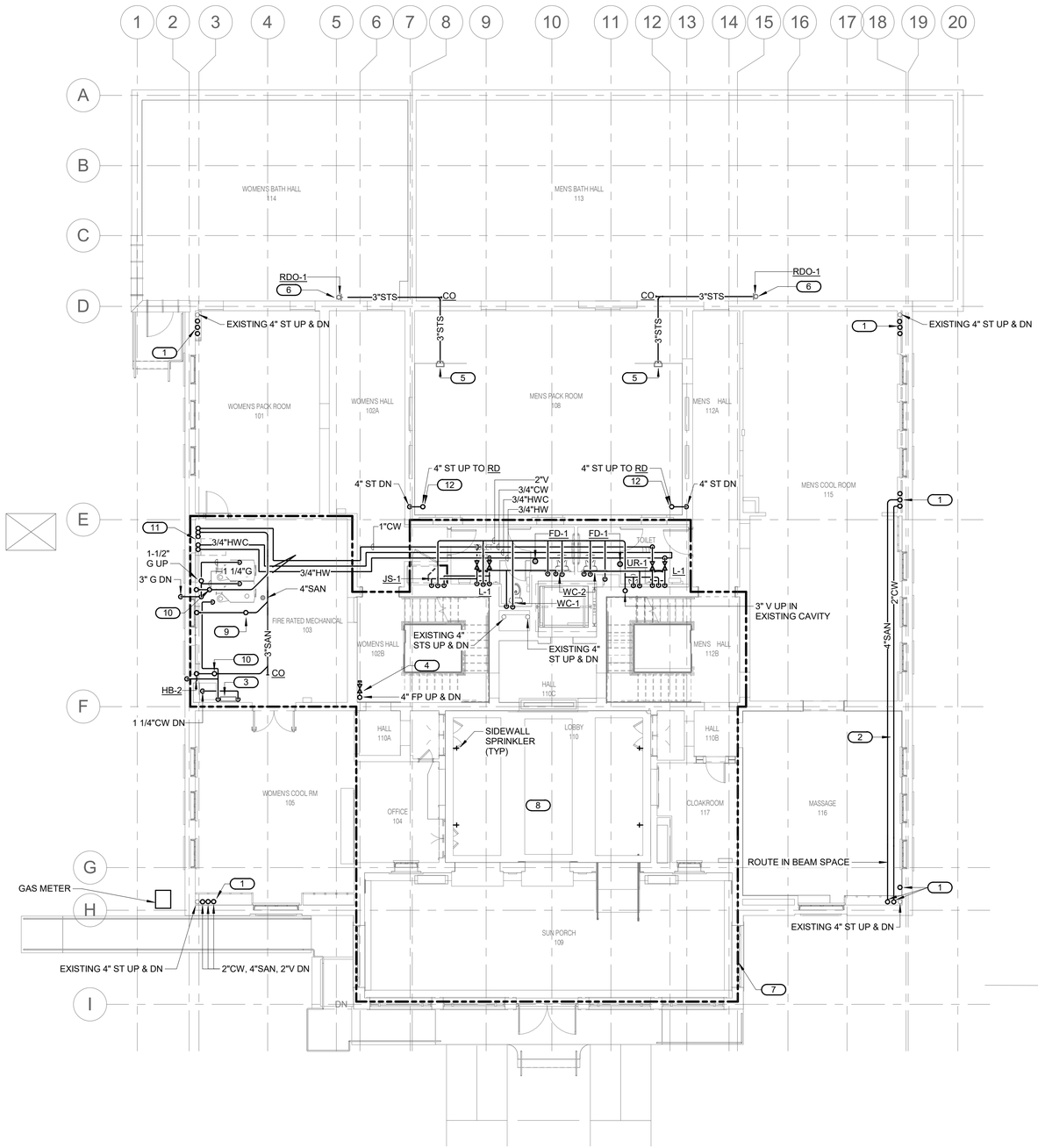
10/27/2023 1:15:04 PM

SHEET NOTES:

1. ROUTING OF PLUMBING EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 4" SAN, 2" VENT & 2" CW RISERS UP & DN.
2. ROUTE PIPING AS HIGH AS POSSIBLE.
3. 1 1/4" BACKFLOW PREVENTER FOR BOILER MAKE-UP. CONNECT TO COLD WATER MAIN & HEATING WATER QUICK AND AUTO FILL SYSTEM.
4. PROVIDE CAPPED ISOLATION VALVE WITH TAMPER SWITCH FOR FUTURE CONNECTIOIN TO THE SPRINKLER SYSTEM THIS FLOOR.
5. CONNECT TO SCUPPER OVERFLOW DRAIN IN ROOF ABOVE. ROUTE THROUGH SIDE WALL.
6. TERMINATE STS PIPING WITH LAMB'S TONGUE TO DISCHARGE TO LOWER ROOF.
7. INSTALL FIRE SUPPRESION SPRINKLER SYSTEM IN THIS AREA. CAP AND FILL WITH NITROGEN. PROVIDE CAPPED BRANCH MAIN(S) TO SERVE REMAINDER OF FLOOR.
8. SUPPLY LOBBY WITH SIDEWALL SPRINKLERS. TWO SPRINKLERS EACH WILL BE LOCATED ON PLAN WEST AND PLAN EAST SIDES OF LOBBY, BEING LOCATED 4.5 FEET AWAY FROM PLAN NORTH AND PLAN SOUTH WALLS AS SHOWN. COORDINATE WITH EXISTING BEAMS & EXACT LOCATION WITH C.O.
9. 4" SAN DN FROM FIXTURE ABOVE.
10. 3" SAN DN FROM FIXTURE ABOVE
11. 4" SAN, 2" VENT & 2" CW RISERS UP & DN. 1" HW & 3/4" HWC UP.
12. ROUTE NEW PIPING AND RISERS IN SAME LOCATION AS THE EXISTING.



1 / P1.1 FIRST FLOOR PLUMBING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORITY — IMEG Consultants Corp. No. 4308 — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODENHAMER

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 P1.1	MAURICE BATHHOUSE FIRST FLOOR PLUMBING PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 128 OF 286
	DATE: 10.27.2023			

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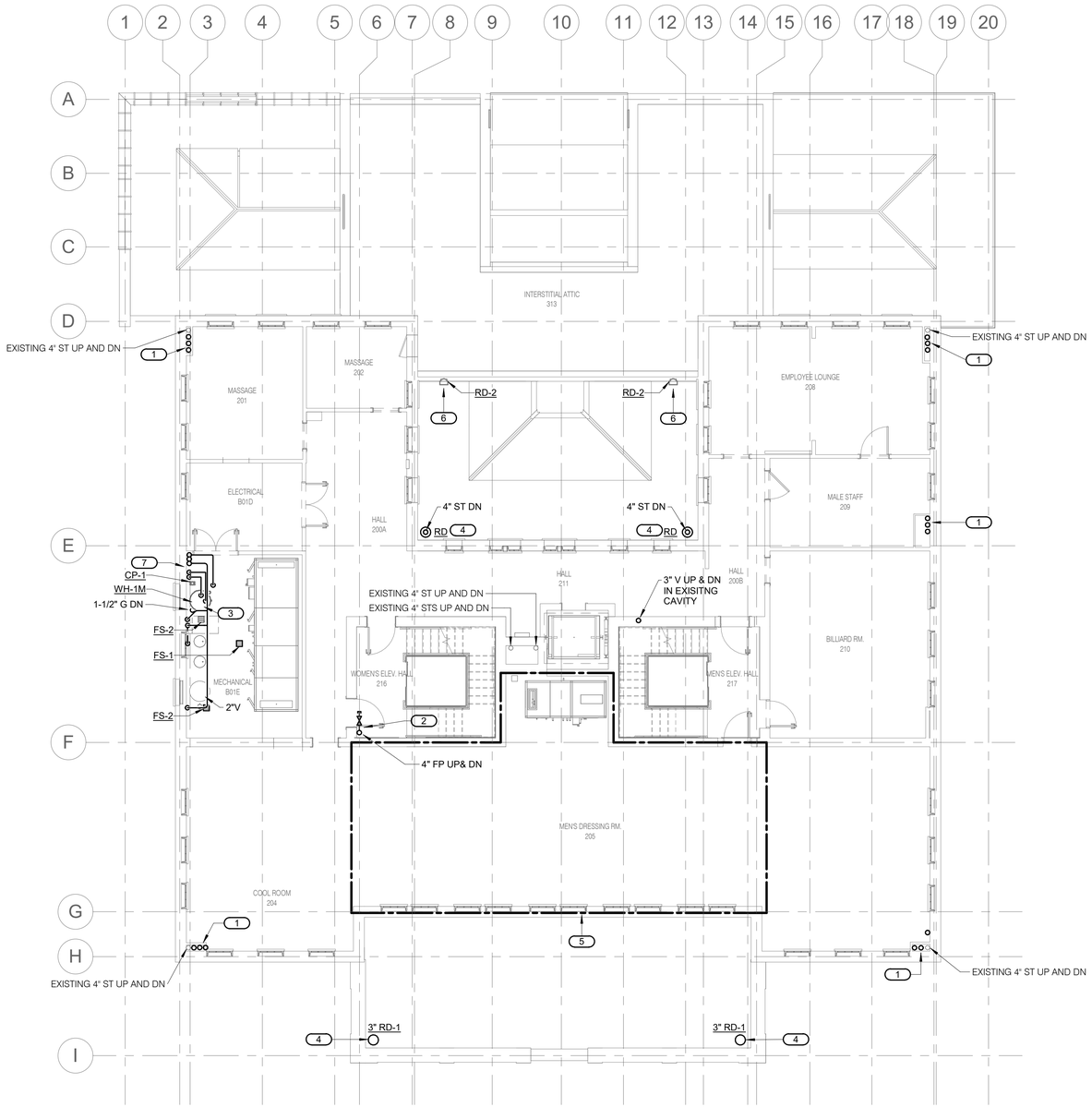


1 / P1.2 SECOND FLOOR PLUMBING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. ROUTING OF PLUMBING EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 4" SAN & 2" VENT UP & DN. 2" CW DN & 1-1/2" UP.
2. FIRE PROTECTION RISER UP & DN. PROVIDE ISOLATION VALVE WITH TAMPER SWITCH & CAP FOR FUTURE SPRINKLER ZONE AND PIPING ON THIS FLOOR.
3. HIGH EFFICIENCY GAS FIRED CONDENSING WATER HEATER AND CIRCULATING PUMP. SET ON 4" MIN. HIGH HOUSEKEEPING PAD.
4. INSTALL NEW ROOF DRAINS AND CONNECT NEW STORM WATER PIPING ROUTED IN SAME LOCATION AS EXISTING. INSTALL NEW ROOF DRAIN IN EXISTING DRAIN LOCATION.
5. NO PIPING MAY PENETRATE THE SECOND FLOOR IN THIS AREA.
6. NEW SCUPPER OVERFLOW DRAIN.
7. 4" SAN & 2" VENT UP & DN. 2" CW DN AND 1-1/2" CW UP. 1" HW & 3/4" HWC DN.

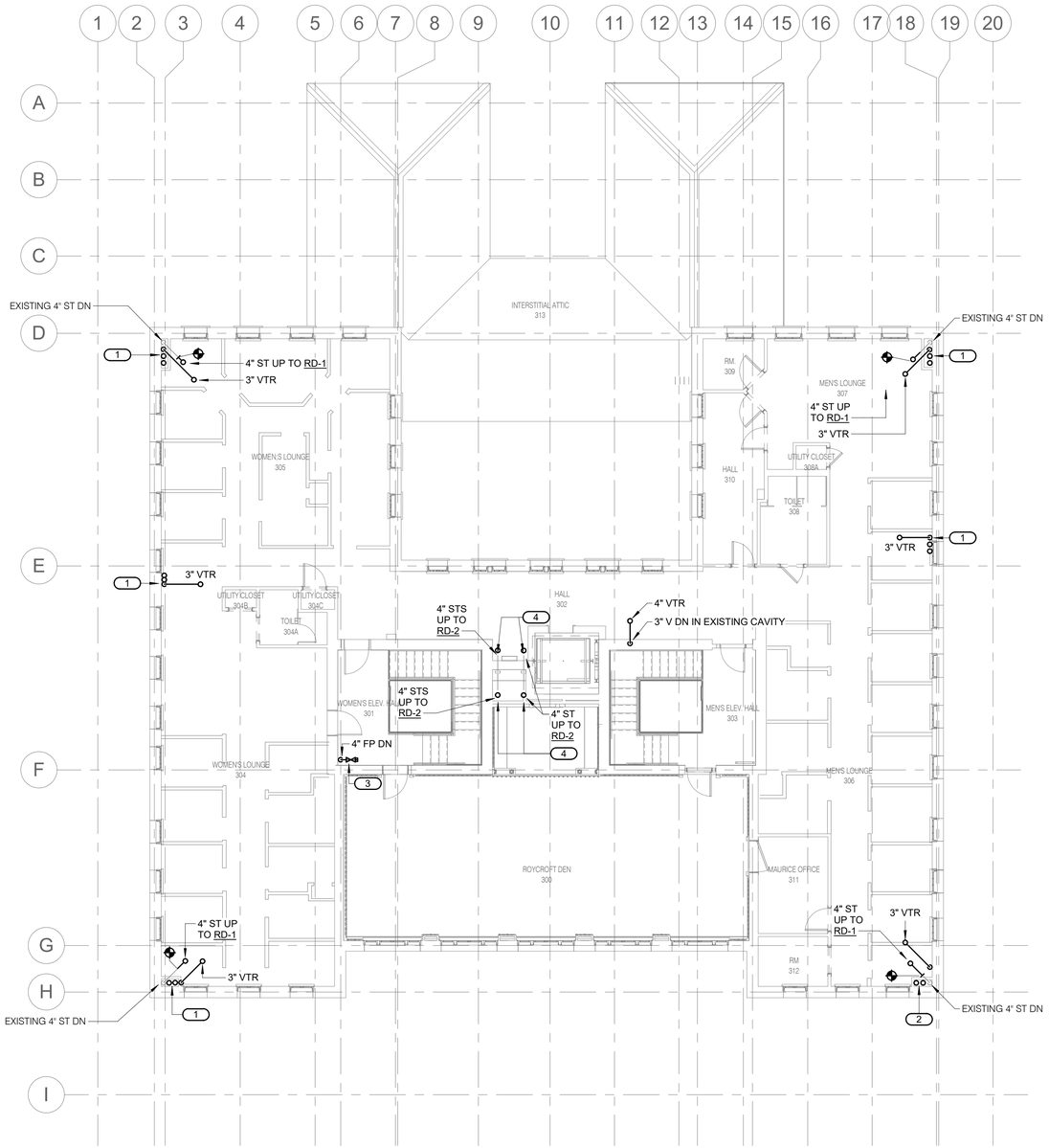
IMEG Consultants Corp. No. 4308 ARKANSAS
CERTIFICATE OF AUTHORIZATION

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ ARKANSAS

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 P1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR PLUMBING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 129 OF 286

10/27/2023 1:15:09 PM



1 / P1.3 THIRD FLOOR PLUMBING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

SHEET NOTES:

1. ROUTING OF PLUMBING EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 4" SAN AND 1-1/2" CW DN. 2" V UP AND DN AND EXTEND TO 3" VTR. STOP SANITARY AND COLD WATER PIPING 6" A.F.F. AND CAP.
2. 4" SAN AND 1-1/2" CW DN. STOP SANITARY AND COLD WATER PIPING 6" A.F.F. AND CAP.
3. FIRE PROTECTION RISER DN. PROVIDE ISOLATION VALVE WITH TAMPER SWITCH AND CAP FOR FUTURE SPRINKLER ZONE AND PIPING ON THIS FLOOR.
4. CONNECT NEW ROOF SCUPPER DRAIN TO EXISTING PIPING

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODLY-HART
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 P1.3	MAURICE BATHHOUSE THIRD FLOOR PLUMBING PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 130 OF 286
	DATE: 10.27.2023			

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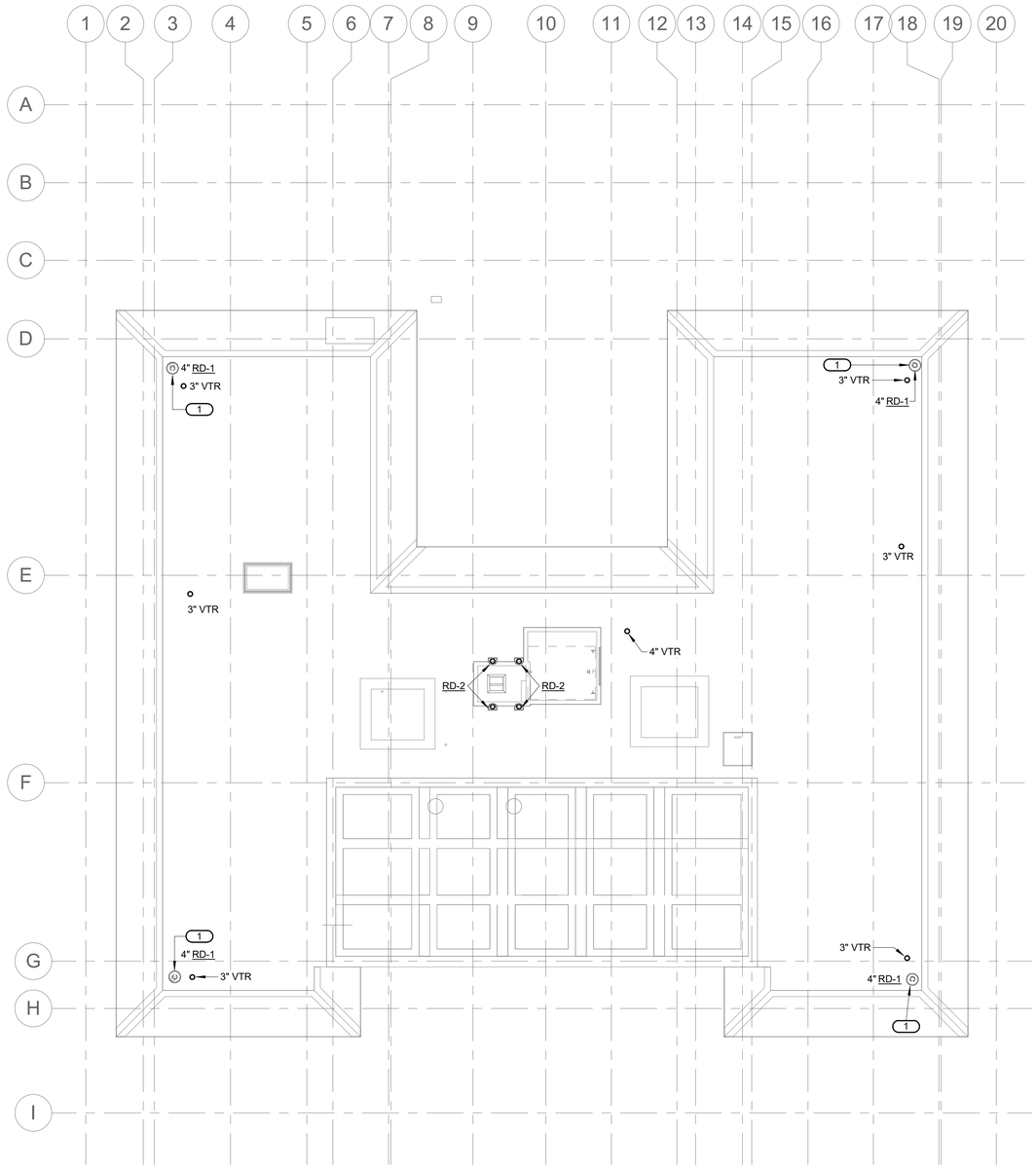


SHEET NOTES:

1. ROUTING OF PLUMBING EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. INSTALL NEW ROOF DRAIN IN SAME LOCATION AS EXISTING AS REQUIRED FROM THE ROOF REPLACEMENT.

1 / P1.4 ROOF PLUMBING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

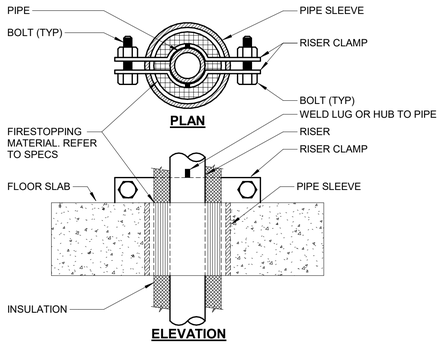
CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODENHAMER — ARKANSAS

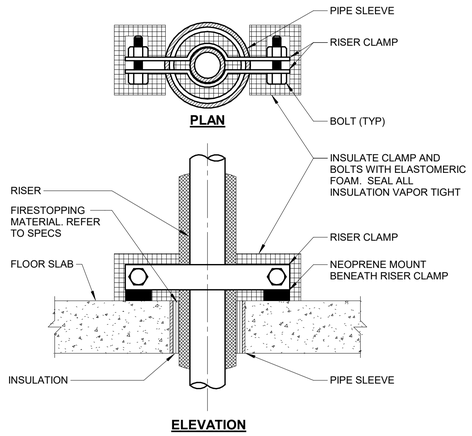
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 P1.4	MAURICE BATHHOUSE ROOF PLUMBING PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318674
	TECH. REVIEW: SGB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 131 OF 286
	DATE: 10.27.2023			

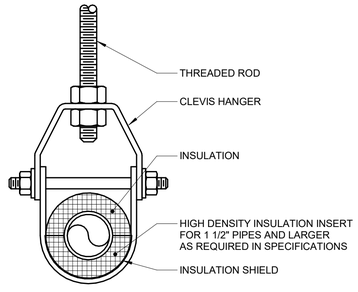
10/27/2023 1:15:12 PM



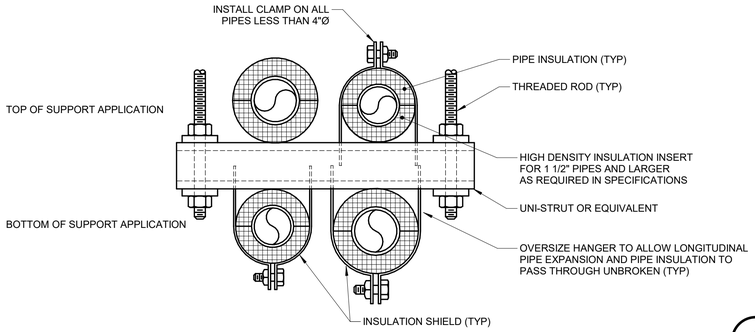
INSULATED HOT PIPE RISER SUPPORT



INSULATED COLD PIPE RISER SUPPORT



INSULATED COLD PIPE HANGER



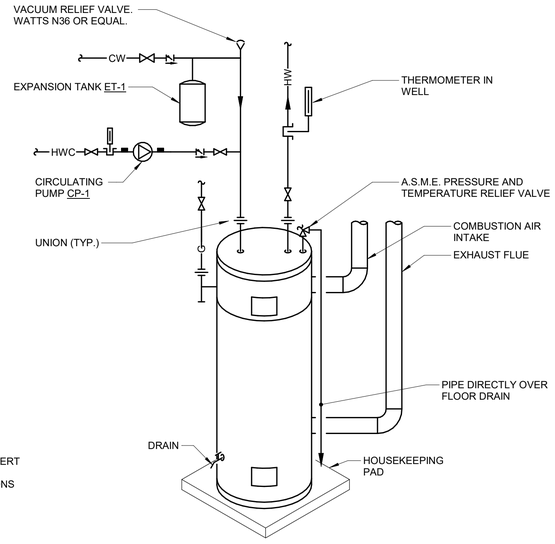
TRAPEZE HANGER

NOTES:

1. REFER TO SPECIFICATION SECTIONS (SECTION 22 05 29-PLUMBING, SECTION 23 05 29-HVAC) & (SECTION 22 07 19-PLUMBING, SECTION 23 07 19-HVAC).

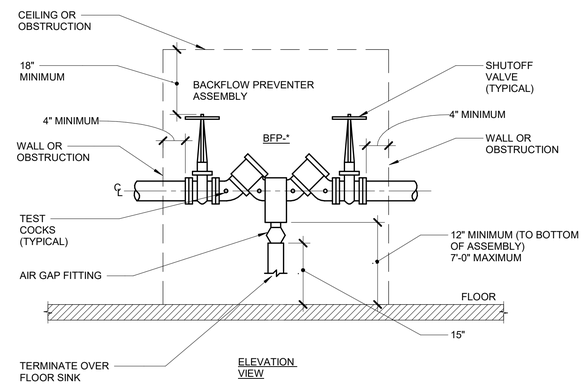
1 PIPE - HANGERS AND SUPPORTS

NO SCALE



2 WATER HEATER DETAIL

NO SCALE

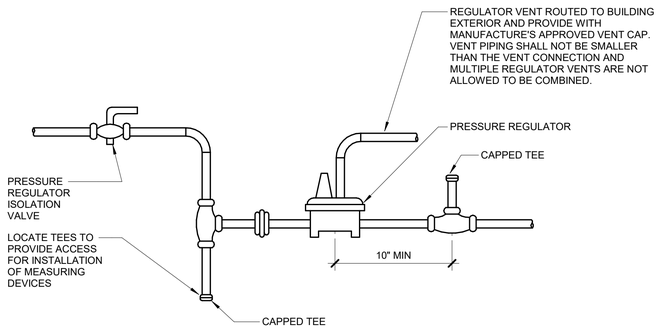


NOTES:

1. REFER TO MATERIAL LIST FOR ASSEMBLY TYPE, SIZE, AND CONFIGURATION.

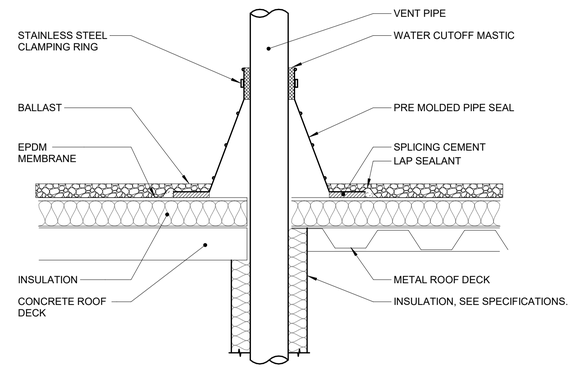
3 BACKFLOW PREVENTER DETAIL

NO SCALE



4 GAS PRESSURE REGULATOR

NO SCALE



NOTES:

1. VENT PIPE SHALL BE A MINIMUM OF 3" DIAMETER UNLESS NOTED LARGER ON FLOOR PLANS. INCREASERS, IF REQUIRED TO TRANSITION TO THE LARGER VTR SIZE, MUST BE INSTALLED AT LEAST 12 INCHES BELOW THE THERMAL ENVELOPE OF THE BUILDING.
2. EXTEND VENT PIPE AT LEAST 7 FEET ABOVE ROOF LEVEL WHEN ROOF AREA IS INTENDED TO BE USED BY THE GENERAL PUBLIC. THIS INCLUDES PROMENADES, OBSERVATION DECKS, ETC. THIS IS NOT REQUIRED FOR ROOFS THAT ARE ACCESSIBLE BY MAINTENANCE PERSONEL ONLY.

5 VENT PIPE FLASHING

NO SCALE

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 P5.0	TITLE OF SHEET MAURICE BATHHOUSE PLUMBING / FIRE SUPPRESSION DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 132 OF 286

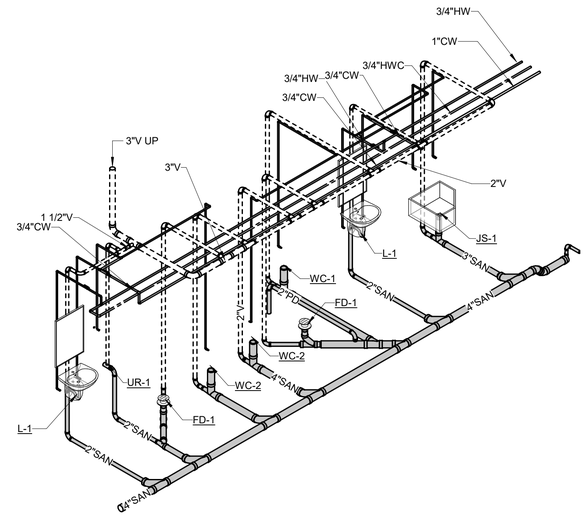
10/27/2023 1:15:12 PM

PLUMBING MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
AD-1	AREA DRAIN - CAST IRON BODY, 4" BOTTOM OUTLET, 10" CAST IRON DOME WITH STAINLESS STEEL MESH SCREEN, BRONZE FLASHING CLAMP.	ZURN (Z348), SMITH (2675), JOSAM (39600), MIFAB (F1820)
BFP-1	BACK FLOW PREVENTER - REDUCED PRESSURE ZONE, LEAD FREE BRONZE CONSTRUCTION, SIZE SAME AS PIPE 1", NON-CORROSIVE INTERNAL PARTS, STAINLESS STEEL SPRINGS, DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN SPRING-LOADED CHECK VALVES, BALL STYLE SHUT-OFF VALVES ON INLET AND OUTLET OF UNIT, AIR GAP DRAIN FITTING, TEST PORTS WITH SHUT-OFF VALVES, RATED FOR 175 PSI AT 33°F TO 140°F, 15 PSI (MAXIMUM) PRESSURE DROP AT 10 FPS, FACTORY TESTED, ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE, APPROVED BY USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. MOUNT WITHIN 60" OF FINISHED FLOOR. ROUTE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM OF EACH UNIT AND ADDITIONAL VALVE UPSTREAM OF EACH STRAINER. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED.	APOLLO (RPLF4A), WATTS (LF919), WILKINS (975XL2)
BFP-FP-1	BACK FLOW PREVENTER - REDUCED PRESSURE ZONE, LEAD FREE BRONZE CONSTRUCTION, SIZE SAME AS PIPE 1", NON-CORROSIVE INTERNAL PARTS, STAINLESS STEEL SPRINGS, DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN SPRING-LOADED CHECK VALVES, BALL STYLE SHUT-OFF VALVES ON INLET AND OUTLET OF UNIT, AIR GAP DRAIN FITTING, TEST PORTS WITH SHUT-OFF VALVES, RATED FOR 175 PSI AT 33°F TO 140°F, 15 PSI (MAXIMUM) PRESSURE DROP AT 10 FPS, FACTORY TESTED, ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LENGTH, APPROVED BY USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. MOUNT WITHIN 60" OF FINISHED FLOOR. ROUTE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM OF EACH UNIT AND ADDITIONAL VALVE UPSTREAM OF EACH STRAINER. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED.	APOLLO (RPLF4A), WATTS (LF919), WILKINS (975XL2)
CP-1	CIRCULATING PUMP - VARIABLE SPEED, LEAD FREE BRONZE OR STAINLESS STEEL CONSTRUCTION, PERMANENTLY LUBRICATED SEALED BEARINGS, MECHANICAL SEAL, OIL LUBRICATED, ECM MOTOR WITH INTEGRATED VARIABLE SPEED CONTROL AND THERMAL OVERLOAD PROTECTION, ONE SET OF DRY CONTACTS FOR STATUS OUTPUT TO BMS, FLANGED CONNECTIONS, RATED FOR 125 PSIG AT 225°F, MANUFACTURER PROVIDED PUMP BODY INSULATION KIT, UL LISTED. 2 GPM @ 25 FEET OF HEAD. MOTOR SHALL BE 1/6 HP. ELECTRICAL REQUIREMENTS - 120V, 1 PHASE (HARD-WIRE)	PUMP - B&G (ECOCIRC XL SERIES), GRUNDFOS (MAGNA SERIES), WILO (STRATOS Z SERIES)
FCO-1	FLOOR CLEANOUT - ADJUSTABLE, CAST IRON HOUSING, ANCHOR FLANGE, TAPERED THREAD PLUG, SECURED NICKEL BRONZE TOP. TOP STYLE SHALL MATCH FLOOR FINISH AS FOLLOWS: UNFINISHED FLOOR - ROUND SOLID SCORIATED TOP TILE OR TERRAZZO - ROUND RECESSED TOP CARPET - ROUND TOP WITH CARPET FLANGE.	ZURN (Z1400), JOSAM (55000), MIFAB (C1100), SMITH (4000), WADE (6000), WATTS (CO-200)
FD-1	FLOOR DRAIN - CAST IRON BODY, NICKEL BRONZE ADJUSTABLE TOP, 7" ROUND, 3" BOTTOM OUTLET, FLASHING COLLAR, DEEP SEAL TRAP. TRAP SEAL - 3", PLASTIC HOUSING WITH FLEXIBLE DIAPHRAGM, SEALING GASKETS, RECLOSES AND SEALS WHEN DISCHARGE IS COMPLETED, ASSE 1072.	FLOOR DRAIN - ZURN (Z-415), SMITH (2005), WADE (1100), JOSAM (30000), WATTS (FD-100), MIFAB (F1100), SUN (FD1000) TRAP SEAL - SURE SEAL (SS), PROVENT (TRAP GUARD), SMITH (QUAD CLOSE), LIQUID BREAKER (GREEN DRAIN), MIFAB (MI-GARD)
FS-1	FLOOR SINK - CAST IRON BODY, NICKEL BRONZE RIM AND GRATE, 8" SQUARE, 4" BOTTOM OUTLET, 6" DEEP RECEPTOR WITH ALUMINUM DOME STRAINER, ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP. TRAP SEAL - 4", PLASTIC HOUSING WITH FLEXIBLE DIAPHRAGM, SEALING GASKETS, RECLOSES AND SEALS WHEN DISCHARGE IS COMPLETED, ASSE 1072.	ZURN (Z1910), SMITH (3101), WADE (W-9110), JOSAM (49300), WATTS (FS-710), SIOUX CHIEF (861-2xXFNWC), SUN (FS2300), MIFAB (FS1520) TRAP SEAL - SURE SEAL (SS), PROVENT (TRAP GUARD), SMITH (QUAD CLOSE), LIQUID BREAKER (GREEN DRAIN), MIFAB (MI-GARD)
FS-2	FLOOR SINK - CAST IRON BODY, NICKEL BRONZE RIM AND GRATE, 8" SQUARE, 3" BOTTOM OUTLET, 6" DEEP RECEPTOR WITH ALUMINUM DOME STRAINER, ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP, DEEP SEAL TRAP. TRAP SEAL - 3", PLASTIC HOUSING WITH FLEXIBLE DIAPHRAGM, SEALING GASKETS, RECLOSES AND SEALS WHEN DISCHARGE IS COMPLETED, ASSE 1072.	ZURN (Z1910), SMITH (3101), WADE (W-9110), JOSAM (49300), WATTS (FS-710), SIOUX CHIEF (861-2xXFNWC), SUN (FS2300), MIFAB (FS1520) TRAP SEAL - SURE SEAL (SS), PROVENT (TRAP GUARD), SMITH (QUAD CLOSE), LIQUID BREAKER (GREEN DRAIN), MIFAB (MI-GARD)
HB-1	HOSE BIBB - FREEZELESS WALL HYDRANT, BRASS VALVE BODY AND SEAT, STANDARD FINISH, NON-FERROUS METAL STEM, AUTOMATIC DRAINING, VACUUM BREAKER, 3/4" MALE HOSE THREAD, WALL CLAMP, CONCEALED IN FLUSH MOUNTED LOCKABLE WALL BOX, KEY OPERATED, ASSE 1019 OR 1052 LISTED AND APPROVED. VERIFY NUMBER OF KEY OPERATORS TO BE PROVIDED WITH OWNER, BOX COVER AND HYDRANT SHALL USE A COMMON KEY. MOUNT AT 18" ABOVE GRADE UNLESS NOTED OTHERWISE ON DRAWINGS.	PRIER (C-634BX), WOODFORD (B67), ZURN (Z1300), WATTS (HY-725), MIFAB (MHY-20), SMITH (5509QT), WADE (8700)
HB-2	HOSE BIBB - FOR INDOOR USE, BRASS CONSTRUCTION, STANDARD FINISH, VACUUM BREAKER, 3/4" MALE HOSE THREAD, METAL WHEEL HANDLE, ASSE 1011 LISTED AND APPROVED. MOUNT AT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON DRAWINGS.	PRIER (C-155NP.75), WOODFORD (24), CHICAGO FAUCET (293), ACORN (8121), T&S BRASS (B-0736), MIFAB (MHY-90)
JS-1	MOP BASIN - NEO-ANGLE CORNER STYLE, PRECAST TERRAZZO, 24"x24"x12", 6" DEEP FRONT, STAINLESS STEEL INTEGRAL DRAIN WITH REMOVABLE STRAINER, 3" OUTLET, STAINLESS STEEL THRESHOLD. TRIM - EXPOSED TWO HANDLE MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATED FINISH, SINGLE WING HANDLES, 1/4 TURN CERAMIC DISC CARTRIDGE, 3/4" HOSE THREAD SPOUT WITH ASSE 1053 RATED INTEGRAL VACUUM BREAKER, WALL BRACE, PAIL HOOK, CHECK STOPS OR INLINE CHECK VALVES TO PREVENT THERMAL CROSSOVER. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. ACCESSORIES - MOP HANGER, HOSE AND HOSE BRACKET, DEEP SEAL TRAP TWO 24" WIDE STAINLESS STEEL WALL GUARD	MOP BASIN - FIAT (TSBC1610), ACORN (TNC-24), CREATIVE INDUSTRIES (MCNC24), WILLIAMS (SBC-1700) TRIM - DELTA (28C2383), AMERICAN STANDARD (8344.012), CHICAGO FAUCETS (897-CP), MOEN (8124), SPEAKMAN (SC-5812), SYMMONS (S-2490), ZURN (Z841M1-XL) VACUUM BREAKER - WATTS (8A), OR APPROVED EQUAL
L-1	LAVATORY - ACCESSIBLE, WALL MOUNTED, WHITE VITREOUS CHINA, 20"x18", 4" HIGH CONTOURED BACKSPLASH, SINGLE FAUCET HOLE, DRILLED FOR CONCEALED ARM CARRIER. LAVATORY TRIM - LAVATORY TRIM - SINGLE HANDLE MIXING FAUCET, BRASS CONSTRUCTION, CHROME-PLATED FINISH, CONVENTIONAL SPOUT WITH AERATOR, WASHERLESS PUSH-PULL LEVER HANDLE, SINGLE HOLE, CERAMIC DISC CARTRIDGE, PERFORATED GRID STRAINER WITH 1-1/4" 17 GAUGE TAILPIECE. MAXIMUM FLOW TO BE 0.5 GPM IN COMPLIANCE WITH ENERGY POLICY ACT OF 2005 AND ASME/ANSI STANDARD A112.18.1M. FAUCET SHALL COMPLY WITH FEDERAL ACT S.3874. PROVIDE RESTRICTIVE DEVICE AS REQUIRED. PROVIDE ASSE 1070 MIXING VALVE TO MIX HOT AND COLD WATER SET OUTLET AT 110 DEGREES INSULATION KIT - PRE-MANUFACTURED FOR P-TRAP, STOP VALVES AND SUPPLY LINES. ACCESSORIES - QUARTER-TURN 3/8" CHROME PLATED HEAVY BRASS ANGLE SUPPLY LOOSE KEY STOPS, CHROME PLATED SOFT COPPER SUPPLY LINES, DRAIN AND OFFSET TAILPIECE, 1-1/4" 17 GAUGE CAST BRASS P-TRAP, SUPPORT CARRIER. MOUNT LAVATORY WITH SUPPORT CARRIER BOLTED SECURELY TO FLOOR. TOP OF RIM SHALL BE AT 34" ABOVE FLOOR IN COMPLIANCE WITH LATEST ADA STANDARD. PROVIDE 29" MINIMUM CLEARANCE FROM FLOOR TO BOTTOM OF APRON IN COMPLIANCE WITH LATEST ANSI A117.1 AND ADA STANDARDS. ARMAFLEX WITH TAPE IS NOT ACCEPTABLE IN LIEU OF INSULATION KIT.	LAVATORY - DURAVIT - 23106500002 LAVATORY TRIM - KOHLER (K-21648-4-CP), DELTA (22C631), AMERICAN STANDARD (751051.002), CHICAGO FAUCET (3511-E2805AB), MOEN (9417), ZURN (Z82200-XL-3M) INSULATION KIT - TRUEBRO (LAV-GUARD), BROCAR PRODUCTS (TRAP WRAP), MCGUIRE (PROWRAP), PLUMBEREX (PRO-EXTREME)

PLUMBING MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
RD-1	ROOF DRAIN - CAST IRON BODY, SECURED CAST IRON DOME, 15" ROUND, BOTTOM OUTLET, FLASHING CLAMP, GRAVEL STOP, UNDERDECK CLAMP, BEARING PAN, ADJUSTABLE EXTENSION TO MATCH INSULATION THICKNESS, OUTLET SIZE AS LISTED ON DRAWINGS.	ZURN (Z-100), SMITH (1010), WADE (3000), JOSAM (21500), WATTS (RD-300), MIFAB (R1200), SUN (RD4000), FROET (200C)
RD-2	ROOF DRAIN - CAST IRON BODY, PARAPET TYPE, REMOVABLE SLOPING NICKLE BRONZE GRATE, FLASHING CLAMP, SHALLOW SUMP WITH FLASHING FLANGE AND SIDE OUTLET THREADED CONNECTION, 4" OUTLET	ZURN (Z160), JOSAM (24700)
RDO-1	ROOF DRAIN OUTLET - LAMBS TONGUE DOWNSPOUT NOZZLE, BRONZE BODY, INTEGRAL ANCHORING FLANGE, OUTLET SIZE AS LISTED ON DRAWINGS.	ZURN (Z-199), SMITH (1770), WADE (3940), JOSAM (25010), WATTS (RD-940), MIFAB (R1940), SUN (RD4500)
SP-1M	SUMP PUMP - SIMPLEX SUBMERSIBLE, SINGLE-STAGE, SINGLE SEAL, CENTRIFUGAL, END-SUCTION PUMP, STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED. CASING - CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 2" VERTICAL DISCHARGE. IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 3/4" SOLIDS MINIMUM. SHAFT - STEEL OR STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED SLEEVE OR BALL BEARINGS, CARBON AND CERAMIC SEAL. MOTOR - 3450 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE WITH GROUNDING PLUG, MAXIMUM LENGTH 6 FEET PER THE NATIONAL ELECTRICAL CODE, COORDINATE RECEPTACLE LOCATION WITH ELECTRICAL CONTRACTOR. CAPACITY: 50 GPM, 27 FEET OF HEAD. ELECTRICAL REQUIREMENTS - 1/2 HP, 120V, 1 PHASE CONTROLS - HYDROCARBON SENSING PUMP SWITCH WITH HIGH WATER ALARM, NEMA 4X ENCLOSURE, HIGH WATER FLOAT/CONTACT SWITCH WITH WATER PROOF CABLE OF SUFFICIENT LENGTH, HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, 6 FOOT 120V POWER CORD, UL LISTED. FLOATS SHALL BE MERCURY-FREE.	PUMP - WEIL (1456-OSS), ZOELLER (160 SERIES), BARNES (EH-L SERIES), GOULDS (HSU SERIES), STANCOR (SE) CONTROLS - WEIL (OIL SMART PUMP SWITCH AND OIL SMART ALARM SWITCH), SEEWATER OSS (SERIES/OSA-05), STANCOR (OIL MINDER), ZOELLER (940 SERIES)
SP-2M	SEWAGE PUMP - DUPLEX SUBMERSIBLE, SINGLE-STAGE, CENTRIFUGAL, END-SUCTION PUMP[S], STAINLESS STEEL FASTENERS, GUARDS AND HANDLES, UL LISTED. CASING: CAST IRON, INTEGRAL SUPPORT FEET, MINIMUM 3" FLANGED DISCHARGE FOR USE WITH GUIDE RAIL REMOVAL SYSTEM. IMPELLER: CAST IRON STATICALLY AND DYNAMICALLY BALANCED, SEMIOPEN NONCLOG DESIGN, KEYED AND SECURED TO SHAFT, PASSES 2" SOLIDS MINIMUM. SHAFT: STAINLESS STEEL WITH FACTORY SEALED, GREASE-LUBRICATED BALL BEARINGS, CARBON AND CERAMIC SEAL. MOTOR: 1750 RPM, OIL OR AIR-FILLED, HERMETICALLY SEALED WITH AUTO THERMAL OVERLOAD PROTECTION, THREE CONDUCTOR WATERPROOF POWER CABLE OF SUFFICIENT LENGTH. CAPACITY (EACH PUMP): 75 GPM, 40 FEET OF HEAD. ELECTRICAL REQUIREMENTS - 3 HP, 208 VOLTS, 3 PHASE CONTROLS - WALL MOUNTED NEMA 4X ENCLOSURE, DUPLEX (4) FLOAT WITH AUTOMATIC ALTERNATOR TO LEAD-LAG PUMPS AND ALSO ALLOW BOTH PUMPS TO RUN DURING HIGH LOAD, RUN LIGHT, TEST-OFF-AUTO AND DISCONNECTING MEANS FOR EACH PUMP, HIGH WATER ALARM WITH HORN, STROBE, SILENCING BUTTON AND DRY CONTACTS FOR ALARM AND PUMP STATUS, UL LISTED. FLOATS SHALL BE MERCURY-FREE. BASIN - POLYSTER REINFORCED GLASS FIBER BASIN, 48" ID x 84" DEPTH. INCLUDE PENETRATION KITS FOR FIELD INSTALLATION.	PUMP - WEIL (5215) CONTROLS - SAME AS PUMP MANUFACTURER BASIN - FIBERBASIN (42"x84")
UR-1	URINAL - WALL MOUNTED, WHITE VITREOUS CHINA, FLUSH VALVE TYPE, WASHOUT ACTION, ELONGATED RIM, EXTENDED SIDE SHIELDS, 3/4" TOP SPUD, 2" OUTLET. FLUSH VALVE - FLUSH VALVE - EXPOSED, MANUAL OPERATION, 0.125 GALLONS PER FLUSH, 11-1/2" ROUGH-IN, CHROME-PLATED, 3/4" I.P.S. SCREWDRIVER STOP-CHECK VALVE WITH VANDAL RESISTANT CAP, HIGH BACK PRESSURE VACUUM BREAKER, NON-HOLD-OPEN HANDLE, ADJUSTABLE TAILPIECE, SPUD COUPLING AND FLANGE, WALL FLANGE WITH SET SCREW, CHLORAMINE RESISTANT MATERIALS, 3-YEAR WARRANTY. CONTRACTOR OPTION: COMBINATION URINAL/FLUSH VALVE PACKAGED SYSTEM BY AMERICAN STANDARD, KOHLER, SLOAN, OR ZURN ACCESSORIES - SUPPORT CARRIER WITH TOP AND BOTTOM BEARING PLATES. MOUNT WITH CARRIER BOLTED SECURELY TO FLOOR. TOP OF BOWL RIM SHALL BE AT 22" ABOVE FLOOR. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.	URINAL - AMERICAN STANDARD (6590.001), KOHLER (K-4991-ET), SLOAN (SU-1006/SU-1009), GERBER (27-780), TOTO (UT447), ZURN (Z5750) FLUSH VALVE - ZURN (Z6003AV-ULF), SLOAN (186-0.125), AMERICAN STANDARD (6045.013), KOHLER (K-13520-CP), AMTC (MF-700-U18)
WC-1	WATER CLOSET - FLOOR MOUNTED, DUAL-FLUSH TANK TYPE, PRESSURE ASSISTED, SIPHON JET, WHITE VITREOUS CHINA, CLOSE COUPLED, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, CHROME PLATED TRIP LEVER, 1.6/1.1 GALLONS PER FLUSH (MAXIMUM) IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992. SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC, SELF-SUSTAINING HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS. ACCESSORIES - QUARTER-TURN 3/8" CHROME-PLATED HEAVY BRASS ANGLE SUPPLY WITH LOOSE-KEY STOP, CHROME-PLATED SOFT COPPER SUPPLY LINE. TOP OF SEAT SHALL BE AT 16"-17" ABOVE FINISHED FLOOR. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.	WATER CLOSET - ZURN (Z5571), GERBER (DF-20-110) SEAT - BEMIS (1655SSCT), CHURCH (9500C), BENEKE (533), KOHLER (K-4666-C), OLSONITE (95), SAME AS WATER CLOSET MANUFACTURER
WC-2	WATER CLOSET - ACCESSIBLE, FLOOR MOUNTED, DUAL-FLUSH TANK TYPE, PRESSURE ASSISTED, SIPHON JET, WHITE VITREOUS CHINA, CLOSE COUPLED, ELONGATED BOWL, BOLT CAPS, 12" ROUGH-IN, CHROME PLATED TRIP LEVER, 1.6/1.1 GALLONS PER FLUSH (MAXIMUM) IN COMPLIANCE WITH ENERGY POLICY ACT OF 1992. SEAT - WHITE, EXTRA HEAVY, OPEN FRONT, INJECTION MOLDED SOLID PLASTIC, SELF-SUSTAINING HINGE, STAINLESS STEEL OR PLATED STEEL POSTS AND NUTS. ACCESSORIES - QUARTER-TURN 3/8" CHROME-PLATED HEAVY BRASS ANGLE SUPPLY WITH LOOSE-KEY STOP, CHROME-PLATED SOFT COPPER SUPPLY LINE. TOP OF SEAT SHALL BE AT 17"-19"ABOVE FINISHED FLOOR. FLUSH HANDLE SHALL BE LOCATED ON THE WIDE SIDE OF THE TOILET STALL AND OPERATE WITH NO GREATER THAN A 5 LB FORCE IN COMPLIANCE WITH LATEST ADA STANDARDS. VERIFY EQUIPMENT REQUIREMENTS AND ROUGH-IN LOCATIONS.	WATER CLOSET - ZURN (Z5561), GERBER (DF-21-117) SEAT - BEMIS (1655SSCT), CHURCH (9500C), BENEKE (533), KOHLER (K-4666-C), OLSONITE (95), SAME AS WATER CLOSET MANUFACTURER
WH-1M	WATER HEATER - GAS FIRED, CONDENSING, VERTICAL, MINIMUM 94% EFFICIENT, SEALED COMBUSTION, METAL CABINET, BAKED ENAMEL FINISH, ASME STAMPED GLASS-LINED STEEL OR STAINLESS STEEL TANK, 160 PSI WORKING PRESSURE, FIBERGLASS OR FOAM INSULATION, BRASS WATER CONNECTIONS AND DRAIN VALVE, ASME APPROVED T&P RELIEF VALVE, MULTIPLE MAGNESIUM ANODE RODS, VENT PIPING KIT, HIGH TEMPERATURE GAS SHUT OFF, AUTOMATIC WATER THERMOSTAT, BUILT-IN GAS REGULATING VALVE, ADJUSTABLE TEMPERATURE RANGE, 3-YEAR WARRANTY, UL LISTED, COMPLIANT TO NAECA, ASHRAE 90.1 AND ASHRAE 90A. 60 GALLON CAPACITY, 120,000 BTUH INPUT NATURAL GAS ELECTRICAL REQUIREMENTS - 120V CIRCUIT FOR BLOWER AND CONTROLS, HARD-WIRED SET WATER TEMPERATURE AT 120°F. SET SUPPLY GAS PRESSURE AT 7" W.C. CONDENSATE DRAIN NEUTRALIZATION TANK - RATED FOR MAXIMUM 4,000 MBH WATER HEATER AND 32 GPH CONDENSATE FLOW, POLYPROPYLENE RECTANGULAR TANK, 1"FNPT INLET AND OUTLET, REMOVABLE ACCESS COVER FOR CLEANING AND PELLET REPLACEMENT, 12.5 LBS PH NEUTRALIZING PELLETS.	A.O. SMITH (CYCLONE Mxi BTH-120) NEUTRALIZATION TANK - JJM BOILER WORKS (NB-4), NUTRASAFE (CN4T)



1 RESTROOM RISERS
NO SCALE

PIPE INSULATION SCHEDULE (PLUMBING)

GENERAL NOTES:
1. REFER TO THE SPECIFICATIONS FOR TYPE DESCRIPTIONS AND JACKETING REQUIREMENTS. VALUES LISTED BELOW ARE BASED ON ASHRAE / IECC REQUIREMENTS.
2. TYPE A INSULATION IS NOT ALLOWED IN NON-AIR CONDITIONED SPACES, SUCH AS MECHANICAL ROOMS, EXTERIOR, ATTICS, ETC.
3. TYPE B INSULATION GREATER THAN 1" THICK SHALL BE INSTALLED USING MULTIPLE LAYERS OF 3/4" OR 1" WITH STAGGERED SEAMS.
4. TYPE E IS NOT ALLOWED IN RETURN AIR PLENUMS, UNLESS LISTED AND LABELED AS 25/50 RATED PER ASTM E84/UL723
5. TYPE G 4" SHALL BE INSTALLED IN TWO (2) 2" LAYERS WITH STAGGERED SEAMS.
6. PROVIDE RIGID INSERT AT HANGERS, EITHER PRE-MANUFACTURED COUPLINGS (REFER TO PIPE HANGER AND SUPPORTS SPECIFICATIONS) OR TYPE C, D, OR E INSULATION. SEE SPEC. FOR MORE DETAILS.
7. DIRECT BUIRED PIPING SHALL ONLY USE TYPE C OR TYPE E. REDUCTION IN THICKNESS FOR DIRECT BURED PIPING IS ALLOWED PER ASHRAE / IECC AS APPLICABLE.

PIPE SYSTEM	INSULATION TYPE	INSULATION THICKNESS PER NOMINAL PIPE OR TUBE SIZE					NOTES
		< 1"	1" TO < 1.5"	1.5" TO < 4"	4" TO < 8"	≥ 8"	
22 PLUMBING - WASTE							
D - DRAIN - PLUMBING	A (GlsFbr), B (Elasto)	0.5"	0.5"	1"	1"	1"	APPLY INSULATION ONLY TO LOW TEMP DRAINS (55 DEG AND LOWER IE: COOLING COIL CONDENSATE, ICE MACHINE DRAINS, ETC.)
SAN - SANITARY DRAINAGE	A (GlsFbr), B (Elasto	0.5"	0.5"	1"	1"	1"	APPLY INSULATION ONLY TO FLOOR DRAIN BODY, P-TRAP AND 10' DOWNSTREAM AT LOW TEMP DRAIN DISCHARGE (55 DEG AND LOWER IE: COOLING COIL CONDENSATE, ICE MACHINE DRAINS, ETC.)
V - VENT	A (GlsFbr), B (Elasto)	0.5"	0.5"	1"	1"	1"	APPLY INSULATION ONLY WITHIN 10' OF EXTERIOR PENETRATION
22 PLUMBING - WATER							
CW - COLD WATER - POTABLE	A (GlsFbr), B (Elasto)	0.5"	0.5"	1"	1"	1"	
HW - HOT WATER - POTABLE	A (GlsFbr), B (Elasto)	1"	1"	1"	1"	1"	
HWC - HOT WATER CIRCULATING - POTABLE	A (GlsFbr), B (Elasto)	1"	1"	1"	1"	1"	

FIRE PROTECTION MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
FDC-1	EXPOSED STORZ FIRE DEPT. CONNECTION INLET CONNECTION, 4" FEMALE NPT OUTLET x 4" STORZ INLET, INLET SCREEN, 90 DEGREE ANGLE BODY STYLE, POLISHED CROME FINISHED ADAPTER, SLEEVE, AND PLATE. "STANDIPE" LETTERING ON PLATE. CONTRACTOR TO COORDINATE PURCHASE OF LOCKING CAPS WITH LOCAL FIRE DEPARTMENT.	FDC: CROKER SERIES 6368-6371, GUARDIAN 6634 LOCKING CAP: KNOX COMPANY 5001

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODENHAMER

10.27.2023

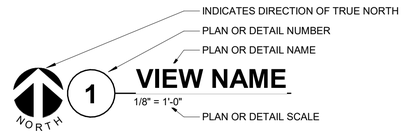
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	01 P6.0	MAURICE BATHHOUSE PLUMBING SCHEDULES & RISER DIAGRAM REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	626 180065 PMIS/PKG NO. 318674 SHEET 133 OF 286

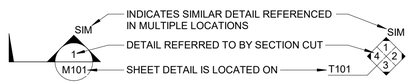
11/2/2023 8:28:21 AM

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
———— NEW
- - - - - - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
———— EXISTING
- - - - - - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

MECHANICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
C	COMMON
CFSD	CONTROL/FIRE/SMOKE DAMPER
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
EA	EXHAUST/RELIEF AIR
FD	FIRE DAMPER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FSD	FIRE/SMOKE DAMPER
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
PS	PRESSURE SWITCH
RA	RETURN AIR
SA	SUPPLY AIR
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TYP	TYPICAL
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTED

MECHANICAL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
—CWR—	CHILLED WATER RETURN
—CWS—	CHILLED WATER SUPPLY
—DPP—	DRAIN PIPING
—HWR—	HEATING WATER RETURN
—HWS—	HEATING WATER SUPPLY
—TWR—	THERMAL WATER RETURN
—TWS—	THERMAL WATER SUPPLY
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
FD	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
RD-1 6"(1000)	ROOF DRAIN PROPERTIES SYMBOL / SIZE (ROOF SQ. FT.)
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
	THROTTLING VALVE
	BALANCING VALVE (NUMBER INDICATES GPM)
	AUTOMATIC BALANCING VALVE
	MIXING VALVE
	CONTROL VALVE (THREE-WAY)
	CONTROL VALVE (TWO-WAY)
	SOLENOID VALVE
	CHECK VALVE
	SAFETY/RELIEF VALVE
	PRESSURE REDUCING VALVE (LIQUID/GAS)
	TRIPLE DUTY VALVE (ANGLE TYPE)
	TRIPLE DUTY VALVE (IN-LINE TYPE)
	PUMP
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	ANGLE VALVE
	BACKFLOW PREVENTER
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
	ALIGNMENT GUIDE
	PIPE ANCHOR
EJ-# (#.#")	EXPANSION JOINT #.#" IS THE EXPANSION TRAVEL INCHES
M	METER
	DIRECTION OF AIR FLOW
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
R	RISE IN DIRECTION OF AIR FLOW
D	DROP IN DIRECTION OF AIR FLOW
	DUCT CAP
	DUCT DOWN
	DUCT UP
	SUPPLY/OUTSIDE AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST/RELIEF AIR DUCT SECTION
	4-WAY DIFFUSER WITH BLANKOFF IN ONE DIRECTION
SD-1 6/115	AIR TERMINAL PROPERTIES SYMBOL / NECK SIZE/CFM
###	TERMINAL AIR BOX (REFER TO SCHEDULE)
###	TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)

VENTILATION GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO A TERMINAL AIR BOX (TAB) SHALL MATCH THE INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6FEET IN LENGTH, IN WHICH CASE THE BRANCH DUCT SHALL BE SIZED AT A PRESSURE DROP OF 0.07"W.C. PER 100' OF DUCTWORK.
2. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO AN AIR TERMINAL SHALL MATCH THE INLET SIZE.
3. ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.
4. PROVIDE ACCESS DOORS AT ALL DUCT MOUNTED EQUIPMENT.
5. EXISTING AIR INLET AND OUTLET CFM SHOWN ON DRAWINGS ARE FROM EXISTING DRAWINGS, AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PRE-BALANCE VALUES, AND NOT EXISTING CFM SHOWN ON DRAWINGS.

PIPING GENERAL NOTES:

1. THE SIZE OF BRANCH PIPING TO TERMINAL HEATING DEVICES AND COILS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN.

MECHANICAL RENOVATION NOTES:

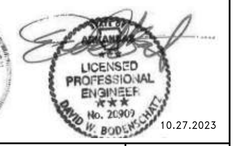
THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.
6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.
7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.
8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE.
9. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.
11. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.
13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.
15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS.
16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.



10.27.2023

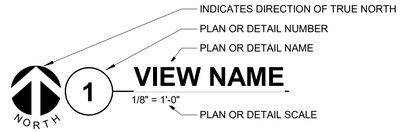
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M0.0	MAURICE BATHHOUSE MECHANICAL COVERSHEET	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318674
	TECH. REVIEW: SGB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 134 OF 286
	DATE: 10.27.2023			

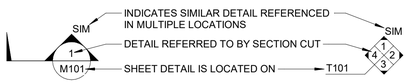
10/27/2023 1:14:03 PM

VIEW KEY

NAME
10'-0"
LEVEL NAME
HEIGHT ABOVE PROJECT 0'-0"

1
INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E	TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING
TAG	UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST
	INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

TEMPERATURE CONTROLS SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
###	TERMINAL AIR BOX (REFER TO SCHEDULE)
###	TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)
	OPPOSED BLADE DAMPER (REFER TO SCHEDULE)
	PARALLEL BLADE DAMPER (REFER TO SCHEDULE)
XX-Y	AIRFLOW MEASUREMENT SYMBOL XX - AHU SYMBOL Y - SEQUENTIAL NUMBER
	FAN
MTR	MOTOR
R	CONTACTOR
	NORMALL CLOSED CONTACT
	NORMALLY OPEN CONTACT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
F	FLOW SWITCH
FS	FLOW SENSOR
P	PRESSURE SWITCH
	MONITOR SWITCH
T	THERMOSTAT/SENSOR
T	PROBE TEMPERATURE SENSOR
H	HUMIDISTAT SENSOR
H	HUMIDISTAT / SENSOR
H	HUMIDITY SENSOR (DUCT MOUNTED)
DSD	DUCT SMOKE DETECTOR

TEMPERATURE CONTROLS ABBREVIATION KEY

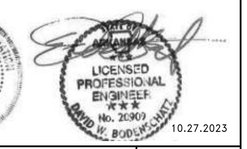
ABBR:	DESCRIPTION:
EA	EXHAUST/RELIEF AIR
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
TYP	TYPICAL
RA	RETURN AIR
SA	SUPPLY AIR
UON	UNLESS OTHERWISE NOTES

TEMPERATURE CONTROL GENERAL NOTES:

1. REFER TO EQUIPMENT SCHEDULES TO CROSS REFERENCE WHICH CONTROL DIAGRAMS APPLY TO WHICH ITEMS OF EQUIPMENT. REFER TO TERMINAL AIR BOX (TAB) SCHEDULES FOR TEMP SENSOR REQUIREMENTS FOR EACH TAB.
2. EACH D.I., D.O., A.I. AND A.O. POINT SHOWN FOR ALL CONTROL DIAGRAMS SHALL BE DISCRETE FROM ALL OTHER POINTS EXCEPT AS SPECIFICALLY NOTED.
3. ALL WIRING, CONTROL COMPONENTS, DEVICES AND PROGRAMMING SHOWN ON THESE CONTROL DRAWINGS SHALL BE PROVIDED BY THE TCC UNLESS SPECIFICALLY NOTED OTHERWISE.
4. TEMPERATURE CONTROL CABLING, CONDUIT, BOXES, IDENTIFICATION: REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST OF REQUIREMENTS. THE FOLLOWING SCHEDULE IS PROVIDED AS A CONVENIENCE. REFER TO SECTION **23** 09 00 **F**OR ADDITIONAL DETAILED REQUIREMENTS.
   A. CABLE/WIRE JACKET COLOR: BLUE
   B. CONDUIT BOX COLOR ABOVE FINISHED CEILINGS AND UNFINISHED SPACES WITHOUT CEILINGS: BLUE
   C. CONDUIT BOX COLOR IN SPACES WITH EXPOSED FINISHED STRUCTURE: MILL FINISH TO BE FIELD PAINTED; COLOR TO BE SELECTED BY ARCHITECT
   D. CABLE/WIRE INSTALLATION: IN CONDUIT WHEN CONCEALED IN WALLS AND OTHER ASSEMBLIES. PLENUM-RATED CABLE SHALL BE USED ABOVE FINISHED ACCESSIBLE CEILINGS, INDEPENDENTLY SUPPORTED FROM OTHER SYSTEM CABLING/WIRE EVERY 4 FT WITH BRIDAL RINGS AND CABLE SADDLES. ALL CABLING SHALL BE IN CONDUIT IN SPACES WITH EXPOSED FINISHED STRUCTURE.
5. ALL ACTUATORS SHALL BE OF THE ELECTRICAL TYPE FOR THIS PROJECT UNLESS AN ACTUATOR IS SPECIFICALLY INDICATED ON THE DRAWINGS OR SPECIFICATIONS TO BE PNEUMATIC.
6. ALL MODULATING DAMPER AND VALVE ACTUATORS SHOWN WITH POSITION FEEDBACK SHALL HAVE THE VALVE POSITION DISPLAYED ON GRAPHICAL SCREEN ADJACENT TO THE DAMPER/VALVE COMMAND SIGNAL. DISPLAYED VALVE POSITION SHALL BE FROM THE FEEDBACK DEVICE/CIRCUIT (OUTPUT SIGNAL FROM THE FMCS TO THE ACTUATOR IS NOT ACCEPTABLE)
7. MODULATING SIGNALS SHALL BE DISPLAYED AS % OPEN (SIGNALS DISPLAYED AS % CLOSED ARE NOT ACCEPTABLE).
8. ALL CONTROL COMPONENTS SUCH AS RELAYS, SWITCHES, DDC CONTROLLERS, ETC. SHALL BE MOUNTED IN STEEL ENCLOSURES WITH STEEL MOUNTING BACKPLATES.
9. EACH CONTROL PANEL SHALL HAVE A LAMINATED COPY OF THE APPLICABLE SEQUENCE OF OPERATION AND CONTROL DIAGRAM INDICATING THE POINTS, COMPONENTS AND OPERATION OF EQUIPMENT ASSOCIATED WITH EACH PANEL.
10. TCC SHALL WIRE THE CONTROL SIGNAL FROM THE ASSOCIATED AIR HANDLING UNIT CONTROL PANEL TO CONTROL THE OPERATION OF SMOKE DAMPERS IN ACCORDANCE WITH SEQUENCE OF OPERATION. TCC SHALL PROVIDE ALL WIRING, CONDUIT, TRANSFORMERS, FUSING AND ALL OTHER ELECTRICAL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION.
11. TCC SHALL EXTEND CONTROL SIGNAL FROM ADDRESSABLE RELAY DEVICE SERVING EACH AIR HANDLING UNIT. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS. TCC SHALL EXTEND AND TERMINATE WIRING AS REQUIRED FOR EQUIPMENT SHUTDOWN.
12. TCC SHALL PROVIDE POWER SUPPLIES FOR ALL 24VAC POWER REQUIREMENTS TO INCLUDE, BUT NOT LIMITED TO APPLICATION SPECIFIC, TERMINAL AIR BOX, AND FAN COIL UNIT CONTROLLERS, DAMPER AND VALVE ACTUATORS, BUILDING PRESSURE SENSORS, AND OTHER CONTROL COMPONENTS AND DEVICES. REFER TO FLOOR PLANS FOR POWER SUPPLY LOCATIONS. PROVIDE LOW VOLTAGE WIRING FROM POWER SUPPLIES TO ALL CONTROLLERS, MONITORS, COMPONENTS AND DEVICES REQUIRING 24 VAC POWER. ADDITIONAL POWER SUPPLIES NOT SHOWN AND REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM SHALL BE PROVIDED BY THE TEMPERATURE CONTROL CONTRACTOR. THE TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE FINANCIAL PROVISIONS WITHIN THEIR BID FOR THE ELECTRICAL CONTRACTOR TO PROVIDE BRANCH POWER TO THE ADDITIONAL POWER SUPPLIES. COORDINATE THE LOCATION OF ADDITIONAL POWER SUPPLY CABINET WITH THE ELECTRICAL CONTRACTOR.
13. CONTROL DIAGRAMS ARE SCHEMATIC IN NATURE AND DO NOT SHOW ALL REQUIRED CONTROL DEVICES AND COMPONENTS. REFER TO FLOOR PLANS, FLOW DIAGRAMS AND DETAILS FOR ADDITIONAL CONTROL DEVICES, COMPONENTS AND REQUIREMENTS NOT SHOWN ON THESE CONTROL DRAWINGS.
14. TCC SHALL PROVIDE ALL CONTROL COMPONENTS AND ACCESSORIES AS REQUIRED FOR EQUIPMENT TO BE CONTROLLED AS DESCRIBED IN THE SEQUENCE OF OPERATION REGARDLESS OF WHETHER ALL CONTROL COMPONENTS OR POINTS ARE SHOWN IN THE ASSOCIATED CONTROL DIAGRAM.

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR



10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M0.1	TITLE OF SHEET MAURICE BATHHOUSE TEMPERATURE CONTROLS COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 135 OF 286

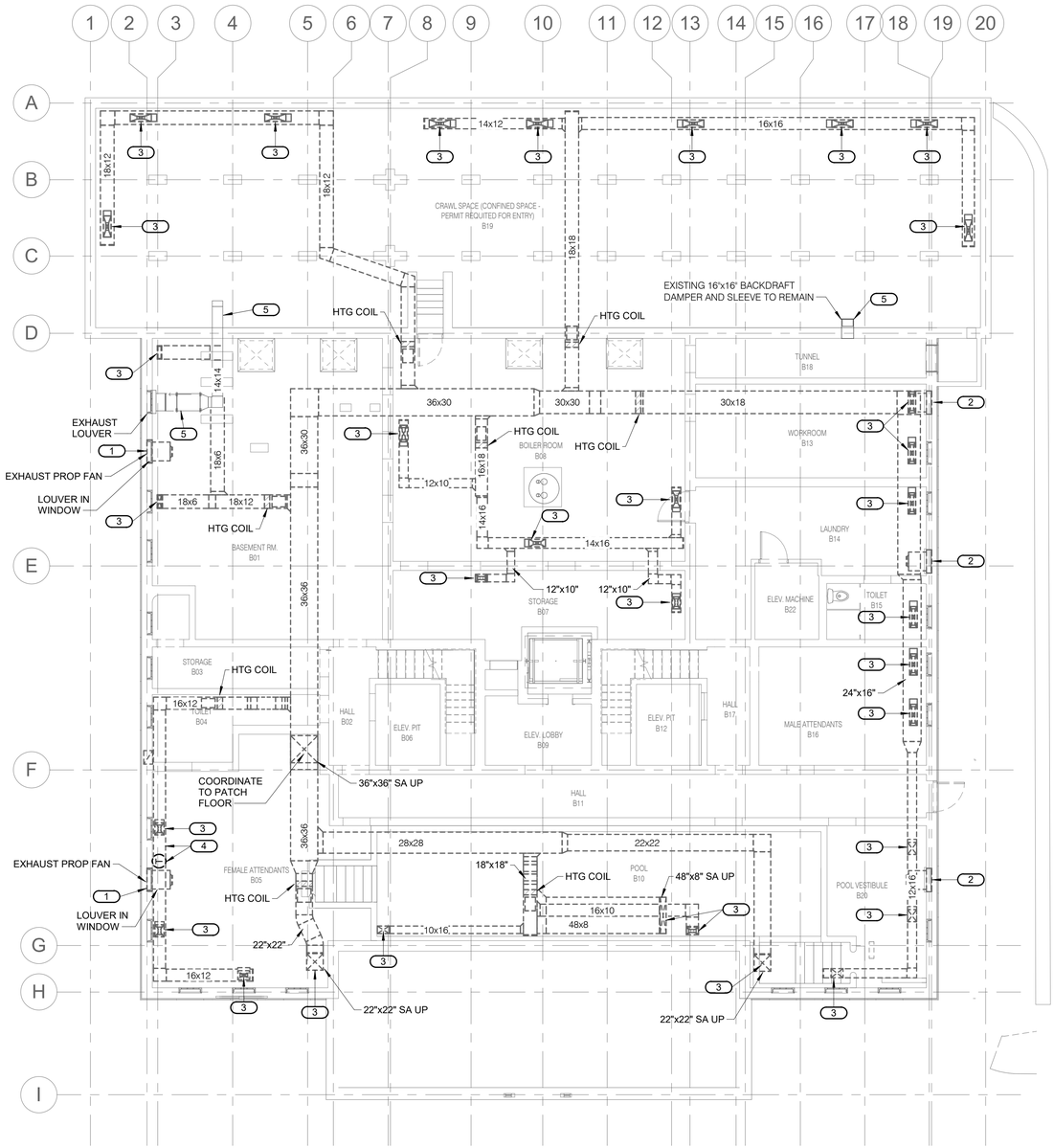
10/27/2023 1:14:04 PM

SHEET NOTES:

1. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. DUCTWORK AND PIPING SHOWN LIGHTLY IS TO REMAIN.
2. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PROPELLER EXHAUST FAN AND ASSOCIATED HOUSING, CONTROLS, AND SUPPORTS. EXISTING LOUVER IS TO REMAIN.
2. DISCONNECT INTAKE DAMPER AND ASSOCIATED HOUSING, CONTROLS AND SUPPORTS. EXISTING LOUVER IS TO REMAIN.
3. DEMO EXISTING SUPPLY DUCT UP TO SUPPLY GRILLE. COORDINATE TO PATCH ABANDONED OPENING TO MATCH EXISTING.
4. DEMO EXISTING THERMOSTAT AND HUMIDISTAT AND ASSOCIATED WIRING.
5. EXISTING EXHAUST FAN AND ASSOCIATED LOUVER, DUCTWORK AND CONTROLS TO REMAIN.



1 / MX1.0 BASEMENT MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ ARKANSAS

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 MX1.0	MAURICE BATHHOUSE BASEMENT MECHANICAL DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 136 OF 286
	DATE: 10.27.2023			

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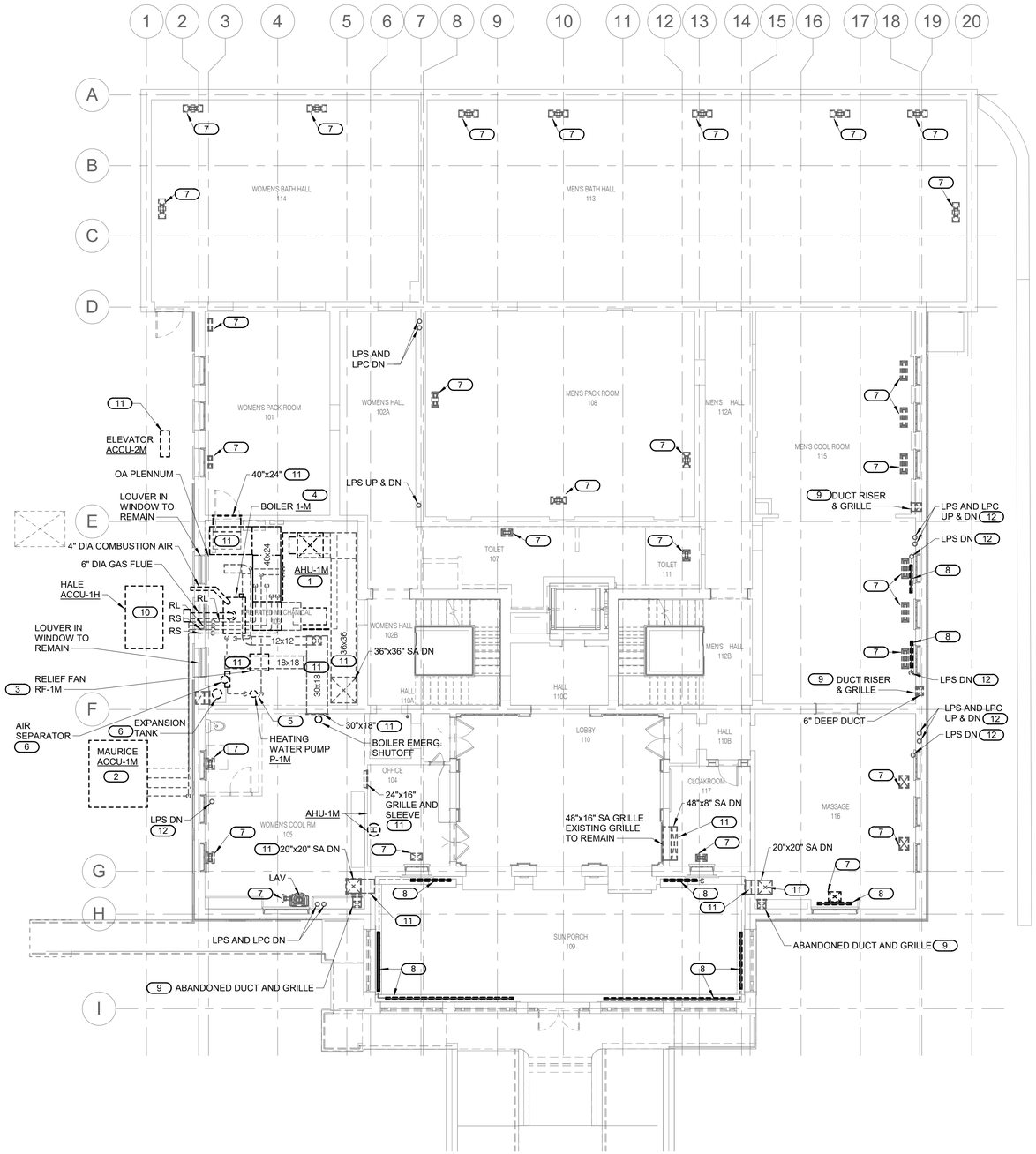


1 / MX1.1 FIRST FLOOR MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

SHEET NOTES:

1. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED.
2. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT AND ALL ASSOCIATED DUCTWORK, PIPING, CONTROLS, AND SUPPORTS.
2. DISCONNECT AND REMOVE EXISTING AIR COOLED CONDENSING UNIT AND ALL ASSOCIATED PIPING, CONTROLS, AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING RELIEF FAN AND ALL ASSOCIATED DUCTWORK, CONTROLS, AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING BOILER AND ASSOCIATED PIPING, BOILER FLUE AND COMBUSTION AIR DUCTWORK, CONTROLS, AND SUPPORTS.
5. DISCONNECT AND REMOVE EXISTING HEATING WATER PUMP AND ASSOCIATED PIPING, CONTROLS, AND SUPPORTS.
6. DISCONNECT AND REMOVE EXISTING AIR SEPARATOR, EXPANSION TANK AND ALL ASSOCIATED PIPING AND SUPPORTS.
7. DISCONNECT AND REMOVE EXISTING SUPPLY FLOOR GRILLE.
8. DISCONNECT AND REMOVE EXISTING RADIATOR AND ASSOCIATED PIPING. SALVAGE RADIATOR.
9. REMOVE EXISTING DUCT AND GRILLE. SALVAGE AND CLEAN GRILLE FOR REINSTALLATION.
10. DISCONNECT, REMOVE, AND RELOCATE EXISTING AIR COOLED CONDENSING UNIT FOR THE HALE BUILDING TO ALLOW FOR SITE WORK. SET UNIT ON A NEW CONCRETE HOUSEKEEPING PAD ON THE HALE SITE. EVACUATE THE EXISTING REFRIGERANT PIPING. INTERCEPT AND CONNECT TO EXISTING REFRIGERANT PIPING AND CONTROLS ON THE HALE SITE AND PUT IN WORKING ORDER. RECHARGE THE SYSTEM AND PUT UNIT IN OPERATING ORDER. DISCONNECT AND REMOVE FROM TEMPORARY LOCATION AND PREP FOR RELOCATION TO ORIGINAL LOCATION WHEN SITE WORK IS COMPLETE.
11. TEMPORARILY DISCONNECT AND REMOVE EXISTING ELEVATOR CONDENSING UNIT TO ALLOW FOR SITE WORK.
12. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ASSOCIATED SUPPORTS.
13. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER ARKANSAS No. 20902 DAVID W. BODLINE

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 MX1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR MECHANICAL DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 137 OF 286

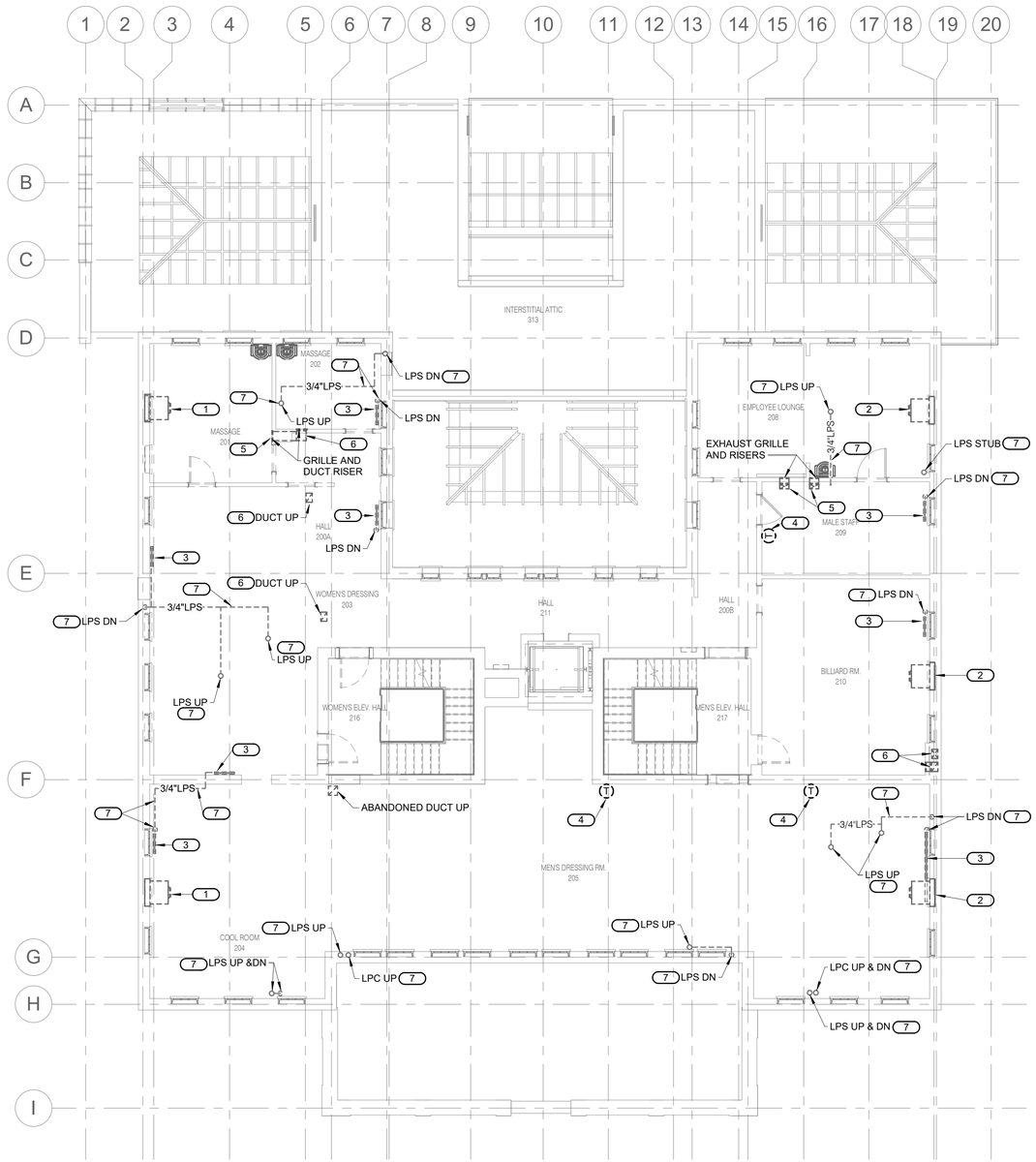
11/2/2023 8:28:16 AM

SHEET NOTES:

1. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED.
2. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PROPELLER EXHAUST FAN AND ASSOCIATED HOUSING, LOUVER, CONTROLS, AND SUPPORTS.
2. DISCONNECT AND REMOVE EXISTING INTAKE LOUVER, DAMPER AND ASSOCIATED HOUSING, CONTROLS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING RADIATOR AND ASSOCIATED PIPING. CO RESERVES FIRST RIGHT OF REFUSAL.
4. DISCONNECT AND REMOVE EXISTING HISTORIC THERMOSTAT. OWNER RESERVES FIRST RIGHT OF REFUSAL.
5. REMOVE EXISTING DUCT AND GRILLE. SALVAGE AND CLEAN GRILLE FOR REINSTALLATION.
6. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ASSOCIATED SUPPORTS.
7. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.



1 / MX1.2 SECOND FLOOR MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 MX1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR MECHANICAL DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 138 OF 286

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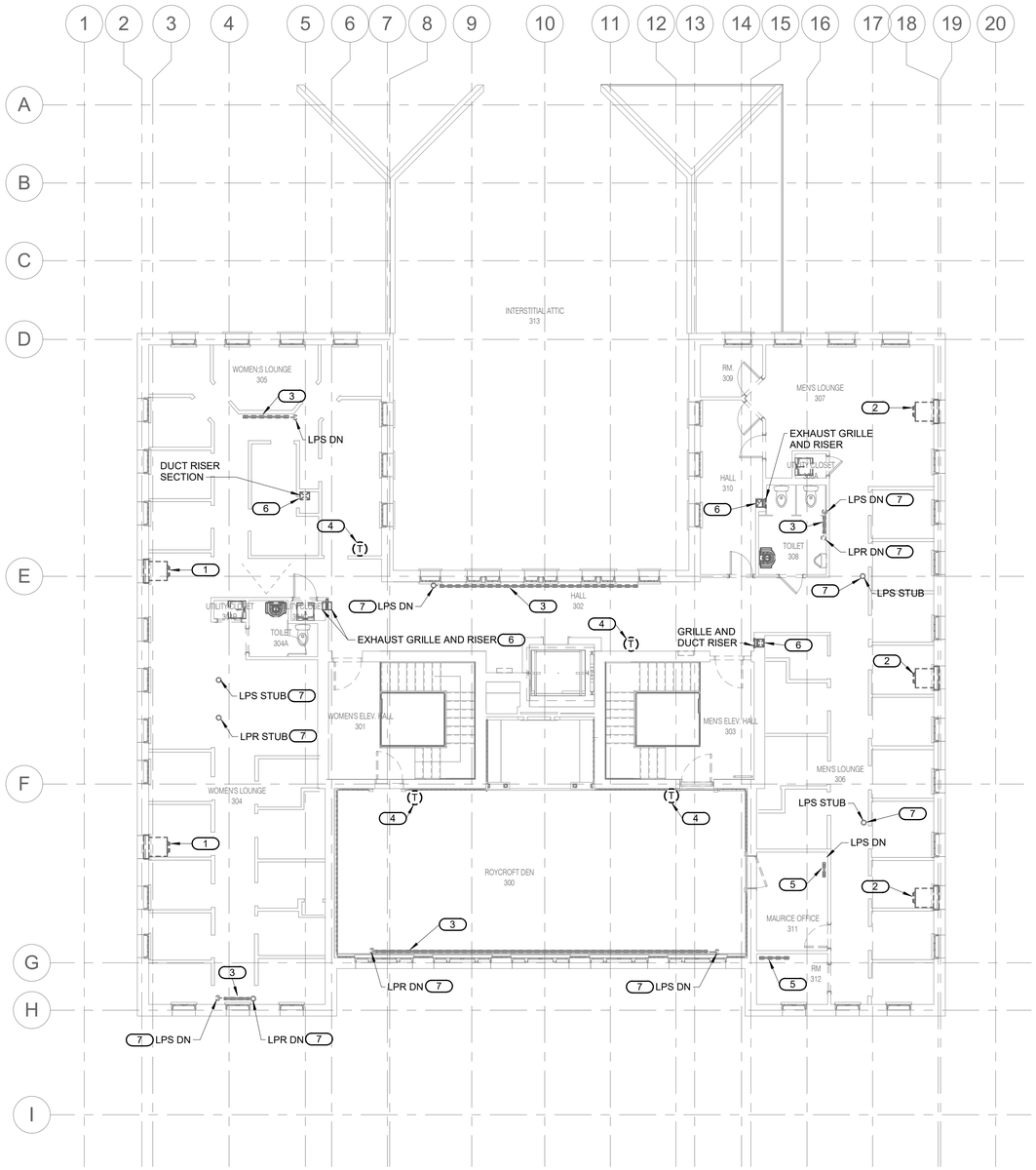


1 / MX1.3 THIRD FLOOR MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED.
2. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PROPELLER EXHAUST FAN AND ASSOCIATED HOUSING, LOUVER, CONTROLS, AND SUPPORTS.
2. DISCONNECT AND REMOVE EXISTING INTAKE LOUVER, DAMPER AND ASSOCIATED HOUSING, CONTROLS AND SUPPORTS.
3. DISCONNECT AND REMOVE EXISTING RADIATOR AND ASSOCIATED PIPING. OWNER RESERVES FIRST RIGHT OF REFUSAL.
4. DISCONNECT AND REMOVE EXISTING HISTORIC THERMOSTAT. OWNER RESERVES FIRST RIGHT OF REFUSAL.
5. DISCONNECT AND REMOVE EXISTING RADIATOR AND EXISTING PIPING. CLEAN RADIATOR AND REINSTALL SECURLY IN SAME LOCATION MINUS PIPING.
6. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ASSOCIATED SUPPORTS.
7. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLEY

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 MX1.3	MAURICE BATHHOUSE THIRD FLOOR MECHANICAL DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 139 OF 286
	DATE: 10.27.2023			

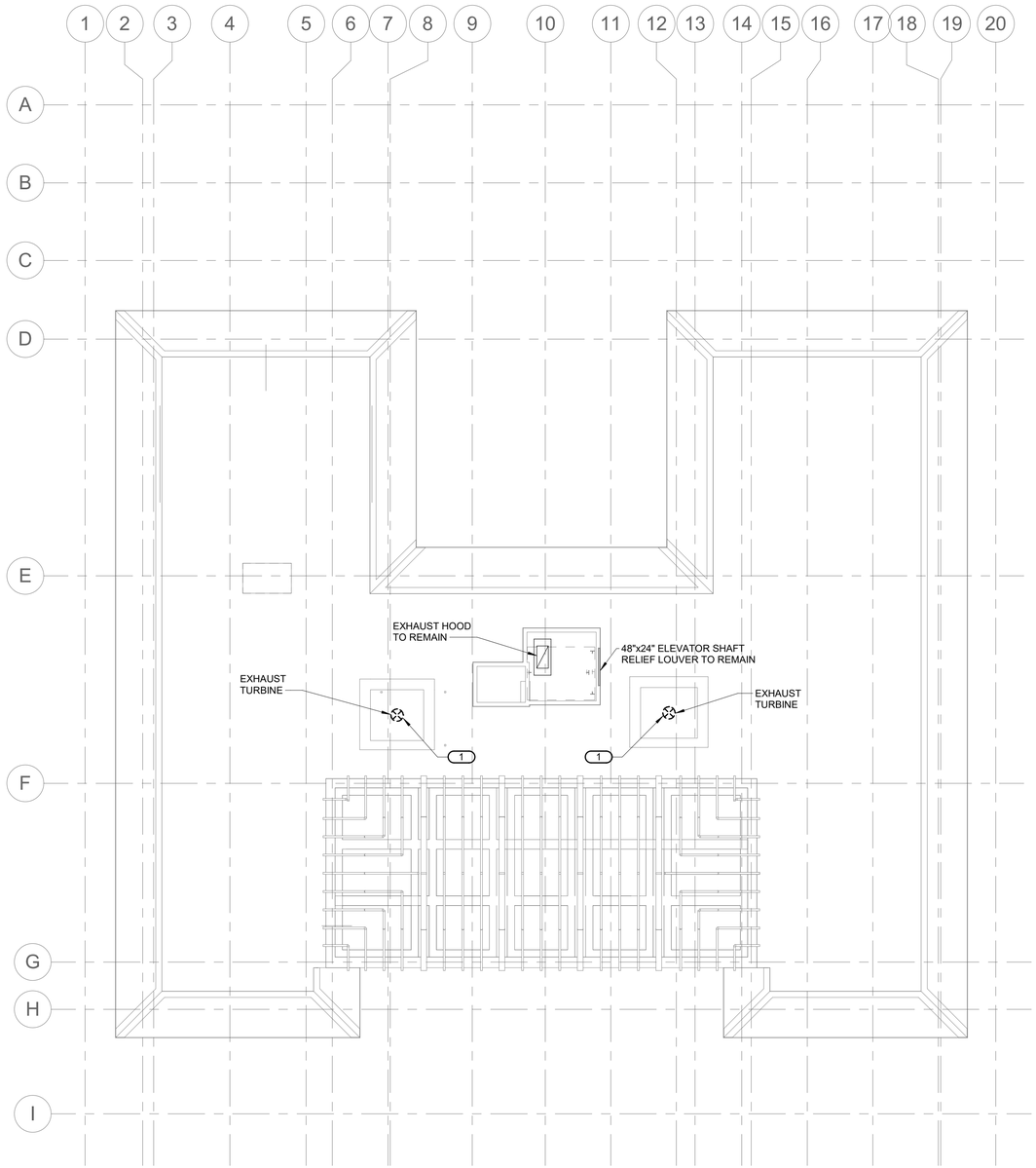
10/27/2023 1:14:59 PM

SHEET NOTES:

1. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED.
2. DISCONNECT AND REMOVE ALL EXISTING DUCTWORK, PIPING AND EQUIPMENT UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING ROOF TURBINE AND PATCH ROOF.



1 / MX1.4 ROOF MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLOVICH

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 MX1.4	MAURICE BATHHOUSE ROOF MECHANICAL DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 140 OF 286
	DATE: 10.27.2023			

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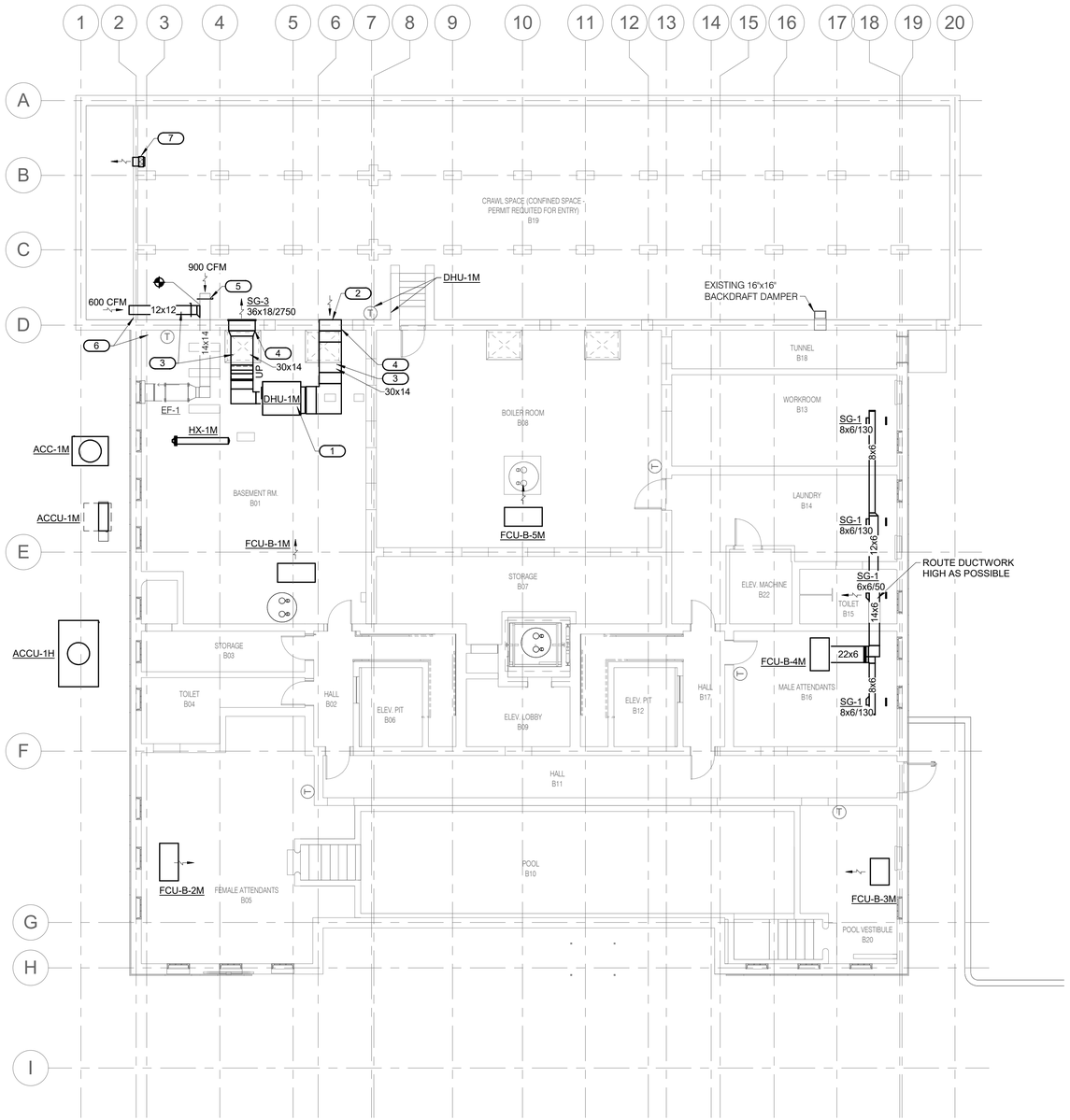

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. DEHUMIDIFER MOUNTED AS HIGH AS POSSIBLE FROM STRUCTURE W/ ISOLATORS. SUPPLY & RETURN DUCTWORK SHALL BE STAINLESS STEEL.
2. 30"x18" RA OPENING W/ SS INSECT SCREEN MOUNTED IN FRAME INSTALLED ON INLET.
3. STAINLESS STEEL DUCTWORK.
4. SEAL PENETRATIONS AIRTIGHT.
5. NEW STAINLESS STEEL MANUAL DAMPER.
6. HUMIDISTAT W/ REMOTE BULB SENSOR TO CONTROL EF-1.
7. 12"x12" STAINLESS STEEL SLEEVE W/ SS BACKDRAFT DAMPER.

1 / M1.0 BASEMENT MECHANICAL PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT VENTILATION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 141 OF 286

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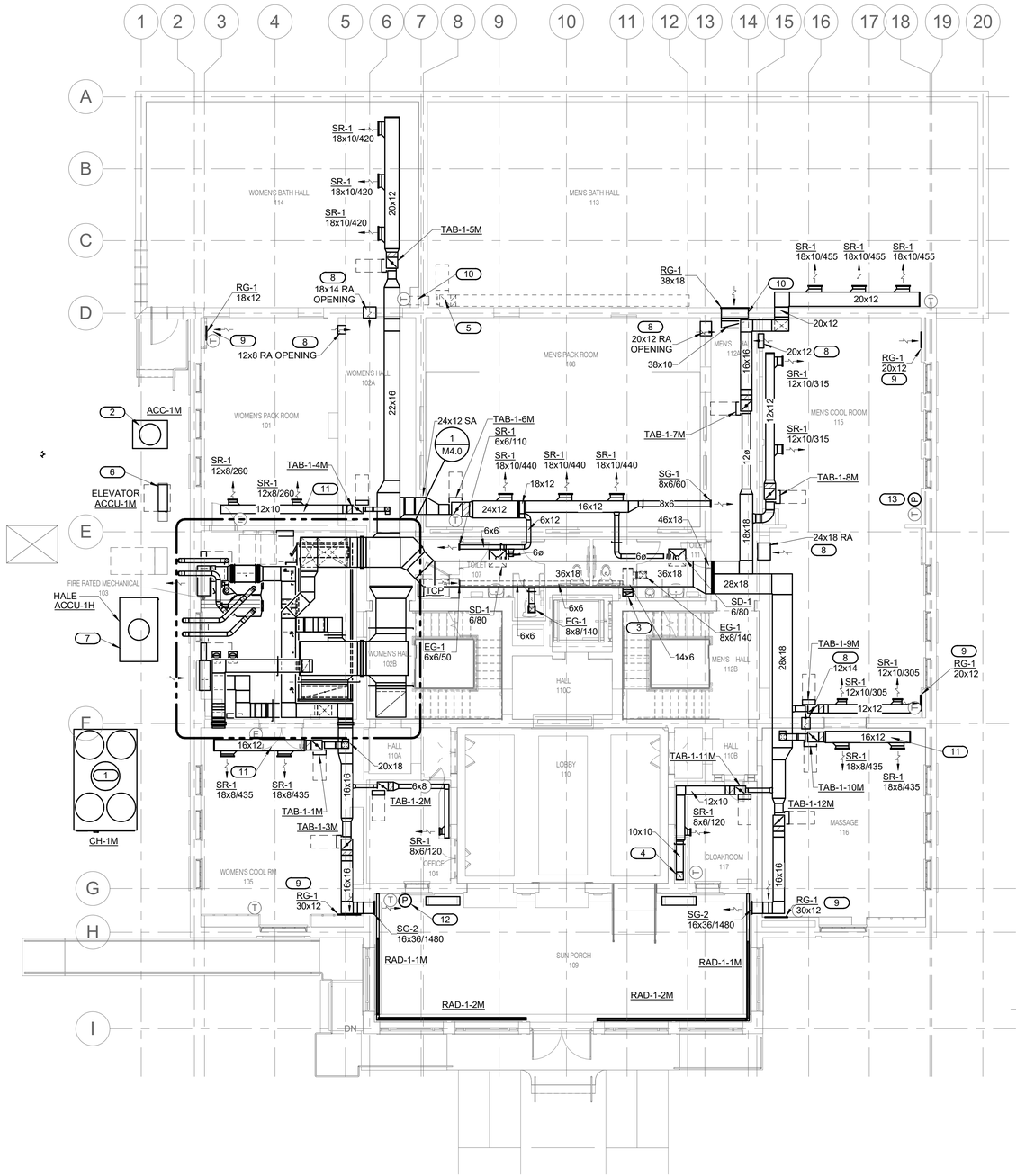
SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES: (#)

1. AIR COOLED CHILLER SET ON CONCRETE PAD. PIPING TO BUILDING. SUPPORT PIPING FROM PAD AND BRACKET FROM WALL AS REQUIRED.
2. NEW DEHUMIDIFIER CONDENSER.
3. 14"x6" EXHAUST DUCT UP TO ROOF EXHAUST FAN. EXTEND EXHAUST DUCT TO SERVE RESTROOMS AND JANITOR'S CLOSET.
4. 10"x10" SA DOWN TO EXISTING WALL SUPPLY DIFFUSER ENCLOSURE/PLENUM. BALANCE TO 340 CFM.
5. REINSTALLED EXISTING VAV BOX.
6. EXISTING ELEVATOR CONDENSING UNIT.
7. RELOCATED EXISTING HALE CONDENSING UNIT.
8. PROVIDE NEW RETURN TRANSFER OPENING IN EXISTING WALL AS HIGH AS POSSIBLE. COORDINATE FINAL LOCATION WITH CONTRACTING OFFICER.
9. INSTALL NEW WALL RETURN GRILLE IN EXISTING CHASE LOCATION JUST ABOVE WALL BASE. LOCATE AT SAME LOCATIONS AS EXISTING WHERE POSSIBLE. LABEL GRILLE AS "RETURN GRILLE FOR FUTURE TENANT USE". RETURN AIR IS TO BE ROUTED UP IN EXISTING/NEW CHASE AND IN FUTURE HORIZONTAL SOFFIT PROVIDED BY TENANT.
10. ROUTE THROUGH EXISTING OPENING. FIELD VERIFY EXACT LOCATION, ELEVATION, AND SIZE.
11. ROUTE DUCTWORK IN BEAM SPACE.
12. RECESSED PRESSURE SENSOR. CHANNEL PLASTER TO ROUTE WIRING TO AHU-1M CONTROLLER.
13. RECESSED PRESSURE SENSOR. ROUTE CONDUIT/WIRING IN EXISTING CHASE TO AHU-1M CONTROLLER.



1 / M1.1 FIRST FLOOR MECHANICAL PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLEY

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M1.1	MAURICE BATHHOUSE FIRST FLOOR VENTILATION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 142 OF 286
	DATE: 10.27.2023			

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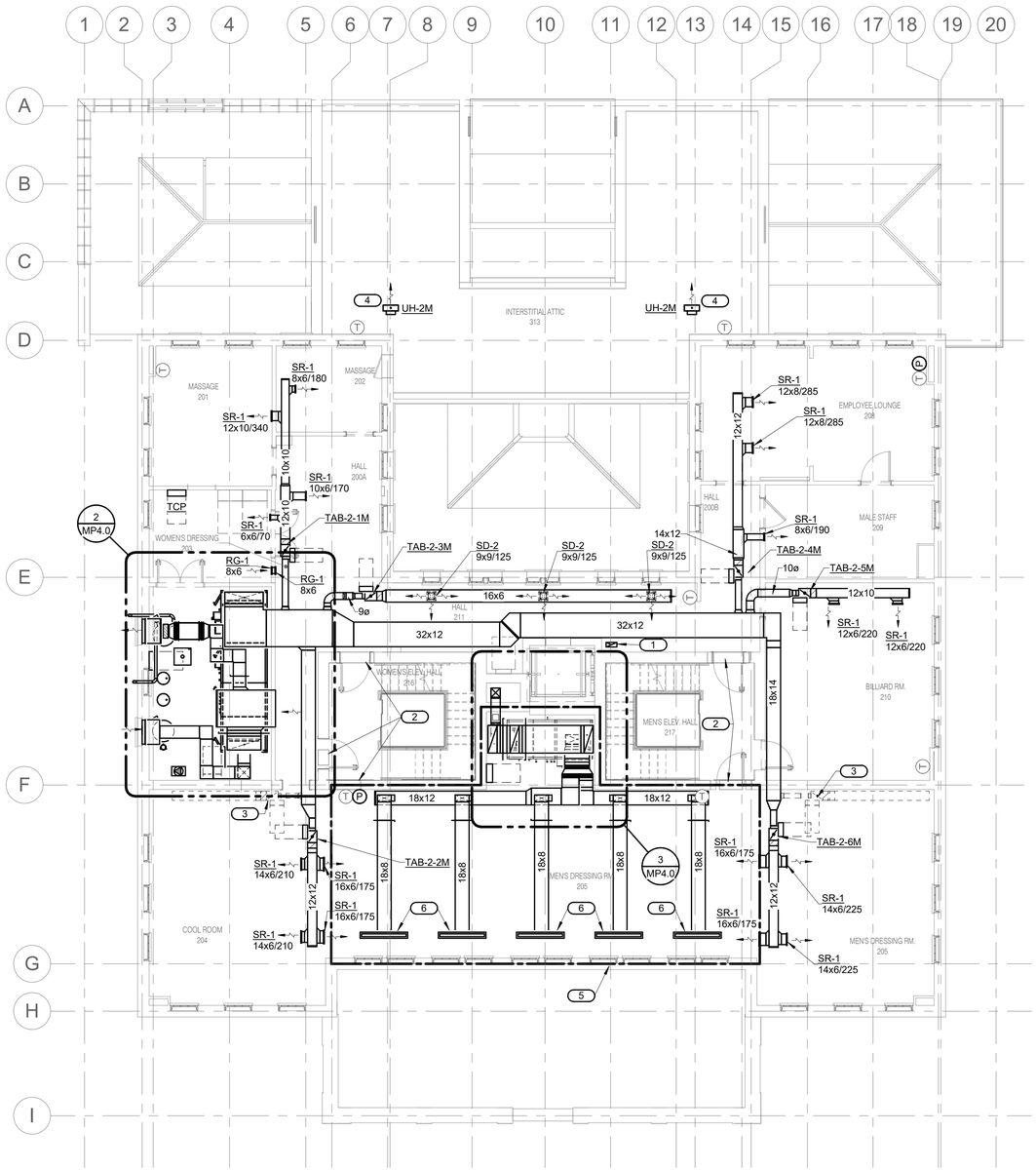

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. 14"x6" EXHAUST DOWN AND UP TO ROOFTOP EXHAUST FAN.
2. INSTALL SHEET METAL RETURN AIR PLENUM WITH BOTTOM OF PLENUM JUST AT BOTTOM OF LOWEST EXISTING OPENING THROUGH EXISTING STAIR. SEAL JOINTS SMOKE TIGHT.
3. FUTURE VAV BOX.
4. HORIZONTAL HOT WATER UNIT HEATER.
5. NO PIPING OR DUCTWORK SHALL PENETRATE THE SECOND FLOOR IN THIS AREA.
6. LINED SUPPLY AIR PLENUMS FOR LINEAR SUPPLY AIR GRILLS ABOVE.

1/M1.2 SECOND FLOOR MECHANICAL PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHEIMER

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M1.2	MAURICE BATHHOUSE SECOND FLOOR VENTILATION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 143 OF 286
	DATE: 10.27.2023			

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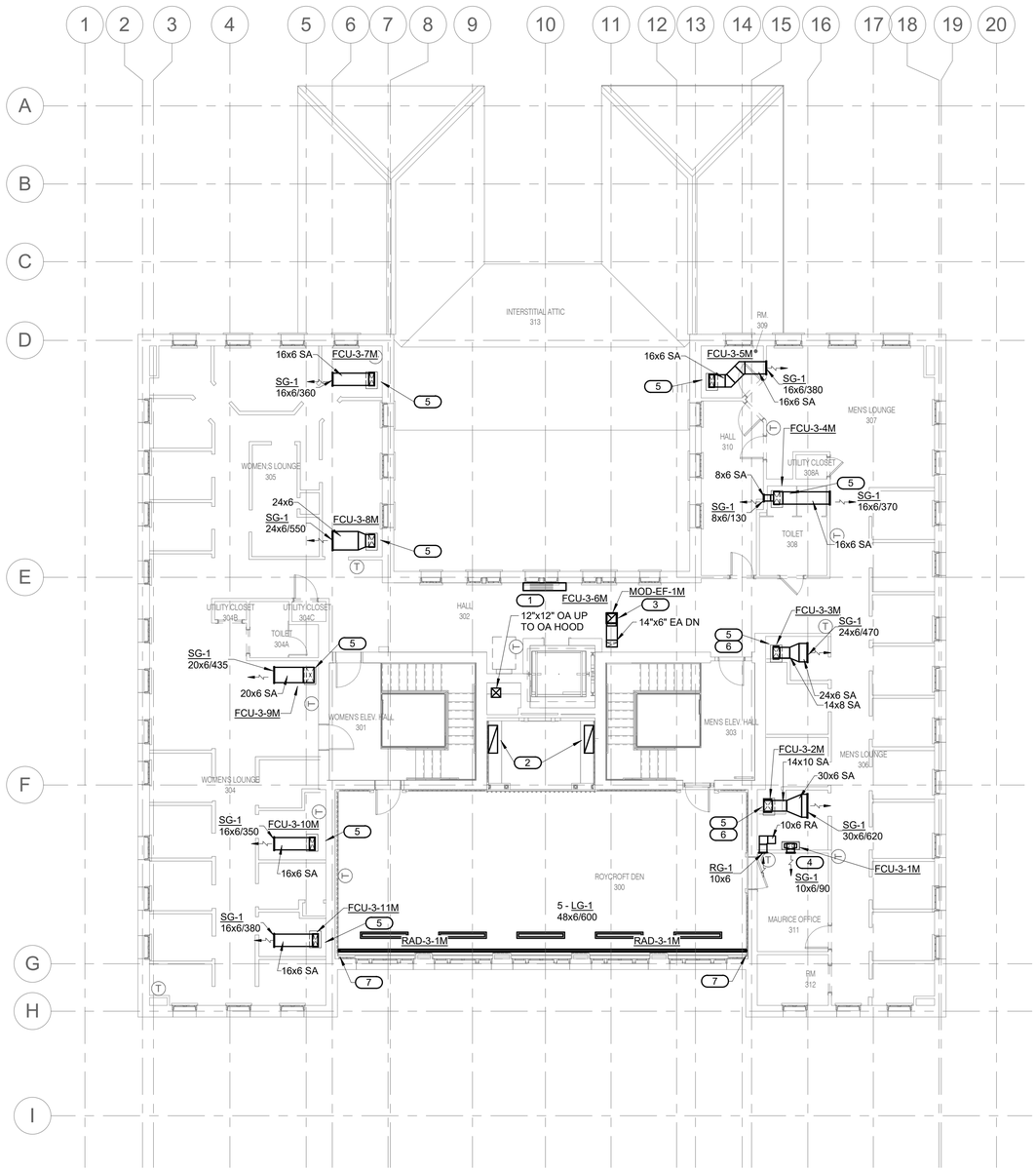

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.
2. VENTILATION AIR FOR SPACES SERVED BY FAN COIL UNITS WILL BE PROVIDED BY DOAS UNIT(S) MOUNTED ON ROOF. DOAS UNIT AND ASSOCIATED DUCTWORK FURNISHED BY FUTURE TENANT.

KEYNOTES: (#)

1. VERTICAL WALL MOUNTED, 4-PIPE, EXPOSED FAN COIL UNIT.
2. 36"x12" FLOOR RETURN OPENINGS UNDER EXISTING BENCHES. COORDINATE W/C.O.
3. 12"x12" EXHAUST DUCT UP TO ROOFTOP MOUNTED EXHAUST FAN.
4. VERTICAL DUCTED, CONCEALED, WALL MOUNTED FAN COIL UNIT.
5. 4-PIPE VERTICAL BLOWER COIL UNIT.
6. MOUNT BOTTOM OF FAN COIL UNIT ON STAND SO BOTTOM OF UNIT IS AT LEAST 2" ABOVE BASE OF ABOVE ADJACENT CURBS.
7. 3/4" HWS & HWR DOWN IN EXISTING WALL CHASE.

1 / M1.3 THIRD FLOOR MECHANICAL PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLEY-HART

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M1.3	MAURICE BATHHOUSE THIRD FLOOR VENTILATION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 144 OF 286
	DATE: 10.27.2023			

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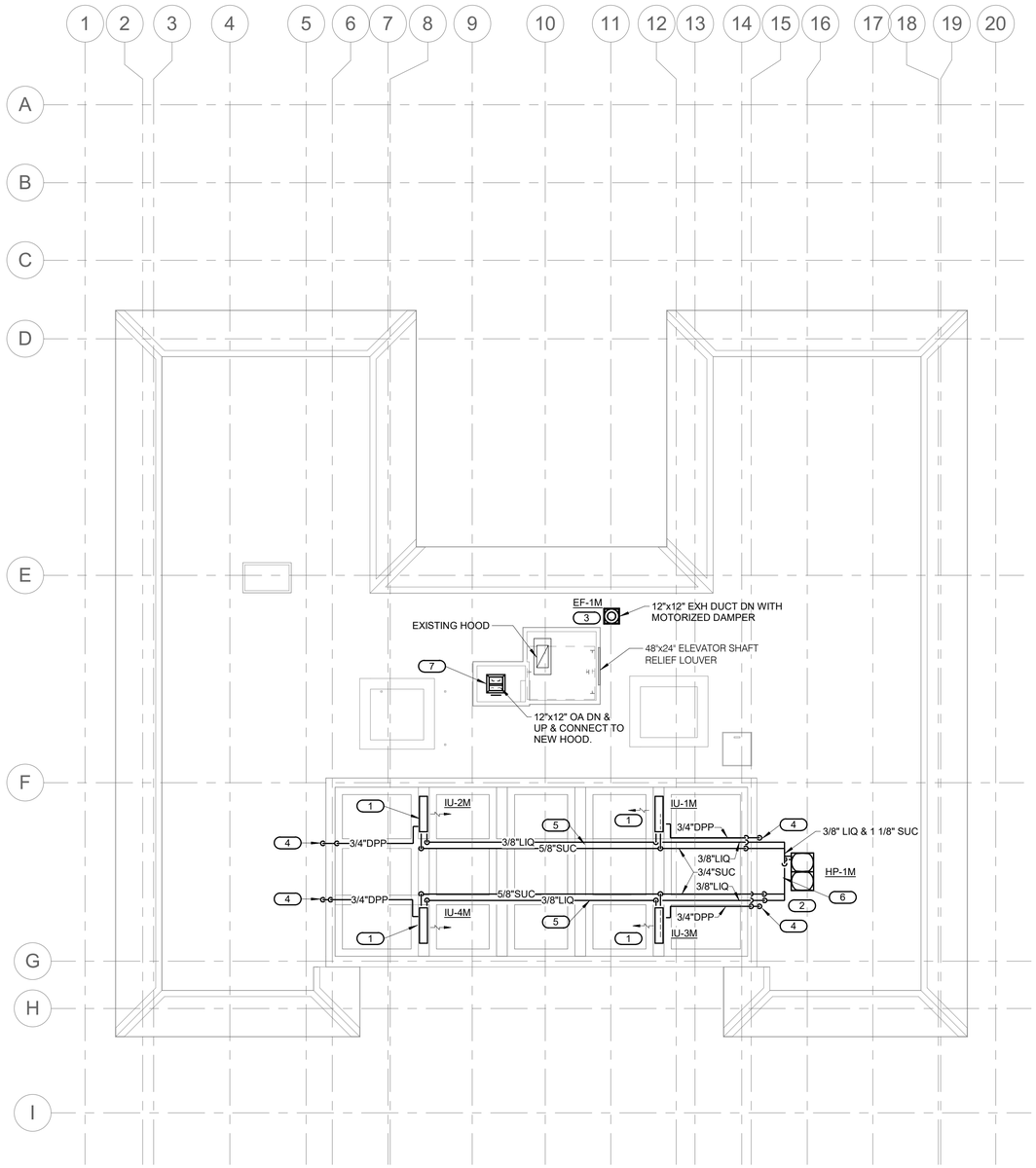

1 / M1.4 ROOF MECHANICAL PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES: (#)

1. SPLIT SYSTEM WALL MOUNTED INDOOR UNIT IN SKYLIGHT ABOVE LAYLIGHT. MOUNT ON VERTICAL STEEL BRACKETS ATTACHED TO BEAMS.
2. SPLIT SYSTEM HEAT PUMP CONDENSING UNIT ATTACHED TO EQUIPMENT RAILS WITH TOP 18" MIN. HIGH ABOVE ADJACENT ROOM SURFACE.
3. ROOFTOP EXHAUSTER SET ON CURB. WITH TOP 12" MIN HIGH ABOVE ROOF SURFACE.
4. ROUTE CONDENSATE DRAIN PIPING THROUGH UPPER WALL SO NOT EXPOSED TO VIEW AND TERMINATE OVER GUTTER W/BRASS INSECT SCREEN IN DPP OUTLET. SEAL PENETRATION WATER TIGHT.
5. ROUTE PIPING SUPPORTED FROM TOP OF BEAM & DROP DOWN SO PENETRATING UPPER PORTION OF WALL SO NOT EXPOSED TO VIEW AND ABOVE GUTTER. ROUTE DOWN EXTERIOR FACE OF WALL. SEAL WALL PENETRATION WATER TIGHT.
6. SUPPORT PIPING ON PREFABRICATED ROOF SUPPORT ASSEMBLIES. WOOD BLOCKING IS UNACCEPTABLE.
7. LOREN COOK "TRE" OR EQUAL 12x12x2 TIER LOUVERED PENTHOUSE SET ON 12" HIGH CURB ANCHORED TO CHIMNEY CAP STRUCTURE. SEAL ATTACHMENTS WATER TIGHT.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLEY

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M1.4	MAURICE BATHHOUSE ROOF MECHANICAL PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318674
	TECH. REVIEW: SGB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 145 OF 286
	DATE: 10.27.2023			

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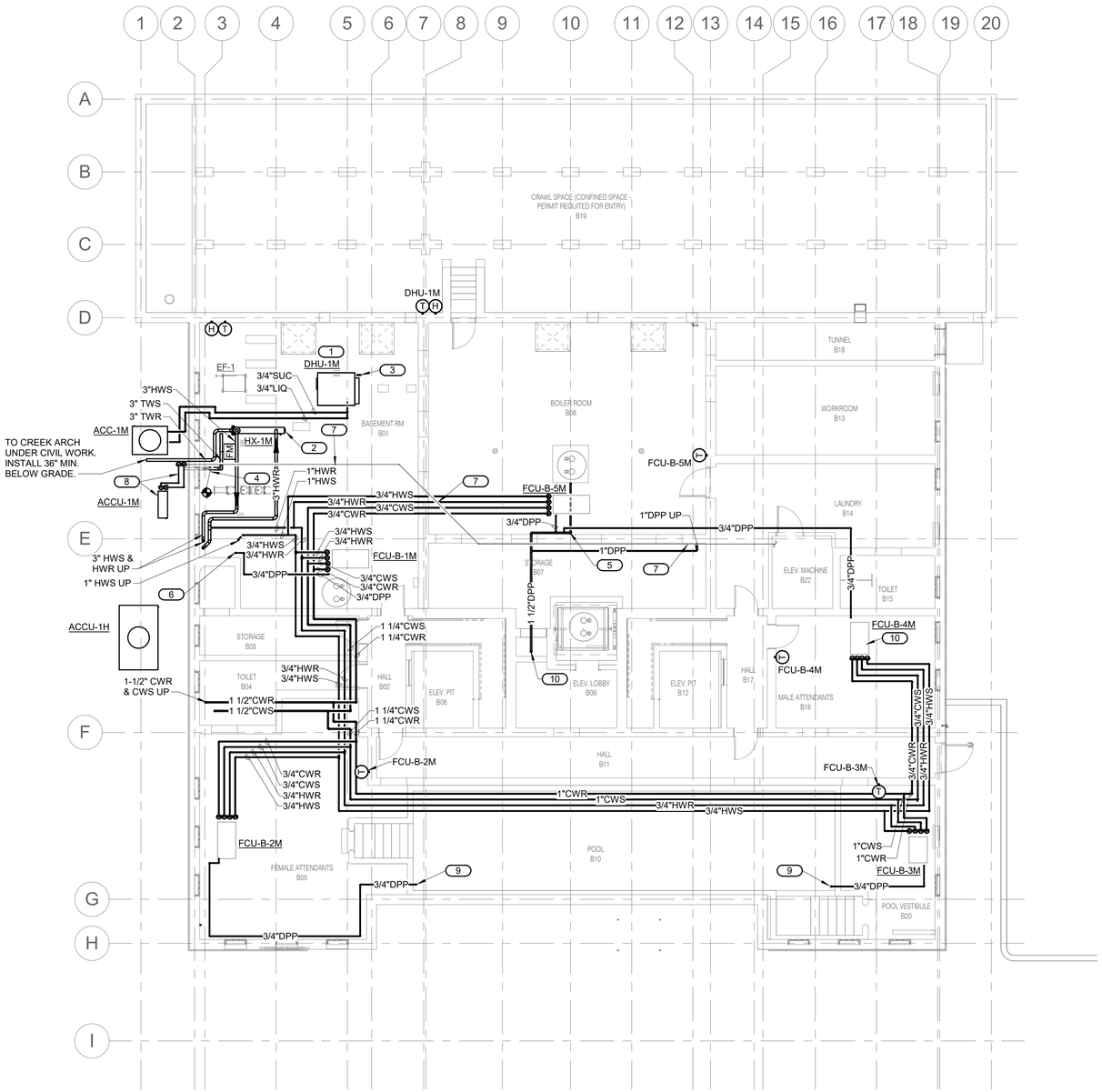

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.
2. ROUTE PIPING THROUGH EXISTING OPENINGS WHEREVER POSSIBLE.

KEYNOTES: (#)

1. DEHUMIDIFIER MOUNTED HIGH AS POSSIBLE.
2. SHELL AND TUBE HEAT EXCHANGER TO TRANSFER HEAT FROM THERMAL SPRING WATERS TO PREHEAT BOILER HEATING WATER. CONNECT TO EXISTING THERMAL WATER PIPING.
3. ROUTE 1" DPP TO FLOOR DRAIN.
4. CONNECT TO LOWER 4" TWS VALVED MAIN. COORDINATE WITH CO BEFORE CONNECTING AND ROUTING.
5. ROUTE DPP TO SUMP PIT.
6. ROUTE DPP TO FLOOR SINK. DO NOT CROSS AISLEWAYS.
7. EXISTING REFRIGERANT PIPING AND CONTROL WIRING. PROTECT FROM DAMAGE AND REWORK AS REQUIRED TO ALLOW INSTALLATION OF NEW WORK.
8. BOLT EXISTING ELEVATOR EQUIPMENT CONDENSING UNIT ON NEW CONCRETE PAD. RECONNECT EXISTING REFRIGERANT PIPING AND CONTROL WIRING RECHARGE REFRIGERANT PIPING AND PUT SYSTEM IN WORKING ORDER.
9. TERMINATE DPP OVER POOL.
10. DPP UP IN CHASE.

1 / MP1.0 BASEMENT MECHANICAL PIPING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHEIMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 MP1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT MECHANICAL PIPING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 146 OF 286

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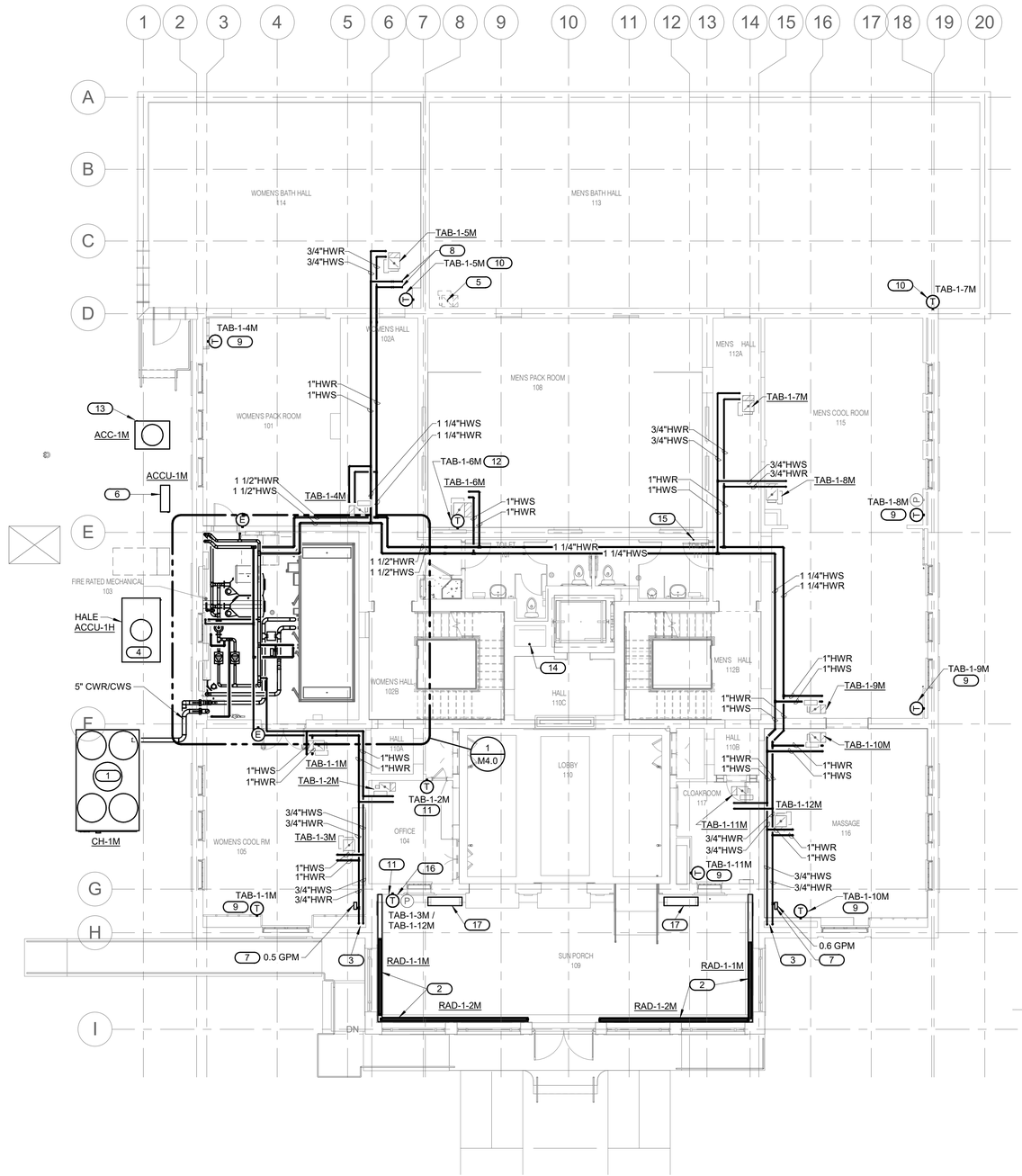

1 MP1.1 FIRST FLOOR MECHANICAL PIPING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES:

1. AIR COOLED CHILLER SET ON CONCRETE PAD. EXTEND CHILLED WATER TO BUILDING.
2. CONTINUOUS HOT WATER PEDESTAL FINNED TUBE RADIATOR WITH LINEAR BAR GRILLE OUTLET IN ARCHITECTURAL STYLE METAL ENCLOSURE. ROUTE RETURN PIPING IN COVES. LOBBY FLOOR IS SLOPED SLIGHTLY DOWN FROM EAST TO WEST. COORDINATE WITH HOUSING INSTALLATION AND SUPPORT FEET.
3. 3/4" HWS & HWR DOWN TO FINNED TUBE.
4. EXISTING RELOCATED HALE CONDENSING UNIT MOUNTED ON NEW CONCRETE PAD. RECONNECT TO EXISTING REFRIGERANT PIPING AND CONTROLS AND PUT IN WORKING ORDER.
5. FUTURE VAV BOX.
6. EXISTING RELOCATED ELEVATOR CONDENSING UNIT MOUNTED ON NEW CONCRETE PAD. RECONNECT TO EXISTING REFRIGERANT PIPING AND CONTROLS AND PUT IN WORKING ORDER.
7. RADIATOR CONTROL VALVE. SEE PLANS FOR GPM.
8. VALVE & CAP FOR FUTURE CONNECTION.
9. INSTALL RECESSED THERMOSTAT ON CHASE WALL AND ROUTE WIRING IN CHASE. IF NEW CHASE WITHOUT SHEATHING, ALLOW FOR FUTURE PLASTER/GYP. BD. COORDINATE LOCATION AND CONDUIT/WIRING ROUTING WITH CO BEFORE INSTALLATION.
10. ROUTE RECESSED THERMOSTAT WIRING IN EXISTING CHASE. COORDINATE LOCATION AND CONDUIT/WIRING ROUTING WITH CO BEFORE INSTALLATION.
11. RECESSED THERMOSTAT. CHANNEL EXISTING PLASTER TO ROUTE WIRING TO TAB. COORDINATE LOCATION AND CONDUIT/WIRING ROUTING WITH CO BEFORE INSTALLATION. PATCH WALL TO MATCH EXISTING.
12. ROUTE THERMOSTAT WIRING THROUGH WALL AND UP IN NEW STUD WALL TO TAB.
13. NEW DEHUMIDIFIER CONDENSER SET ON AND ANCHORED TO CONCRETE PAD.
14. DPP UP & DN IN CHASE.
15. DPP UP & DN ALONG WALL.
16. COMBINATION THERMOSTAT/CO2 SENSOR.
17. REINSTALL EXISTING RADIATOR AT THIS LOCATION SECURELY ANCHORED TO THE FLOOR. CLEAN AND REPAINT.

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LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLOVICH

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 MP1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR MECHANICAL PIPING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 147 OF 286

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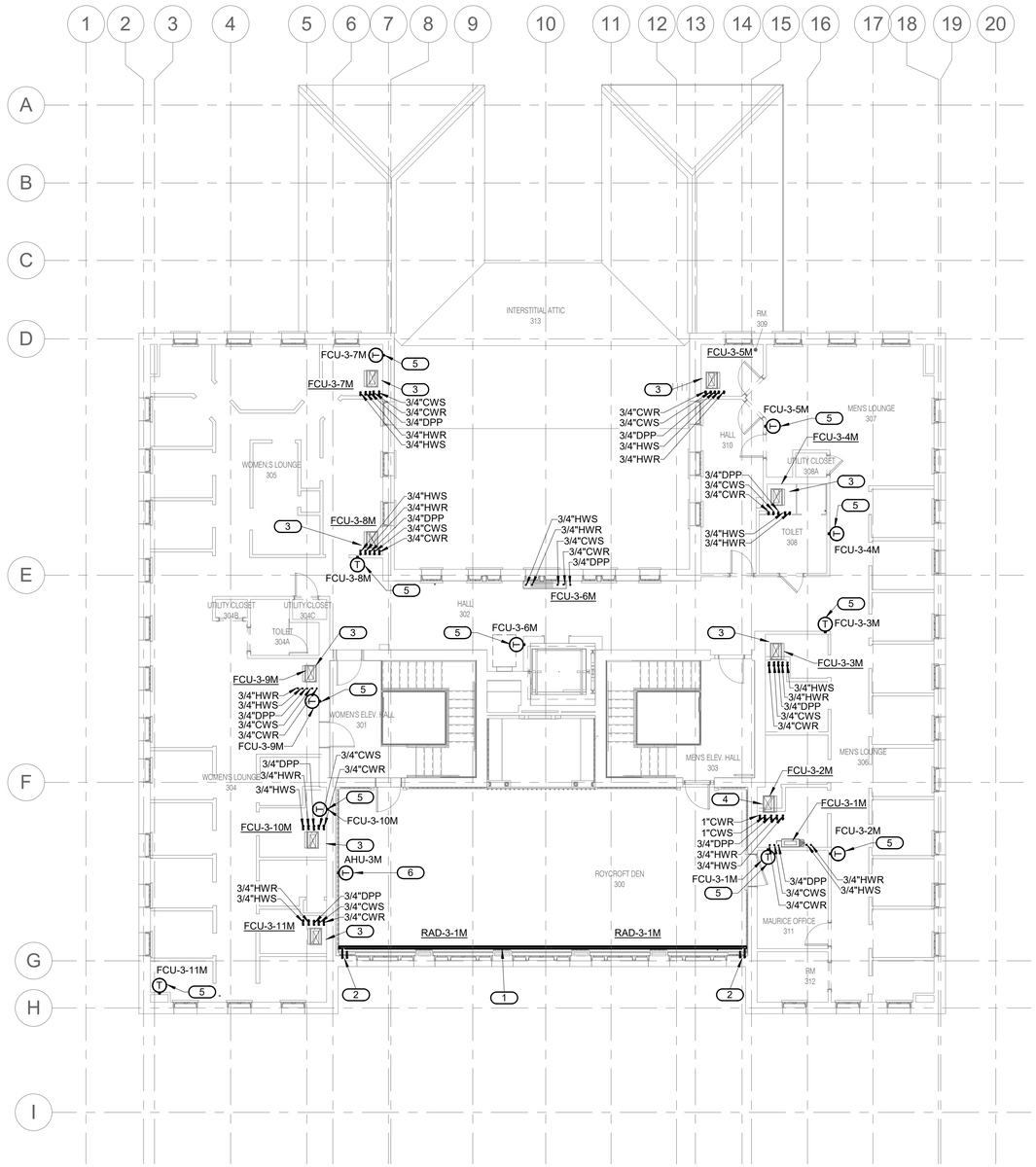

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES: (#)

1. PEDISTAL MOUNTED FINNED TUBE RADIATOR COVER WITH TWO (2) 3-ELEMENT SECTIONS FED FROM THE NORTH & SOUTH ENDS WITH RETURN PIPING ROUTED IN COVER.
2. 3/4" HWS & HWR RISERS ROUTED IN EXISTING PIPE CHASE. CONNECT 3/4" PIPING TO SERVE HALF OF PEDESTAL FINNED TUBE.
3. 4-PIPE VERTICAL FAN COIL UNIT CONNECTED TO 3/4" HWS, HWR, CWS, CWR, DPP ON FLOOR BELOW.
4. 4-PIPE VERTICAL FAN COIL UNIT CONNECTED TO 3/4" HWS, HWR, DPP, AND 1" CWS, CWR ON FLOOR BELOW.
5. TEMPORARY THERMOSTAT LOCATION. THERMOSTAT CAN BE SURFACE MOUNTED WITH SURFACE MOUNTED CONDUIT.
6. COMBINATION THERMOSTAT/CO2 SENSOR MOUNTED AT EXISTING ABANDONED LAVATORY ROUGH-IN LOCATION. ROUTE CONDUIT WIRING DOWN THROUGH EXISTING PIPING PENETRATIONS AND PATCH.

1 / MP1.3 THIRD FLOOR MECHANICAL PIPING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODLOVICH
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 MP1.3	TITLE OF SHEET MAURICE BATHHOUSE THIRD FLOOR MECHANICAL PIPING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 148 OF 286

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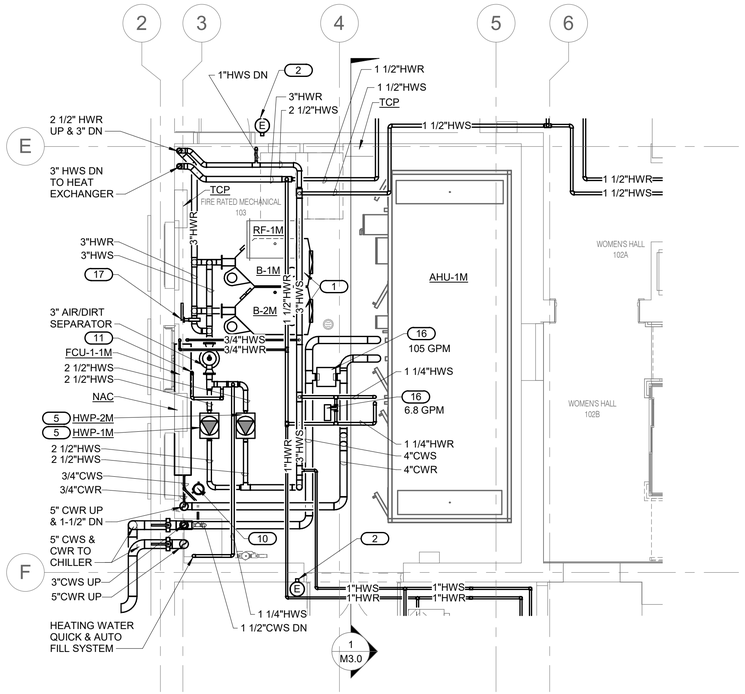
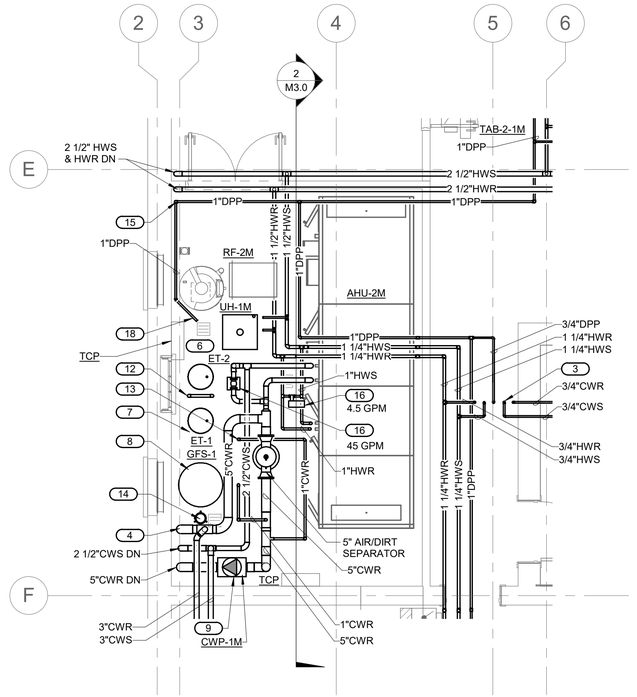


1 MP4.0 MECHANICAL PIPING 103 PLAN - ENLARGED

1/4" = 1'-0"



2 MP4.0 MECHANICAL PIPING PLAN - ENLARGED

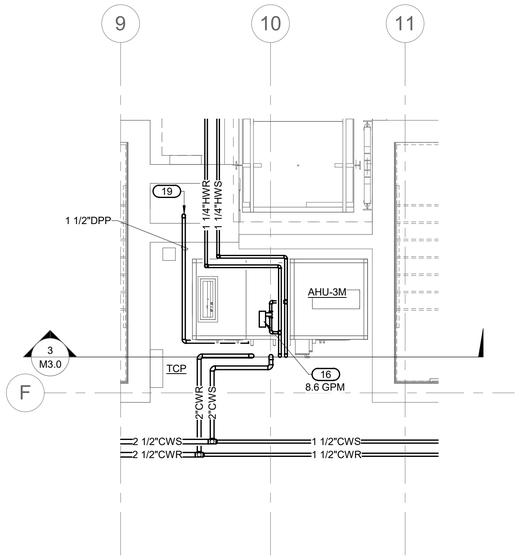
1/4" = 1'-0"

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES:

1. HIGH EFFICIENCY HOT WATER CONDENSING BOILER. MOUNT ON 4" MIN. HIGH HOUSEKEEPING PAD. EXTEND COMBUSTION AIR AND BOILER FLUE DUCTS THROUGH EXTERIOR WALL.
2. BOILER EMERGENCY SHUTDOWN PUSH BUTTON.
3. 3/4" HWS, HWR AND 1" CWS, CWR UP TO FCU ABOVE.
4. CHILLED WATER RETURN DOWN TO AHU-1M AND FAN COIL UNITS.
5. SPLIT COUPLED IN-LINE PUMP.
6. HEATING WATER EXPANSION TANK MOUNTED ON 4" HIGH CONCRETE HOUSEKEEPING PAD.
7. CHILLED WATER EXPANSION TANK MOUNTED ON 4" HIGH CONCRETE HOUSEKEEPING PAD.
8. CHILLED WATER GLYCOL FILL SYSTEM MOUNTED ON 4" HIGH CONCRETE HOUSEKEEPING PAD.
9. FLOOR MOUNTED SPLIT COUPLED IN-LINE CHILLED WATER PUMP.
10. HEATING WATER POT CHEMICAL FEEDER.
11. 1-1/4" HWS UP TO EXPANSION TANK.
12. 1-1/4" HWS DN & UP TO CONNECT TO ET-2.
13. 1" CWR DN TO ET-1.
14. CHILLED WATER POT CHEMICAL FEEDER.
15. DROP DDP DN AND ROUTE TO FLOOR SINK.
16. MINIMUM FLOW AUTO BYPASS VALVE. SEE PLANS FOR GPM.
17. BOILER BYPASS CONTROL VALVE.
18. ROUTE DPP ALONG FLOOR TO FLOOR SINK.
19. ROUTE DPP DN IN CHASE TO BASEMENT.



3 MP4.0 MECHANICAL PLAN - ENLARGED

1/4" = 1'-0"

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 26909
DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 MP4.0	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL PIPING - ENLARGED PLANS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 149 OF 286

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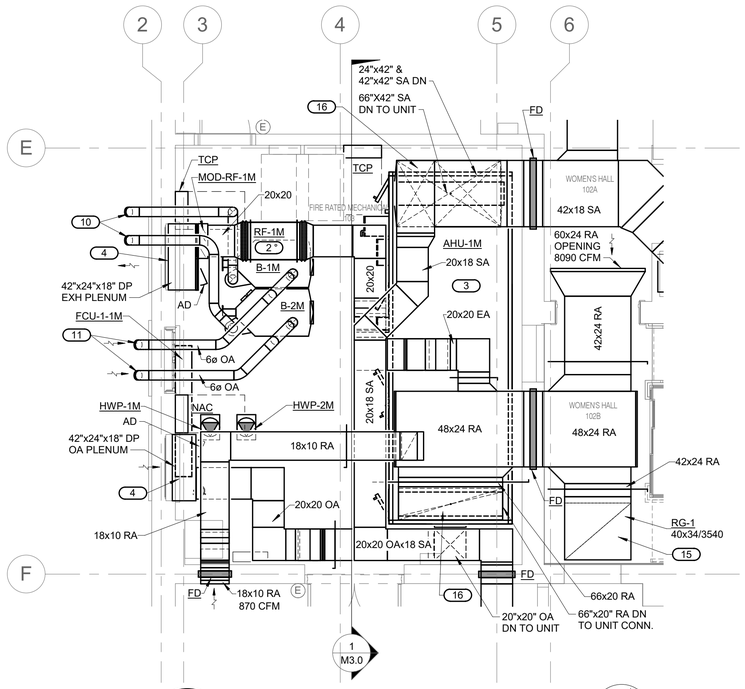
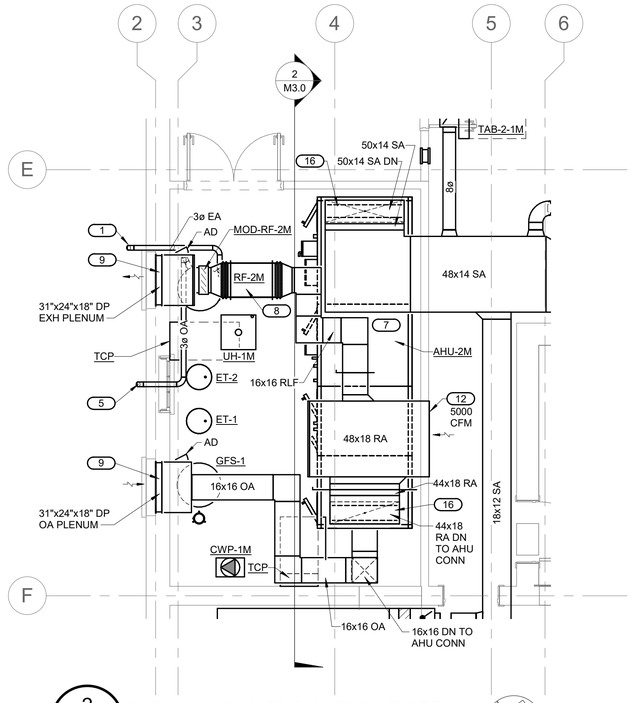


1 M4.0 MECHANICAL 103 PLAN - ENLARGED

1/4" = 1'-0"

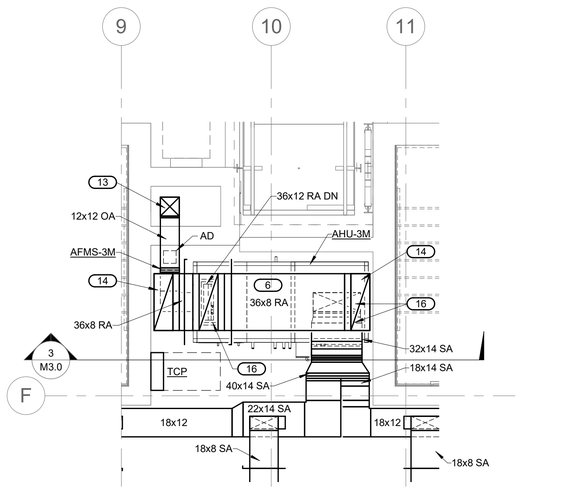
BLDG.



2 M4.0 MECHANICAL PLAN - ENLARGED

1/4" = 1'-0"

BLDG.



3 M4.0 MECHANICAL PLAN - ENLARGED

1/4" = 1'-0"

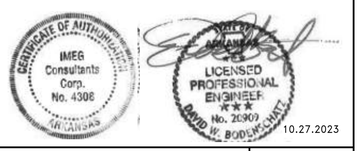
BLDG.

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT AND DUCTWORK SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION .

KEYNOTES: (#)

1. 3" DIA. DUAL WALL AL29-4C WATER HEATER FLUE 5'-3"+/- AFF. TERMINATE W/ 45 DEG DOWNWARD ELBOW W/ STAINLESS STEEL WIRE MESH SCREEN ON INLET. FLASH WALL PENETRATION & PAINT FLUE.
2. DIRECT DRIVE RELIEF FAN RF-1M SUSPENDED FROM STRUCTURE WITH SUITABLE STEEL RODS AND SPRING ISOLATORS. PROVIDE FLEXIBLE CONNECTION ON INLET & OUTLET.
3. COOLING ONLY VAV UNIT WITH AIR BLENDERS, MERV 11 FILTRATION, PREHEAT COIL, FAN ARRAY, COOLING COIL AND UV LIGHTS. MOUNT ON 6" MIN. HIGH HOUSEKEEPING PAD.
4. EXISTING LOUVERS TO REMAIN. CONNECT NEW PLENUMS TO LOUVERS. BLANK OFF UNUSED PORTIONS OF LOUVERS W/ INSULATED SHEET METAL SANDWICH PANELS.
5. 3" DIA. G.I. COMBUSTION AIR DUCT 5'-3"+/- AFF. TERMINATE W/ 45 DEG DOWNWARD ELBOW W/ STAINLESS STEEL WIRE MESH SCREEN ON INLET. FLASH WALL PENETRATION & PAINT DUCT.
6. SINGLE ZONE AHU WITH MERV 11 FILTRATION, COOLING COIL, REHEAT COIL AND PLENUM FAN.
7. COOLING ONLY VAV UNIT WITH AIR BLENDERS, MERV 11 FILTRATION, PREHEAT COIL, FAN ARRAY, COOLING COIL AND UV LIGHTS. MOUNT ON 4" MIN. HIGH HOUSEKEEPING PAD.
8. DIRECT DRIVE RELIEF FAN RF-2M SUSPENDED FROM STRUCTURE WITH SUITABLE STEEL RODS AND SPRING ISOLATORS. PROVIDE FLEXIBLE CONNECTIONS ON INLET & OUTLET.
9. NEW 31"x39" LOUVERS IN EXISTING WINDOW OPENING WITH NEW PLENUMS. FIELD VERIFY DIMENSIONS BEFORE ORDERING. BLANK OFF UNUSED PORTIONS OF LOUVERS W/ INSULATED SHEET METAL SANDWICH PANELS.
10. 6" ID DUAL WALL AL29-4C BOILER FLUES ABOVE LOUVER. TERMINATE WITH 45 DEG TURNED DOWN FACTORY ELBOW AT LEAST 12" FROM EXTERIOR WALL. FLASH WALL PENETRATION.
11. 6" DIA. G.I. COMBUSTION AIR DUCTS ABOVE WINDOW. TERMINATE W/ 45 DEG DOWNWARD ELBOW W/ STAINLESS STEEL WIRE MESH SCREEN ON INLET. FLASH WALL PENETRATION & PAINT DUCT.
12. 48"x18" OPENING ABOVE FUTURE CEILING.
13. 12"x12" OA UP TO INTAKE PENTHOUSE ON SHAFT ROOF.
14. 36"x12" RA UP TO BELOW BENCHES ABOVE.
15. HEAVY GAUGE LATTICE STYLE RETURN GRILLE. ADD REINFORCEMENT TO SUPPORT AS REQUIRED TO KEEP FROM SAGGING BUT NOT BLOCK AIRFLOW.
16. TRANSITION & CONNECT TO UNIT.



A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01 M4.0	MAURICE BATHHOUSE MECHANICAL PLANS - ENLARGED	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 150 OF 286
	DATE: 10.27.2023			

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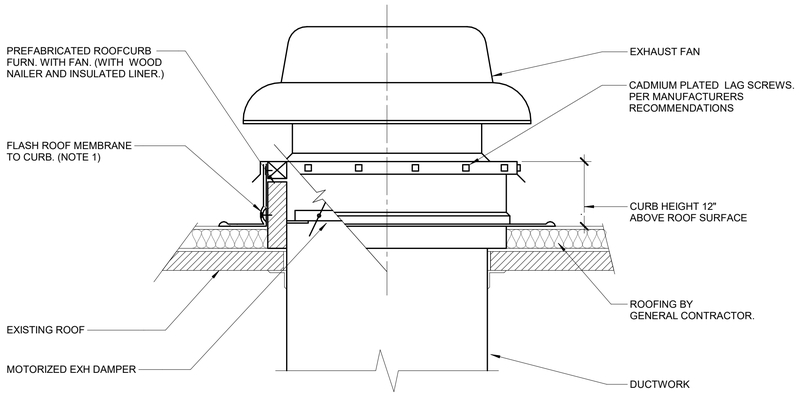
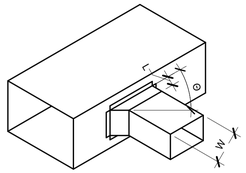


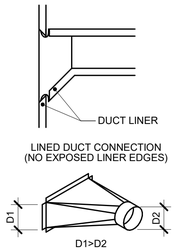
NOTES:

1. ALL ROOF FLASHING SHALL BE PER ROOFING MANUFACTURERS RECOMMENDATIONS.

1 EXHAUST FAN CURB

NO SCALE



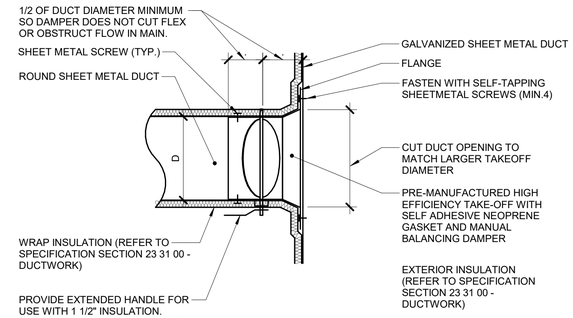


NOTES:

1. DO NOT USE CONNECTIONS WITH SCOOPS.
2. FIT ALL CONNECTIONS TO AVOID VISIBLE OPENINGS AND SECURE THEM SUITABLY FOR THE PRESSURE CLASS.
3. ADDITIONAL MECHANICAL FASTENERS ARE REQUIRED FOR 4"W.G. AND OVER.
4. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2 DUCT - BRANCH CONNECTIONS

NO SCALE

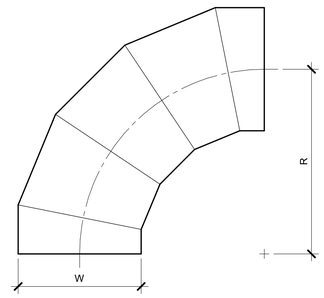


NOTES:

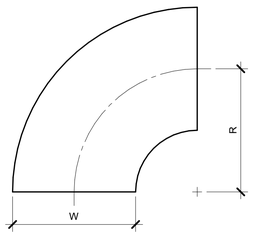
1. THIS DETAIL APPLIES ONLY TO TAPS OFF UNLINED DUCTS.
2. TAP DOES NOT NEED TO BE CONICAL IF THE TAP IS NOT LOCATED BETWEEN FANS AND TERMINAL AIR BOXES, DUCT IS NOT OVER 2" PRESSURE CLASS, AND ROUND DUCT IS NOT OVER 12" DIAMETER.
3. MANUFACTURED TAP/DAMPER COMBINATIONS WITH LESS THAN 1/2 DUCT DIAMETER SPACING BETWEEN THE MAIN DUCT AND THE DAMPER SHAFT ARE ACCEPTABLE ONLY IF THE DAMPER SHAFT IS INSTALLED PARALLEL TO THE AIR FLOW IN THE MAIN DUCT.

3 DUCT - HARD HIGH EFFICIENCY TAKE-OFF TO WRAPPED DUCT CONNECTION

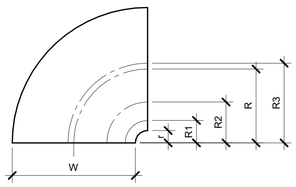
NO SCALE



OVAL / ROUND
RADIUS ELBOW
SMOOTH OR 5 GORE (MINIMUM)
R/W = 1.5 (MINIMUM)

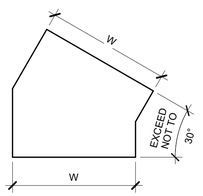


RECTANGULAR
RADIUS ELBOW
TYPE RE1
R/W = 1.0 (MINIMUM)
R/W < 1.0 SHALL BE TYPE RE3



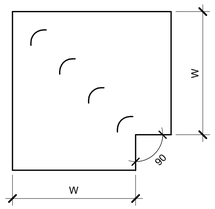
RECTANGULAR
RADIUS ELBOW WITH VANES
TYPE RE3

REFER TO SMACNA HVAC SYSTEMS DUCT DESIGN MANUAL, FOURTH EDITION, SECTION 5.14 "SPLITTER VANES" AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS, THIRD EDITION, FIGURES 4-2 AND 4-9 AND CHARTS 4-1 AND 4-1M. ELBOW SHALL HAVE THREE SPLITTER VANES AND r/W = 0.10 (R/W = 0.60) UNLESS NOTED OTHERWISE.

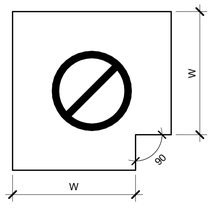


RECTANGULAR
MITERED ELBOW
TYPE RE6

USE ONLY AS PART OF OFFSETS AND TRANSITIONS PER FIGURE 4-7 TYPE 2 OR AS SHOWN ON DRAWINGS. OFFSETS ABOVE 30° SHALL BE TYPE RE1.

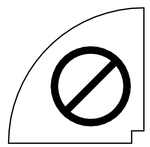


RECTANGULAR
MITERED ELBOW
WITH VANES
TYPE RE2



RECTANGULAR / OVAL / ROUND
MITERED ELBOW
WITHOUT VANES
TYPE RE4

NOT ALLOWED



RECTANGULAR
RADIUS ELBOW WITH
SQUARE THROAT

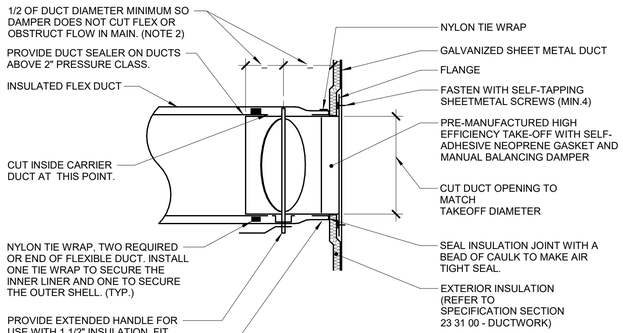
NOT ALLOWED

NOTES:

1. BEAD, CROSSBREAK, AND REINFORCE FLAT SURFACES AS IN STRAIGHT DUCT.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. DEFAULT ELBOW SHALL BE TYPE "RE1".
4. ELBOW TYPES SHALL BE INSTALLED AS SHOWN AND NOT BE SUBSTITUTED WITHOUT PERMISSION. EXCEPTION: RE1 OR RE3 MAY BE SUBSTITUTED FOR RE2.

4 DUCT - ELBOW CONSTRUCTION

NO SCALE

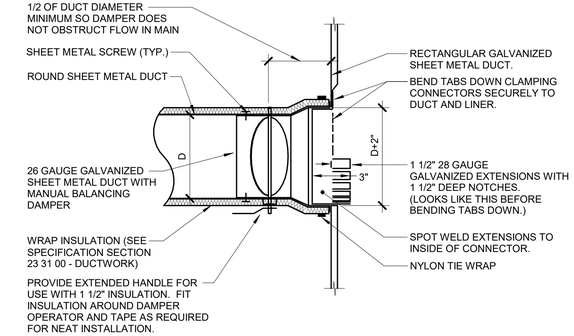


NOTES:

1. THIS DETAIL APPLIES ONLY TO TAPS OFF UNLINED DUCTS.
2. MANUFACTURED TAP/DAMPER COMBINATIONS WITH LESS THAN 1/2 DUCT DIAMETER SPACING BETWEEN THE MAIN DUCT AND THE DAMPER SHAFT IS INSTALLED PARALLEL TO THE AIR FLOW IN THE MAIN DUCT.

5 DUCT - FLEX HIGH EFFICIENCY TAKE-OFF TO WRAPPED DUCT W/BALANCING DAMPER

NO SCALE



NOTES:

1. THIS DETAIL APPLIES ONLY TO TAPS OFF LINED DUCTS.

6 DUCT - FLEX HIGH EFFICIENCY TAKE-OFF TO LINED DUCT W/BALANCING DAMPER

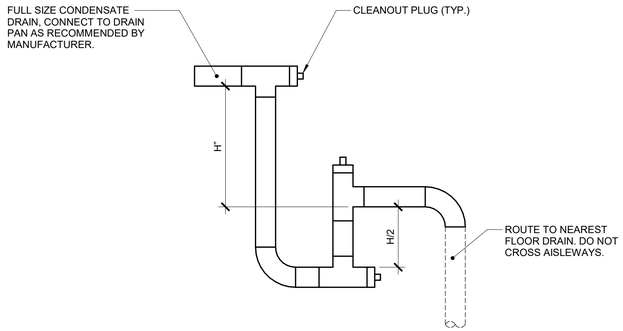
NO SCALE

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4308
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODENSCHATZ
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M5.0	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 151 OF 286

10/27/2023 1:14:17 PM



EXAMPLE:

H= FAN INLET PRESSURE (INCHES W.C.)

RA EXTERNAL = 0.64"

UPSTREAM OF FAN INTERNAL = 0.11

FILTERS (DIRTY) = 0.9

TOTAL = 1.65

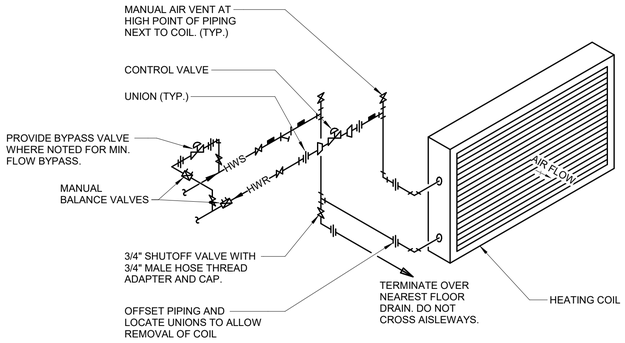
H = 1.65" + 1" = 2.65"

H = 3"

H/2 = 1.5"

H/2 = 2"

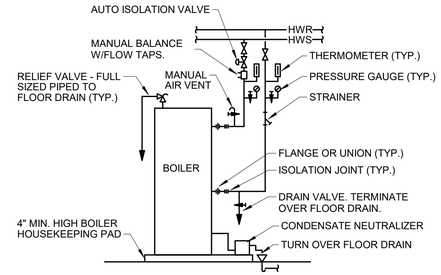
1 CONDENSATE TRAP - DRAW THROUGH COIL
12" = 1'-0"



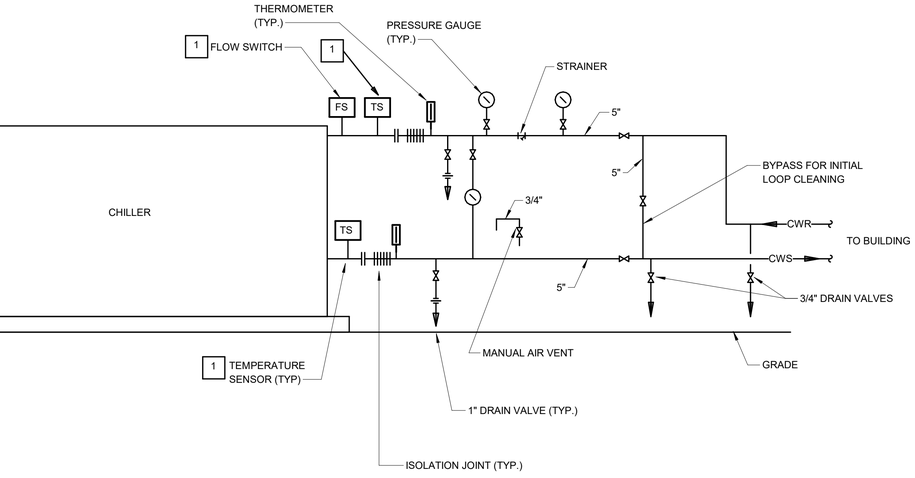
NOTES:

1. CHILLED WATER COIL SIMILAR.

2 COIL - HOT WATER PIPING DIAGRAM W/2-WAY VALVE
12" = 1'-0"



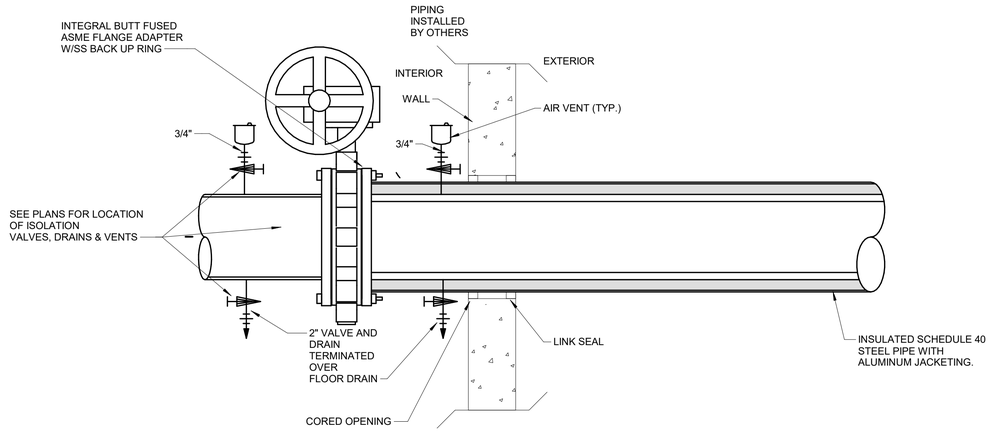
3 HOT WATER BOILER CONNECTION DETAIL
12" = 1'-0"



KEYED NOTES:

1 FACTORY INSTALLED COMPONENT.

4 SKETCH OF CONNECTIONS TO CHILLER
12" = 1'-0"



5 CHILLED WATER PIPING WALL PENETRATION
12" = 1'-0"

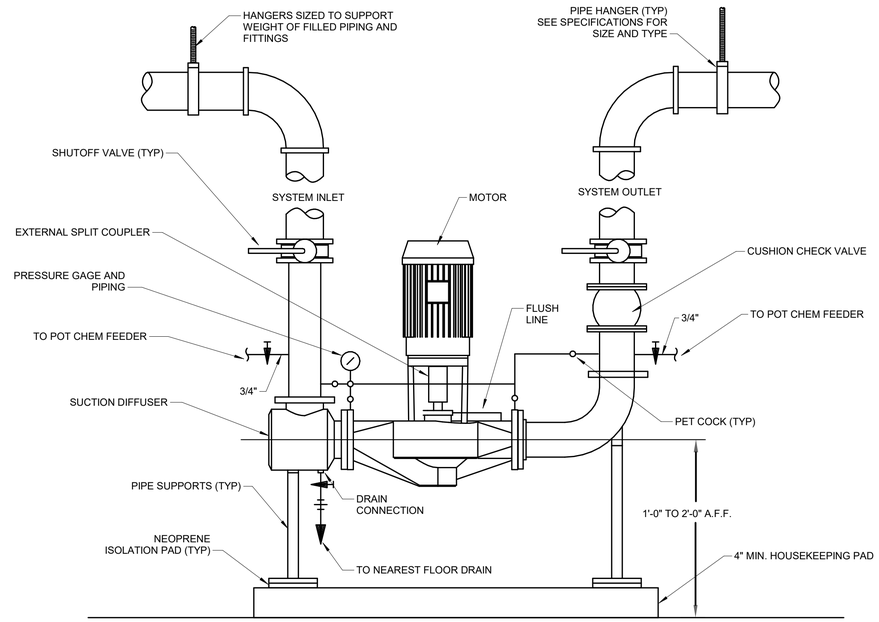
CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER

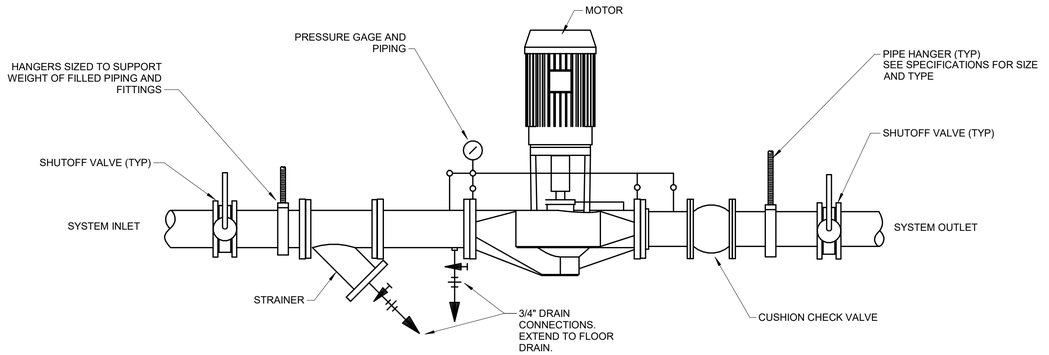
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M5.2	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 152 OF 286

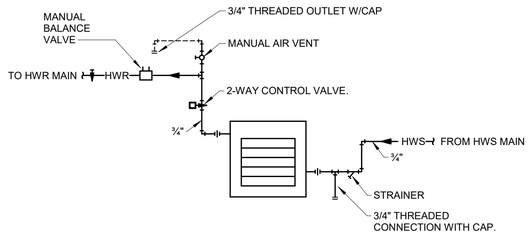
10/27/2023 1:14:18 PM



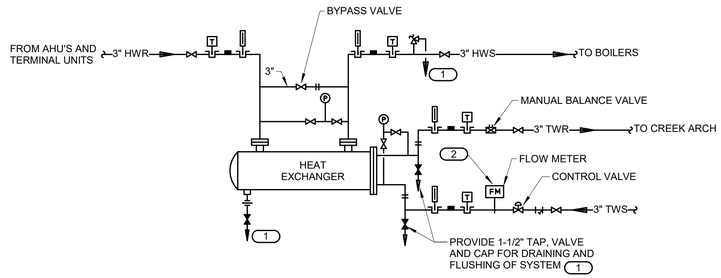
1 FLOOR MOUNTED VERTICAL INLINE PUMP CONNECTION DETAIL
NO SCALE



2 VERTICAL INLINE PUMP CONNECTION DETAIL
NO SCALE



3 HORIZONTAL HOT WATER UNIT HEATER DETAIL
NO SCALE



NOTES:

1. VERIFY DIAMETER OF ANCHOR BOLT REQUIRED TO FIT WITHIN MOUNTING FEET ANCHOR HOLES.

4 ROOF SUPPORT - EQUIPMENT RAIL
NO SCALE

5 THERMAL WATER/HEATING WATER HEAT EXCHANGER
NO SCALE

KEYNOTES (#)

1. EXTEND AND TERMINATE OVER NEAREST FLOOR DRAIN. DO NOT CROSS AISLEWAYS.
2. PROVIDE 5 PIPE DIAMETERS STRAIGHT PIPE UPSTREAM OF FLOW METER AND 3 PIPE DIAMETERS DOWNSTREAM.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 01 M5.3	TITLE OF SHEET MAURICE BATHHOUSE MECHANICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 153 OF 286

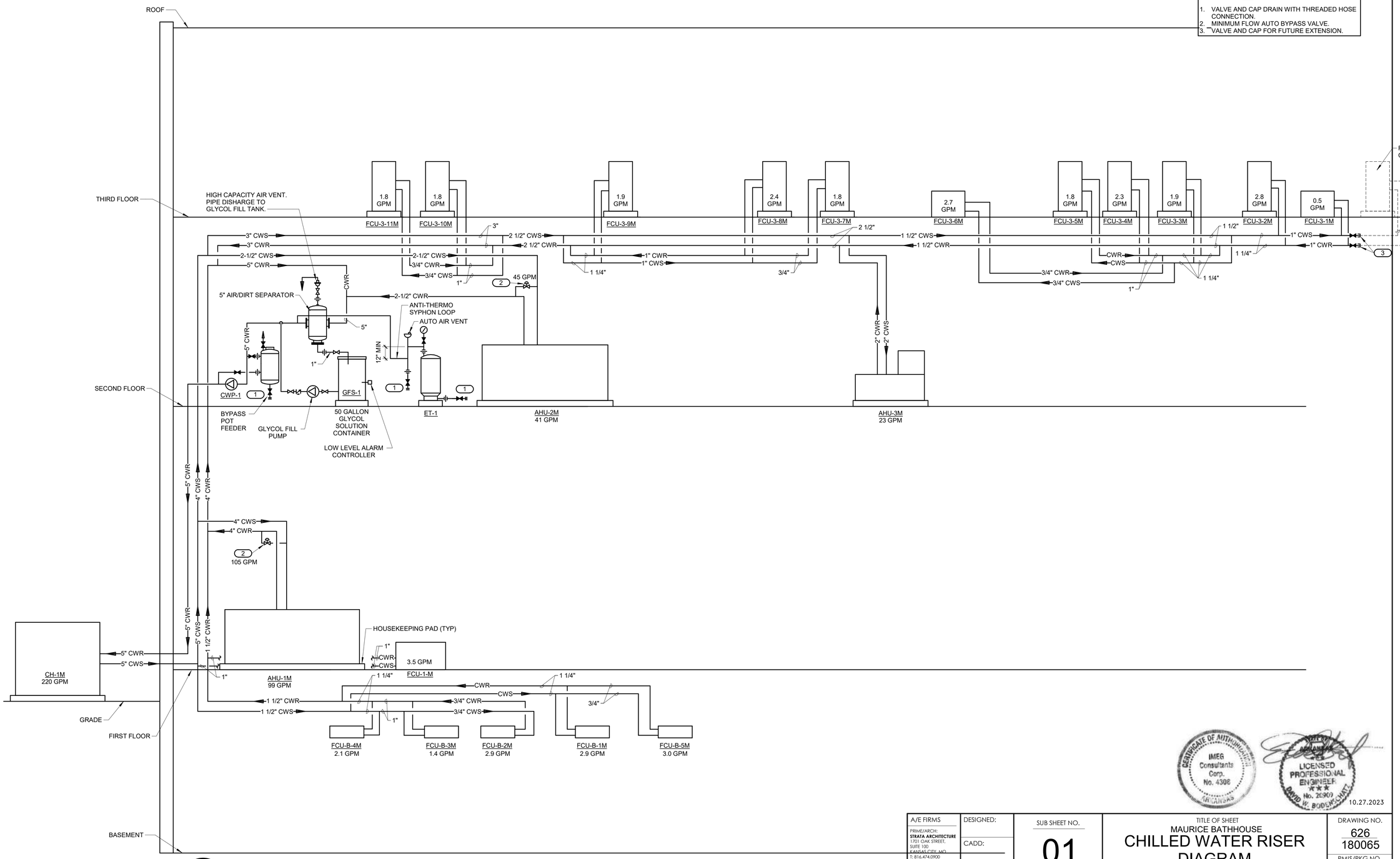
10/27/2023 1:14:18 PM

SHEEET NOTES:

1. BRANCH PIPING TO TERMINAL UNITS SHALL BE 3/4" MIN. UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. VALVE AND CAP DRAIN WITH THREADED HOSE CONNECTION.
2. MINIMUM FLOW AUTO BYPASS VALVE.
3. VALVE AND CAP FOR FUTURE EXTENSION.



1 / M6.0 CHILLED WATER RISER DIAGRAM

12" = 1'-0"

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODLINE

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 M6.0	TITLE OF SHEET MAURICE BATHHOUSE CHILLED WATER RISER DIAGRAM REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 154 OF 286

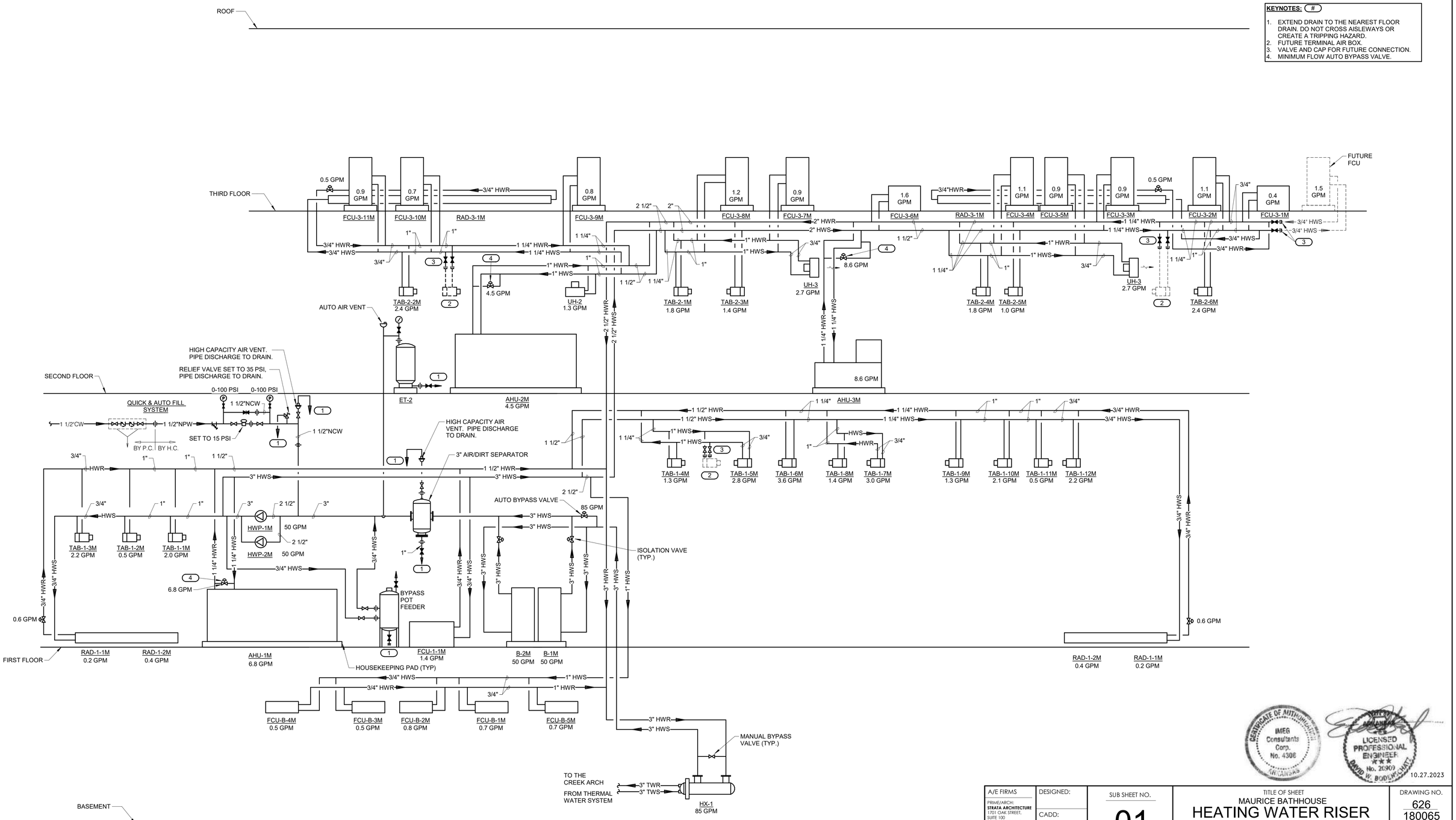
10/27/2023 1:14:19 PM

SHEET NOTES:

1. BRANCH PIPING TO TERMINAL UNITS SHALL BE 3/4" MIN. UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. EXTEND DRAIN TO THE NEAREST FLOOR DRAIN. DO NOT CROSS AISLEWAYS OR CREATE A TRIPPING HAZARD.
2. FUTURE TERMINAL AIR BOX.
3. VALVE AND CAP FOR FUTURE CONNECTION.
4. MINIMUM FLOW AUTO BYPASS VALVE.



1 HEATING WATER RISER DIAGRAM

NO SCALE

A/E FIRMS

PRIME/ARCH:
STRATA ARCHITECTURE
1701 OAK STREET,
SUITE 100
KANSAS CITY, MO
T: 816.474.0900

MEP/ENG:
IMEG CORP.
1600 BALTIMORE STREET,
SUITE 300
KANSAS CITY, MO
T: 816.842.8437

DESIGNED:

CADD:

TECH. REVIEW:

DATE: 10.27.2023

SUB SHEET NO. 01 M6.1

TITLE OF SHEET
MAURICE BATHHOUSE
HEATING WATER RISER DIAGRAM

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 626 180065

PMIS/PKG NO. 318674

SHEET 155 OF 286

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER DAVID W. BODLINE

10.27.2023

10/27/2023 1:14:20 PM

AIR HANDLING UNIT SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.VIBRATION ISOLATION FURNISHED WITH UNIT.
3.PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SEPCIFICATION - 23 05 13.
4.PROVIDE PROVIDE EACH FAN WITH INTEGRAL BACKDRAFT DAMPER. FAN ARRAY SHALL BE ABLE TO PROVIDE 100% AIRFLOW WITH ONE (1) FAN NOT OPERATING.
5.PROVIDE ONE (1) PIEZOMETER RING AND ONE (1) VFD PER FAN IN COMMON ENCLOSURE PER FAN ARRAY.
6.CHILLED WATER IS 30% PROPYLENE GLYCOL.
7.PROVIDE WITH UVGI LIGHTING DOWNSTREAM OF COOLING COIL. UVGI WAVE LENGTH SHALL BE 254NM AND INTENSITY LEVEL SHALL BE SIZED TO PROVIDE AT LEAST 85% PATHOGEN REDUCTION PER PASS. PROVIDE WITH RADIOMETER FOR INTENSITY MONITORING.
8.PROVIDE W/AIR BLENDER.
9.HEATING COIL LOCATED IN THE PREHEAT POSITION.
10.HEATING COIL LOCATED IN THE REHEAT POSITION.

		SUPPLY FAN (NOTE 1)								MINIMUM OUTSIDE AIR CFM	ELECTRICAL								HEATING COIL - WATER								
														DISCONNECT(S)		CONTROLLER STATER(S)											
TAG NAME	AREA SERVED	NO. OF FANS	CFM TOTAL	MIN. CFM	EXT. S.P.	TYPE	RPM (NOTE D)	BHP EACH (NOTE E)	MHP EACH (NOTE E)		NO. OF POWER CONNECTIONS	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	SCCR	CFM	EAT °F	LAT °F	EWT °F	LWT °F	GPM	MBH	MAX. A.P.D. IN. W.C.	W.P.D. FEET HEAD
AHU-1M	FIRST FLOOR	4	12500	5000	1.25	AF135, 100% WIDTH DD PLENUM FAN ARRAY	3580	5.2	7.5	2500	1	208	3	MFR	NF	MFR	VFD	10 kA	6250	40.0	55.0	140	110	6.8	1.1	0.03	0.20
AHU-2M	SECOND FLOOR	4	5000	3500	1.00	AF105, 100% WIDTH DD PLENUM FAN ARRAY	4130	1.8	3.0	1500	1	208	3	MFR	NF	MFR	VFD	10 kA	2500	30.0	55.0	140	110	4.5	67.5	0.02	0.30
AHU-3M	ROYCROFT DEN 300	1	3000	600	0.50	AF150, 100% WIDTH DD PLENUM FAN	3320	4.2	5.0	600	1	208	3	MFR	NF	MFR	VFD	5 kA	3000	55.0	85.0	140	110	5.6	83.3	0.30	10.00

AIR HANDLING UNIT SCHEDULE - CONT.

	COOLING COIL									FILTER				MODULATING DAMPERS		AIR BLENDERS			MAX. DIMENSIONS			WEIGHT	VIBRATION ISOLATION				
												PRESSURE DROP															
TAG NAME	EAT DB °F	EAT WB °F	LAT DB °F	LAT WB °F	EWT °F	LWT °F	GPM	TOTAL MBH	MAX. A.P.D. IN. W.C.	W.P.D. FEET HEAD	TYPE	MAX. FACE VELOCITY	CLEAN	DIRTY	OUTSIDE AIR	RETURN AIR	NO.	SIZE	MAX. A.P.D. IN. W.C.	LENGTH	WIDTH	HEIGHT	OPERATING	TYPE	DEFL.	MANUFACTURER	MODEL	NOTES
AHU-1M	80.0	66.8	51.3	51.3	42	54.0	98.6	562.0	1.2	15.1	4" MERV 11	500	0.60	1.25	20"x20"	66"x16"	2	30"	0.25	223"	78"	78"	7135	M3	1.000	JOHNSON CONTROLS, INC.	XTI-72x78	1,2,3,4,5,6,7,8,9
AHU-2M	80.0	66.8	51.1	51.1	42	54.0	40.7	231.0	0.7	15.6	4" MERV 11	500	0.80	1.25	16"x16"	44"x10"	2	24"	0.25	210"	60"	60"	4540	M3	1.000	JOHNSON CONTROLS, INC.	XTI-54x60	1,2,3,4,5,6,7,8,9
AHU-3M	80.0	66.8	51.8	51.8	42	54.0	22.9	131.0	0.7	6.1	4" MERV 11	500	0.50	1.25	12"x12"	26"x10"	N/A	N/A	N/A	111"	51"	90"	2685	M3	1.000	JOHNSON CONTROLS, INC.	XTI-45x51	1,2,3,6,7,10

FAN SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.SET FAN ON CURB WITH TOP MIN 18" ABOVE ROOF SURFACE.

									ELECTRICAL (NOTE 1)								VIBRATION ISOLATION				
													DISCONNECT		CONTROLLER/ STARTER						
TAG NAME	AREA SERVED	CFM	S.P. IN. W.C.	WHEEL DIA. INCHES	FAN RPM (NOTE F)	DRIVE TYPE	MAX. AMCA SONES OR DBA	BACKDRAFT DAMPER TYPE	BHP OR WATTS (NOTE E)	MHP OR WATTS (NOTE E)	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	WEIGHT (LBS)	TYPE	DEFL.	MANUFACTURER	MODEL	NOTES
EF-1M	FIRST FLOOR RESTROOMS	375	0.38	10.0	1280	DIRECT	6.4	MOTORIZED	59	0.25	115	1	MFR	NF	MFR	EC MOTOR	70	NA	0.00"	COOK	ACED 100 EC	1,2
RF-1M	AHU-1M	2500	0.50	16.5	925	DIRECT	59	MOTORIZED	0.29	0.75	208	3	MC	NF	MC	VFD	295	H2	0.75"	COOK	QMXD 165	1
RF-2M	AHU-2M	1500	0.50	15.0	895	DIRECT	55	MOTORIZED	0.17	0.50	208	3	MC	NF	MC	VFD	255	H2	0.75"	COOK	QMXD 150	1

AIR TERMINAL SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.CONTRACTOR SHALL DETERMINE PROPER BORDER TYPE TO MATCH CEILING CONSTRUCTION.
3.REFER TO DRAWINGS FOR NECK SIZE. ALL BRANCH DUCTWORK TO AIR TERMINALS SHALL BE NECK SIZE UNLESS NOTED OTHERWISE.

TAG NAME	FACE SIZE (IN.) (NOTE 2)	TYPE	BORDER (NOTE 1)	MATERIAL	FINISH	VOLUME DAMPER REQUIRED	MANUFACTURER	MODEL	NOTES
EG-1	INLET +2	35 DEGREE DEFLECTION	1 1/4"	STEEL	WHITE	NO	TITUS	350R	
RG-1	INLET +2	LATTICE	1"	STEEL	PAINTED	NO	KEES	LA081	12 GA. DECORATIVE LATTICE GRILLE. COLOR AS DIRECTED BY CO
SD-1	24x24	PLAQUE	LAY-IN	STEEL	WHITE	NO	TITUS	OMNI	
SD-2	INLET +5	LOUVERED FACE	BEVELED DROP FACE	STEEL	<varies>	NO	TITUS	TDC	TYPE 6 BEVELED DROP FACE
SG-1	INLET +2	DOUBLE DEFLECTION	1 1/4"	STEEL	WHITE	NO	TITUS	300R	BLADES VERTICAL UNLESS NOTED OTHERWISE
SG-2	INLET +2	LATTICE	1"	STEEL	PAINTED	NO	TITUS	LA081	12 GA. DECORATIVE LATTICE GRILLE. COLOR AS DIRECTED BY CO
SG-3	INLET +2	DOUBLE DEFLECTION	1 1/4"	STAINLESS STEEL	MILL	NO	TITUS	300R-SS	BLADES VERTICAL UNLESS NOTED OTHERWISE
SR-1	INLET + 2	35 DEGREE DEFLECTION	1 1/4"	STEEL	WHITE	YES	TITUS	300R	BLADES VERTICAL UNLESS NOTED OTHERWISE

MOTOR OPERATED DAMPER SCHEDULE

NOTES:
1.COORDINATE DAMPER ACTUATOR LOCATION AND MOUNTING REQUIREMENTS WITH TEMPERATURE CONTROL CONTRACTOR.

		SIZE		CFM								
TAG NAME	EQUIPMENT SERVED	WIDTH	HEIGHT	MAX	MIN.	BLADE CONFIGURATION	BLADE ORIENTATION	INSULATED	ACTUATOR TYPE (NOTE 1)	ACTUATOR STYLE	POWER FAILURE POSITION	POSITIVE POSITION FEEDBACK REQUIRED	NOTES
MOD-EF-1M	EF-1M	12	12	375	0	OPPOSED	HORIZONTAL	No	ELECTRIC	TWO POSITION	NORMALLY CLOSED (NC)	No	1
MOD-RF-1M	RF-1M	20	20	2500	0	OPPOSED	HORIZONTAL	No	ELECTRIC	TWO POSITION	NORMALLY CLOSED (NC)	Yes	1
MOD-RF-2M	RF-2M	16	16	1500	0	OPPOSED	HORIZONTAL	No	ELECTRIC	TWO POSITION	NORMALLY CLOSED (NC)	Yes	1

BOILER SCHEDULE - HOT WATER

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.PROVIDE WITH GAS MAIN PRESSURE REGULATOR AS REQUIRED.
3.PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.
4.EACH BOILER IS 50% OF TOTAL LOAD.

										ELECTRICAL						MAX. DIMENSIONS			WEIGHT			
												DISCONNECT		CONTROLLER/ STARTER								
TAG NAME	FUEL TYPE	INLET FUEL PRESSURE	TURNDOWN RATIO	INPUT BTUH/HR	OUTPUT BTU/HR	EWT °F	LWT °F	GPM	OPERATING PRESSURE PSI	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR	LENGTH	WIDTH	HEIGHT	OPERATING	MANUFACTURER	MODEL	NOTES
B-1M	NATURAL GAS	14	15:1	750000	722000	110	140	45	80	115	1	EC	NF	MFR	5 kA	56"	30"	78"	1770	LOCHINVAR	FBN0751	1,2
B-2M	NATURAL GAS	14	15:1	750000	722000	110	140	45	80	115	1	EC	NF	MFR	5 kA	56"	30"	78"	1770	LOCHINVAR	FBN0751	1,2

GLYCOL FEED SYSTEM

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.SEE 23 21 00 FOR ADDITIONAL SYSTEM REQUIREMENTS.
3.FILL WITH GLYCOL SOLUTION MEETING REQUIREMENTS OF 23 21 00.
4.AUDIBLE ALARM W/ SILENCE SWITCH THAT SOUNDS ON LOW LIQUID LEVEL.
5.AUTOMATIC START/STOP PRESSURE SWITCH TO CONTROL PUMP OPERATION BASED ON PRESSURES LISTED ON DOCUMENTS.

						ELECTRICAL							
										CONTROLS			
TAG NAME	SERVICE	TANK VOLUME	SYSTEM FILL PRESSURE	PUMP HEAD PSI	MIN. 1.5 GPM @ 100 PSI	MHP	VOLTAGE	PHASE	DISCONNECT BY (NOTE A)	BY (NOTE A)	MANUFACTURER	MODEL (NOTE 1)	NOTES
GFS-1	CHILLED WATER	50.0	15	30	0.0	0.33	115	1	MFR	MFR	WESSELS	GMP	1,2,3,4,5

LINEAR DIFFUSER SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.PROVIDE WITH CONCEALED FASTENERS.
3.PROVIDE WITH TYPE 5 HEAVY DUTY BORDER FOR FLOOR INSTALLATION.

TAG NAME	MATERIAL	BAR WIDTH	BAR SPACING	WIDTH	LENGTH	PLENUM REQUIRED	PLENUM INSULATION TYPE	PLENUM INLET SIZE	PATTERN CONTROL REQUIRED	BALANCING DAMPER REQUIRED	FINISH	MANUFACTURER	MODEL	NOTES
LG-1	ALUMINUM	1/8"	1/4"	SEE PLANS	SEE PLANS	No	N/A	N/A	Yes	No	DARK BRONZE	TITUS	CT-480	NOTE 1,2,3

SCHEDULE GENERAL NOTES:

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR....

B. DISCONNECT TYPE:
F = FUSED
NF = NON-FUSED

C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
WYE = WYE-DELTA
SS = SOLID STATE (SOFT START)
MS = MANUAL STARTER
VFD = VARIABLE FREQUENCY DRIVE
VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS

D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER
GC = BY GENERAL CONTRACTOR
SAC = SOUND ATTENUATOR CURB

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER DAVID W. BODENHAMER No. 26909

10.27.2023

10/27/2023 1:14:23 PM

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01	MAURICE BATHHOUSE MECHANICAL SCHEDULES	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM	ME6.0	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 156 OF 286
	DATE: 10.27.2023			

AIR COOLED CHILLER SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.SEE SPECIFICATION SECTION 23 64 30 FOR ADDITIONAL REQUIREMENTS.
3.PROVIDE CHILLER WITH HOT GAS BYPASS.
4.PROVIDE UNIT WITH ACOUSTIC SOUND BLANKET AND LOW SOUND FANS WITH VFD CONTROL.
5.CHILLED WATER IS 30% PROPYLENE GLYCOL.

					CAPACITY/PERFORMANCE								EVAPORATOR PERFORMANCE						MAXIMUM ALLOWABLE SOUND POWER IN DB RE 10^{-12} WATTS OCTAVE BAND CENTER FREQUENCY									ELECTRICAL								MAX. DIMENSIONS					
							MIN. EER AT % LOAD (BASED ON AIR AND WATER CONDITIONS AS LISTED.)								GPM														DISCONNECT										
TAG NAME	SERVICE	REFRIGERANT	AMBIENT TEMP °F	MIN. OPERATING AMBIENT TEMP. °F	DESIGN TONS	STAGES OF UNLOADING	100	75	50	25	NPLV	IPLV	EWT °F	LWT °F	MINIMUM	DESIGN	MAXIMUM	MAX. PRESSURE DROP (FT. W.G.)	FOULING FACTOR	63	125	250	500	1000	2000	4000	NUMBER OF COMPRESSORS	COMPRESSOR TYPE	NO. OF POWER CONNECTIONS	VOLTAGE	PHASES	MCA	MOCP AMPS	BY (NOTE A)	TYPE (NOTE B)	SCCR	LENGTH	WIDTH	HEIGHT	MANUFACTURER	MODEL (NOTE 1)	NOTES
CH-1M	CHILLED WATER	R410A	105	45	103.3	4	7.8	12.8	15.2	21.5	15.97	17.1	42	54	150	218	625	15	0.001	98	97	93	93	91	87	84	4	HERMETIC SCROLL	1	208 V	3	507	600	MFR	NF	65 kA	144	89	95	YORK	YLAA0120SE17XFBSDTX	1,2,3,4,5

PUMP SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.30% PROPYLENE GLYCOL.
3.PUMP IS 100% DUTY.
4.PUMP IS 50% DUTY (LEAD/LAQ.).
5.PUMP IS FLOOR MOUNTED. SEE DETAIL.
6.PUMP IS SUSPENDED. SEE DETAIL

							ELECTRICAL (NOTE 1)						VIBRATION ISOLATION				
											DISCONNECT	CONTROLLER/ STARTER					
TAG NAME	SERVICE	GPM	PUMP FT. HEAD AT DESIGN	MINIMUM PUMP EFFICIENCY	INLET SIZE	IMPELLER SIZE	HP (NOTE E)	RPM	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	TYPE	DEFL.	MANUFACTURER	MODEL	NOTES
CWP-1M	CHILLED WATER	220.0	75	64.5	2.5	5.375	7.5	3600	208	3	MC	NF	MC	VFD	NA	0"	BELL & GOSSETT	2.5x2.5x7B	1,2,3,5
HWP-1M	HOT WATER	50.0	80	55.1	1.5	5.250	5	3600	208	3	MC	NF	MC	VFD	M2	3/4"	BELL & GOSSETT	1.5x1.5x7C	1,4,6
HWP-2M	HOT WATER	50.0	80	55.1	1.5	5.250	5	3600	208	3	MC	NF	MC	VFD	M2	3/4"	BELL & GOSSETT	1.5x1.5x7C	1,4,6

UNIT HEATER SCHEDULE - HOT WATER

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

										ELECTRICAL										
														DISCONNECT	CONTROLLER/ STARTER					
TAG NAME	AREA SERVED	CONFIGURATION	CFM	MBH	GPM	EWT °F	LWT °F	W.P.D. FT. HEAD	HP	RPM	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR	CONTROL	MANUFACTURER	MODEL	NOTES
UH-1M	2ND FLOOR MECHANICAL	VERTICAL	990	20	1.3	140	110	5.0	0.05	1550	115	1	MC	NF	MS	5 kA	UH-A	VULCAN	VV-125	1
UH-2M	INTESTITIAL ATTIC 313	HORIZONTAL	1800	40	2.7	140	110	5.0	0.08	1000	115	1	MC	NF	MS	5 kA	UH-A	VULCAN	HV-108	1

HEAT EXCHANGER SCHEDULE - LIQUID TO LIQUID

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.SHELL AND TUBES SHALL BE 316 STAINLESS STEEL.

		TUBESIDE					SHELLSIDE					HEATING SURFACE FT²	MAX. DIMENSIONS		WEIGHT		MANUFACTURER	MODEL	NOTES
TAG NAME	SYSTEM SERVED	GPM	W.P.D. FT. HEAD	EWT °F	LWT °F	FOULING FACTOR	GPM	W.P.D. FT. HEAD	EWT °F	LWT °F	FOULING FACTOR		LENGTH	DIAMETER	DRY	OPERATING			
HX-1M	BOILERS	85	13.9	135	124	0.00025	85	12.1	110	121	0.00025	72	46"	8"	220	285	BELL & GOSSETT	08042-4 QCHXS	1,2

LOUVER SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.FIELD VERIFY EXISTING OPENING DIMENSIONS.
3.FINISH TYPES: TYPE 1 - MILL FINISH, TYPE 2 - 204-R1 SATIN ANODIZED, TYPE 3 - BAKED ENAMEL FINISH ON PRETREATED PRIME PAINT. STANDARD COLOR - SELECTION BY ARCHITECT. TYPE 4 - BAKED EPOXY FINISH ON PRIME COATED METAL. STANDARD COLOR - SELECTION BY ARCHITECT. TYPE 5 - DURANODIC BRONZE - LIGHT, MEDIUM, DARK. TYPE 6 - PVDF (KYNAR 500, HYLAR 5000, OR DURANAR). STANDARD COLOR - SELECTION BY ARCHITECT.

TAG NAME	SYSTEM SERVED	CFM	SIZE (INCHES)		FREE AREA VELOCITY	S.P. IN. W.C.	FINISH (NOTE 3)	MANUFACTURER	MODEL	NOTES
			WIDTH	HEIGHT						
L-OA-1M	AHU-2M	1500	31	39	N/A	N/A	TYPE 6	RUSKIN	ELF375DX	1,2,3
L-RLF-1M	RF-2M	1500	31	39	N/A	N/A	TYPE 6	RUSKIN	ELF375DX	1,2,3

CONDENSER UNIT SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.

								ELECTRICAL									MAX. DIMENSIONS			WEIGHT		
													DISCONNECT		CONTROLLER/ STARTER							
TAG NAME	EQUIPMENT SERVED	NOMINAL DESIGN TONS	REFRIGERANT	AMBIENT TEMP °F	AIRFLOW (CFM)	NUMBER OF CIRCUITS	NUMBER OF FANS	NO. OF POWER CONNECTIONS	VOLTAGE	PHASES	MCA	MOCP	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SSCR	LENGTH	WIDTH	HEIGHT	OPERATING	MANUFACTURER	MODEL (NOTE 1)
ACC-1M	DH-1M	5	R-407C	105.0	5350	1	1	1	208	3	4.1	15	MC	NF	MFR	10 kA	51"	40"	35"	255	DESERT AIRE	RC5S039C

PIPE INSULATION SCHEDULE (HVAC)

GENERAL NOTES:
1. REFER TO THE SPECIFICATIONS FOR TYPE DESCRIPTIONS AND JACKETING REQUIREMENTS. VALUES LISTED BELOW ARE BASED ON ASHRAE / IECC REQUIREMENTS.
2. TYPE A INSULATION IS NOT ALLOWED IN NON-AIR CONDITIONED SPACES, SUCH AS MECHANICAL ROOMS, EXTERIOR, ATTICS, ETC.
3. TYPE B INSULATION GREATER THAN 1" THICK SHALL BE INSTALLED USING MULTIPLE LAYERS OF 3/4" OR 1" WITH STAGGERED SEAMS.
4. PROVIDE RIGID INSERT AT HANGERS, EITHER PRE-MANUFACTURED COUPLINGS (REFER TO PIPE HANGER AND SUPPORTS SPECIFICATIONS) OR TYPE C, D, OR E INSULATION. SEE SPEC. FOR MORE DETAILS.

PIPE SYSTEM	INSULATION TYPE	INSULATION THICKNESS PER NOMINAL PIPE OR TUBE SIZE					NOTES
		< 1"	1" TO < 1.5"	1.5" TO < 4"	4" TO < 8"	≥ 8"	
23 PIPING - COOLING							
CWR - CHILLED WATER RETURN	A (GlsFbr), B (Elasto), C (CelGla)	0.5"	0.5"	1"	1"	1"	
CWS - CHILLED WATER SUPPLY	A (GlsFbr), B (Elasto), C (CelGla)	0.5"	0.5"	1"	1"	1"	
DPP - DRAIN - PIPING	A (GlsFbr), B (Elasto), C (CelGla)	0.5"	0.5"	1"	1"	1"	APPLY INSULATION ONLY TO LOW TEMP DRAINS (55 DEG AND LOWER IE: COOLING COIL CONDENSATE, ICE MACHINE DRAINS, ETC.)
23 PIPING - HEATING							
HWR - HEATING WATER RETURN	A (GlsFbr), C (CelGla)	1.5"	1.5"	2"	2"	2"	
HWS - HEATING WATER SUPPLY	A (GlsFbr), C (CelGla)	1.5"	1.5"	2"	2"	2"	
TWR - THERMAL WATER RETURN	A (GlsFbr), C (CelGla)	1.5"	1.5"	2"	2"	2"	
TWS - THERMAL WATER SUPPLY	A (GlsFbr), C (CelGla)	1.5"	1.5"	2"	2"	2"	
23 PIPING - REFRIGERANT							
HG - REFRIGERANT HOT GAS	A (GlsFbr), B (Elasto), C (CelGla)	1"	1"	1"	1"	1"	
LIQ - REFRIGERANT LIQUID	A (GlsFbr), B (Elasto), C (CelGla)	0.5"	0.5"	1"	1"	1"	
SUC - REFRIGERANT SUCTION	A (GlsFbr), B (Elasto), C (CelGla)	0.5"	0.5"	1"	1"	1"	

DEHUMIDIFIER SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SPECIFICATION. 23 05 13
3.PROVIDE WITH DIGITAL CONTROLLER WITH REMOTE TEMPERATURE AND RH SENSORS, OCCUPANCY TIMER W/BAS OVERIDE AND BACNET MS/TP INTERFACE AND REMOTE DISPLAY TERMINAL.
4.PROVIDE WITH 2 YEAR COMPRESSOR WARRANTY AND 5 YEAR COIL WARRANTY.
5.PROVIDE W/STAINLESS STEEL DRAIN PAN.

		SUPPLY FAN (NOTE 1)									ELECTRICAL					ELECTRICAL				
																DISCONNECT(S)		CONTROLLER STARTER(S)		
TAG NAME	AREA SERVED	NO. OF FANS	CFM TOTAL	MIN. CFM	EXT. S.P.	TYPE	RPM (NOTE D)	BHP (NOTE E)	MHP (NOTE E)	MINIMUM OUTSIDE AIR CFM	NO. OF POWER CONNECTIONS	VOLTAGE	PHASES	MCA	MOPD	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	SCCR
DHU-1M	CRAWL SPACE B19	1	2750	2750	0.3	BD DWDI FC	985	1.25	2.0	0	1	208	3	30	45	MFR	NF	MFR	MS	65

DEHUMIDIFIER SCHEDULE - CONT.

	DEHUMIDIFICATION								FILTER				MAX. DIMENSIONS			WEIGHT	VIBRATION ISOLATION		MANUFACTURER	MODEL	NOTES
											PRESSURE DROP										
TAG NAME	EAT DB °F	EAT WB °F	TOTAL COOLING MBH	MOISTURE REMOVAL LBS/HR	TOTAL HEAT REJECTION MBH	REFRIGERANT	COMPRESSOR TYPE	NOMINAL TONS	TYPE	FACE VELOCITY	DIRTY	CLEAN	LENGTH	WIDTH	HEIGHT	OPERATING	TYPE	DEFL.			
DHU-1M	70.0	59.7	58.0	16.1	76.0	R-407C	SCROLL	5	4" MERV 8	500	0.3	0.7	60"	49"	31"	1000	H2	0.750	DESERT AIRE	LW05	1,2,3,4,5

SCHEDULE GENERAL NOTES:

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR....

B. DISCONNECT TYPE:
F = FUSED
NF = NON-FUSED

C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
WYE = WYE-DELTA
SS = SOLID STATE (SOFT START)
MS = MANUAL STARTER
VFD = VARIABLE FREQUENCY DRIVE
VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS

D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER
GC = BY GENERAL CONTRACTOR
SAC = SOUND ATTENUATOR CURB

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4306
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODENHEIMER
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	SGB	01	MAURICE BATHHOUSE MECHANICAL SCHEDULES	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM	ME6.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: SGB			SHEET 157 OF 286
	DATE: 10.27.2023			

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FAN COIL UNIT SCHEDULE - HYDRONIC

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.CHILLED WATER IS 30% PROPYLENE GLYCOL.
3.PROVIDE WITH DOUBLE DEFLECTION FRONT DISCHARGE GRILLE AND SINGLE DEFLECTION BOTTOM RETURN GRILLE.
4.PROVIDE WITH FRONT DISCHARGE DUCT COLLAR AND SINGLE DEFLECTION BOTTOM RETURN GRILLE.
5.PROVIDE WITH STAINLESS STEEL DRAIN PANS.
6.PROVIDE WITH LIFT AND TURN HINGED ACCESS PANEL.
7.PROVIDE WITH BASE RAIL.
8.HEATING COIL LOCATED IN THE REHEAT POSITION.

					COOLING COIL									HEATING COIL							ELECTRICAL									
					EAT		LAT													HP				DISCONNECT		CONTROLLER/ STARTER				
TAG NAME	AREA SERVED	CONFIGURATION	CFM	EXT. S.P. IN W.C.	DB °F	WB °F	DB °F	WB °F	TOTAL MBH	SENSIBLE MBH	GPM	EWT °F	LWT °F	W.P.D. FT. HD	EAT °F	LAT °F	MBH	GPM	EWT °F	LWT °F	W.P.D. FT. HD	(NOTE E)	RPM	VOLTAGE	PHASES	BY (NOTE A)	TYPE (NOTE B)	TYPE (NOTE A)	SCCR	MANUFACTURER	MODEL-1	NOTES
FCU-B-1M	BASEMENT ROOM B01	HORIZONTAL EXPOSED	460	0.0	80.0	67.0	55.4	55.0	16.3	11.9	2.9	42	54	4.30	65	85	9.9	0.7	140	110	4.30	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FHX-D06	1, 2, 3, 5, 8
FCU-B-2M	NORTH POOL B10	HORIZONTAL EXPOSED	460	0.0	80.0	67.0	55.4	55.0	16.3	11.7	2.9	42	54	4.30	65	90	12.4	0.8	140	110	4.30	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FHX-D06	1, 2, 3, 5, 8
FCU-B-3M	SOUTH POOL B10	HORIZONTAL EXPOSED	210	0.0	80.0	67.0	54.8	54.5	7.8	5.6	1.4	42	54	5.70	65	100	7.9	0.5	140	110	1.50	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FHX-D02	1, 2, 3, 5, 8
FCU-B-4M	SOUTH BASEMENT	HORIZONTAL EXPOSED	330	0.1	80.0	67.0	55.0	54.7	12.0	8.6	2.1	42	54	4.70	65	85	7.7	0.5	140	110	1.70	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FHX-D04	1, 2, 3, 5, 8
FCU-B-5M	BOILER ROOM B08	HORIZONTAL EXPOSED	475	0.0	80.0	67.0	55.6	55.2	16.6	12.2	3.0	42	54	9.40	65	85	10.2	0.7	140	110	7.40	2-0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FHX-D06	1, 2, 4, 5, 8
FCU-1-1M	MECHANICAL 103	WALL MOUNTED	600	0.0	80.0	67.0	59.6	57.8	16.6	12.8	3.5	42	52.5	2.70	65	80	9.7	0.7	140	110	10.00	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FWX-C10	1,2,5, 8
FCU-3-1M	MAURICE OFFICE 301	VERTICAL CONCEALED	110	0.3	77.5	65.4	58.9	57.2	2.9	2.2	0.5	42	54	2.70	65	80	1.8	0.4	140	110	1.00	0.25	1600	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FWC-C02	1, 2, 5, 8
FCU-3-2M	CENTER MEN'S LOUNGE 306	VERTICAL DUCTED	625	0.3	77.5	65.4	58.1	57.3	15.1	12.5	2.8	42	54	12.30	65	90	16.9	1.1	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-08	1, 2, 5, 6, 7, 8
FCU-3-3M	E. MEN'S LOUNGE 306	VERTICAL DUCTED	460	0.3	77.5	65.4	59.1	57.8	10.5	8.9	1.9	42	54	4.40	65	90	15.1	0.9	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8
FCU-3-4M	W. MEN'S LOUNGE 307	VERTICAL DUCTED	510	0.3	77.5	65.4	58.3	57.1	12.6	10.4	2.3	42	54	7.30	65	95	16.5	1.1	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-06	1, 2, 5, 6, 7, 8
FCU-3-5M	E. MEN'S LOUNGE 307	VERTICAL DUCTED	405	0.3	77.5	65.4	58.2	57.2	9.9	8.2	1.8	42	54	3.20	65	95	13.1	0.9	140	110	10.00	2-0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8
FCU-3-6M	HALL 302	WALL MOUNTED	635	0.0	77.5	65.4	59.4	57.6	14.7	12.0	2.7	42	54	2.10	65	100	24.0	1.6	140	110	10.00	0.25	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FWX-C10	1, 2, 5, 8
FCU-3-7M	E. WOMEN'S LOUNGE 305	VERTICAL DUCTED	405	0.3	77.5	65.4	58.2	57.2	10.0	8.2	1.8	42	54	4.10	65	95	13.2	0.9	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8
FCU-3-8M	W. WOMEN'S LOUNGE 305	VERTICAL DUCTED	575	0.3	77.5	65.4	59.1	57.8	13.3	11.1	2.4	42	54	8.00	65	95	18.6	1.2	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-06	1, 2, 5, 6, 7, 8
FCU-3-9M	E. WOMEN'S LOUNGE 304	VERTICAL DUCTED	455	0.3	77.5	65.4	59.1	57.8	10.5	8.9	1.9	42	54	4.40	65	90	11.9	0.8	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8
FCU-3-10M	CENTER WOMEN'S LOUNGE 304	VERTICAL DUCTED	405	0.3	77.5	65.4	58.2	57.2	10.0	8.2	1.8	42	54	4.10	65	90	10.9	0.7	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8
FCU-3-11M	W. WOMEN'S LOUNGE 304	VERTICAL DUCTED	405	0.3	77.5	65.4	58.2	57.2	10.0	8.2	1.8	42	54	4.10	65	95	12.8	0.9	140	110	10.00	0.33	1200	115	1	MFR	NF	EC MOTOR	5 kA	JOHNSON CONTROLS, INC.	FCC-04	1, 2, 5, 6, 7, 8

EXPANSION TANK SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.TANK SHALL BE PRE-CHARGED TO 23 PSI.
3.30% PROPYLENE GLYCOL.

TAG NAME	SYSTEM TYPE	TANK TYPE	ACCEPTANCE VOLUME	TANK VOLUME	TANK DIA	TANK HEIGHT	MANUFACTURER	MODEL	NOTES
ET-1	CHILLED WATER	VERTICAL BLADDER	23	23	16	37	BELL & GOSSETT	B-85	1,2,3
ET-2	HEATING WATER	VERTICAL BLADDER	23	23	16	37	BELL & GOSSETT	B-85	1,2

RADIATION SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE.
3.ARCHITECTURAL PEDESTAL WITH EXTRUDED ALUMINUM BAR GRILLE. ROUTE BARE RETURN PIPING IN CABINET WHERE NOTED OR REQUIRED.

				ELEMENT							CABINET						
TAG NAME	AREA SERVED	MBH	GPM	MAT'L	LENGTH FT.	PIPE SIZE	FIN HEIGHT	FIN WIDTH	NUMBER OF ROWS	FINS PER FOOT	LENGTH	HEIGHT	DEPTH	AVERAGE WATER TEMP °F	CONTROL TYPE (NOTE 2)	MANUFACTURER	MODEL	NOTES
RAD-1-1M	SUN PORCH 109	3	0.2	COPPER	1 - 8'	1"	4 1/4"	4 1/4"	1	40	CONTINUOUS	7"	6"	125	RAD-A	VULCAN	JV4-AR-PM	NOTES 1, 2, 3
RAD-1-2M	SUN PORCH 109	6	0.4	COPPER	2 - 8'	1"	4 1/4"	4 1/4"	1	40	CONTINUOUS	7"	6"	125	RAD-A	VULCAN	JV4-AR-PM	NOTES 1, 2, 3
RAD-3-1M	ROYCROFT DEN 300	7.3	0.5	COPPER	3 - 6.5'	1"	4 1/4"	4 1/4"	1	40	CONTINUOUS	7"	6"	125	RAD-B	VULCAN	JV4-AR-PM	NOTES 1, 2, 3

TERMINAL AIR BOX SCHEDULE - SINGLE DUCT

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE.
3.TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.50" WC.
4.REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE.
5.SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE.
6.HEATING COIL IS BASED ON HEATING AIR FLOW. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5'. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS. WHEN LAT °F, EWT °F, AND GPM. VALUES ARE BLANK, HEATING COIL IS NOT REQUIRED FOR TAB.
7.HEATING COIL SELECTION SHALL BE BASED ON A FIXED LEAVING AIR TEMPERATURE AND VARIABLE FLOW (GPM). PROVIDE FINAL MAXIMUM FLOW RATE (GPM) TO TEST & BALANCE TERMPERATURE CONTROLS...

		CFM				HEATING COIL (NOTES 6, 7)								
TAG NAME	AREA SERVED	COOLING MAX.	HEATING MIN.	MIN.	CO2 SETPOINT	EAT °F	LAT °F	EWT °F	MAX. GPM	MIN. INLET SIZE (IN.) DIA.	CONTROL TYPE (NOTE 4)	SENSOR TYPE (NOTE 5)	MANUFACTURER	MODEL (NOTES 2, 3)	NOTES
TAB-1-1M	WOMEN'S COOL RM 105	870	800	175	750	55.0	89.0	140	2.0	9"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-2M	OFFICE 104	120	115	40	750	55.0	85.0	140	0.5	4"	TAB-B	2	TITUS	DESV	NOTES 1-7
TAB-1-3M	N. SUN PORCH 109	1480	590	300	750	55.0	107.0	140	2.2	12"	TAB-C,D	2	TITUS	DESV	NOTES 1-7
TAB-1-4M	WOMEN'S PACK RM 101	520	520	105	750	55.0	88.0	140	1.3	6"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-5M	WOMEN'S BATH HALL 114	1260	1260	255	750	55.0	85.0	140	2.8	12"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-6M	MEN'S PACK ROOM 108	1650	1650	330	750	55.0	85.0	140	3.6	14"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-7M	S MEN'S BATH HALL 113	1365	1365	275	750	55.0	85.0	140	3.0	12"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-8M	MEN'S COOL ROOM 115	630	630	130	750	55.0	85.0	140	1.4	12"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-9M	MEN'S COOL ROOM 115	610	610	125	750	55.0	85.0	140	1.3	8"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-10M	MASSAGE 116	870	870	175	750	55.0	87.0	140	2.1	9"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-1-11M	CLOAK RM 117	460	95	95	750	55.0	85.0	140	0.5	6"	TAB-B	2	TITUS	DESV	NOTES 1-7
TAB-1-12M	S. SUN PORCH 109	1480	590	300	750	55.0	107.0	140	2.2	12"	TAB-C,D	2	TITUS	DESV	NOTES 1-7
TAB-2-1M	MASSAGE 201 / MASSAGE 202 / HALL 200A	760	450	140	750	55.0	108.0	140	1.8	8"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-2-2M	N. MEN'S DRESSING 205	770	770	155	750	55.0	97.0	140	2.4	8"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-2-3M	HALL 211 / HALL 200B	375	340	75	750	55.0	110.0	140	1.4	7"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-2-4M	EMPLOYEE LOUNGE 208	760	455	155	750	55.0	108.0	140	1.8	8"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-2-5M	BILLIARD ROOM 210	440	440	90	750	55.0	85.0	140	1.0	7"	TAB-A	2	TITUS	DESV	NOTES 1-7
TAB-2-6M	S. MEN'S DRESSING 205	800	800	160	750	55.0	96.0	140	2.4	8"	TAB-A	2	TITUS	DESV	NOTES 1-7

VRF MODULAR OUTDOOR UNIT SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.UNITS SHALL BE SELECTED FOR DESIGN COOLING LOAD.
3.NOMINAL COOLING CAPACITY RATED AT: INDOOR TEMP = 80°FDB/67°FWB, OUTDOOR TEMP = 95°FDB.
4.DESIGN COOLING CAPACITY SHALL BE RATED AT: INDOOR TEMP = 82.0/67.2 OUTDOOR TEMP = 100°FDB. EFFECTS OF ESTIMATED REFRIGERANT LINE LENGTH SHALL BE INCLUDED IN COMPUTING DESIGN CAPACITY.
5.DESIGN HEATING CAPACITY SHALL BE RATED AT: INDOOR TEMP = 59°FDB, OUTDOOR TEMP = -10°FDB. EFFECTS OF ESTIMATED REFRIGERANT LINE LENGTHS AND DEFROSTING SHALL BE INCLUDED IN COMPUTING DESIGN CAPACITY.
6.FURNISH UNIT WITH HAIL GUARDS.

				COOLING			HEATING			ELECTRICAL							MAX. DIMENSIONS			WEIGHT	VIBRATION ISOLATION				
												MODULE 1		DISCONNECT		CONTROLLER/START ARTER									
TAG NAME	AREA SERVED	REFRIGERANT	MAX. REFRIGERANT CHARGE LBS	NOMINAL MBH (NOTE 3)	DESIGN MBH (NOTE 4)	OPERATING RANGE °FDB	DESIGN MBH (NOTE 5)	OPERATING RANGE °FDB	NUMBER OF CONNECTED INDOOR UNITS	VOLTAGE	PHASES	MCA	MOCP	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR	LENGTH	WIDTH	HEIGHT	OPERATING	TYPE	DEFL.	MANUFACTURER	MODEL	NOTES
HP-1M	ROYCROFT SKYLIGHT	R-410A	23.8	120	114	23-126	114	-20-60	4	208	3	47.0	70	MC	NF	MFR	5KA	30	30	72	655	M2	0.15	TRANE	TUHYH1203AN40AN	1,2,3,4,5,6

VRF INDOOR UNIT SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.INDOOR UNITS SELECTED FOR SPACE PEAK LOADS.
3.UNIT SHALL BE PROVIDED WITH CONDENSATE PUMP.
4.INDOOR UNIT CFM SELECTED AT HIGH CFM. INDOOR UNIT SHALL HAVE CAPABILITY TO ADJUST CFM FOR FINAL AIR BALANCING UP OR DOWN THROUGH FIELD ADJUSTMENT.
5.FURNISH WITH SINGLE WIRELESS REMOTE CONTROLLER TO CONTROL ALL 4 INDOOR UNITS.

								REFRIGERANT				ELECTRICAL				MAX. DIMENSIONS			WEIGHT			
TAG NAME	AREA SERVED	ASSOCIATED VRF HEAT PUMP	CONFIGURATION	TONS	CFM	OA CFM	EXT. S.P. IN W.C.	TYPE	COOLING EAT °F	HEATING EAT °F	COOLING CAPACITY BTUH	HEATING CAPACITY BTUH	VOLTAGE	PHASES	MCA	SCCR	LENGTH	WIDTH	HEIGHT	OPERATING	MANUFACTURER	MODEL	NOTES
IU-1M	ROYCROFT SKYLIGHT	HP-1M	WALL MOUNTED	2.5	915	0	0	R-410A	82.0/67.2	59	28530	28550	208	1	0.63	5 kA	47	12	15	50	TRANE	TPKFYP030KM142A	1,2,3,4,5
IU-2M	ROYCROFT SKYLIGHT	HP-1M	WALL MOUNTED	2.5	915	0	0	R-410A	82.0/67.2	59	28530	28550	208	1	0.63	5 kA	47	12	15	50	TRANE	TPKFYP030KM142A	1,2,3,4,5
IU-3M	ROYCROFT SKYLIGHT	HP-1M	WALL MOUNTED	2.5	915	0	0	R-410A	82.0/67.2	59	28530	28550	208	1	0.63	5 kA	47	12	15	50	TRANE	TPKFYP030KM142A	1,2,3,4,5
IU-4M	ROYCROFT SKYLIGHT	HP-1M	WALL MOUNTED	2.5	915	0	0	R-410A	82.0/67.2	59	28530	28550	208	1	0.63	5 kA	47	12	15	50	TRANE	TPKFYP030KM142A	1,2,3,4,5

AIR FLOW MONITORING STATION

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.PROVIDE WITH ACCESS DOOR FOR CLEANING.

TAG NAME	DESCRIPTION	SYSTEM	HEIGHT	WIDTH	NUMBER OF SENSORS	MIN. CFM	MAX. CFM	MANUFACTURER	MODEL	NOTES
AFMS-1M	DUCT MOUNTED	OUTSIDE AIR	20	20	6	2500	2500	EBTRON	GTx116-P	1,2
AFMS-2M	DUCT MOUNTED	OUTSIDE AIR	16	16	4	1500	1500	EBTRON	GTx116-P	1,2
AFMS-3M	DUCT MOUNTED	OUTSIDE AIR	12	12	4	300	600	EBTRON	GTx116-P	1,2

SCHEDULE GENERAL NOTES:

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR....

B. DISCONNECT TYPE:
F = FUSED
NF = NON-FUSED

C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
WYE = WYE-DELTA
SS = SOLID STATE (SOFT START)
MS = MANUAL STARTER
VFD = VARIABLE FREQUENCY DRIVE
VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS

D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER
GC = BY GENERAL CONTRACTOR
SAC = SOUND ATTENUATOR CURB

CERTIFICATE OF AUTHORITY
IMEG Consultants Corp.
No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODENSCHATZ

10.27.2023

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DESIGNED: SGB
CADD: WMM
TECH. REVIEW: SGB
DATE: 10.27.2023

SUB SHEET NO. 01 ME6.2

TITLE OF SHEET
MAURICE BATHHOUSE
MECHANICAL SCHEDULES

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 626 180065
PMIS/PKG NO. 318674
SHEET 158 OF 286

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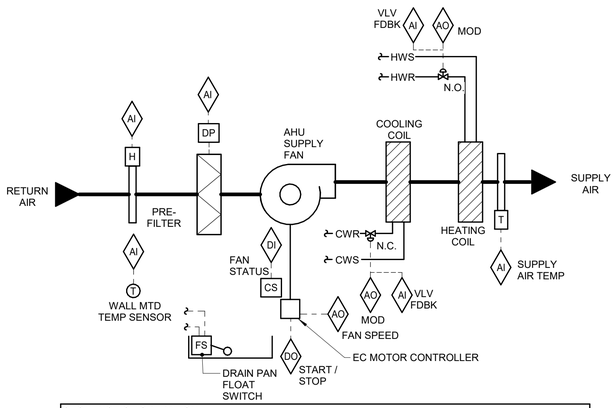


SEQUENCE OF OPERATION:
SUPPLY FAN OPERATION SHALL BE CONTROLLED BY THE FMCS THROUGH A CONTACTOR.

SUPPLY FAN AND CONTROL VALVE OPERATION:
THE FMCS WILL MODULATE THE SUPPLY FAN, COOLING CONTROL VALVE, AND HEATING CONTROL VALVE TO ACHIEVE THE ROOM TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°F (ADJ.) OFFSET FROM THE SETPOINT.

- AT A FULL COOLING, THE SUPPLY FAN IS AT MAXIMUM COOLING CFM SPEED AND THE COOLING CONTROL VALVE SHALL BE OPEN TO MAINTAIN 55ºF (ADJ) DISCHARGE AIR TEMPERATURE.
- AS THE ROOM AIR TEMPERATURE FALLS, THE SUPPLY FAN SHALL RAMP DOWN TO MAINTAIN ROOM TEMPERATURE SET POINT WHILE MAINTAINING A 55ºF (ADJ) DISCHARGE AIR TEMPERATURE SET POINT.
- ON A FURTHER FALL IN ROOM TEMPERATURE, THE SUPPLY FAN WILL REMAIN AT MINIMUM SPEED AND THE COOLING CONTROL VALVE SHALL MODULATE TO MAINTAIN ROOM AIR TEMPERATURE SET POINT. WHEN THE SUPPLY FAN IS AT MINIMUM SPEED THE AHU DISCHARGE AIR TEMPERATURE SHALL NOT CONTROL THE COOLING CONTROL VALVE.
- ON A FURTHER REDUCTION IN ROOM TEMPERATURE, THE HEATING CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN ROOM AIR TEMPERATURE SET POINT. THE DISCHARGE AIR TEMPERATURE SHALL NOT RISE ABOVE 95ºF AS THE HEATING CONTROL VALVE OPENS. THE SUPPLY FAN SHALL REMAIN AT MINIMUM HEATING CFM.
- ONCE THE HEATING CONTROL VALVE IS MAINTAINING 95°F DISCHARGE AIR, THE SUPPLY FAN SPEED SHALL RAMP UP TO MAXIMUM HEATING SPEED TO MAINTAIN ROOM AIR TEMPERATURE SET POINT.

DEHUMIDIFICATION CONTROL:
RETURN AIR HUMIDITY SENSOR SHALL OVERRIDE HEATING COIL CONTROL VALVE INCREMENTALLY OPEN AT (5%) STEPS COMPARED TO NORMAL SPACE TEMPERATURE CONTROL IF THE SPACE HUMIDITY SENSOR EXCEEDS 60% RH (ADJ.). IF SPACE HUMIDITY SENSOR IS BELOW 55% RH (ADJ.) DEHUMIDIFICATION SEQUENCE SHALL BE DISABLED.

BYPASS VALVE CONTROL (WHERE SHOWN):
THE MINIMUM FLOW BYPASS CONTROL VALVE SHALL MODULATE OPEN PROPORTIONATELY AS THE ASSOCIATED COIL CONTROL VALVE CLOSES.

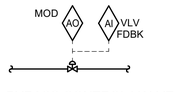
ALARMS, INTERLOCKS & SAFETIES:
WHEN THE FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, AHU SHALL SHUTDOWN.

A FLOAT SWITCH MOUNTED IN THE SECONDARY DRAIN PAN SHALL CLOSE THE CHILLED WATER VALVE AND PREVENT SUPPLY FAN OPERATION UPON DETECTION OF WATER AND SHALL INDICATE AN ALARM TO THE OPERATOR WORKSTATION.

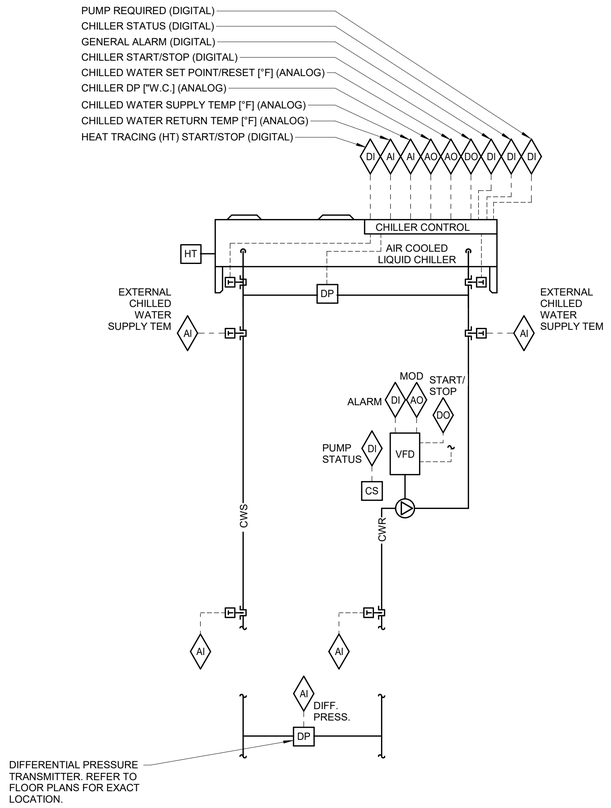
FMCS SHALL INDICATE AN ALARM TO THE FMCS OPERATOR WORKSTATION IF THE FMCS COMMANDS ANY SUPPLY FAN TO OPERATE AND THE FAN CURRENT RELAY DETECTS INSUFFICIENT CURRENT FLOW.

WHENEVER AHU IS SHUTDOWN THE FOLLOWING SHALL OCCUR:
- HEATING AND CHILLED WATER CONTROL VALVES SHALL CLOSE.
- SUPPLY FAN SHALL BE DE-ENERGIZED.

1 FAN COIL UNIT CONTROL - FCU-A (HYDRONIC COOLING & HEATING)
NO SCALE



BYPASS CONTROL VALVE
WHERE SHOWN



CHILLER PLANT REPORT GENERATION:
FMCS SHALL MONITOR THE FOLLOWING POINTS ON 10 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 100-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL OVERWRITE THE OLDEST VALUES:

- DATE
- TIME
- GLOBAL OUTSIDE AIR TEMPERATURE [°F]
- GLOBAL OUTSIDE AIR DEWPOINT [°F]
- AVERAGE CHILLED WATER SUPPLY TEMPERATURE [°F]
- AVERAGE CHILLED WATER RETURN TEMPERATURE [°F]
- TOTAL CHILLED WATER FLOWRATE [GPM]
- TOTAL CHILLED WATER SYSTEM LOAD [TONS]
- CURRENT DRAW FROM CHILLER [AMPS]

THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN EITHER TABULAR OR GRAPHICAL FORM ON THE FMCS OPERATOR WORKSTATION.

ONCE PER MONTH, THE FMCS SHALL RECORD THE LARGEST CHILLED WATER SYSTEM LOAD [IN TONS] WHICH OCCURRED DURING THAT MONTH. THE DATE, TIME, OUTSIDE AIR TEMPERATURE, OUTSIDE AIR DEWPOINT, CHILLED WATER SUPPLY & RETURN TEMPERATURE AND CHILLED WATER FLOWRATE THAT COINCIDED WITH THAT EVENT SHALL ALSO BE RECORDED. THIS INFORMATION SHALL BE STORED TO A MEMORY LOCATION ON THE FMCS OPERATOR WORKSTATION THAT IS MAINTAINED (NOT AUTOMATICALLY OVERWRITTEN).

CHILLER PLANT REPORT GENERATION

SEQUENCE OF OPERATION
THE CHILLER MANUFACTURER SHALL PROVIDE A FACTORY MOUNTED CHILLER CONTROL PANEL. ALL AVAILABLE DATA PROVIDED/MONITORED BY THE CHILLER CONTROL PANEL SHALL BE AVAILABLE TO AND MONITORED BY THE FMCS SYSTEM.

CHILLER OPERATION SHALL BE CONTROLLED BY THE CHILLER CONTROL PANEL AND SHALL BE ENABLED WHEN THE OUTSIDE AIR TEMPERATURE RISES ABOVE 50ºF (ADJ.) FOR 15 MINUTES (ADJ.). WHEN OUTSIDE AIR TEMPERATURE DROPS BELOW 48ºF (ADJ.) FOR 15 MINUTES (ADJ.) CHILLER OPERATION SHALL BE DISABLED. CHILLER SHALL NOT OPERATE UNTIL A CHILLED WATER VALVE IN THE SYSTEM HAS A CALL FOR COOLING AND BEGINS TO OPEN. ONCE VALVE STARTS TO OPEN THE FMCS SHALL ENERGIZE THE LEAD PUMP.

CHILLER STARTING:
WHEN THE FMCS INDEXES A CHILLER TO RUN THE FOLLOWING SHALL OCCUR:
- THE FMCS SHALL TURN ON THE CHILLED WATER PUMP.
- UPON PROOF OF FLOW IN THE EVAPORATOR BARREL THE CHILLER CONTROL PANEL SHALL INDEX CHILLER TO START.
- CHILLER SHALL START AFTER ALL INTERNAL SAFETIES ARE SATISFIED AND SHALL MAINTAIN CHILLED WATER SUPPLY TEMPERATURE OF 42°F (ADJ.) VIA INTERNAL CONTROLS.

CHILLER STOPPING:
WHEN THE FMCS INDEXES THE CHILLER TO STOP THE FOLLOWING SHALL OCCUR:
- THE CHILLER CONTROL PANEL SHALL INDEX CHILLER TO STOP.
- THE CHILLER CONTROL PANEL SHALL SEND A SIGNAL TO THE FMCS TO SHUTDOWN THE CHILLED WATER PUMP.

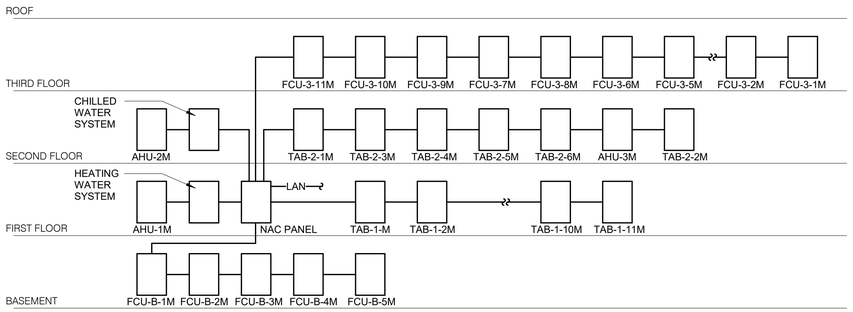
CHILLED WATER PUMP CONTROL:
THE FMCS SHALL MODULATE OUTPUT TO THE PUMP VFD AS REQUIRED TO MAINTAIN DP SETPOINT AT THE LOCATION OF THE DP TRANSMITTER. DP TRANSMITTER SIGNAL SHALL BE WIRED DIRECTLY TO THE CONTROLLER SERVING PUMP VFD (SIGNAL SHALL NOT BE TRANSMITTED ACROSS THE FMCS NETWORK). FMCS SHALL RESET THE DP SETPOINT UNTIL ONE MODULATING CONTROL VALVE IS 95% OPEN AS DETERMINED BY THE VALVE FEEDBACK. IN NO CASE SHALL DP SETPOINT EXCEED 10 PSID (ADJ.) OR DROP BELOW 2 PSID (ADJ.).

FREEZE PROTECTION:
WHEN THE OUTSIDE AIR TEMPERATURE DROPS BELOW 34ºF (ADJ.) THE MINIMUM FLOW BYPASS CONTROL VALVES SHALL BE OPENED AND THE CHILLED WATER PUMP SHALL BE STARTED IF NOT ALREADY RUNNING. WHEN OUTSIDE AIR TEMPERATURE IS ABOVE 36°F (ADJ.) THE CHILLED WATER SYSTEM SHALL RETURN TO NORMAL OPERATION.

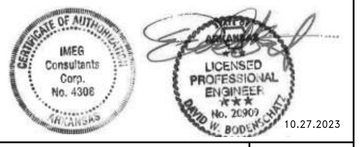
CHILLER SAFETIES:
CONTRACTOR SHALL COORDINATE ALL SAFETY AND INTERLOCK REQUIREMENTS WITH CHILLER MANUFACTURER. TCC SHALL PROVIDE THE INSTALLATION AND WIRING OF CHILLED WATER FLOW SWITCHES, AND OTHER COMPONENTS PROVIDED WITH CHILLER AS REQUIRED FOR PROPER OPERATION.

ALARMS, INTERLOCKS AND SAFETIES:
AN ALARM SHALL BE INDICATED AT THE FMCS WHEN THE FOLLOWING OCCUR:
- AN ALARM IS INDICATED AT THE CHILLER CONTROL PANEL.
- IF CHILLED WATER SUPPLY TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT FOR MORE THAN 10 MINUTES (ADJ.).
- SHOULD THE FMCS COMMAND THE PUMP TO OPERATE AND THE PUMP FAILS TO DO SO AS DETERMINED BY THE VFD STATUS, AN ALARM SHALL BE INDICATED AT THE FMCS OPERATOR WORKSTATION AND THE FMCS SHALL START THE LAG PUMP.
- AN ALARM CONDITION OCCURS AT ANY VFD.
- IF SYSTEM DIFFERENTIAL PRESSURE IS NOT MAINTAINED FOR MORE THAN 15 MINUTES (ADJ.).
- AN ALARM IS INDICATED IF THE HEAT TRACE SYSTEM FAILS. THE LEAD CHILLED WATER PUMP SHALL RUN IF HEAT TRACE FAILS, FAULTS, OR GOES INTO ALARM.

2 CHILLED WATER PLANT - SINGLE AIR COOLED CHILLER - VARIABLE PRIMARY
NO SCALE



3 NETWORK ARCHITECTURE RISER DIAGRAM
NO SCALE



A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 ME8.0	TITLE OF SHEET MAURICE BATHHOUSE TEMPERATURE CONTROLS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 159 OF 286

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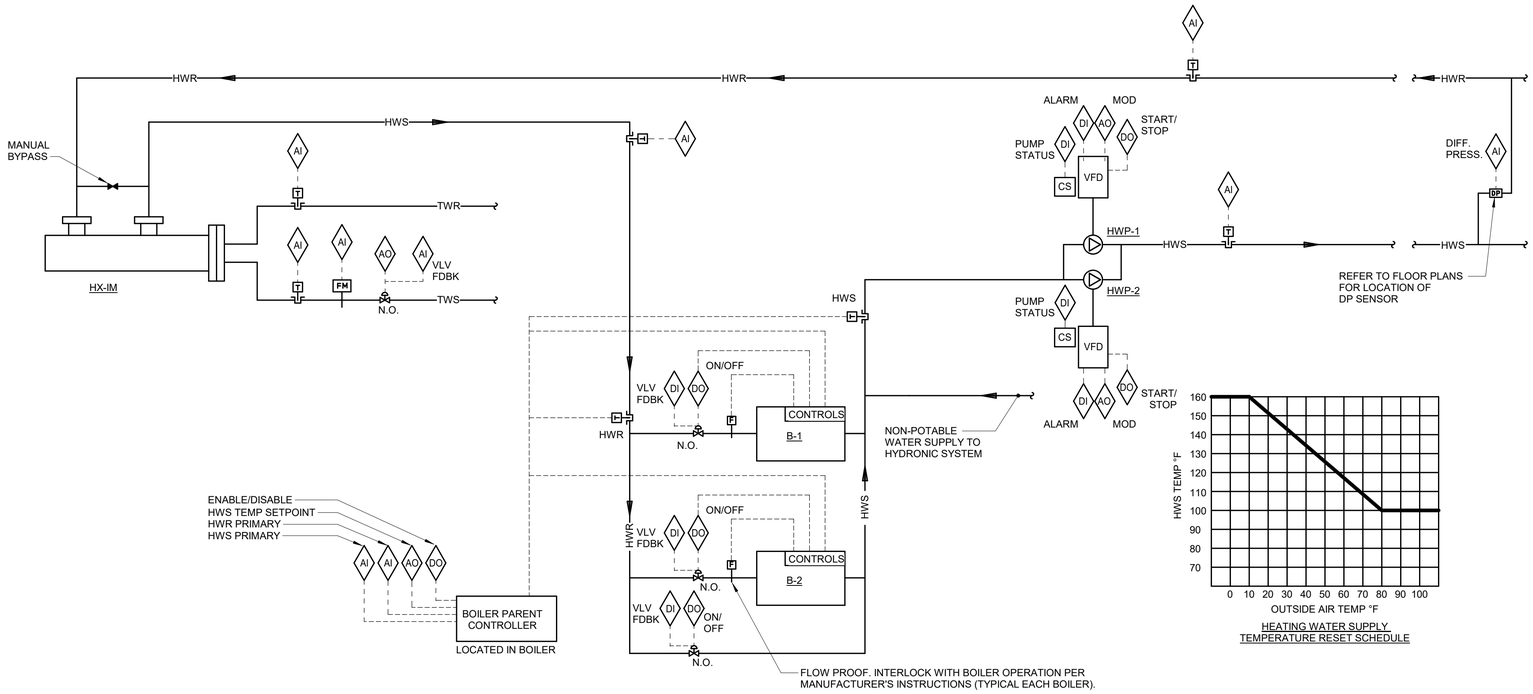

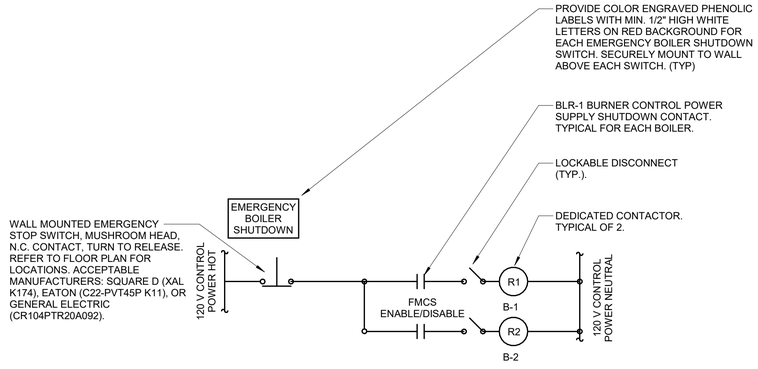

SEQUENCE OF OPERATION:
THE THERMAL WATER HEAT EXCHANGER AND HEATING WATER BOILERS WILL BE SEQUENCED IN ORDER TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE SET POINT.

HEATING WATER BOILERS SHALL HAVE UNIT MOUNTED CONTROLS PROVIDED BY THE BOILER MANUFACTURER. TCC SHALL INTERFACE WITH BOILER MANUFACTURER CONTROLS AS DESCRIBED IN THIS SEQUENCE OF OPERATION.

THERMAL WATER HEAT EXCHANGER SEQUENCE OF OPERATION:
ON A CALL FOR HEATING, AS DETERMINAED BY THE FMCS, THE THERMAL WATER SUPPLY VALVE WILL BE MODULATED OPEN TO MAINTAIN THE HEATING WATER SUPPLY TEMPERATURE SETPOINT. THE BOILER BYPASS VALVE WILL BE COMMANDED OPEN AND THE LEAD HEATING WATER PUMP WILL BE STARTED ONCE PROVEN OPEN.

IF THE HEATING WATER SETPOINT CAN NOT BE MAINTAINED AFTER A 10 MINUTE (ADJ.) TIME DELAY, THE FMCS WILL ENABLE THE BOILER PARENT CONTROLLER AND THE THERMAL WATER SUPPLY VALVE WILL REMAIN OPEN.

IF THE THERMAL WATER SUPPLY TEMPERATURE IS LESS THAN THE HEATING WATER RETURN TEMPERATURE, THE THERMAL WATER CONTROL VALVE SHALL BE CLOSED.

WHEN THERE IS NO CALL FOR HEAT, THE THERMAL WATER SUPPLY VALVE SHALL CLOSE.

THERMAL WATER FLOW INFORMATION IN GPM AND GALLONS WILL ALSO NEED TO BE TRANMITTED TO THE THERMAL SPRINGS MONITORING SYSTEM AT: 101 RESERVE STREET, HOT SPRINGS, AR 71901

BOILER CONTROL PANEL SEQUENCE OF OPERATION:
WHEN THE FMCS ENABLES THE BOILER PARENT CONTROLLER TO RUN, THE BOILER PARENT CONTROLLER SHALL ENABLE THE LEAD BOILER, OPEN THE ASSOCIATED TWO-POSITION ISOLATION VALVE, AND ENERGIZE THE LEAD PUMP IF NOT ALREADY RUNNING AND SLOWLY CLOSE THE BOILER BYPASS VALVE..

THE ON BOARD BOILER SEQUENCING CONTROLLER SHALL STAGE AND MODULATE THE BOILER PLANT TO MAINTAIN THE HIGHEST PLANT EFFICIENCY THAT WILL PROVIDE THE REQUIRED SUPPLY WATER TEMPERATURE. THE ON BOARD BOILER SEQUENCING CONTROLLER SHALL OPEN AND CLOSE BOILER ISOLATION VALVES IN SUCH A WAY AS TO PROVIDE PRE AND POST FLOW . THE ON BOARD BOILER SEQUENCING CONTROLLER SHALL VERIFY PROOF OF WATER FLOW BEFORE FIRING BOILERS.. THE BOILER SEQUENCING CONTROLLER CAN STAGE ON MULTIPLE BOILERS AT PART LOAD TO INCREASE THE EFFICIENCY OF THE PLANT. BOILER SEQUENCING CONTROLLERL PANEL SHALL START/STOP BOILERS ON A FIRST ON/FIRST OFF BASIS TO EQUALIZE RUN TIME BETWEEN BOILERS. TWO-POSITION ISOLATION VALVE OPERATION SHALL BE CONTROLLED BY THE BOILER CONTROL PANEL OF THE RESPECTIVE BOILER THEY SERVE. BOILERS SHALL BE CYCLED OFF WHEN HEAT EXCHANGER HWS TEMPERATURE IS EQUAL TO THE BUILDING SYSTEM HEATING WATER SUPPLY SETPOINT TEMPERATURE.

WHEN THE HEAT EXCHANGER HWS DISCHARGE TEMPERATURE IS AT OR HIGHER THAN THE SYSTEM HEATING WATER SUPPLY SETPOINT, THE BOILER BYPASS VALVE SHALL OPEN AND ONCE PROVEN OPEN THE OPERATING BOILER ISOLATION VALVE SHALL CLOSE.

THE FOLLOWING BOILER SEQUENCING CONTROLLER POINTS (TO INCLUDE BUT NOT LIMITED TO) SHALL BE CONTROLLED BY THE FMCS AND DISPLAYED ON THE OPERATOR WORKSTATION GRAPHICAL SCREEN:
- BOILER SYSTEM STATUS: ENABLE/DISABLE
- BOILER OUTLET WATER TEMPERATURE SETPOINT: [°F]

THE FOLLOWING BOILER SEQUENCING CONTROLLER POINTS (TO INCLUDE BUT NOT LIMITED TO) SHALL BE MONITORED BY THE FMCS AND DISPLAYED ON THE OPERATOR WORKSTATION GRAPHICAL SCREEN:
- BOILER STATUS: DISABLED/STANDBY/MANUAL OPERATION/REMOTE OPERATION/AUTO/FAULT
- FIRING RATE INPUT: [0 - 100%]
- FIRING RATE OUTPUT: [0 - 100%]
- ACTIVE SETPOINT: [°F]
- SYSTEM HWR TEMP: [°F]
- SYSTEM HWS TEMP: [°F]
- FAULT MESSAGE DISPLAY CODE: [NUMERICAL]
- RUN CYCLES: [NUMERICAL]
- RUN HOURS: [NUMERICAL]

ALARMS, INTERLOCKS & SAFETIES:
BOILER CONTROLS SHALL BE PROGRAMMED TO MAINTAIN CONSTANT SETPOINT (LAST KNOWN VALUE) IN THE EVENT THE FMCS NETWORK COMMUNICATION SIGNAL IS LOST.

HEATING WATER SYSTEM SEQUENCE OF OPERATION:
FMCS SHALL OPERATE HEATING WATER SYSTEM 24 HOURS/DAY, 365 DAYS/YEAR.

ON A CALL FOR HEATING THE LEAD PUMP WILL BE STARTED. FMCS SHALL AUTOMATICALLY ROTATE THE LEAD HEATING WATER PUMP ONCE/WEEK (10:00 AM EACH TUESDAY, ADJ.) TO EQUALIZE RUN TIME BETWEEN PUMPS. PROVIDE GRAPHICAL BUTTON ON OPERATOR WORKSTATION GRAPHICAL SCREEN TO ALLOW FMCS OPERATOR TO SWITCH LEAD PUMP TO NEXT ROTATION IN THE EVENT THE CURRENT LEAD PUMP REQUIRES MAINTENANCE.

FMCS SHALL MODULATE SIGNAL TO LEAD PUMP VFD AS REQUIRED TO MAINTAIN HEATING WATER DIFFERENTIAL PRESSURE (DP) SETPOINT. IF THE LEAD PUMP VFD REACHES 90% SPEED FOR 10 MINUTES (ADJ.) AND THE HEATING WATER DIFFERENTIAL IS BELOW SETPOINT, THE SECOND HEATING WATER PUMP WILL BE STARTED AND SHALL HAVE A MINIMUM RAMP SPEED OF 60 SECONDS (ADJ.). THE TWO PUMPS WILL RAMP TOGETHER USING THE SAME RAMP INPUT SIGNAL. THE SECOND CHILLED WATER PUMP WILL BE STAGED OFF IF THE SPEED OF BOTH PUMPS VFD'S DROP BELOW 40% FOR 10 MINUTES (ADJ.). FMCS SHALL RESET HEATING WATER DIFFERENTIAL PRESSURE (DP) SETPOINT AS REQUIRED TO MAINTAIN AT LEAST ONE HEATING WATER VALVE 95% (ADJ.) OPEN. FMCS SHALL UTILIZE COMMAND TO ALL HEATING WATER VALVE POSITIONS TO RESET THE HEATING WATER DIFFERENTIAL PRESSURE. IN NO EVENT SHALL THE FMCS DECREASE THE HEATING WATER (DP) SETPOINT BELOW 4 PSI (ADJ.) OR ABOVE 10 PSI (ADJ.).

ALL CONTROLLED AND MONITORED POINTS LISTED IN THE BOILER CONTROL PANEL SEQUENCE ABOVE SHALL BE DISPLAYED ON THE OPERATOR WORKSTATION GRAPHICAL SCREEN.

ALARMS, INTERLOCKS & SAFETIES:
TCC SHALL COORDINATE ALL SAFETY AND INTERLOCK REQUIREMENTS WITH BOILER MANUFACTURER. CONTRACTOR SHALL COORDINATE AND PROVIDE THE INSTALLATION AND WIRING OF BOILER WATER DIFFERENTIAL PRESSURE/FLOW SWITCHES AND OTHER COMPONENTS PROVIDED WITH THE BOILER AS REQUIRED FOR PROPER OPERATION. CONTRACTOR SHALL PROVIDE AND TERMINATE ALL SAFETY AND INTERLOCK WIRING WITH BOILER CONTROL PANELS AS REQUIRED.

FMCS SHALL AUTOMATICALLY ENABLE THE LAG HEATING WATER PUMP TO RUN IN THE EVENT THE LEAD HEATING WATER PUMP FAILS TO OPERATE.

CONTRACTOR SHALL VERIFY THE ACCEPTABLE TEMPERATURE RANGES THE BOILERS ARE APPROVED TO OPERATE AT AS PUBLISHED IN THE BOILER MANUFACTURER'S LITERATURE. IF THE TEMPERATURE RANGES LISTED IN THE MANUFACTURER'S LITERATURE DIFFER FROM THOSE IN THIS SEQUENCE OF OPERATION, CONTACT CONTRACTING OFFICER FOR DIRECTION.

AN ALARM SHALL BE INDICATED TO THE FMCS OPERATOR WORKSTATION IN THE EVENT ANY OF THE FOLLOWING OCCUR:
- HWR TEMPERATURE DROPS BELOW 50°F (ADJ.) FOR 5 MINUTES (ADJ.) (AUTO RESET).
- HWS TEMPERATURE RISES MORE THAN 10°F (ADJ.) ABOVE SETPOINT (AUTO RESET).
- HWS TEMPERATURE DROPS MORE THAN 10°F (ADJ.) BELOW SETPOINT (AUTO RESET).
- AN ALARM IS INDICATED AT ANY BOILER ALARM PANEL.
- AN ALARM IS INDICATED AT ANY PUMP VFD
- SHOULD THE FMCS COMMAND THE LEAD HEATING WATER PUMP TO OPERATE AND THE PUMP FAILS TO DO SO AS DETERMINED BY THE VFD STATUS, AN ALARM SHALL BE INDICATED AT THE FMCS OPERATOR WORKSTATION AND THE LAG HW PUMP SHALL AUTOMATICALLY START.

ALARMS, INTERLOCKS, AND SAFETIES:
TCC SHALL PROVIDE EMERGENCY BOILER SHUTDOWN SWITCH AT EACH BOILER ROOM EXIT MEETING CSD-1 REQUIREMENTS. ACTIVATION OF ANY SWITCH SHALL INTERRUPT POWER TO ALL BOILER CONTROLS VIA BOILER SAFETY SHUTDOWN CONTACTS.

TYPICAL FOR B-1 & B-2

EMERGENCY BOILER SHUTDOWN

HEATING PLANT - HEATING CONTROL - CONDENSING BOILER VARIABLE PRIMARY

1 NO SCALE

IMEG Consultants Corp. No. 4308 ARKANSAS
LICENSED PROFESSIONAL ENGINEER DAVID W. BODDICKER No. 20909
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900	CADD:	01 ME8.1	MAURICE BATHHOUSE TEMPERATURE CONTROLS	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	TECH. REVIEW:		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	DATE: 10.27.2023			SHEET 160 OF 286

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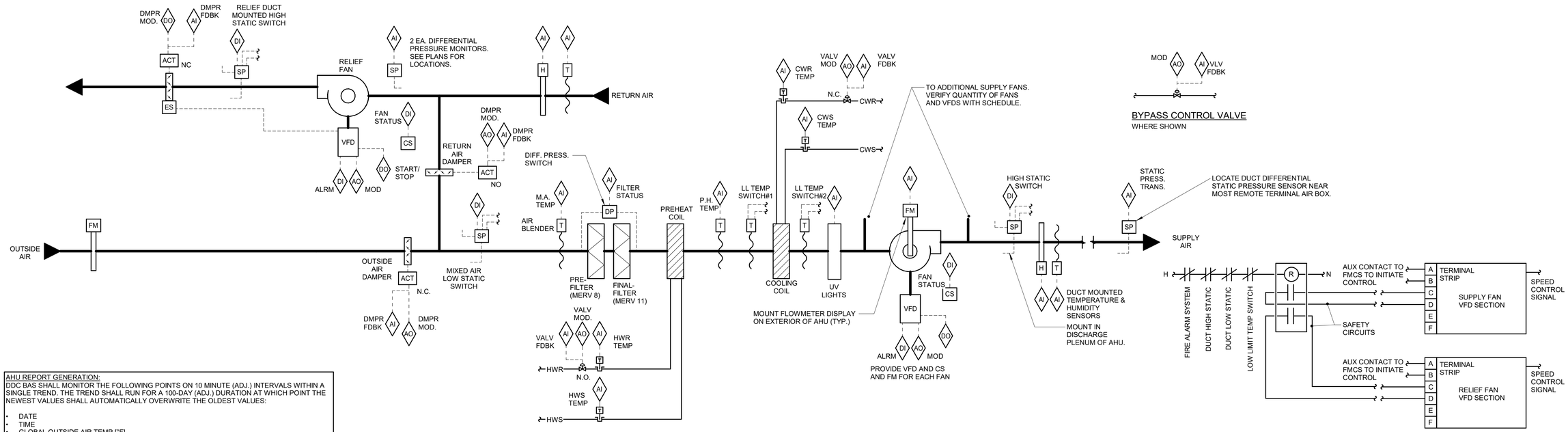

SUPPLY & RELIEF FAN VFD CONTROL

CONNECT FIRE ALARM TO AHU START/STOP CIRCUIT SO FIRE ALARM CAN SHUT DOWN AND SO AHU CAN AUTOMATICALLY RESTART AFTER A FIRE ALARM TEST

AHU REPORT GENERATION:
DDC BAS SHALL MONITOR THE FOLLOWING POINTS ON 10 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 100-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL AUTOMATICALLY OVERWRITE THE OLDEST VALUES:

- DATE
- TIME
- GLOBAL OUTSIDE AIR TEMP [°F]
- GLOBAL OUTSIDE AIR DEWPOINT [°F]
- GLOBAL OUTSIDE AIR HUMIDITY [%RH]
- SUPPLY AIRFLOW [CFM]
- SUPPLY AIR TEMP (SAT) [°F]
- SUPPLY AIR TEMP SETPOINT [°F]
- SUPPLY AIR RELATIVE HUMIDITY [%]
- SUPPLY AIR DEWPOINT [°F]
- SUPPLY AIR DEWPOINT SETPOINT [°F]
- RETURN AIRFLOW [CFM]
- RETURN AIR TEMP (RAT) [°F]
- RETURN AIR RELATIVE HUMIDITY [%]
- OUTSIDE AIRFLOW [CFM]
- MIXED AIR TEMP [°F]
- PREHEAT COIL DISCHARGE AIR TEMP [°F]
- FILTER ALARM PRE-FILTER LOADING
- HEATING WATER VALVE POSITION [% OPEN]
- CHILLED WATER VALVE POSITION [% OPEN]
- SUPPLY DUCT STATIC PRESSURE SETPOINT [INCHES W.G.]
- SUPPLY DUCT STATIC PRESSURE [INCHES W.G.]
- SUPPLY FAN VFD OUTPUT [% FULL SPEED]
- RELIEF FAN VFD OUTPUT [% FULL SPEED]
- OUTSIDE AIR DAMPER POSITION [% OPEN]
- RETURN AIR DAMPER POSITION [% OPEN]
- RELIEF AIR DAMPER POSITION [% OPEN]

THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN GRAPHICAL FORM ON THE FMCS OPERATOR WORKSTATION.

ONCE PER MONTH, THE DDC FMCS SHALL RECORD THE LARGEST AHU AIRFLOW WHICH OCCURED DURING THAT MONTH. THE DATE, TIME, OUTSIDE AIR TEMP (AND ALL OTHER VALUES LISTED ABOVE) THAT COINCIDED WITH THAT EVENT SHALL ALSO BE RECORDED. THIS INFORMATION SHALL BE STORED TO A MEMORY LOCATION ON THE FMCS OPERATOR WORKSTATION THAT IS MAINTAINED (NOT AUTOMATICALLY OVERWRITTEN).

AHU OUTSIDE AIR FLOW RATE SCHEDULE

SYSTEM	HIGH MINIMUM OUTSIDE AIR FLOW RATE (CFM)	LOW MINIMUM OUTSIDE AIR FLOW RATE (CFM)
AHU-1M	2,500	1,250
AHU-2M	1,280	550

SEQUENCE OF OPERATION:

WHEN AHU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR:
- SUPPLY FANS SHALL BE ENABLED TO RUN.
- WHEN THE SUPPLY FANS HAVE STARTED THE RELIEF FAN SHALL BE ENABLED TO RUN.

SUPPLY FAN OPERATION:
BAS SHALL MODULATE SIGNAL TO SUPPLY FAN VFD'S TO MAINTAIN DUCT STATIC PRESSURE AS MEASURED BY STATIC PRESSURE TRANSMITTER NEAR THE END OF THE CRITICAL DUCT BRANCH.

RELIEF FAN OPERATION:
RETURN FAN SHALL BE ENABLED TO RUN WHENEVER THE SUPPLY FAN IS INDEXED TO RUN. BAS SHALL MODULATE SIGNAL TO RELIEF FAN VFD AS REQUIRED TO MAINTAIN THE BUILDING STATIC PRESSURE AT +0.02" WC (ADJ.). WHEN THE RELIEF FAN IS INDEXED TO RUN THE FAN SHALL NOT START UNTIL THE DAMPER END SWITCH IS PROVEN. WHEN FAN IS INDEXED OFF THE RELIEF DAMPER SHALL CLOSE AND THERE SHALL BE A 30 SECOND DELAY BEFORE THE FAN IS SHUT DOWN.

STATIC PRESSURE RESET:
BAS SHALL RESET SUPPLY DUCT STATIC PRESSURE SETPOINT BELOW THE MAXIMUM SETPOINT AS REQUIRED TO MAINTAIN AT LEAST ONE SUPPLY TAB DAMPER 90% (ADJ.) OPEN. BAS SHALL MONITOR ALL SUPPLY TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

DISCHARGE AIR TEMPERATURE SET POINT:
DISCHARGE AIR SET POINT SHALL BE 55ºF (ADJ.).

DISCHARGE AIR TEMPERATURE RESET:
RESET DISCHARGE AIR TEMPERATURE BASED ON THE ZONE WITH THE GREATEST CALL FOR COOLING. RESET THE TEMPERATURE AS FOLLOWS:
• WHEN WORST CASE TAB IS LESS THAN 90% (ADJ.) OPEN FOR TEN MINUTES (ADJ.) THEN THE DISCHARGE AIR TEMPERATURE SHALL INCREASE BY 1ºF (ADJ.). THIS SHALL CONTINUE UNTIL AHU MAXIMUM DISCHARGE AIR TEMPERATURE OF 60ºF (ADJ.) IS ACHIEVED.
• WHEN WORST CASE TAB IS MORE THAN 90% OPEN FOR TEN MINUTES (ADJ.) THEN THE DISCHARGE AIR TEMPERATURE SHALL DROP BY 1ºF (ADJ.).THIS SHALL CONTINUE UNTIL AHU MINIMUM DISCHARGE AIR TEMPERATURE OF 52ºF (ADJ.) IS ACHIEVED.
• THE MAXIMUM ALLOWABLE RETURN AIR HUMIDITY SETPOINT SHALL BE 60% (ADJ.). IF RETURN AIR HUMIDITY IS GREATER THAN SETPOINT, RESET DISCHARGE AIR TEMPERATURE TO 55°F UNTIL RETURN AIR HUMIDITY IS 5% LESS THAN MAXIMUM SETPOINT FOR 10 MINUTES (ADJ.).

STATIC PRESSURE AND DISCHARGE AIR TEMPERATURE RESET PRIORITY:
RESET THE DISCHARGE AIR TEMPERATURE PRIOR TO RESETTING THE DUCTWORK STATIC PRESSURE SETPOINT. ONCE THE MAXIMUM SUPPLY TEMPERATURE IS REACHED THEN THE SYSTEM SHALL ENABLE THE STATIC PRESSURE RESET

DEMAND CONTROL VENTILATION:
WHENEVER THE AIR HANDLING UNIT IS IN OCCUPIED MODE, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN. THE RETURN AIR AND OUTSIDE AIR DAMPER SHALL MODULATE IN OPPOSITION TO MAINTAIN THE MINIMUM OUTSIDE AIR FLOW RATE AS MEASURED AT THE OUTSIDE AIRFLOW MEASURING STATION. THE MINIMUM OUTSIDE AIR FLOW RATE SHALL BE RESET AS FOLLOWS:
- DURING OCCUPIED MODE, THE MINIMUM OA FLOW RATE SHALL NOT FALL BELOW THE AMOUNT LISTED IN THE AHU SCHEDULE.
- IF ANY DCV ZONE HAS A CO2 CONCENTRATION ABOVE ITS SCHEDULED SETPOINT AND THAT ZONE'S TAB MINIMUM FLOW IS RESET TO ITS MAXIMUM FLOW RATE, THE MINIMUM OA SETPOINT SHALL INCREASE UNTIL THAT ZONE CO2 SETPOINT IS SATISFIED OR UNTIL THE DESIGN OCCUPIED HIGH MINIMUM OUTSIDE AIR FLOW ON THE AHU SCHEDULE IS REACHED.
- IF THE CRITICAL ZONE'S CO2 CONCENTRATION DROPS BELOW THE SCHEDULED CO2 SETPOINT, THE MINIMUM OUTSIDE AIR RATE SHALL BE RESET LOWER UNTIL THE CO2 CONCENTRATION REACHES ITS SETPOINT OR UNTIL THE AHU OUTSIDE AIR FLOW RATE REACHES THE MINIMUM OA RATE IN AHU SCHEDULE.

COOLING COIL OPERATION:
BAS SHALL MODULATE CHILLED WATER CONTROL VALVE AS REQUIRED TO MAINTAIN DISCHARGE AIR TEMPERATURE SET POINT.

PREHEAT COIL OPERATION:
PREHEAT COIL CONTROLS SHALL BE ENABLED WHEN OUTSIDE AIR TEMP DROPS BELOW 50°F (ADJ.). PREHEAT COIL CONTROLS SHALL BE DISABLED WHEN OUTSIDE AIR TEMP RISES ABOVE 54°F (ADJ.).

BAS SHALL MODULATE HEATING WATER CONTROL VALVE AS REQUIRED TO MAINTAIN DISCHARGE AIR TEMPERATURE SET POINT.

BYPASS VALVE CONTROL (WHERE SHOWN):
THE MINIMUM FLOW BYPASS CONTROL VALVE SHALL MODULATE OPEN PROPORTIONATELY AS THE ASSOCIATED COIL CONTROL VALVE CLOSES.

DEHUMIDIFICATION:
THE BAS SHALL MEASURE THE RETURN AIR HUMIDITY AND OVERRIDE THE COOLING SYSTEM TO MAINTAIN RETURN AIR HUMIDITY AT OR BELOW 55%. DEHUMIDIFICATION SHALL BE ENABLED WHENEVER THE SUPPLY FAN STATUS IS ON. DURING THE DEHUMIDIFICATION CYCLE THE COOLING COIL VALVE SHALL MODULATE TO MAINTAIN 50ºF (ADJ.) SETPOINT AS SENSED BY THE COOLING COIL DISCHARGE AIR TEMP SENSOR. THE CHILLED WATER VALVE SHALL RETURN TO NORMAL OPERATION WHEN THE RA % RH IS BELOW 55% RH (ADJ.)

ULTRAVIOLET LIGHT MONITOR:
THE BAS WILL MONITOR THE OUTPUT POWER OF THE UV LIGHTS, THROUGH A RADIOMETER, AND WILL ALARM THE SYSTEM OPERATOR WHEN THE LEVEL DROPS BELOW ITS REPLACEMENT SETPOINT. UV LIGHTS WILL BE INTERLOCKED WITH DOOR SWITCHES IN ADJACENT ACCESS DOORS TO SHUT OFF LIGHTS WHENEVER THOSE DOORS ARE OPENED.

ALARMS, INTERLOCKS, AND SAFETIES:
WHEN FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, AHU SHALL BE SHUTDOWN.

THE FOLLOWING CONDITIONS SHALL SHUTDOWN THE AHU AND SHALL INDICATE AN ALARM CONDITION AT THE BAS WORKSTATION:
- HIGH STATIC PRESSURE SWITCH INDICATES RELIEF DUCT DISCHARGE PRESSURE GREATER THAN THE SPECIFIED DUCT PRESSURE CLASS.
- LOW STATIC PRESSURE SWITCH INDICATES MIXED AIR PRESSURE LESS THAN THE SPECIFIED DUCT PRESSURE CLASS OF THE OUTSIDE AIR DUCTWORK.
- HIGH STATIC PRESSURE SWITCH INDICATES SUPPLY DUCT STATIC PRESSURE GREATER THAN THE SPECIFIED DUCT PRESSURE CLASS.
- SHOULD ANY ONE FOOT SECTION OF THE MANUAL RESET LOW LIMIT TEMPERATURE SWITCH #1 SENSE AIR TEMP <34°F (ADJ.). IF MULTIPLE FREEZE STATS ARE REQUIRED, WIRE ALL TO A COMMON RESET SWITCH.

THE FOLLOWING CONDITIONS SHALL INDICATE AN ALARM AT THE FMCS, HOWEVER AHU SHALL CONTINUE TO OPERATE:
- AN ALARM IS INDICATED AT ANY SUPPLY FAN VFD OR RELIEF FAN VFD.
- DIFFERENTIAL PRESSURE TRANSDUCER ACROSS FILTER BANK EXCEEDS 1.5 INCHES W.G. (ADJ.)
- SHOULD ANY ONE FOOT SECTION OF THE AUTO RESET LOW LIMIT TEMPERATURE SWITCH #2 SENSE AIR TEMPERATURE <38°F (ADJ.) THE FOLLOWING SHALL OCCUR:
  - THE RETURN AIR DAMPER SHALL FULLY OPEN.
  - THE OUTSIDE AIR AND RELIEF DAMPERS SHALL FULLY CLOSE.
  - THIS ACTION SHALL OCCUR INDEPENDENT OF THE BAS AHU CONTROLLER. ONCE THE LOW LIMIT TEMPERATURE SWITCH #2 AIR TEMPERATURE RISES ABOVE SET POINT, OPERATION OF THE OUTSIDE AIR, RELIEF AIR, AND RETURN AIR DAMPERS SHALL BE RESTORED. HOWEVER, THE ALARM SHALL CONTINUE UNTIL ACKNOWLEDGED AND MANUALLY RESET BY THE BAS OPERATOR.
- SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT.

IN THE EVENT SUPPLY FAN IS NOT RUNNING (AS INDICATED BY THE CURRENT SENSING RELAYS) RELIEF AIR FAN SHALL BE DE-ENERGIZED.

WHENEVER AHU IS SHUTDOWN THE FOLLOWING SHALL OCCUR:
- THE OUTSIDE AIR DAMPER AND RELIEF AIR DAMPER SHALL FULLY CLOSE.
- RETURN AIR DAMPER SHALL FULLY OPEN.
- HEATING WATER CONTROL VALVE SHALL REMAIN UNDER CONTROL OF ITS INPUT SENSOR.
- CHILLED WATER CONTROL VALVE SHALL FULLY CLOSE.
- SUPPLY FAN AND RELIEF FAN VFDS SHALL BE DE-ENERGIZED.

UNOCCUPIED MODE:
PROVIDE TIME OF DAY SCHEDULE TO ALLOW AHU TO ENTER UNOCCUPIED MODE PER SCHEDULE. COORDINATE SCHEDULE WITH OWNER.
- THE SUPPLY FANS SHALL CONTINUE RUNNING.
- THE RELIEF FAN WILL BE DISABLED. THE OUTSIDE AIR AND RELIEF AIR DAMPERS SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN.
- ALL SPACE TEMPERATURES SHALL BE ALLOWED TO VARY +/- 10°F (ADJ.) FROM OCCUPIED SETPOINT.

HEATING OPTIMUM START-UP:
- THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO WARM THE SPACES TO THEIR SETPOINT WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 85ºF (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL ALL TEMPERATURES EXCEED A SETPOINT OF 68ºF (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO OCCUPIED CONTROL.

COOLING OPTIMUM START-UP:
- THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO COOL THE SPACES TO THEIR SETPOINT. WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 55ºF (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL ALL TEMPERATURES ARE LESS THAN A SETPOINT OF 75ºF (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO OCCUPIED CONTROL.

GRAPHICAL DISPLAY:
DISPLAY THE GLOBAL OUTSIDE AIR TEMPERATURE AND HUMIDITY ON AHU GRAPHIC PAGE.

AIR HANDLING UNIT - VAV CHILLED AND HEATING WATER WITH DEMAND CONTROL VENTILATION AND AIRFLOW MEASURING

1 NO SCALE

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20309 DAVID W. BODENHAMER

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 ME8.2	TITLE OF SHEET MAURICE BATHHOUSE TEMPERATURE CONTROLS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 161 OF 286

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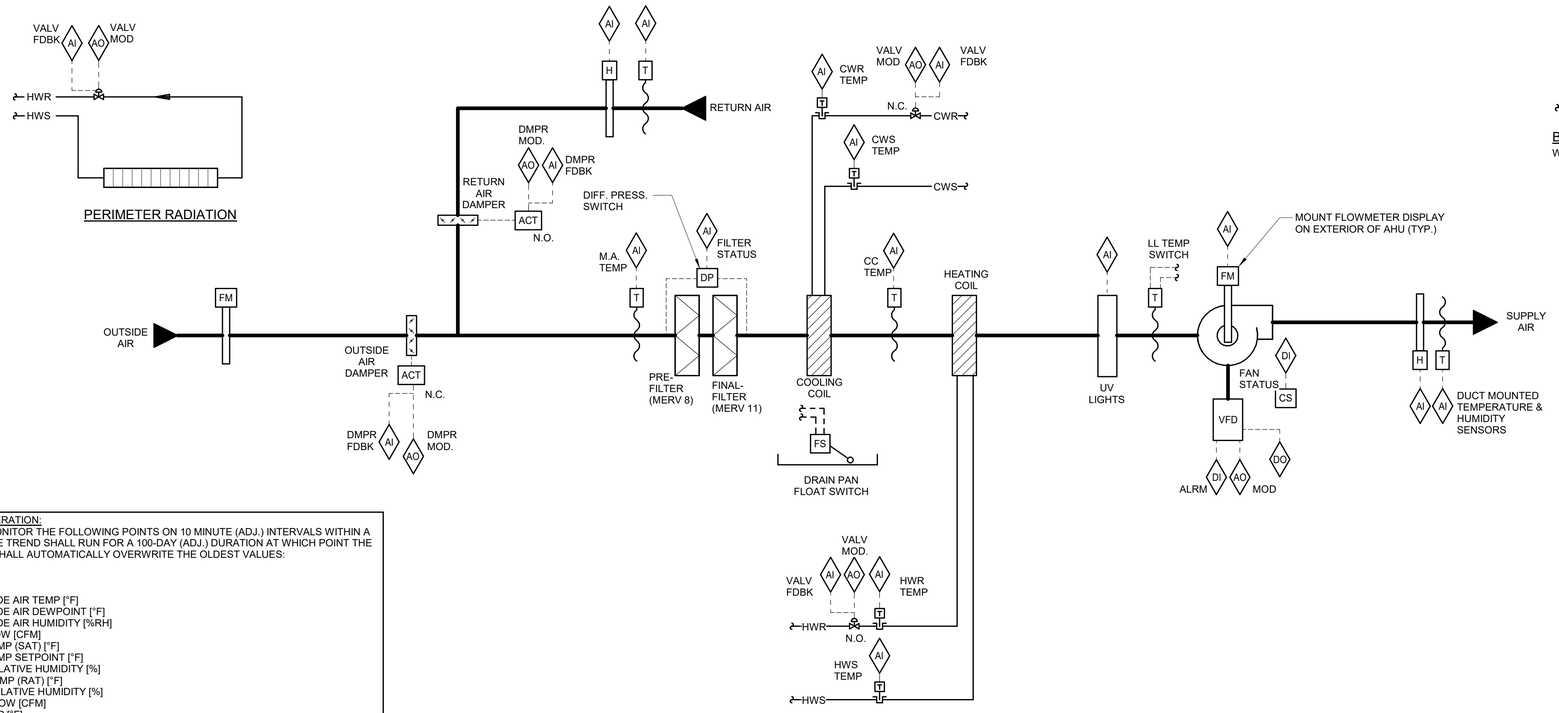

AHU REPORT GENERATION:
DDC BAS SHALL MONITOR THE FOLLOWING POINTS ON 10 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 100-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL AUTOMATICALLY OVERWRITE THE OLDEST VALUES:

- DATE
- TIME
- GLOBAL OUTSIDE AIR TEMP [°F]
- GLOBAL OUTSIDE AIR DEWPOINT [°F]
- GLOBAL OUTSIDE AIR HUMIDITY [%RH]
- SUPPLY AIRFLOW [CFM]
- SUPPLY AIR TEMP (SAT) [°F]
- SUPPLY AIR TEMP SETPOINT [°F]
- SUPPLY AIR RELATIVE HUMIDITY [%]
- RETURN AIR TEMP (RAT) [°F]
- RETURN AIR RELATIVE HUMIDITY [%]
- OUTSIDE AIRFLOW [CFM]
- MIXED AIR TEMP [°F]
- FILTER ALARM PRE-FILTER LOADING
- HEATING WATER VALVE POSITION [% OPEN]
- CHILLED WATER VALVE POSITION [% OPEN]
- SUPPLY FAN VFD OUTPUT [% FULL SPEED]
- OUTSIDE AIR DAMPER POSITION [% OPEN]
- RETURN AIR DAMPER POSITION [% OPEN]

THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN GRAPHICAL FORM ON THE FMCS OPERATOR WORKSTATION.

ONCE PER MONTH, THE DDC FMCS SHALL RECORD THE LARGEST AHU AIRFLOW WHICH OCCURRED DURING THAT MONTH. THE DATE, TIME, OUTSIDE AIR TEMP (AND ALL OTHER VALUES LISTED ABOVE) THAT COINCIDED WITH THAT EVENT SHALL ALSO BE RECORDED. THIS INFORMATION SHALL BE STORED TO A MEMORY LOCATION ON THE FMCS OPERATOR WORKSTATION THAT IS MAINTAINED (NOT AUTOMATICALLY OVERWRITTEN).

AHU OUTSIDE AIR FLOW RATE SCHEDULE		
SYSTEM	HIGH MINIMUM OUTSIDE AIR FLOW RATE (CFM)	LOW MINIMUM OUTSIDE AIR FLOW RATE (CFM)
AHU-3M	600	300

SEQUENCE OF OPERATION:

WHEN AHU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR:
- SUPPLY FANS SHALL BE ENABLED TO RUN.
- WHEN THE SUPPLY FANS HAVE STARTED THE RELIEF FAN SHALL BE ENABLED TO RUN.

SUPPLY FAN OPERATION:
BAS SHALL MODULATE SIGNAL TO SUPPLY FAN VFD'S TO MAINTAIN DUCT STATIC PRESSURE AS MEASURED BY STATIC PRESSURE TRANSMITTER NEAR THE END OF THE CRITICAL DUCT BRANCH.

RELIEF FAN OPERATION:
RELIEF FAN SHALL BE ENABLED TO RUN WHENEVER THE SUPPLY FAN IS INDEXED TO RUN. BAS SHALL MODULATE SIGNAL TO RELIEF FAN VFD AS REQUIRED TO MAINTAIN THE BUILDING STATIC PRESSURE AT +0.02" WC (ADJ.). WHEN THE RELIEF FAN IS INDEXED TO RUN THE FAN SHALL NOT START UNTIL THE DAMPER END SWITCH IS PROVEN. WHEN FAN IS INDEXED OFF, THE RELIEF DAMPER SHALL CLOSE AND THERE SHALL BE A 30 SECOND DELAY BEFORE THE FAN IS SHUT DOWN.

SUPPLY FAN AND CONTROL VALVE OPERATION:
THE BAS WILL MODULATE THE SUPPLY FAN, COOLING CONTROL VALVE, AND HEATING CONTROL VALVE TO ACHIEVE THE ROOM TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°F (ADJ.) OFFSET FROM THE SETPOINT.
- AT A FULL COOLING, THE SUPPLY FAN IS AT MAXIMUM COOLING CFM SPEED AND THE COOLING CONTROL VALVE SHALL BE OPEN TO MAINTAIN 55ºF (ADJ) DISCHARGE AIR TEMPERATURE.
- AS THE ROOM AIR TEMPERATURE FALLS, THE SUPPLY FAN SHALL RAMP DOWN TO MAINTAIN ROOM TEMPERATURE SET POINT WHILE MAINTAINING A 55ºF (ADJ) DISCHARGE AIR TEMPERATURE SET POINT.
- ON A FURTHER FALL IN ROOM TEMPERATURE, THE SUPPLY FAN WILL REMAIN AT MINIMUM SPEED AND THE COOLING CONTROL VALVE SHALL MODULATE TO MAINTAIN ROOM AIR TEMPERATURE SET POINT. WHEN THE SUPPLY FAN IS AT MINIMUM SPEED THE AHU DISCHARGE AIR TEMPERATURE SHALL NOT CONTROL THE COOLING CONTROL VALVE.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, THE BAS WILL MODULATE THE PERIMETER RADIATION CONTROL VALVES OPEN AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE.
- ON A FURTHER REDUCTION IN ROOM TEMPERATURE, THE HEATING CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN ROOM AIR TEMPERATURE SET POINT. THE DISCHARGE AIR TEMPERATURE SHALL NOT RISE ABOVE 95ºF AS THE HEATING CONTROL VALVE OPENS. THE SUPPLY FAN SHALL REMAIN AT MINIMUM HEATING CFM.
- ONCE THE HEATING CONTROL VALVE IS MAINTAINING 95°F DISCHARGE AIR, THE SUPPLY FAN SPEED SHALL RAMP UP TO MAXIMUM HEATING SPEED TO MAINTAIN ROOM AIR TEMPERATURE SET POINT.

STATIC PRESSURE AND DISCHARGE AIR TEMPERATURE RESET PRIORITY:
RESET THE DISCHARGE AIR TEMPERATURE PRIOR TO RESETTING THE DUCTWORK STATIC PRESSURE SETPOINT. ONCE THE MAXIMUM SUPPLY TEMPERATURE IS REACHED THEN THE SYSTEM SHALL ENABLE THE STATIC PRESSURE RESET

DEMAND CONTROL VENTILATION:
WHENEVER THE AIR HANDLING UNIT IS IN OCCUPIED MODE, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN. THE RETURN AIR AND OUTSIDE AIR DAMPER SHALL MODULATE IN OPPOSITION TO MAINTAIN THE MINIMUM OUTSIDE AIR FLOW RATE AS MEASURED AT THE OUTSIDE AIRFLOW MEASURING STATION. THE MINIMUM OUTSIDE AIR FLOW RATE SHALL BE RESET AS FOLLOWS:
- DURING OCCUPIED MODE, THE MINIMUM OA FLOW RATE SHALL NOT FALL BELOW THE AMOUNT LISTED IN THE AHU SCHEDULE.
- IF THE CO2 CONCENTRATION IS ABOVE ITS SCHEDULED SETPOINT, THE MINIMUM OA SETPOINT SHALL INCREASE UNTIL THE CO2 SETPOINT IS SATISFIED OR UNTIL THE DESIGN OCCUPIED HIGH MINIMUM OUTSIDE AIR FLOW ON THE AHU SCHEDULE IS REACHED.
- IF THE CO2 CONCENTRATION DROPS BELOW THE SCHEDULED CO2 SETPOINT, THE MINIMUM OUTSIDE AIR RATE SHALL BE RESET LOWER UNTIL THE CO2 CONCENTRATION REACHES ITS SETPOINT OR UNTIL THE AHU OUTSIDE AIR FLOW RATE REACHES THE MINIMUM OA RATE IN AHU SCHEDULE.

DEHUMIDIFICATION:
THE BAS SHALL MEASURE THE RETURN AIR HUMIDITY AND OVERRIDE THE COOLING SYSTEM TO MAINTAIN RETURN AIR HUMIDITY AT OR BELOW 55%. DEHUMIDIFICATION SHALL BE ENABLED WHENEVER THE SUPPLY FAN STATUS IS ON. DURING THE DEHUMIDIFICATION CYCLE THE COOLING COIL VALVE SHALL MODULATE TO MAINTAIN 50ºF (ADJ.) SETPOINT AS SENSED BY THE COOLING COIL DISCHARGE AIR TEMP SENSOR. THE CHILLED WATER VALVE SHALL RETURN TO NORMAL OPERATION WHEN THE RA % RH IS BELOW 55% RH (ADJ.)

ULTRAVIOLET LIGHT MONITOR:
THE BAS WILL MONITOR THE OUTPUT POWER OF THE UV LIGHTS, THROUGH A RADIOMETER, AND WILL ALARM THE SYSTEM OPERATOR WHEN THE LEVEL DROPS BELOW ITS REPLACEMENT SETPOINT. UV LIGHTS WILL BE INTERLOCKED WITH DOOR SWITCHES IN ADJACENT ACCESS DOORS TO SHUT OFF LIGHTS WHENEVER THOSE DOORS ARE OPENED.

ALARMS, INTERLOCKS, AND SAFETIES:
WHEN FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, AHU SHALL BE SHUTDOWN.

THE FOLLOWING CONDITIONS SHALL SHUTDOWN THE AHU AND SHALL INDICATE AN ALARM CONDITION AT THE BAS WORKSTATION:
- SHOULD ANY ONE FOOT SECTION OF THE MANUAL RESET LOW LIMIT TEMPERATURE SWITCH SENSE AIR TEMP <34°F (ADJ.). IF MULTIPLE FREEZE STATS ARE REQUIRED, WIRE ALL TO A COMMON RESET SWITCH.
- A FLOAT SWITCH MOUNTED IN THE COOLING COIL DRAIN PAN SHALL CLOSE THE CHILLED WATER VALVE AND PREVENT SUPPLY FAN OPERATION UPON DETECTION OF WATER AND SHALL INDICATE AN ALARM TO THE OPERATOR WORKSTATION.

THE FOLLOWING CONDITIONS SHALL INDICATE AN ALARM AT THE FMCS, HOWEVER AHU SHALL CONTINUE TO OPERATE:
- AN ALARM IS INDICATED THE SUPPLY FAN VFD.
- DIFFERENTIAL PRESSURE TRANSDUCER ACROSS FILTER BANK EXCEEDS 1.5 INCHES W.G. (ADJ.)
- SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT.

WHENEVER AHU IS SHUTDOWN THE FOLLOWING SHALL OCCUR:
- THE OUTSIDE AIR DAMPER SHALL FULLY CLOSE.
- RETURN AIR DAMPER SHALL FULLY OPEN.
- HEATING WATER CONTROL VALVE SHALL REMAIN UNDER CONTROL OF ITS INPUT SENSOR.
- CHILLED WATER CONTROL VALVE SHALL FULLY CLOSE.
- SUPPLY FAN VFD SHALL BE DE-ENERGIZED.

UNOCCUPIED MODE:
PROVIDE TIME OF DAY SCHEDULE TO ALLOW AHU TO ENTER UNOCCUPIED MODE PER SCHEDULE. COORDINATE SCHEDULE WITH OWNER.
- THE SUPPLY FANS SHALL CONTINUE RUNNING.
- THE OUTSIDE AIR DAMPER SHALL CLOSE AND THE RETURN AIR DAMPER SHALL OPEN.
- THE SPACE TEMPERATURE SHALL BE ALLOWED TO VARY +/- 10°F (ADJ.) FROM OCCUPIED SETPOINT.

HEATING OPTIMUM START-UP:
- THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO WARM THE SPACE TO ITS SETPOINT WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 75ºF (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL THE TEMPERATURE EXCEEDS A SETPOINT OF 68ºF (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO OCCUPIED CONTROL.

COOLING OPTIMUM START-UP:
- THIS CYCLE SHALL OVERRIDE THE UNOCCUPIED CYCLE. IF THE SYSTEM WAS OPERATING AS A RESULT OF THE UNOCCUPIED CYCLE, THE SYSTEM SHALL CONTINUE TO OPERATE. THE DDC SYSTEM SHALL DETERMINE THE MINIMUM RUNTIME TO COOL THE SPACE TO ITS SETPOINT. WHEN THE COMPUTED START TIME IS REACHED. THE AIR HANDLING UNIT DISCHARGE AIR TEMPERATURE SHALL BE MAINTAINED AT A SETPOINT OF 55ºF (ADJ.). THE SYSTEM SHALL CONTINUE TO OPERATE IN THIS MODE UNTIL THE TEMPERATURE IS LESS THAN A SETPOINT OF 75ºF (ADJ.). AT THAT TIME, THE DDC SYSTEM SHALL SWITCH TO OCCUPIED CONTROL.

GRAPHICAL DISPLAY:
DISPLAY THE GLOBAL OUTSIDE AIR TEMPERATURE AND HUMIDITY ON AHU GRAPHIC PAGE.

AIR HANDLING UNIT - SINGLE ZONE VAV CHILLED AND HEATING WATER WITH DEMAND CONTROL VENTILATION AND AIRFLOW MEASURING

1 NO SCALE

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 INDIANA

STATE OF INDIANA LICENSED PROFESSIONAL ENGINEER ★★★ No. 20909 DAVID W. BODDINGHAUS

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900		01 ME8.3	MAURICE BATHHOUSE TEMPERATURE CONTROLS	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD:			PMIS/PKG NO. 318674
	TECH. REVIEW:		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 162 OF 286
	DATE: 10.27.2023			

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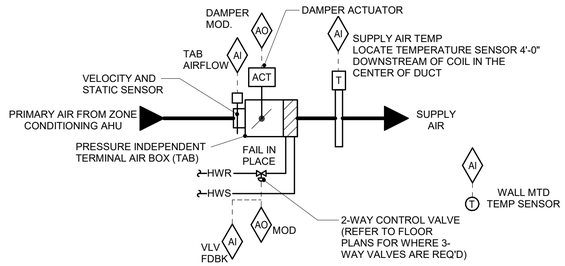


SEQUENCE OF OPERATION:

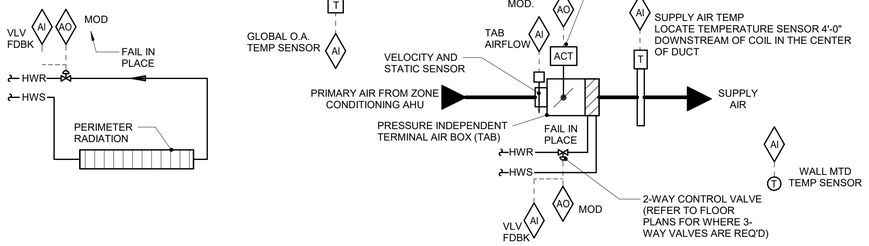
- BAS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER AND TAB HW REHEAT COIL CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3° F (ADJ.) OFFSET FROM THE DDC SETPOINT.
- AT FULL COOLING, THE TAB SHALL BE OPEN TO MAXIMUM CFM POSITION. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FALL IN SPACE TEMPERATURE, THE TAB SHALL MODULATE CLOSED UNTIL SPACE SETPOINT IS MAINTAINED, OR UNTIL IT REACHES ITS MINIMUM SCHEDULED CFM POSITION PER THE TAB SCHEDULE. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, THE REHEAT COIL CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE SETPOINT UNTIL THE SUPPLY AIR TEMPERATURE IS 20°F (ADJ.) ABOVE ROOM TEMPERATURE SETPOINT.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, TAB SHALL OPEN TO MAINTAIN SETPOINT UNTIL TAB AIRFLOW REACHES ITS MAXIMUM HEATING SETTING. THE REHEAT CONTROL VALVE SHALL CONTINUE TO MODULATE OPEN TO MAINTAIN MAXIMUM DELTA T LISTED ABOVE.
- THE BAS SHALL UTILIZE OUTPUT FROM ALL TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 10°F (ADJ.) ABOVE OR BELOW SETPOINT.

1 TAB CONTROL W/ HOT WATER REHEAT - TAB-A

NO SCALE



SEQUENCE OF OPERATION:

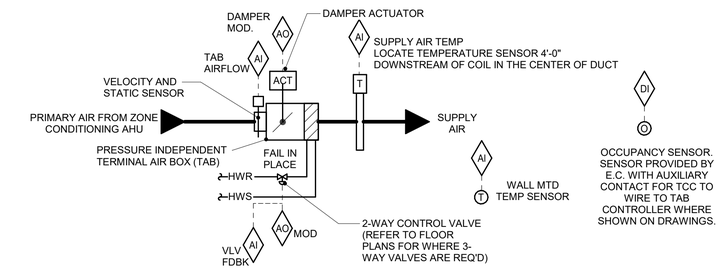
- BAS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER, TAB HEATING WATER REHEAT COIL, AND PERIMETER RADIATION CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°F (ADJ.) OFFSET FROM THE DDC SETPOINT.
- AT FULL COOLING, THE TAB SHALL BE OPEN TO MAXIMUM CFM POSITION.
- UPON A FALL IN SPACE TEMPERATURE, THE TAB SHALL MODULATE CLOSED UNTIL SPACE SETPOINT IS MAINTAINED, OR UNTIL IT REACHES ITS MINIMUM SCHEDULED CFM POSITION PER THE TAB SCHEDULE. THE REHEAT COIL CONTROL VALVE AND PERIMETER RADIATION CONTROL VALVE SHALL BE CLOSED.
- THE TAB CONTROLLER SHALL ENABLE PERIMETER RADIATION CONTROLS WHEN THE O.A. TEMP DROPS BELOW 35° F (ADJ.). WHEN THE O.A. TEMP RISES ABOVE 40°F (ADJ.) PERIMETER RADIATION CONTROLS SHALL BE DISABLED.
- AS SPACE TEMP DROPS BELOW SETPOINT AND TAB DAMPER IS AT MINIMUM SCHEDULED CFM, TAB CONTROLLER SHALL MODULATE THE PERIMETER RADIATION CONTROL VALVE OPEN AS REQUIRED TO MAINTAIN SPACE TEMP.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, THE REHEAT COIL CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE SETPOINT UNTIL THE SUPPLY AIR TEMPERATURE IS 20°F (ADJ.) ABOVE ROOM TEMPERATURE SETPOINT.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, TAB SHALL OPEN TO MAINTAIN SETPOINT UNTIL TAB AIRFLOW REACHES ITS MAXIMUM HEATING SETTING. THE REHEAT CONTROL VALVE SHALL CONTINUE TO MODULATE OPEN TO MAINTAIN MAXIMUM DELTA T LISTED ABOVE.
- THE FMCS SHALL UTILIZE OUTPUT FROM ALL TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT.

2 TAB CONTROL W/ HOT WATER REHEAT AND PERIMETER RADIATION - TAB-D

12" = 1'-0"



SEQUENCE OF OPERATION:

OCCUPIED CONTROL:

- BAS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER AND TAB HW REHEAT COIL CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°F (ADJ.) OFFSET FROM THE DDC SETPOINT.
- AT FULL COOLING, THE TAB SHALL BE OPEN TO MAXIMUM CFM POSITION. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FALL IN SPACE TEMPERATURE, THE TAB SHALL MODULATE CLOSED UNTIL SPACE SETPOINT IS MAINTAINED, OR UNTIL IT REACHES ITS MINIMUM SCHEDULED CFM POSITION PER THE TAB SCHEDULE. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, THE REHEAT COIL CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE SETPOINT UNTIL THE SUPPLY AIR TEMPERATURE IS 20°F (ADJ.) ABOVE ROOM TEMPERATURE SETPOINT.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, TAB SHALL OPEN TO MAINTAIN SETPOINT UNTIL TAB AIRFLOW REACHES ITS MAXIMUM HEATING SETTING. THE REHEAT CONTROL VALVE SHALL CONTINUE TO MODULATE OPEN TO MAINTAIN MAXIMUM DELTA T LISTED ABOVE.
- THE FMCS SHALL UTILIZE OUTPUT FROM ALL TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

UNOCCUPIED CONTROL:

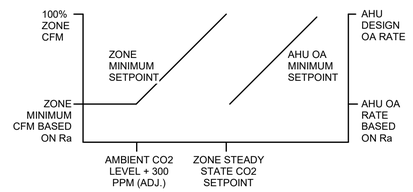
- FMCS TAB CONTROL SHALL FOLLOW OCCUPIED CONTROL WITH THE FOLLOWING EXCEPTIONS.
- FMCS TAB CONTROLLER SHALL MAINTAIN AN UNOCCUPIED DEADBAND OF 15°F(ADJ.) FROM THE SPACE TEMPERATURE SETPOINT AFTER A 30 MIN. (ADJ.) TIME DELAY ONCE SPACE GOES INTO UNOCCUPIED MODE AS DETERMINED BY THE OCCUPANCY SENSOR.
- THE TAB MINIMUM CFM SHALL BE RESET TO O CFM WHEN IN UNOCCUPIED MODE.

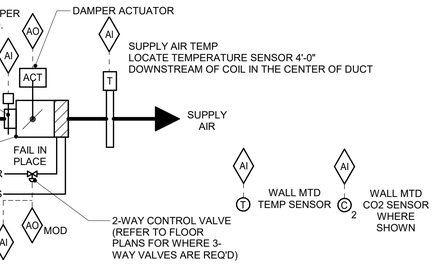
ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT.

3 TAB CONTROL W/ HOT WATER REHEAT AND OCCUPANCY CONTROL - TAB-B

NO SCALE





SEQUENCE OF OPERATION:

- BAS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER AND TAB HW REHEAT COIL CONTROL VALVE TO MAINTAIN SPACE TEMPERATURE OF 72°F (ADJ.) WITH 5°F (ADJ.) DEAD BAND BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR. SEE DRAWINGS FOR TEMPERATURE SENSOR REQUIREMENTS. SPACES WITH ADJUSTABLE THERMOSTATS WILL ALLOW A +/- 3°F (ADJ.) OFFSET FROM THE DDC SETPOINT.
- AT FULL COOLING, THE TAB SHALL BE OPEN TO MAXIMUM CFM POSITION. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FALL IN SPACE TEMPERATURE, THE TAB SHALL MODULATE CLOSED UNTIL SPACE SETPOINT IS MAINTAINED, OR UNTIL IT REACHES ITS MINIMUM SCHEDULED CFM POSITION PER THE TAB SCHEDULE. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, THE REHEAT COIL CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE SETPOINT UNTIL THE SUPPLY AIR TEMPERATURE IS 20°F (ADJ.) ABOVE ROOM TEMPERATURE SETPOINT.
- UPON A FURTHER FALL IN SPACE TEMPERATURE, TAB SHALL OPEN TO MAINTAIN SETPOINT UNTIL TAB AIRFLOW REACHES ITS MAXIMUM HEATING SETTING. THE REHEAT CONTROL VALVE SHALL CONTINUE TO MODULATE OPEN TO MAINTAIN MAXIMUM DELTA T LISTED ABOVE.
- THE FMCS SHALL UTILIZE OUTPUT FROM ALL TERMINAL AIR BOX POSITIONS TO RESET THE SUPPLY DUCT DIFFERENTIAL STATIC PRESSURE.

CO2 SENSOR-BASED DEMAND CONTROL VENTILATION:

DURING OCCUPIED HOURS, THE BAS SHALL RESET THE ZONE MINIMUM AIRFLOW SETTING BASED ON THE ZONE CO2 SENSOR INPUT SIGNAL:

- WHEN THE ZONE CO2 SENSOR READS AMBIENT CO2 LEVEL PPM (ADJ.) PLUS 300 PPM (ADJ.) OR LESS, THE TAB MINIMUM AIRFLOW SETTING SHALL BE EQUAL TO THE MINIMUM SPECIFIED IN THE TAB SCHEDULE.
- WHEN THE ZONE CO2 SENSOR IS AT THE CO2 SETPOINT IN THE TAB SCHEDULE OR HIGHER, THE TAB MINIMUM AIRFLOW SETTING SHALL BE EQUAL TO THE TAB MAXIMUM AIRFLOW SETTING SPECIFIED IN THE TAB SCHEDULE.
- WHEN THE ZONE CO2 LEVEL IS BETWEEN AMBIENT CO2 LEVEL PPM + 300 PPM (ADJ.) AND THE ZONE CO2 SETPOINT, THE TAB MINIMUM AIRFLOW SHALL VARY PROPORTIONALLY BETWEEN THE SCHEDULED TAB MINIMUM AIRFLOW AND MAXIMUM AIRFLOW.

ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 10°F (ADJ.) ABOVE OR BELOW SETPOINT.
SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE SPACE CO2 CONCENTRATION IS ABOVE THE SCHEDULED SETPOINT FOR MORE THAN 60 MINUTES (ADJ.)

4 TAB CONTROL W/ HOT WATER REHEAT AND CO2-BASED DEMAND CONTROL VENTILATION- TAB-C

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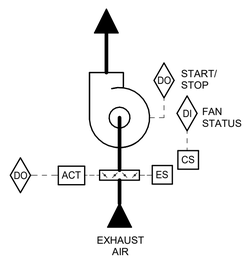


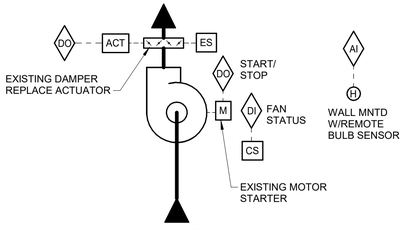
SEQUENCE OF OPERATION:
EXHAUST FAN SHALL BE ENABLED BY THE BAS.

2-POSITION DAMPER SHALL FULLY OPEN WHEN FAN IS ENABLED. ONCE PROVEN OPEN BY THE END SWITCH THE FAN SHALL START. WHEN FAN IS DISABLED, 2-POSITION DAMPER SHALL FULLY CLOSE AFTER A 30 SECOND (ADJ.) THE DELAY

ALARMS, INTERLOCKS AND SAFETIES:
AN ALARM SHALL BE GENERATED AT THE BAS OPERATOR WORKSTATION IN THE EVENT THE FMCS COMMANDS THE EXHAUST FAN TO OPERATE AND THE CURRENT SENSING RELAY DETECTS INSUFFICIENT CURRENT DRAW.

5 GENERAL EXHAUST FAN CONTROL - FAN-A

NO SCALE



SEQUENCE OF OPERATION:
EXHAUST FAN SHALL BE ENABLED BY THE BAS. THE EXHAUST FAN SHALL START WHEN THE CRAWLSPACE RELATIVE HUMIDITY EXCEDS 60% (ADJ.). FAN SHALL SHUT DOWN WHEN THE SPACE RH IS BELOW 60% (ADJ.).

2-POSITION DAMPER SHALL FULLY OPEN WHEN FAN IS STARTED. ONCE PROVEN OPEN BY THE END SWITCH THE FAN SHALL START. WHEN FAN IS DISABLED, 2-POSITION DAMPER SHALL FULLY CLOSE AFTER A 30 SECOND (ADJ.) THE DELAY

ALARMS, INTERLOCKS AND SAFETIES:
AN ALARM SHALL BE GENERATED AT THE BAS OPERATOR WORKSTATION IN THE EVENT THE BAS COMMANDS THE EXHAUST FAN TO OPERATE AND THE CURRENT SENSING RELAY DETECTS INSUFFICIENT CURRENT DRAW.

6 EXISTING CRAWL SPACE EXHAUST FAN CONTROL - FAN-B

NO SCALE

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4308
ARKANSAS

LICENSED PROFESSIONAL ENGINEER
No. 26909
DAVID W. BODINE

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 ME8.4	TITLE OF SHEET MAURICE BATHHOUSE TEMPERATURE CONTROLS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 163 OF 286

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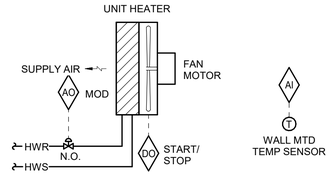


SEQUENCE OF OPERATION:

WHEN THE OUTDOOR AIR TEMPERATURE IS ABOVE 40°F (ADJ.), TEMPERATURE SENSOR SHALL MODULATE THE CONTROL VALVE AND CYCLE THE UNIT FAN TOGETHER TO MAINTAIN A SPACE TEMPERATURE OF 65°F (ADJ.).

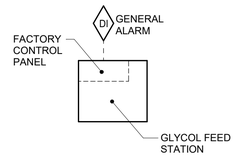
WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 40°F (ADJ.), TEMPERATURE SENSOR SHALL MODULATE THE CONTROL VALVE TO MAINTAIN A SPACE TEMPERATURE OF 70°F (ADJ.) AND THE UNIT FAN SHALL RUN CONTINUOUSLY.

ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF SPACE TEMPERATURE FALLS 10°F (ADJ.) BELOW SETPOINT.

1 UNIT HEATER CONTROL - HYDRONIC

NO SCALE



SEQUENCE OF OPERATION:

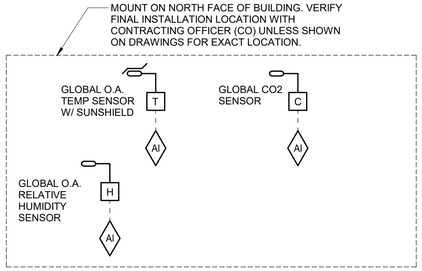
THE GLYCOL FEED SYSTEM CONTROLLER SHALL OPERATE THE SYSTEM TO MAINTAIN THE SPECIFIED PRESSURE IN THE WATER SYSTEM.

ALARMS, INTERLOCKS, AND SAFETIES:

AN ALARM SHALL BE GENERATED AT THE FMCS OPERATOR INTERFACE IF THE GLYCOL CONTROLLER INDICATES AN ALARM.

2 GLYCOL FEED STATION CONTROL DIAGRAM

NO SCALE



GLOBAL REFERENCE POINTS.

SEQUENCE OF OPERATION:
* PROVIDE GLOBAL O.A. DRY-BULB TEMPERATURE, GLOBAL CARBON DIOXIDE, AND RELATIVE HUMIDITY TRANSMITTERS.

* GLOBAL SENSORS SHALL CONTINUOUSLY UPDATE FMCS FOR USE IN CONTROLLING MECHANICAL EQUIPMENT AS REQUIRED IN SEQUENCES OF OPERATION

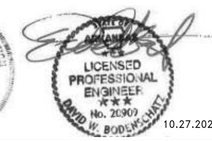
OUTSIDE AIR REFERENCE DRY BULB TEMPERATURE
• LOCATE ON THE EXTERIOR NORTH SIDE OF THE BUILDING LOCATION MUST BE SHADED AWAY FROM ANY HEAT SOURCE. LOCATION TO BE DETERMINED PER MANUFACTURER'S RECOMMENDATIONS AND CO'S APPROVAL CONTRACTOR SHALL PRIME AND PAINT THE DEVICE ENCLOSURE COLOR SELECTION BY ARCHITECT/ENGINEER.

OUTSIDE AIR REFERENCE CARBON DIOXIDE
• LOCATE ON THE EXTERIOR OF THE BUILDING LOCATION TO BE DETERMINED PER MANUFACTURER'S RECOMMENDATIONS AND CO'S APPROVAL CONTRACTOR SHALL PRIME AND PAINT THE DEVICE ENCLOSURE COLOR SELECTION BY ARCHITECT

OUTSIDE AIR REFERENCE HUMIDITY:
• LOCATE ON THE EXTERIOR OF THE BUILDING LOCATION TO BE DETERMINED PER MANUFACTURER S RECOMMENDATIONS AND CO'S APPROVAL CONTRACTOR SHALL PRIME AND PAINT THE DEVICE ENCLOSURE COLOR SELECTION BY ARCHITECT

3 GLOBAL REFERENCE POINTS

NO SCALE



10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 ME8.5	TITLE OF SHEET MAURICE BATHHOUSE TEMPERATURE CONTROLS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 164 OF 286

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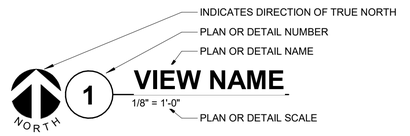
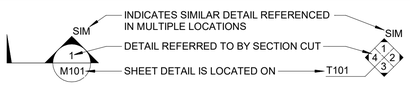
VIEW KEY

NAME
10'-0"
LEVEL NAME
HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

ELECTRICAL GENERAL NOTES:

1. REFER TO DRAWINGS EP6.1, EP6.2 AND EP6.3 FOR ELECTRICAL SCHEDULES. PERMANENT NAMEPLATE SHALL MATCH FINAL EQUIPMENT NOMENCLATURE, NOT ELECTRICAL EQUIPMENT TAG NAME, REFER TO SPECIFICATIONS.
2. "NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT.
3. "SE" INDICATES LUMINAIRE IS SWITCHED/CONTROLLED DURING NORMAL OPERATION AND OPERATES FROM EMERGENCY CIRCUIT UPON LOSS OF POWER.
4. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT OR SUPPLIED WITH AN EMERGENCY BATTERY PACK.
5. { B#} PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF RAISE/LOWER AND SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS. COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER.
6. VACANCY/OCCUPANCY SENSOR LAYOUT: SENSORS ARE SHOWN ON THE PLANS FOR DESIGN INTENT AND MAY NOT REPRESENT EVERY DEVICE. PROVIDE MANUFACTURER SPECIFIC FLOOR PLAN LAYOUTS SHOWING LOCATION, ORIENTATION, AND COVERAGE AREA OF EACH CONTROL DEVICE, SENSOR, AND CONTROLLER/INTERFACE. AREAS REQUIRING MULTIPLE SENSOR DEVICES FOR APPROPRIATE COVERAGE, SUBMIT SPECIFIC MANUFACTURER-APPROVED SENSOR LAYOUT AS AN OVERLAY DIRECTLY ON THE PROJECT DRAWINGS, EITHER IN PRINT OR APPROVED ELECTRONIC FORM.

LUMINAIRE KEY:

LUMINAIRE — F1 = FIXTURE TAG
1 = CIRCUIT NUMBER
a = SWITCH DESIGNATION
NL = SUBSCRIPT (IF APPLICABLE)
Z = ZONE DESIGNATION

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1 / 1 / a / NL

DEVICE KEY:

DEVICE — A = MOUNTING (IF APPLICABLE)
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL MOUNTING SUBSCRIPT KEY:

A	MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH
C	MOUNT AT CEILING
H	MOUNT ORIENTED HORIZONTALLY
L	MOUNT IN CASEWORK
M	MOUNT IN MODULAR FURNITURE
R	MOUNT IN SURFACE RACEWAY
EWC	ELECTRIC WATER COOLER

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
GB	GB	26 05 26	GROUND BUS
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
C#	SC-IO-W	27 15 00	TECHNOLOGY INFORMATION OUTLET. INCLUDE CAT 6 CABLE IN 3/4" CONDUIT TO DATA EQUIPMENT BOARD IN POOL VESTIBULE B20. C# DENOTES CABLE AND JACK QUANTITY.
WAP	SC-WAP-C		WIRELESS ACCESS POINT WITH ENCLOSURE (CEILING). INCLUDE CAT 6 CABLE IN 3/4" CONDUIT TO DATA EQUIPMENT BOARD IN POOL VESTIBULE B20.
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	MX-#/MS-#/CB-#/CS-#	26 24 19	MANUAL SWITCH / STARTER / COMBINATION STARTER/ CIRCUIT BREAKER. REFER TO DISC/STA SCHEDULE
	TR-#/DTR-#	26 22 00	TRANSFORMER. REFER TO TRANSFORMER SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - SURFACE MOUNTED. REFER TO DISC/STA SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - FLUSH MOUNTED. REFER TO DISC/STA SCHEDULE
	DS-#/FDS-#/DSS-#	26 28 16	DISCONNECT. REFER TO DISC/STA SCHEDULE
M / M			SECURITY MOTION DETECTOR WITH WIRING IN CONDUIT.
D			SECURITY DOOR CONTACT WITH WIRING IN CONDUIT. COORDINATE ROUGH-IN WITH DOOR CONTRACTOR.

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REFER TO LUMINAIRE SCHEDULE		WALL SCONCE LUMINAIRE
			DOWNLIGHT LUMINAIRE
			INDUSTRIAL LUMINAIRE
			SINGLE FACE EXIT SIGN
			DOUBLE FACE EXIT SIGN
			WALL/CEILING EMERGENCY EXIT SIGN
			EMERGENCY UNIT

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
			DUPLEX RECEPTACLE, 125V
			DUPLEX GFI RECEPTACLE, 125V
			QUAD RECEPTACLE, 125V
S	SW-1P	26 09 33	SWITCH - SINGLE POLE
S_T	SW-1P-ADJ	26 09 33	SWITCH - LOCAL TIMER - USER ADJUSTABLE
S_3	SW-3W	26 09 33	SWITCH - THREE WAY
S_4	SW-4W	26 09 33	SWITCH - FOUR WAY
PC	SW-LS-PC	26 09 33	PHOTOCELL
OC D	SW-OC-D	26 09 33	OCCUPANCY SENSOR - DUAL TECHNOLOGY
OC D	SW-OC-D-W	26 09 33	OCCUPANCY SENSOR - DUAL TECHNOLOGY - WALL MOUNTED
S_O	SW-OC-P-O	26 09 33	SWITCH - OCCUPANCY SENSOR WALL SWITCH
S_{O2}	SW-OC-P-O2	26 09 33	SWITCH - OCCUPANCY SENSOR AND DUAL SWITCH
OC P	SW-OC-P-P	26 09 33	OCCUPANCY SENSOR - PASSIVE INFRARED 360 DEGREE COVERAGE
OC P2	SW-OC-P-P2	26 09 33	OCCUPANCY SENSOR - PASSIVE INFRARED 100 DEGREE COVERAGE
OC P	SW-OC-P-W	26 09 33	OCCUPANCY SENSOR - PASSIVE INFRARED - WALL MOUNTED
OC U	SW-OC-U	26 09 33	OCCUPANCY SENSOR - ULTRASONIC 360 DEGREE COVERAGE
OC U2	SW-OC-U2	26 09 33	OCCUPANCY SENSOR - ULTRASONIC 35'X30' HAND MOTION COVERAGE
OC A	SW-OC-U-A	26 09 33	OCCUPANCY SENSOR - ULTRASONIC TWO SIDED CORRIDOR COVERAGE
OC U	SW-OC-U-W	26 09 33	OCCUPANCY SENSOR - ULTRASONIC - WALL MOUNTED
SW	SW	26 09 33	WALL CONTROL STATION
TC	TC-#	26 09 33	TIME SWITCH
#B		26 09 33	WATTSTOPPER OR APPROVED EQUAL DIGITAL LIGHTING MANAGEMENT CONTROL STATION KEYPAD WITH PROGRAMMABLE FUNCTION BUTTONS OR APPROVED EQUAL. # INDICATES NUMBER OF BUTTONS AND D INDICATES ONE BUTTON DIMMING ROCKER SWITCH. # BUTTONS SHALL BE ENGRAVED TO CONVEY BUTTON FUNCTION.
R # R #	SW-OC-R	26 09 33	WATTSTOPPER DIGITAL LIGHTING MANAGEMENT ROOM CONTROLLER. # - REFERS TO NUMBER OF RELAYS
S			SPEAKER WITH 3/4" CONDUIT EXTENDED TO CLOSET 104
C			CARBON MONOXIDE DETECTOR
FS			FIRE ALARM FLOW SWITCH TO MONITOR FIRE PROTECTION SYSTEM
MS			FIRE ALARM MONITOR SWITCH TO MONITOR FIRE PROTECTION SYSTEM
T			THERMOSTAT

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
W	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE, 125V
	REC-SIM-520R	26 27 26	SIMPLEX RECEPTACLE, 125V
	REC-SIM-530R	26 27 26	RECEPTACLE, 125V
	REC-TAMP	26 27 26	DUPLEX TAMPER PROOF RECEPTACLE, 125V
	REC-TAMP-GFI	26 27 26	DUPLEX TAMPER PROOF GFI RECEPTACLE, 125V
	FB-# or PT-#	26 27 26	FLOOR BOX or POKE THROUGH

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
COMMON AND SEQUENCE OF OPERATION SUBSCRIPTS			SUBSCRIPTS: TYPE / PROGRAMMING WG = WIRE GUARD IS REQUIRED W = WEATHERPROOF A = ATRIUM CA = CLEAN AGENT SYSTEM CR = COMPUTER ROOM E = ELEVATOR RECALL D = HVAC CONTROL DH = DOOR HOLD RELEASE DIPS = DUAL INTERLOCK PREACTION SYS FD = FIRE DOOR RELEASE MP = MEDICAL PROCEDURE S = SLEEPING / PATIENT ROOM SW = STAIRWELL # = 15, 30, 75, 110, 177 CANDELA RATING CD = CANDELA RATING SELECTED BY NICET DESIGNER
	FACP-#	28 31 00	FIRE ALARM CONTROL PANEL
	FAA-#	28 31 00	FIRE ALARM ANNUNCIATOR
	VCC-#	28 31 00	DIGITIZED VOICE COMMAND CENTER
	GAP-#	28 31 00	GRAPHICAL ANNUNCIATOR PANEL, FIRE ALARM
	NAC-#	28 31 00	NOTIFICATION APPLIANCE CIRCUIT PANEL
	AMP-#	28 31 00	AMPLIFIER RACK, FIRE ALARM
	ECCU-#	28 31 00	EMERGENCY COMMUNICATION CONTROL UNIT
	LOC-#	28 31 00	LOCAL OPERATING CONSOLE
	SCP-#	28 31 00	FIREFIGHTER'S SMOKE CONTROL PANEL
	FATC-#	28 31 00	FIRE ALARM TERMINAL CABINET
S # S #	FA-120	28 31 00	FIRE ALARM SMOKE DETECTOR, CEILING OR WALL MOUNT BLANK - PHOTOELECTRIC AT = ATTIC (LOCATED IN) BR = BEAM RECEIVER BT = BEAM TRANSMITTER CO = COMBINATION SMOKE / CARBON MONOXIDE COH = COMBINATION SMOKE / CARBON MONOXIDE / HEAT COS = COMBINATION SMOKE / CARBON MONOXIDE / STROBE H = COMBINATION SMOKE / HEAT DETECTOR ION = IONIZATION TYPE ID = IN DUCT DETECTOR SA = STAND ALONE WITH SOUNDER SB = SOUNDER BASE SV = STAND ALONE WITH SOUNDER AND 177 CANDELA STROBE
S	FA-122	28 31 00	FIRE ALARM DUCT SMOKE DETECTOR # = EQUIP OR SYSTEM
F	FA-130	28 31 00	FIRE ALARM MANUAL PULL STATION
	FA-200	28 31 00	FIRE ALARM VISUAL ALARM DEVICE, CEILING OR WALL MOUNT # = CANDELA RATING. CD = CANDELA RATING SELECTED BY FIRE ALARM CONTRACTOR
F # F #	FA-210	28 31 00	AUDIO HORN/CHIME ALARM DEVICE, CEILING OR WALL MOUNTED M = MINI-HORN
	FA-211	28 31 00	COMBINATION AUDIO HORN/CHIME AND VISUAL ALARM DEVICE, CEILING OR WALL MOUNTED # = CANDELA RATING. CD = CANDELA RATING SELECTED BY NICET DESIGNER
C	FA-121	28 31 00	FIRE ALARM CARBON MONOXIDE DETECTOR
H	FA-123	28 31 00	FIRE ALARM HEAT DETECTOR
CM	FA-124	28 31 00	FIRE ALARM CONTROL MODULE

CONDUIT INSTALLATION SCHEDULE

THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.

INSTALLATION TYPE	RMC	IMC	EMT	RTRC	PVC COATED RMC	PVC	PVC CONCRETE ENCASED	HDPE	ASR
FEEDERS: SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, MOTOR CONTROL CENTERS, ETC.		X	X						
BRANCH CIRCUITS: LIGHTING, RECEPTACLES, CONTROLS, ETC.		X	X						
MECHANICAL EQUIPMENT FEEDERS: PUMPS, CHILLERS, AIR HANDLING UNITS, ETC.		X	X						
FLOOR MOUNTED EQUIPMENT FEEDERS: PUMPS, ETC. (INCLUDE NO MORE THAN 6 FEET OF LFMC TO PUMP)		X	X						
CONTROLS (LIGHTING, POWER, BUILDING AUTOMATION, ETC.)		X	X						
FINISHED SPACES / CONCEALED			X						
WET AND DAMP LOCATIONS: (CONDUIT, BOXES, FITTINGS, INSTALLED AND EQUIPPED TO PREVENT WATER ENTRY)	X			X					
INTERIOR LOCATIONS: CONCEALED			X						
INTERIOR LOCATIONS: EXPOSED		X	X						
INTERIOR LOCATIONS: EXISTING WALLS AND EXPOSED INSTALLATION (FINISHED SPACES)			X						X
UNDERGROUND / SLABS ON GRADE (IN OR UNDER SLABS ON GRADE)									
WITHIN 5' FROM THE PERIMETER OF THE BUILDING	X					X			
WITHIN 5' FROM THE PERIMETER OF THE BUILDING WHEN PASSING THROUGH THE PERIMETER OF THE BUILDING FOUNDATION:	X			X			X		
UNDERGROUND SITE CONDUITS:									
WITHIN 5' FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X			X		
5' OR GREATER FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X		X			
UNDER ROADS, DRIVES, AND VEHICLE TRAVELED WAYS. WHEN HDPE DIRECTIONAL BORING IS ALLOWED: PROVIDE PRESSURIZED GROUT					X	X		X	

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900		01 E0.0	MAURICE BATHHOUSE ELECTRICAL COVERSHEET	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD:			PMIS/PKG NO. 318674
	TECH. REVIEW:		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 165 OF 286
	DATE: 10.27.2023			

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ELECTRICAL INSTALLATION NOTES:

1. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
2. SURFACE MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
3. SURFACE MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
4. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
5. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
6. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
7. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
8. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
9. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
11. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE CONTRACTING OFFICER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
12. REFER TO OTHER REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
13. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY WORK.
14. THE CONTRACTING OFFICER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL EQUIPMENT DESIGNATED BY OWNER TO BE RETAINED IS TO BE REMOVED IN GOOD CONDITION, LABELED, BOXED AND DELIVERED TO OWNER.
15. MINIMUM CONDUIT SIZE SHALL BE 3/4" NOMINAL, UNLESS NOTED OTHERWISE.
16. PROTECT ALL EXISTING SITE UTILITIES REQUIRED TO REMAIN IN OPERATION AND AS REQUIRED FOR JOB SITE SAFETY. ANY DEVIATIONS FOUND SHALL BE MADE KNOWN TO THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF DRAWINGS AND SITE CONDITIONS.
17. COORDINATE ALL WORK WITH OTHER TRADES, OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
18. CONTRACTOR SHALL RELABEL AND UPDATE SCHEDULES IN ALL REPLACED AND EXISTING TO REMAIN PANELBOARDS AND DISTRIBUTION PANELS AT THE COMPLETION OF THE PROJECT.
19. AFTER COMPLETION OF NEW WORK, REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
20. CONTRACTOR SHALL ENSURE THAT ALL PENETRATIONS IN FLOORS, WALLS AND CEILINGS THAT ARE ABANDONED OR LEFT UNUSED BECAUSE OF DEMOLITION, ARE FILLED WITH RATED MATERIAL TO MEET THE DESIGNATED CODE REQUIREMENTS. FIRE-STOPPING REQUIRED AT ALL FIREWALL CONDUIT AND/OR CABLE PENETRATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
21. ALL GFI DUPLEX RECEPTACLES SHALL BE CONNECTED DOWNSTREAM ON ALL SHARED BRANCH CIRCUITS HAVING GENERAL DUPLEX RECEPTACLES.
22. ALL EMPTY CONDUITS INDICATED SHALL BE FURNISHED AND INSTALLED WITH PULLWIRES AND INSULATED BUSHINGS.
23. VERIFY ALL OUTLETS, J-BOXES, PULLBOXES AND LIGHTING LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK AND REFLECTED CEILING PLANS, INCLUDING OWNER FURNISHED EQUIPMENT AND/OR FURNITURE, PRIOR TO ROUGH-IN.
24. ALL OUTLET BOXES SHALL BE PROVIDED AS FLUSH MOUNTING HAVING CONDUIT CONCEALED IN CONSTRUCTION AS REQUIRED, UNLESS NOTED OTHERWISE. ALL BOXES UTILIZED SHALL BE COMPATIBLE WITH ALL WALL CONSTRUCTION. PROVISION SHALL BE MADE FOR "SHALLOW-TYPE" AND "STANDARD" OUTLET BOXES AS REQUIRED FOR FLUSH INSTALLATION.
25. ALL CONDUIT SHALL BE CONCEALED IN CONSTRUCTION IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE ROUTED AT BUILDING STRUCTURE ABOVE AT CEILING, THEN DROP TO EACH FIXTURE OR DEVICE LOCATION INDICATED AS DIRECTED BY ARCHITECT.
26. FOR PURPOSES OF VOLTAGE DROP, PROVIDE #10 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUN BEYOND 70 FT FROM SOURCE PANEL AND #8 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUNS BEYOND 120FT FROM SOURCE PANEL.
27. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS OF ALL HVAC, HVAC CONTROL, PLUMBING, FIRE ALARM, FIRE PROTECTION, I.T., SECURITY, COMMUNICATIONS AND OWNER FURNISHED EQUIPMENT PER EQUIPMENT MANUFACTURER INSTRUCTIONS AND COORDINATE WITH ASSOCIATED EQUIPMENT CONTRACTORS. PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.
28. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN LIGHTLY AND NOTED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND DASHED TO BE REMOVED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
29. ALL EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND SOLID IS NEW WORK TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
30. IN EXISTING RENOVATED FINISHED AREAS WHERE NEW CONDUIT AND WIRING ARE NOT ABLE TO BE INSTALLED CONCEALED IN CONSTRUCTION, FURNISH AND INSTALL SURFACE MOUNTED RACEWAY AS MANUFACTURERED BY LEGRAND/WIREMOLD, OR APPROVED EQUIVALENT. RACEWAY SIZE AND USAGE SHALL BE KEPT TO A MINIMUM. THE ROUTING FOR ALL SURFACE MOUNTED CONDUIT SHALL BE APPROVED IN ADVANCE OF INSTALLATION BY ARCHITECT. VERIFY EXISTING CONDITIONS AND COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
31. PROVIDE NEW BREAKERS IN EXISTING PANELBOARDS, IF REQUIRED. MATCH RATINGS AND MATE WITH EXISTING SIZE, IF REQUIRED.

ELECTRICAL LIGHTING DEMOLITION NOTES:

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED.
2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
5. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL.
6. MATCH EXISTING PAINTED SURFACES. WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE. PROVIDE CUSTOM BACK PLATE WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION OF WATER AND CAULK WHERE NECESSARY.
7. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
8. FOR REASONS OF CLARITY ALL EXISTING CONDUIT, WIRING, EQUIPMENT, ETC. IS NOT SHOWN. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
9. CONDUIT AND CABLE ROUTING SHALL NOT BLOCK SERVICE TO EXISTING OR NEW EQUIPMENT. CONTRACTOR SHALL ROUTE CONDUIT AND CABLE AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS.
10. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS INDICATED ARE TAKEN FROM AS-BUILT DRAWINGS AND CURSORY SITE SURVEY. VERIFY EXISTING CONDITIONS.

TYPICAL NEW CONSTRUCTION:

1. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.
2. COORDINATE LUMINAIRE IN MECHANICAL ROOMS WITH DUCTWORK, PIPING AND ANY MECHANICAL EQUIPMENT. PROVIDE LUMINAIRE WITH CHAINS OR HANGAR KIT WHERE REQUIRED. BOTTOM OF FIXTURE TO ALIGN WITH BOTTOM OF NEAREST BEAM/TRUSS. COORDINATE MOUNTING PRIOR TO ORDERING LUMINAIRES.

TYPICAL REMODEL:

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF UNLESS NOTED OTHERWISE.
2. COORDINATE HOURS OF ACCESS WITH CONTRACTING OFFICER.
3. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN SAME LOCATION OR NEW LOCATION.
4. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE.
5. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF' CONFIGURATION.
6. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, ARCHITECTURAL, STRUCTURAL AND CEILING MOUNTED DEVICES.

ELECTRICAL RENOVATION NOTES:

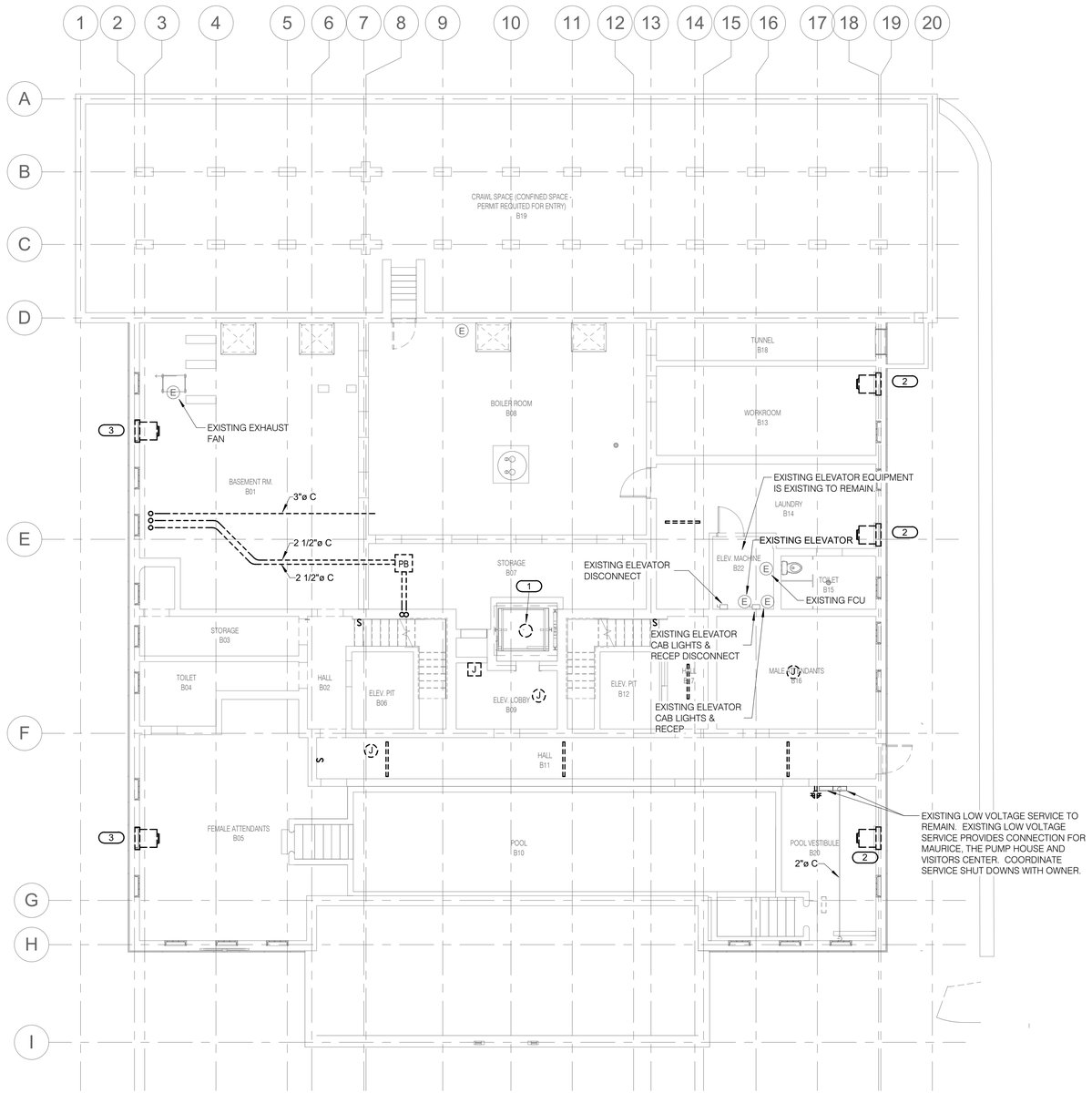
THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. ALL EXISTING WIRING SHALL BE REMOVED.
2. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
3. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR AND ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH ALL WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS ASSOCIATED WITH AREAS OF ALL WORK.

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: TECH. REVIEW: DATE: 10.27.2023	01 E0.1	MAURICE BATHHOUSE ELECTRICAL COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	626 180065 PMIS/PKG NO. 318674 SHEET 166 OF 286

10/27/2023 1:13:35 PM



SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. FURNISH AND INSTALL STAINLESS STEEL COVER PLATES ON ALL JUNCTION BOXES THAT ARE EXISTING TO REMAIN. ALL JUNCTION BOXES ARE NOT SHOWN ON THIS PLAN.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT BE SHOWN ON PLANS.
4. ALL ELEVATOR EQUIPMENT IS EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. DISCONNECT EXISTING PUMP AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN. REMOVE ALL EQUIPMENT, CONDUIT AND WIRING BACK TO SOURCE.
2. DISCONNECT EXISTING LOUVER AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN. REMOVE ALL EQUIPMENT, CONDUIT AND WIRING BACK TO SOURCE.
3. DISCONNECT EXISTING FAN AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN. REMOVE ALL EQUIPMENT, CONDUIT AND WIRING BACK TO SOURCE.

1 / EX1.0 BASEMENT ELECTRICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4306 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EX1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT ELECTRICAL DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 167 OF 286

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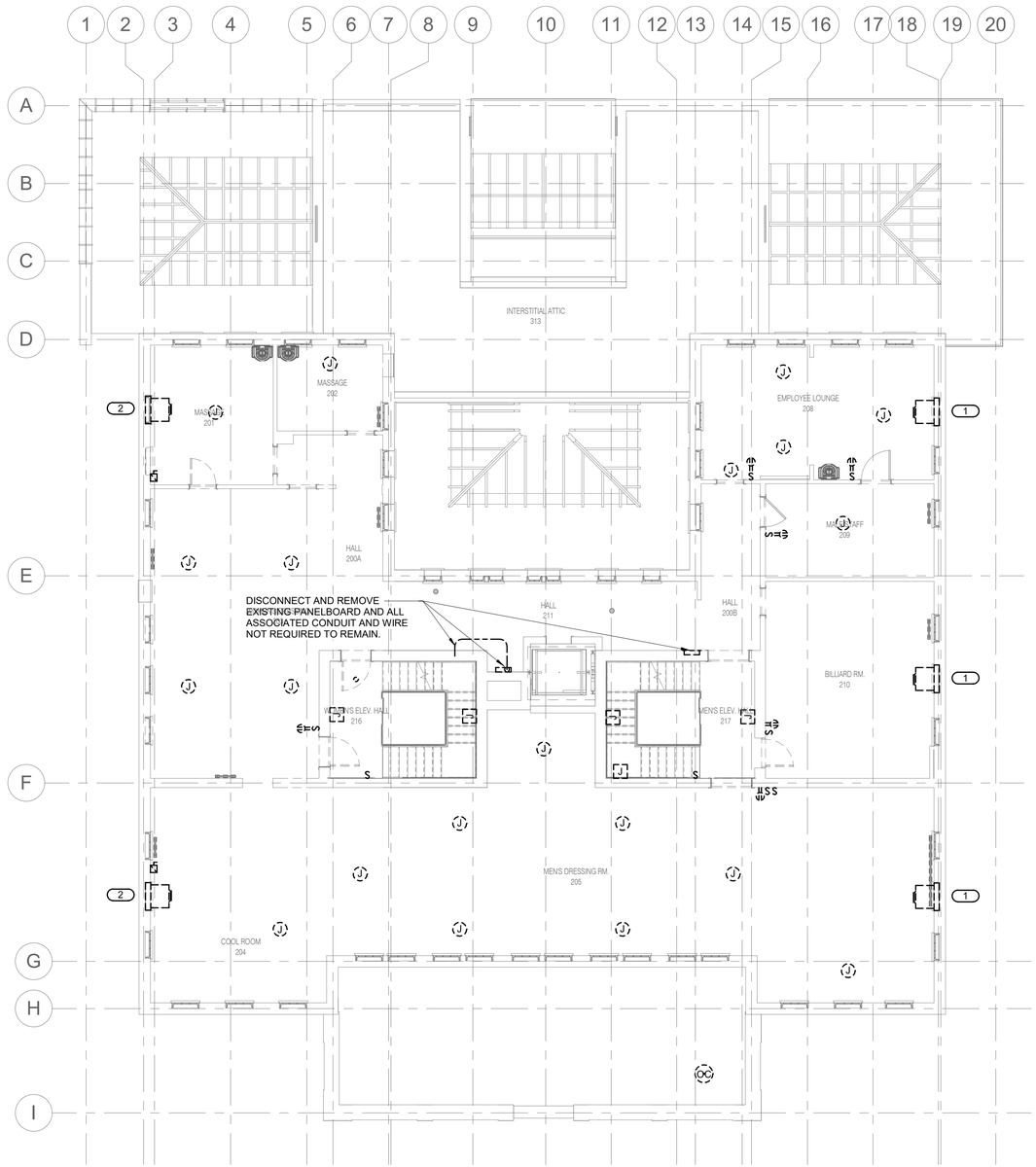

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. FURNISH AND INSTALL WHITE COVER PLATES ON ALL JUNCTION BOXES THAT ARE EXISTING TO REMAIN. ALL JUNCTION BOXES ARE NOT SHOWN ON THIS PLAN.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT BE SHOWN ON PLANS.

KEYNOTES: (#)

1. DISCONNECT EXISTING LOUVER AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN.
2. DISCONNECT EXISTING FAN AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN.

1 / EX1.2 SECOND FLOOR ELECTRICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EX1.2	MAURICE BATHHOUSE SECOND FLOOR ELECTRICAL DEMOLITION PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318674
	TECH. REVIEW: PIP			SHEET 168 OF 286
	DATE: 10.27.2023			

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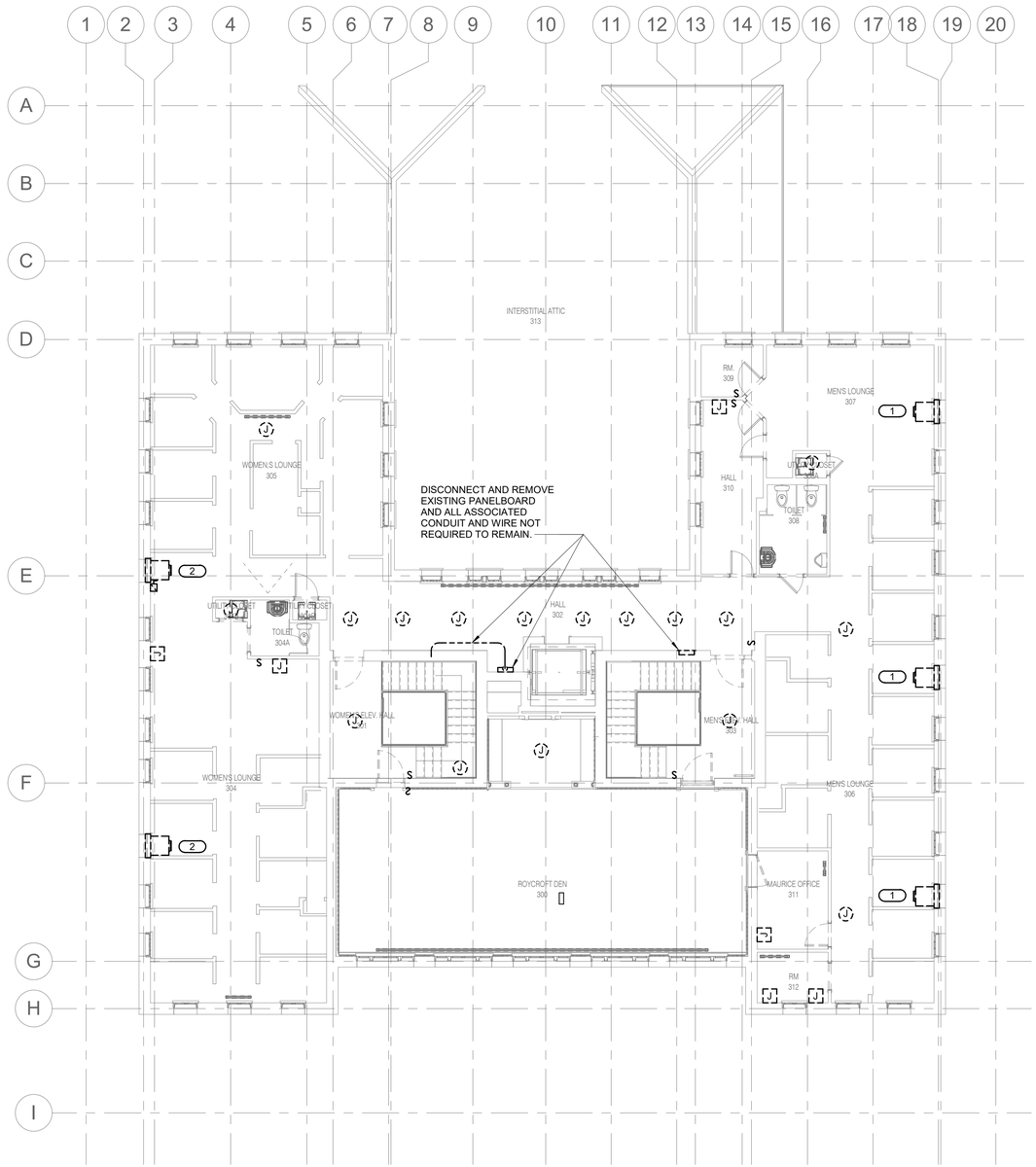

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. FURNISH AND INSTALL WHITE COVER PLATES ON ALL JUNCTION BOXES THAT ARE EXISTING TO REMAIN. ALL JUNCTION BOXES ARE NOT SHOWN ON THIS PLAN.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT BE SHOWN ON PLANS.

KEYNOTES: (#)

1. DISCONNECT EXISTING LOUVER AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN.
2. DISCONNECT EXISTING FAN AND ALL ASSOCIATED CONDUIT AND WIRE NOT REQUIRED TO REMAIN.

1 / EX1.3 THIRD FLOOR ELECTRICAL DEMOLITION PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EX1.3	MAURICE BATHHOUSE THIRD FLOOR ELECTRICAL DEMOLITION PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: PIP			SHEET 169 OF 286
	DATE: 10.27.2023			

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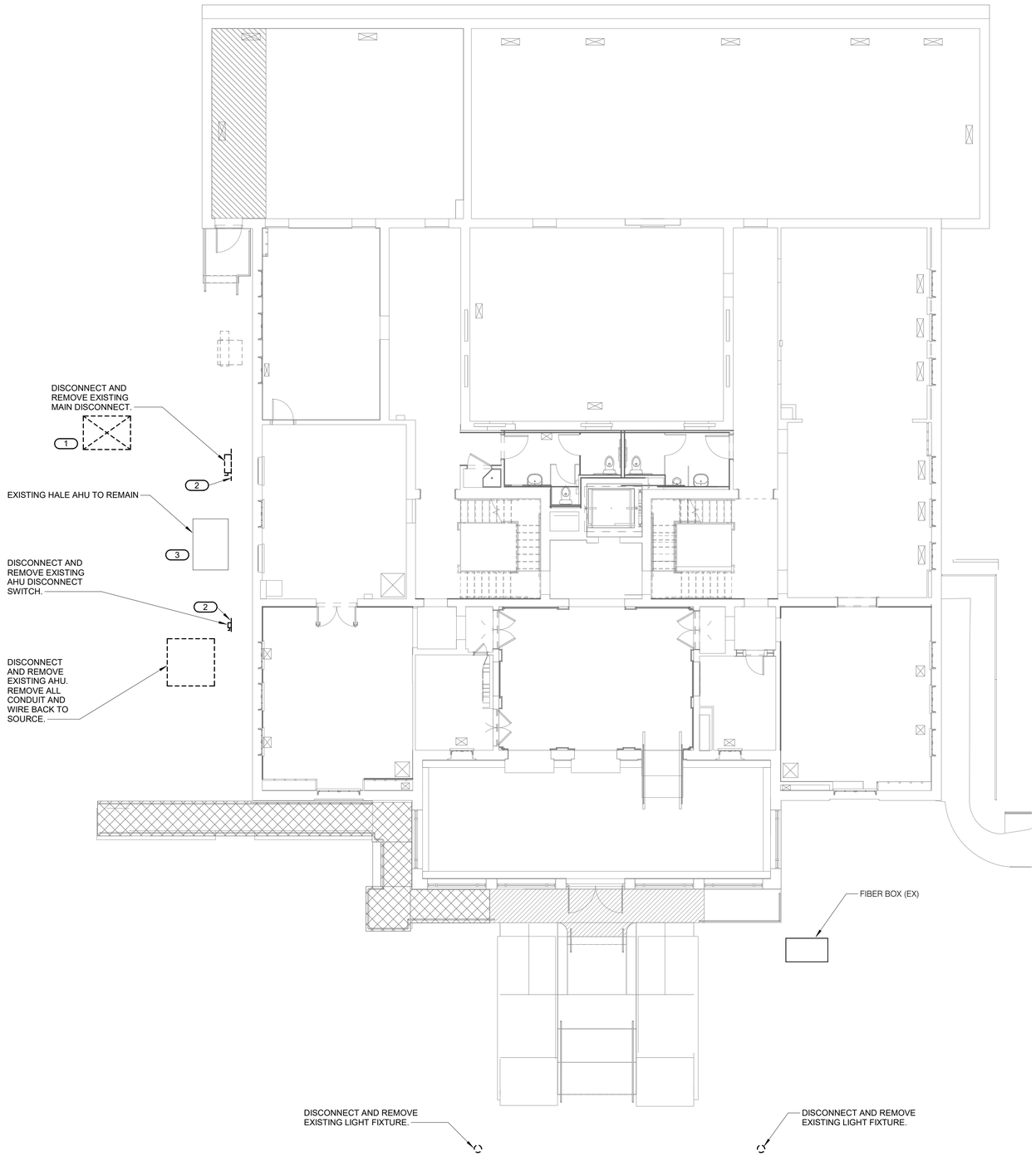

1 / E1.1 ELECTRICAL SITE PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. DISCONNECT AND REMOVE POWER DEVICES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT BE SHOWN ON PLANS.

KEYNOTES: (#)

1. EXISTING 300KVA TRANSFORMER LOCATED IN SOUTH YARD OF HOTEL HALE (LOCATION SHOWN ON PLANS IS ONLY TO INCLUDE TRANSFORMER IN SCOPE OF WORK). EXISTING TRANSFORMER SHALL BE DISCONNECTED AND REMOVED. ASSOCIATED CONDUIT SHALL REMAIN FOR RE-USE IN NEW WORK. COORDINATE REMOVAL OF TRANSFORMER WITH UTILITY COMPANY AND OWNER. NOTIFY HOTEL HALE OWNER OF SHUTDOWN AT LEAST 1 WEEK PRIOR TO WORK.
2. DISCONNECT AND REMOVE EXISTING UNISTRUT MOUNT SUPPORTING ELECTRICAL EQUIPMENT TO BE REMOVED.
3. EXISTING CONDENSING UNIT FOR THE HALE BUILDING WILL BE RELOCATED BY M.C. IN THE HALE SITE. INTERCEPT EXISTING WIRE AND CONDUIT TO RE-FEED EXISTING CONDENSING UNIT AT NEW TEMPORARY LOCATION. ONCE MAURICE SITE WORK IS COMPLETE, M.C. WILL RELOCATE CONDENSING UNIT SERVING HALE BUILDING BACK TO ORIGINAL LOCATION. MAINTAIN EXISTING CONDUIT AND EXTEND AND CONNECT WIRE AS NECESSARY.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17685 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 E1.1	TITLE OF SHEET MAURICE BATHHOUSE ELECTRICAL SITE REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 170 OF 286

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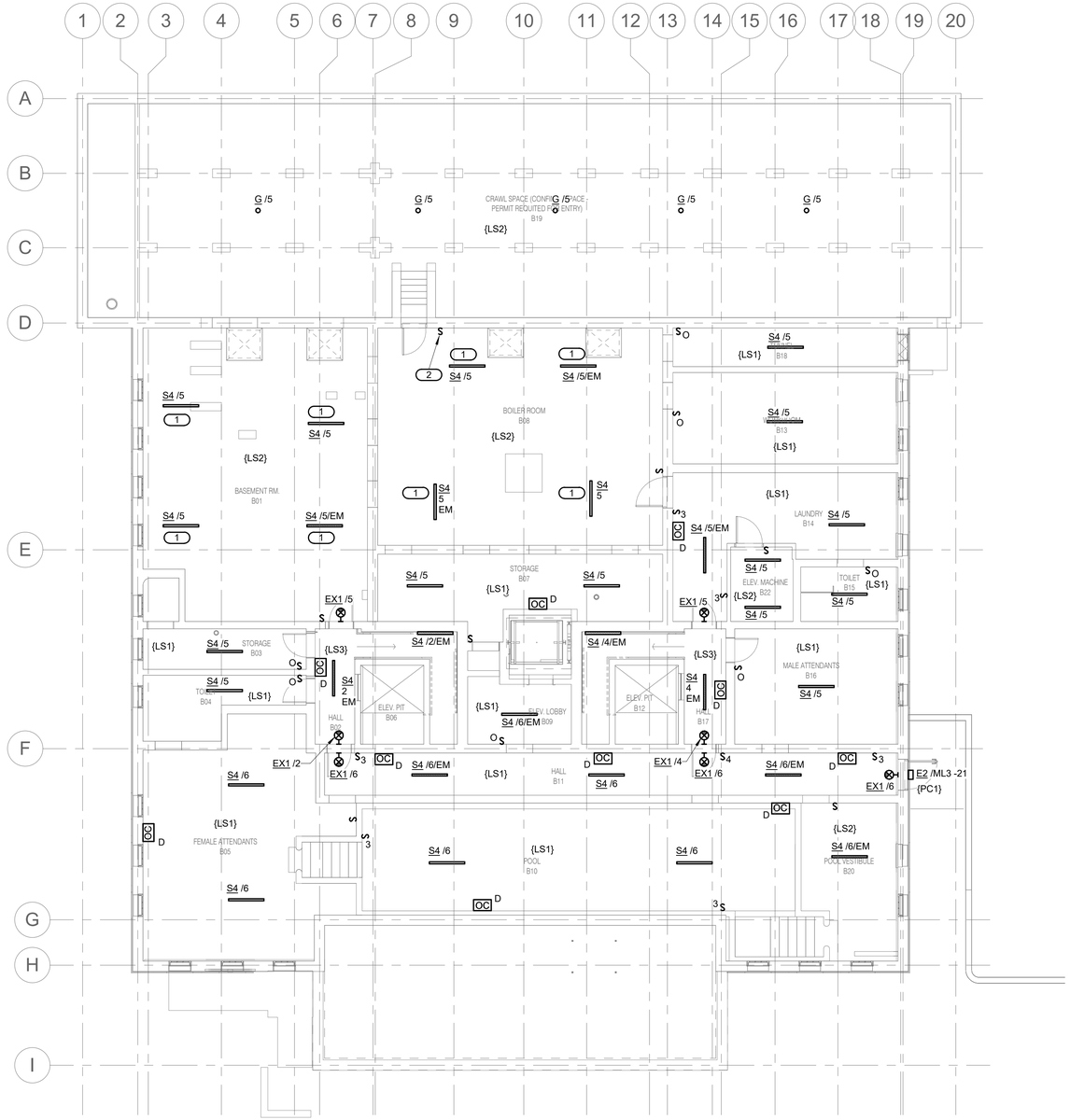
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL MLB, UNLESS NOTED OTHERWISE.
3. MOUNT LINEAR SUSPENDED TYPE LIGHTING FIXTURE AT 7' 6" AFF, UNLESS NOTED OTHERWISE. COORDINATE WITH STRUCTURAL BEAM, MECHANICAL PIPES AND DUCTWORK.

KEYNOTES: (#)

1. SUSPENDED LINEAR FIXTURE SHALL BE MOUNTED AT 7' 0" AFF OR EVEN WITH BOTTOM OF BEAMS.
2. LIGHT SWITCH CONTROLS LIGHT FIXTURES 'G' IN CRAWL SPACE.



1 / EL1.0 BASEMENT LIGHTING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EL1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT LIGHTING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 171 OF 286

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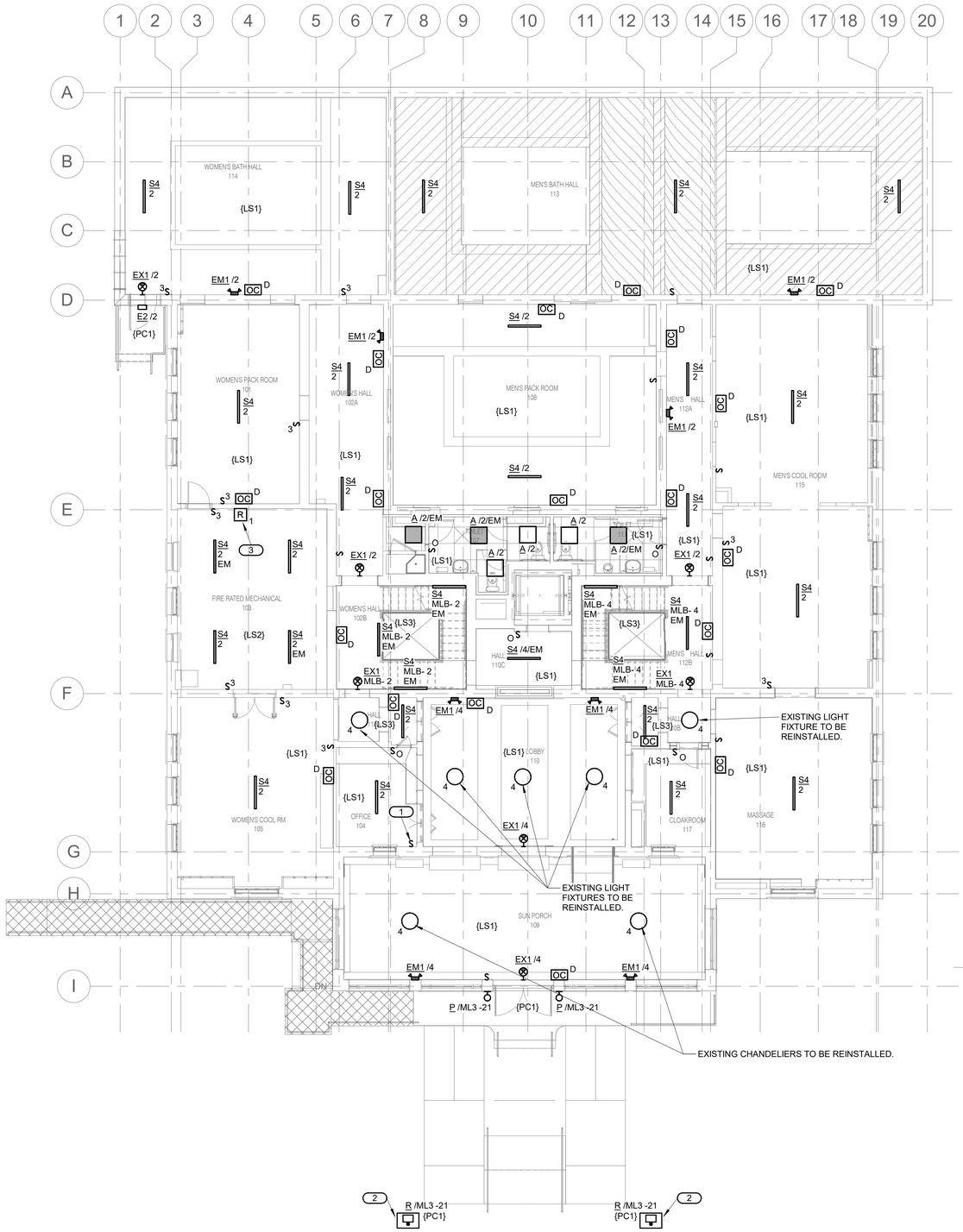

1 / EL1.1 FIRST FLOOR LIGHTING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML1, UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. LIGHT SWITCH CONTROLLING LOBBY 110 LIGHTS.
2. FURNISH AND INSTALL NEW CONCRETE PAD FOR OUTDOOR FIXTURE 'R' TO MOUNT.
3. ROOM CONTROLLER SHALL SERVE EXTERIOR LIGHT FIXTURE CIRCUIT CONTROLLED BY PHOTOCELL ON ROOF.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EL1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR LIGHTING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 172 OF 286

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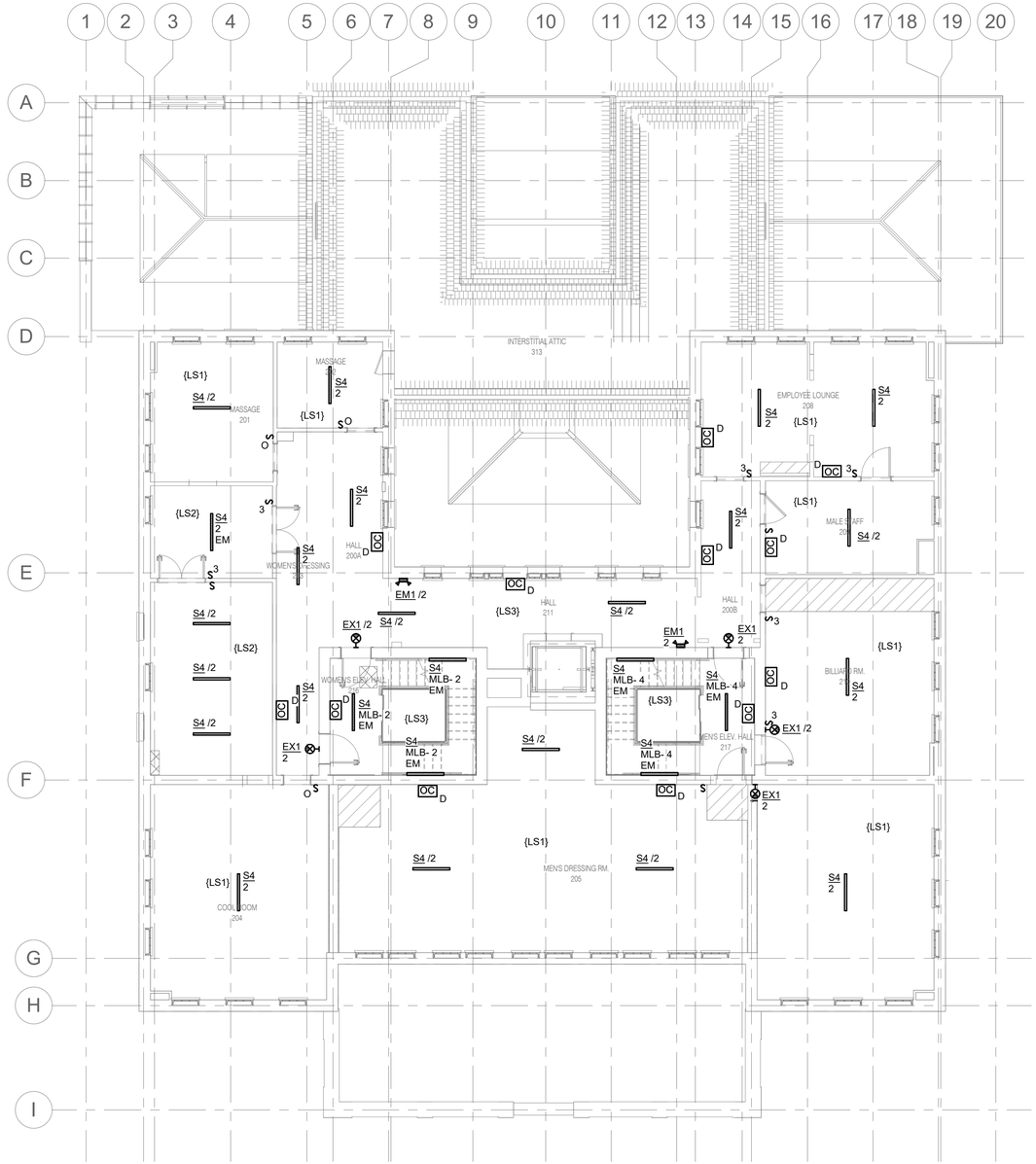
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML2, UNLESS NOTED OTHERWISE.



1 / EL1.2 SECOND FLOOR LIGHTING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

IMEG Consultants Corp. No. 4306 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EL1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR LIGHTING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 173 OF 286

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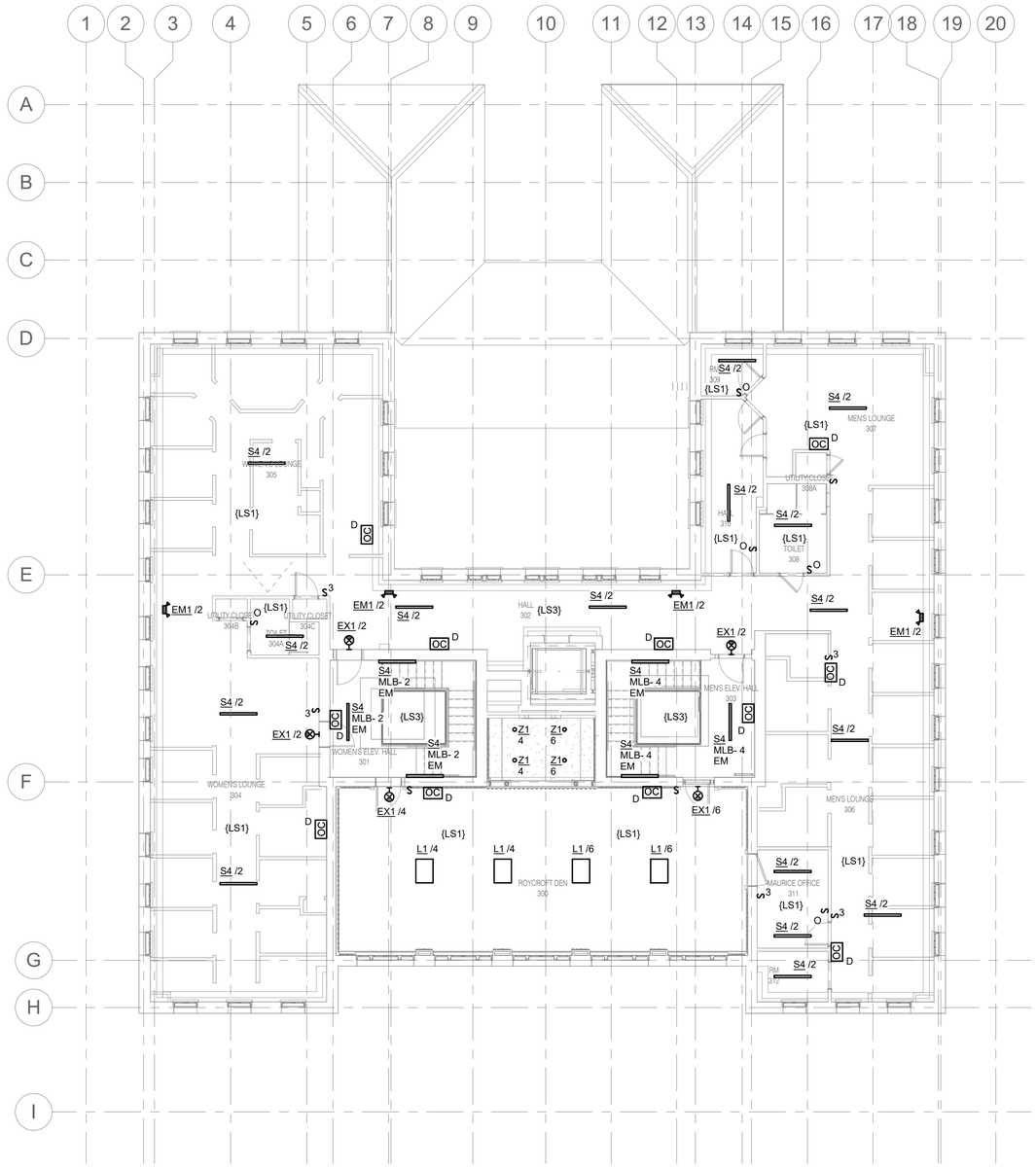
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML3, UNLESS NOTED OTHERWISE.
3. MOUNT LINEAR SUSPENDED TYPE LIGHTING FIXTURE AT 7' 6" AFF. COORDINATE WITH STRUCTURAL BEAM, MECHANICAL PIPES AND DUCTWORK.



1 / EL1.3 THIRD FLOOR LIGHTING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

IMEG Consultants Corp. No. 4308 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

STATE OF ARKANSAS — LICENSED ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EL1.3	TITLE OF SHEET MAURICE BATHHOUSE THIRD FLOOR LIGHTING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 174 OF 286

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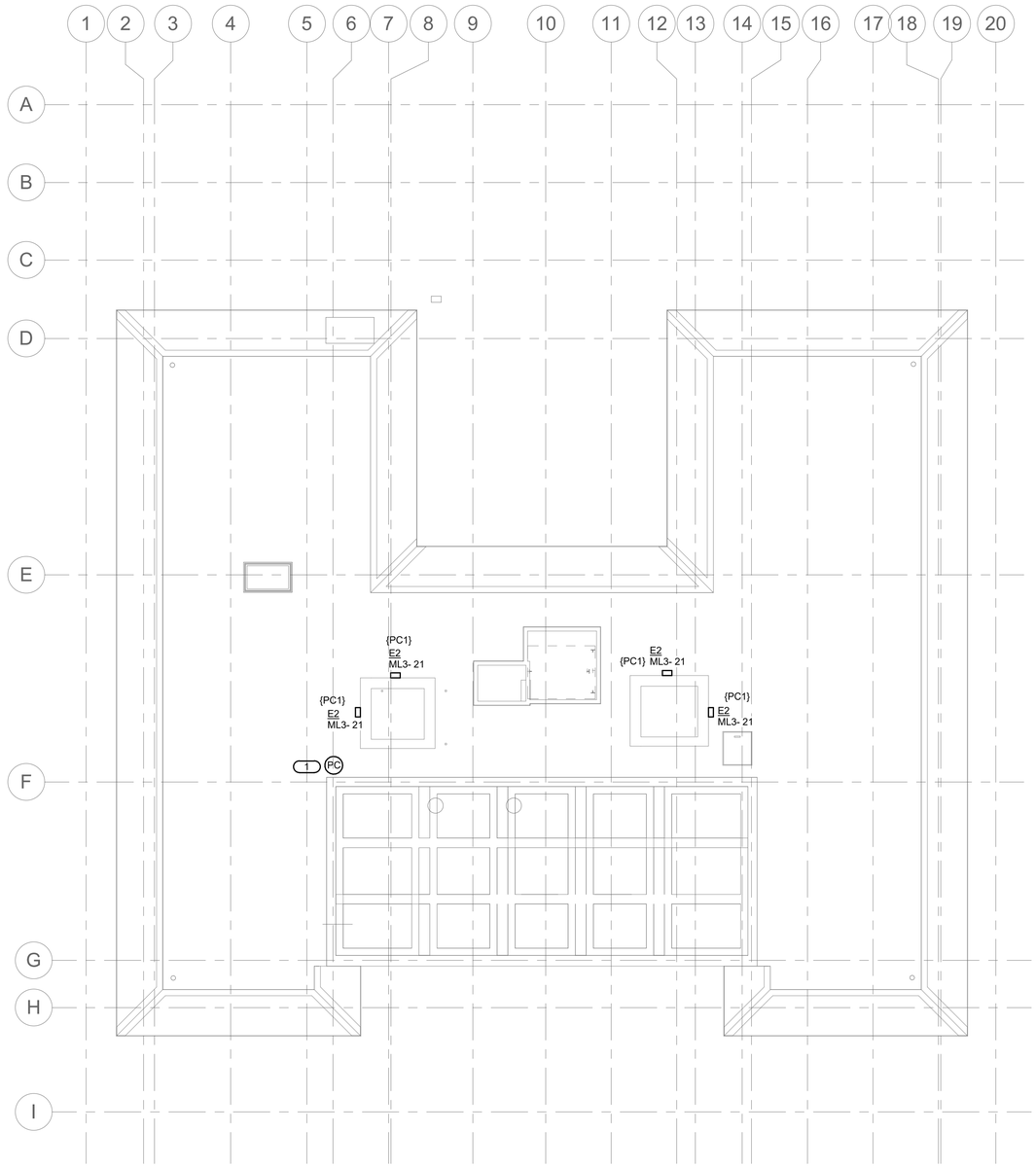


SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML1, UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. PHOTOCELL SHALL CONTROL EXTERIOR LIGHT FIXTURE CIRCUIT INCLUDING ALL EXTERIOR FIXTURES ON BASEMENT PLAN, FIRST FLOOR PLAN AND THIS PLAN. SECURLY MOUNT PHOTOCELL TO ROOF, ELEVATED AT LEAST 6" ABOVE FLOOR.

1 / EL1.4 ROOF LIGHTING PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EL1.4	TITLE OF SHEET MAURICE BATHHOUSE ROOF LIGHTING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 175 OF 286

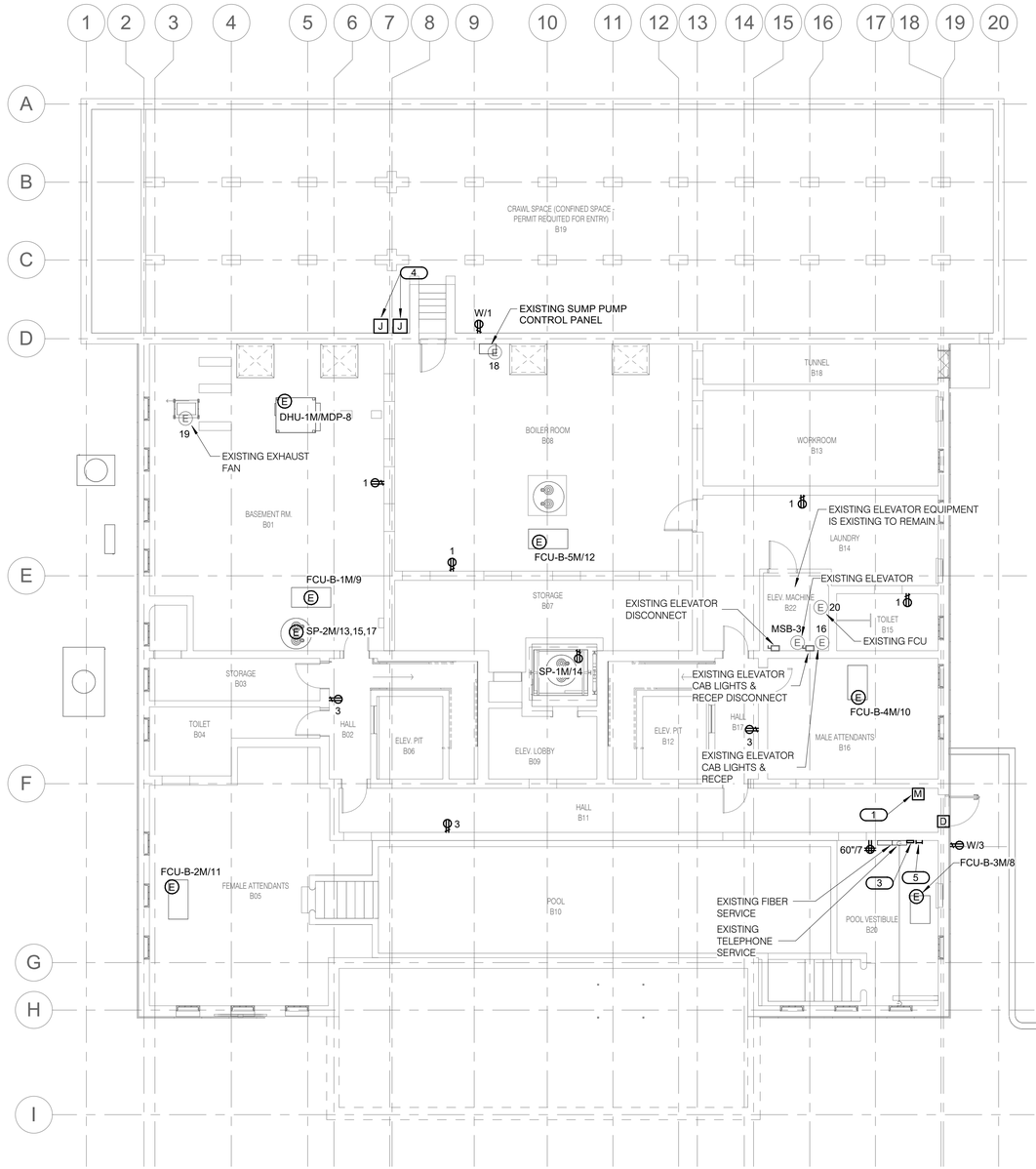
10/27/2023 1:13:49 PM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. REFER TO MECHANICAL PLANS FOR ALL MECHANICAL EQUIPMENT LOCATIONS.
3. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL MLB, UNLESS NOTED OTHERWISE.
4. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. ADDRESSABLE MOTION / INTRUSION SENSOR THAT RELAYS SIGNAL TO SECURITY SYSTEM.
2. EXISTING EXHAUST FAN TO BE RECIRCUITED TO PANEL 'MLB'.
3. FURNISH AND INSTALL NEW STANDALONE NETWORK SWITCH FOR DATA CONNECTIONS ON 1ST FLOOR.
4. THERMOSTAT AND HUMIDISTAT SERVING DEHUMIDIFIER FURNISHED AND INSTALLED BY M.C. E.C. SHALL INSTALL LOW-VOLTAGE WIRING FROM THERMOSTAT AND HUMIDISTAT TO DEHUMIDIFIER IN BASEMENT RM B01. COORDINATE WITH M.C.
5. TELECOMMUNICATIONS GROUND BUSBAR (TGB), MOUNT AT 6'-6" AFF.



1 EP1.0 BASEMENT POWER PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EP1.0	MAURICE BATHHOUSE BASEMENT POWER PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	CADD: WMM			PMIS/PKG NO. 318674
	TECH. REVIEW: PIP		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 176 OF 286
	DATE: 10.27.2023			

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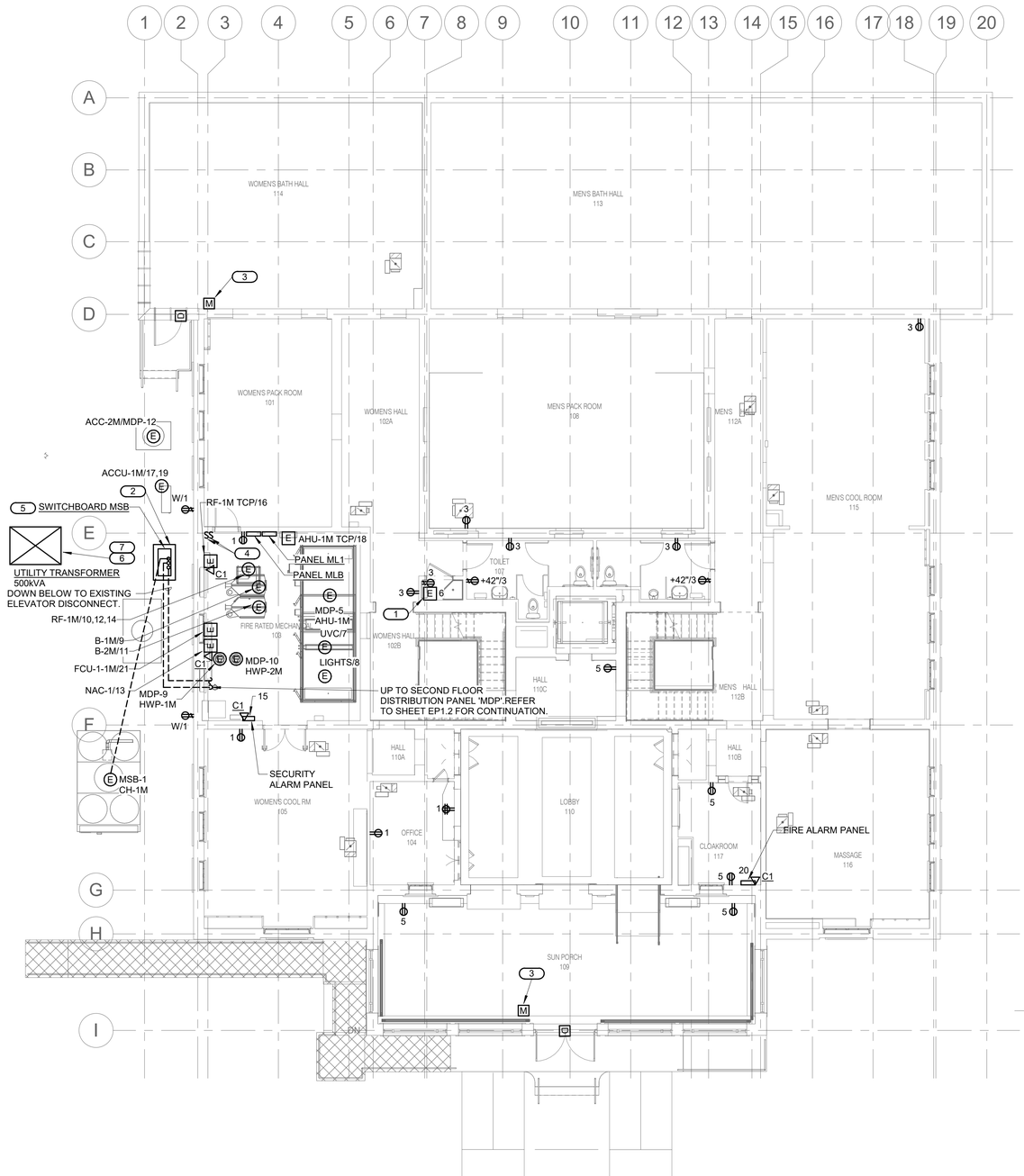

1 / EP1.1 FIRST FLOOR POWER PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. REFER TO MECHNICAL PLANS FOR ALL MECHANICAL EQUIPMENT LOCATIONS.
3. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML1, UNLESS NOTED OTHERWISE.
4. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. VAV BOX POWER SUPPLY CABINET LOCATED IN MECHANICAL 103. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
2. FURNISH AND INSTALL NEW CONCRETE PAD FOR MAIN SWITCHBOARD MSB.
3. ADDRESSABLE MOTION / INTRUSION SENSOR THAT RELAYS SIGNAL TO SECURITY SYSTEM.
4. FURNISH AND INSTALL 30AMP TOGGLE-SWITCH DISCONNECT SWITCH FOR BOILERS.
5. FURNISH AND INSTALL INTERNAL SPD IN SWITCHBOARD 'MSB'.
6. NEW 500KVA TRANSFORMER SHALL BE INSTALLED IN SOUTH YARD OF HOTEL HAIL (LOCATION SHOWN ON PLANS IS ONLY TO INCLUDE TRANSFORMER IN SCOPE OF WORK). RE-USE EXISTING CONDUIT RUNS TO NEW SWITCHBOARD 'MSB'. EXTEND AND CONNECT NEW CONDUIT AS NEEDED. COORDINATE WORK WITH UTILITY COMPANY AND OWNER. NOTIFY HOTEL HALE OWNER OF SHUTDOWN 1 WEEK PRIOR TO WORK.
7. PROVIDE TEMPORARY GENERATOR SERVICE SERVING HOTEL HALE WHILE NEW 500KVA TRANSFORMER IS BEING INSTALLED. GENERATOR SHALL SERVE HALE FOR THE DURATION OF THE NEW SERVICE UPGRADE.

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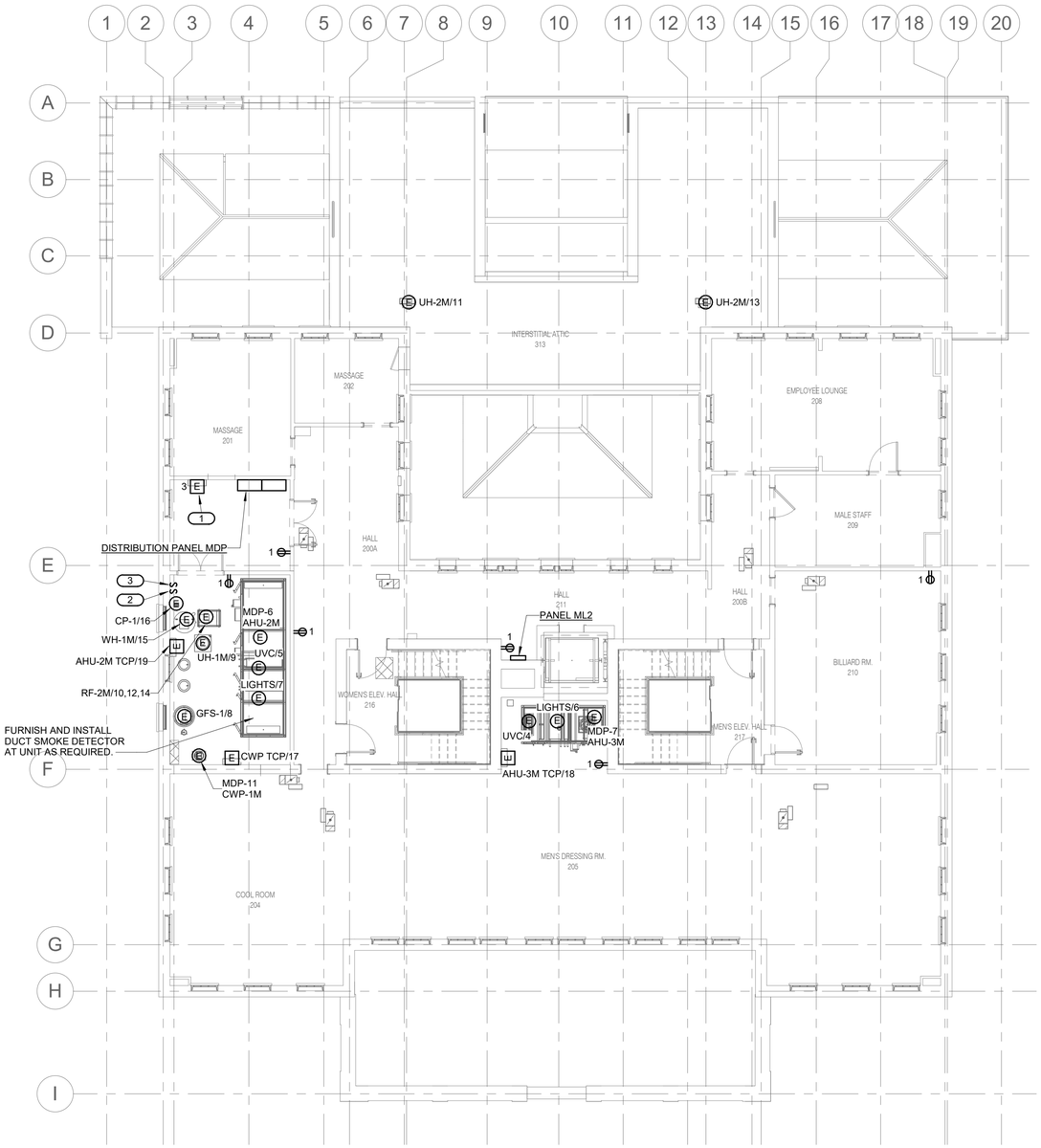
STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EP1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR POWER PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 177 OF 286

10/27/2023 11:53:1 PM



1 / EP1.2 SECOND FLOOR POWER PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. REFER TO MECHANICAL PLANS FOR ALL MECHANICAL EQUIPMENT LOCATIONS.
3. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML2, UNLESS NOTED OTHERWISE.
4. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. VAV BOX POWER SUPPLY CABINET LOCATED IN ELECTRICAL 203. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
2. PROVIDE TOGGLE-SWITCH DISCONNECT SWITCH FOR WATER HEATER 'WH-1M'.
3. PROVIDE TOGGLE-SWITCH DISCONNECT SWITCH FOR CIRC PUMP 'CP-1'.

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

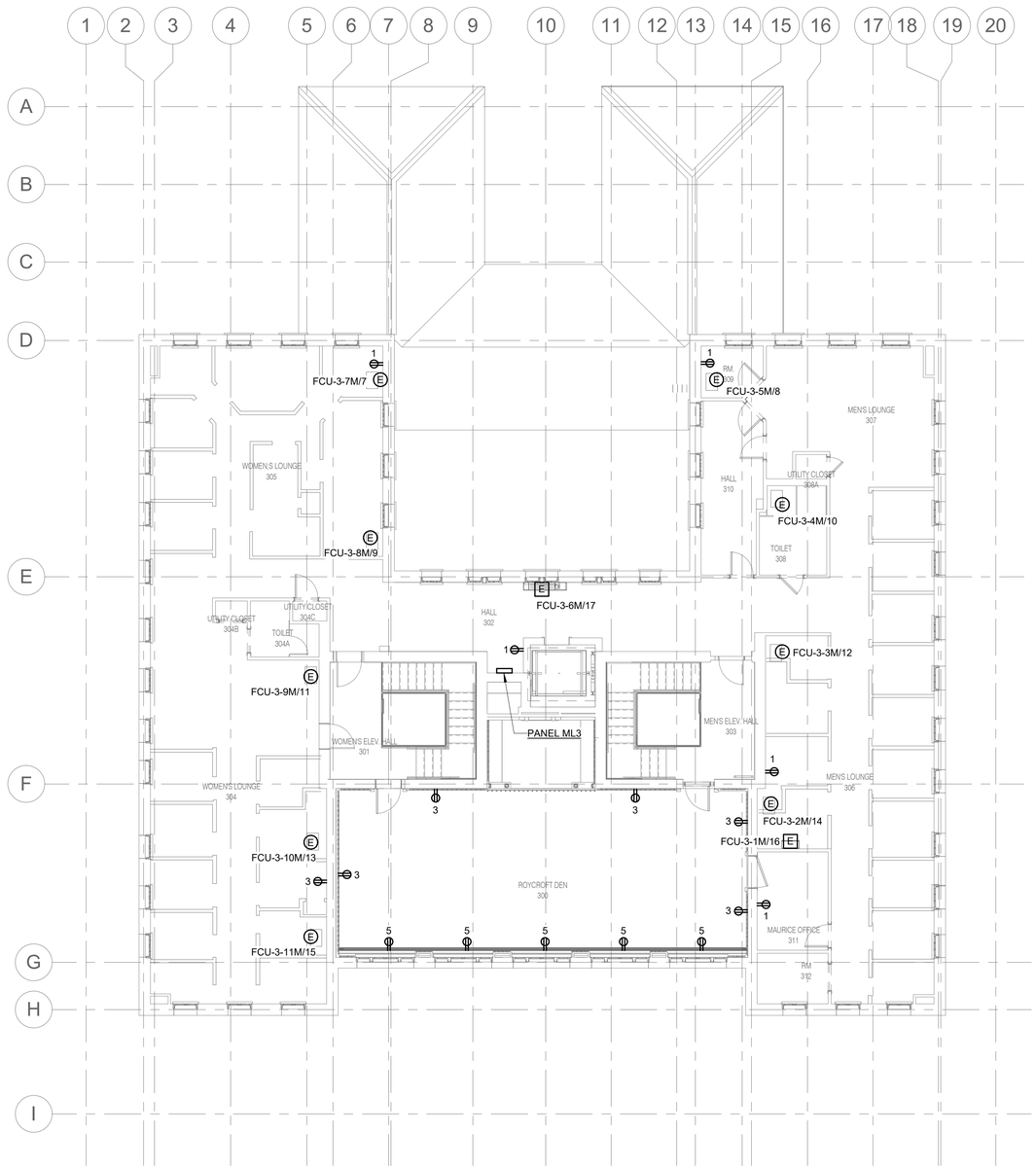
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 17885
ASHLEE DOWNHAM
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EP1.2	TITLE OF SHEET MAURICE BATHHOUSE SECOND FLOOR POWER PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 178 OF 286

10/27/2023 1:13:53 PM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. REFER TO MECHANICAL PLANS FOR ALL MECHANICAL EQUIPMENT LOCATIONS.
3. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML3, UNLESS NOTED OTHERWISE.
4. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.



1 / EP1.3 THIRD FLOOR POWER PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER ASHLEE DOWNHAM No. 17885

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EP1.3	MAURICE BATHHOUSE THIRD FLOOR POWER PLAN	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318674
	TECH. REVIEW: PIP			SHEET 179 OF 286
	DATE: 10.27.2023			

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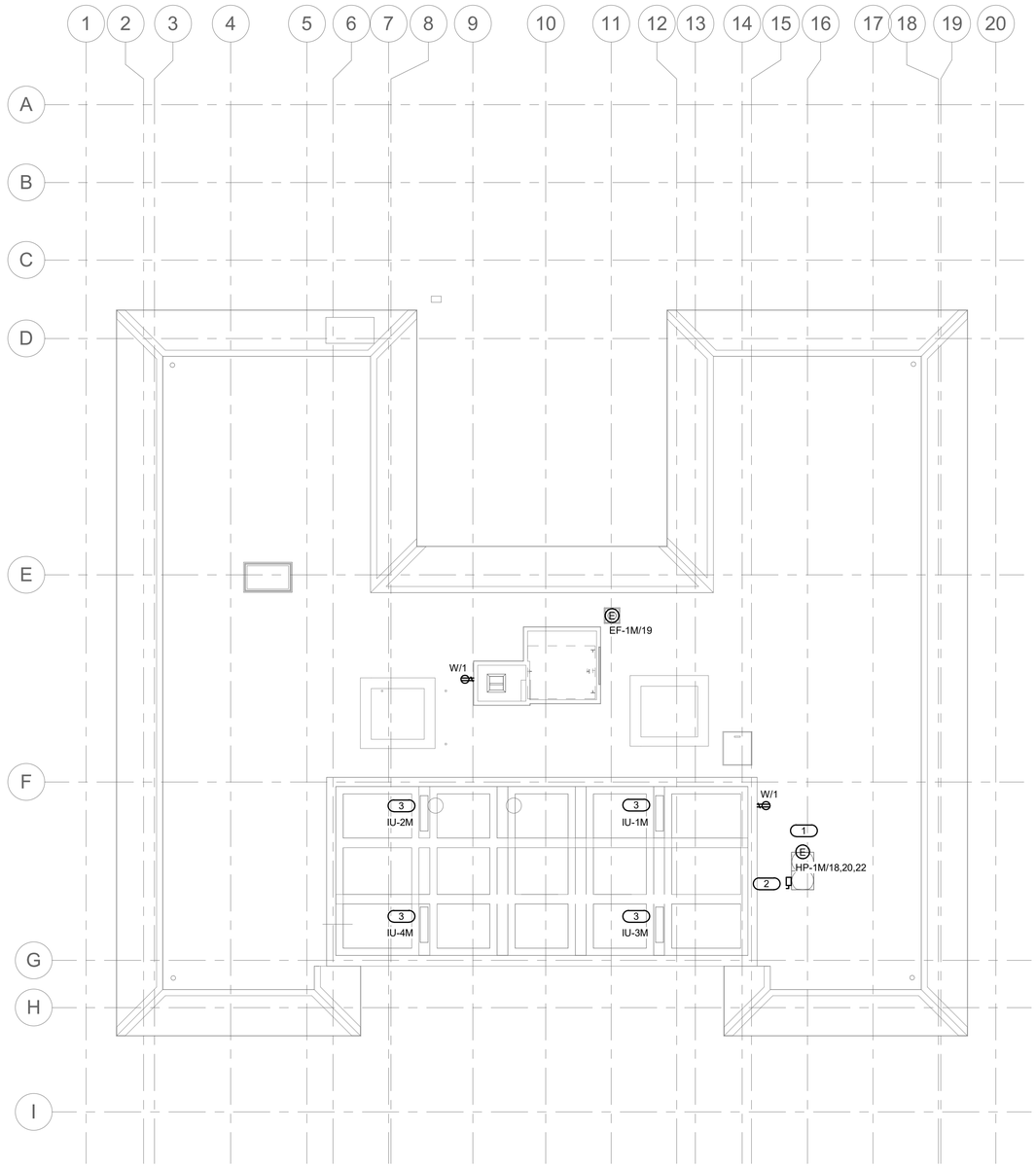

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. REFER TO MECHANICAL PLANS FOR ALL MECHANICAL EQUIPMENT LOCATIONS.
3. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ML3, UNLESS NOTED OTHERWISE.
4. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. REFER TO M1.4 FOR EXACT LOCATION OF CONDENSING UNIT ON ROOF.
2. FURNISH AND INSTALL 100AMP, 3P NON-FUSED DISCONNECT SWITCH IN NEMA-3R ENCLOSURE.
3. E.C. SHALL FURNISH AND INSTALL WIRE AND CONDUIT FROM HP-1M TO INDOOR UNIT.

1 / EP1.4 ROOF POWER PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG:

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EP1.4	TITLE OF SHEET MAURICE BATHHOUSE ROOF POWER PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 180 OF 286

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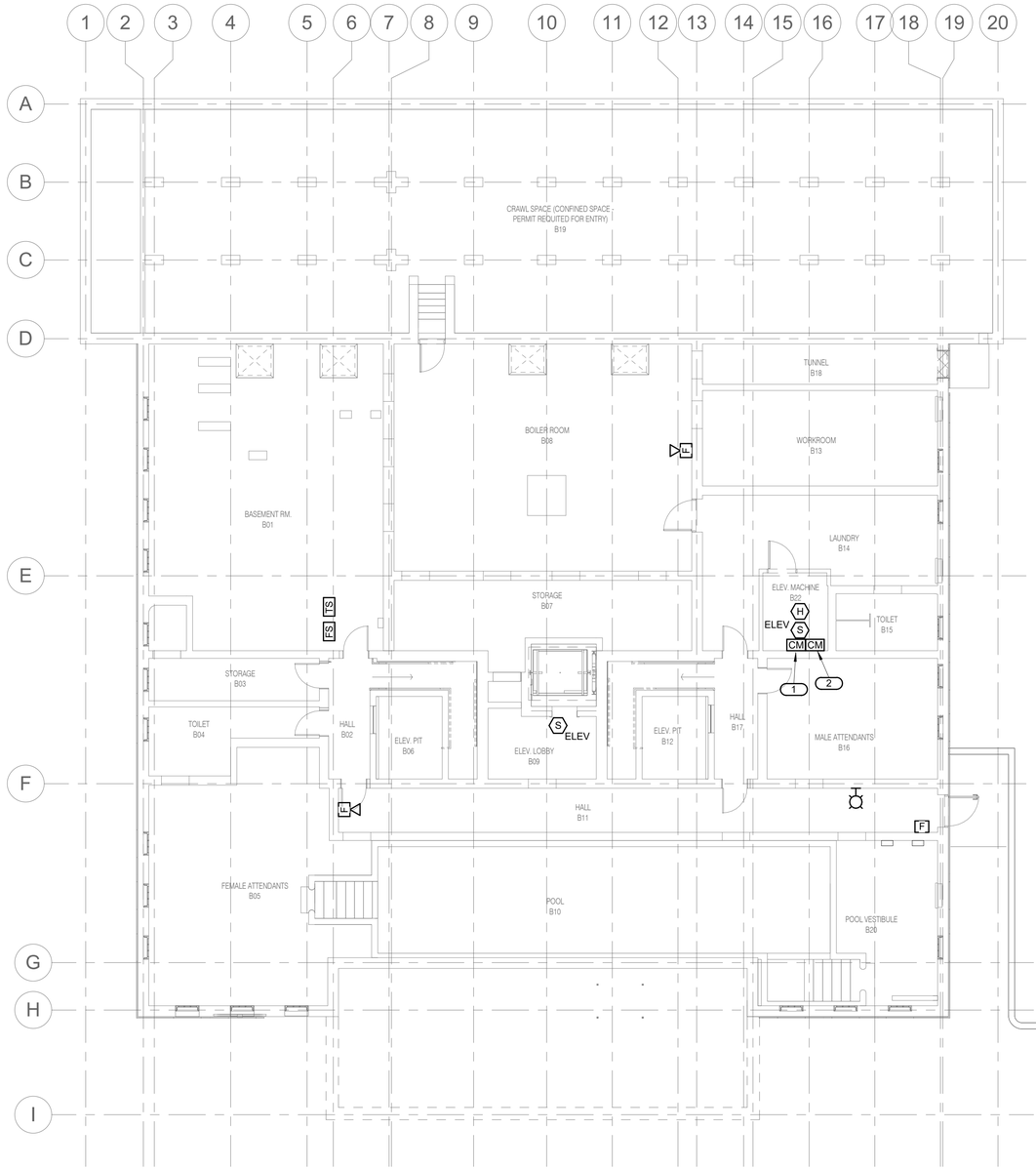
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.
3. REFER TO FIRE PROTECTION RISER FOR COORDINATION OF INSTALLATION OF TAMPER SWITCH MONITOR AND FLOW SWITCH MONITOR.

KEYNOTES: (#)

1. CONTROL MODULE FOR ELEVATOR RECALL.
2. CONTROL MODULE SHALL SHUNT-TRIP ELEVATOR POWER IF HEAT DETECTOR SIGNAL TRIPS.



1 / EF1.0 BASEMENT FIRE ALARM PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4306 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

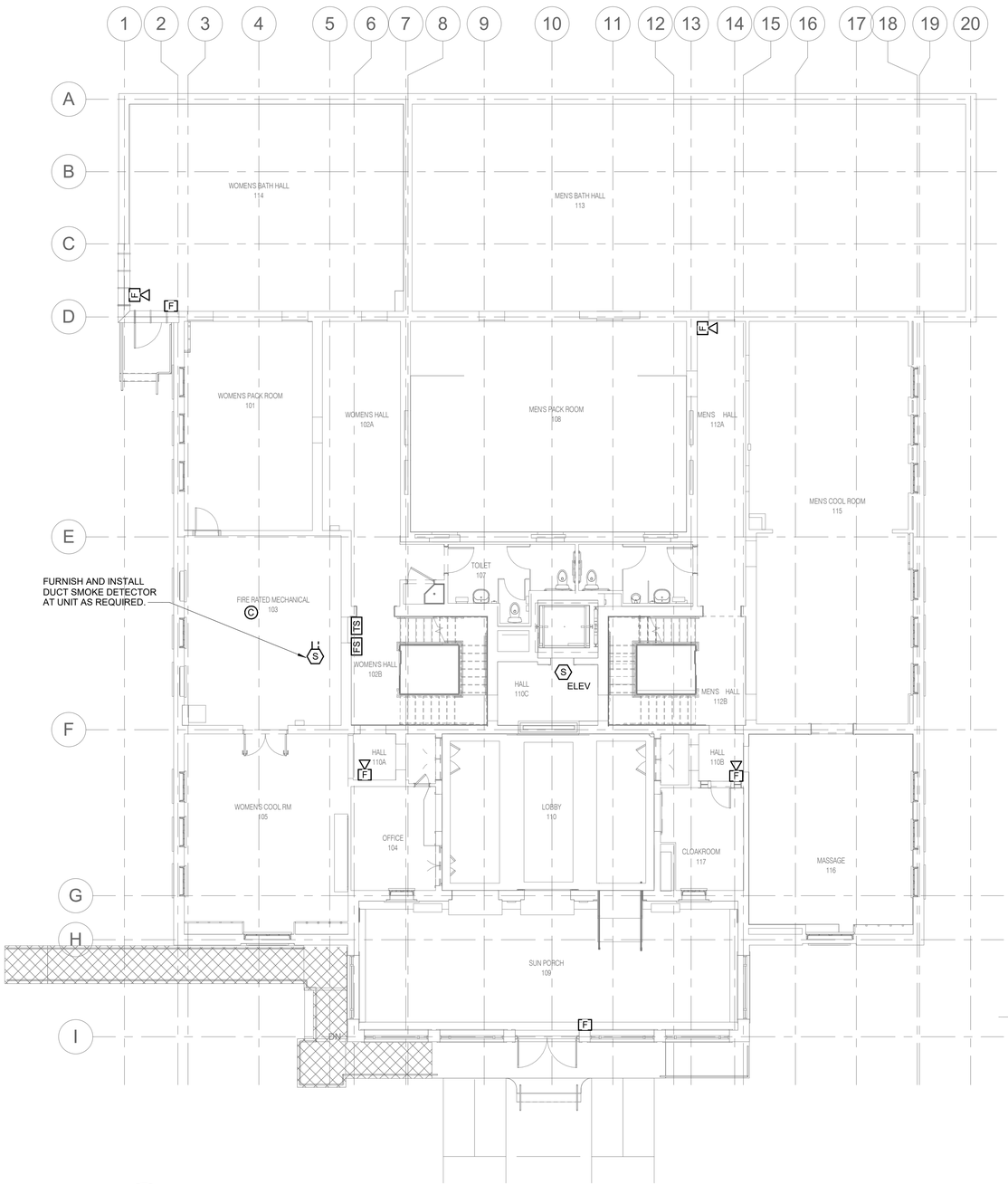
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EF1.0	TITLE OF SHEET MAURICE BATHHOUSE BASEMENT FIRE ALARM PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 181 OF 286

10/27/2023 11:33:38 PM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.
3. REFER TO FIRE PROTECTION RISER FOR COORDINATION OF INSTALLATION OF TAMPER SWITCH MONITOR AND FLOW SWITCH MONITOR.



1 / EF1.1 FIRST FLOOR FIRE ALARM PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

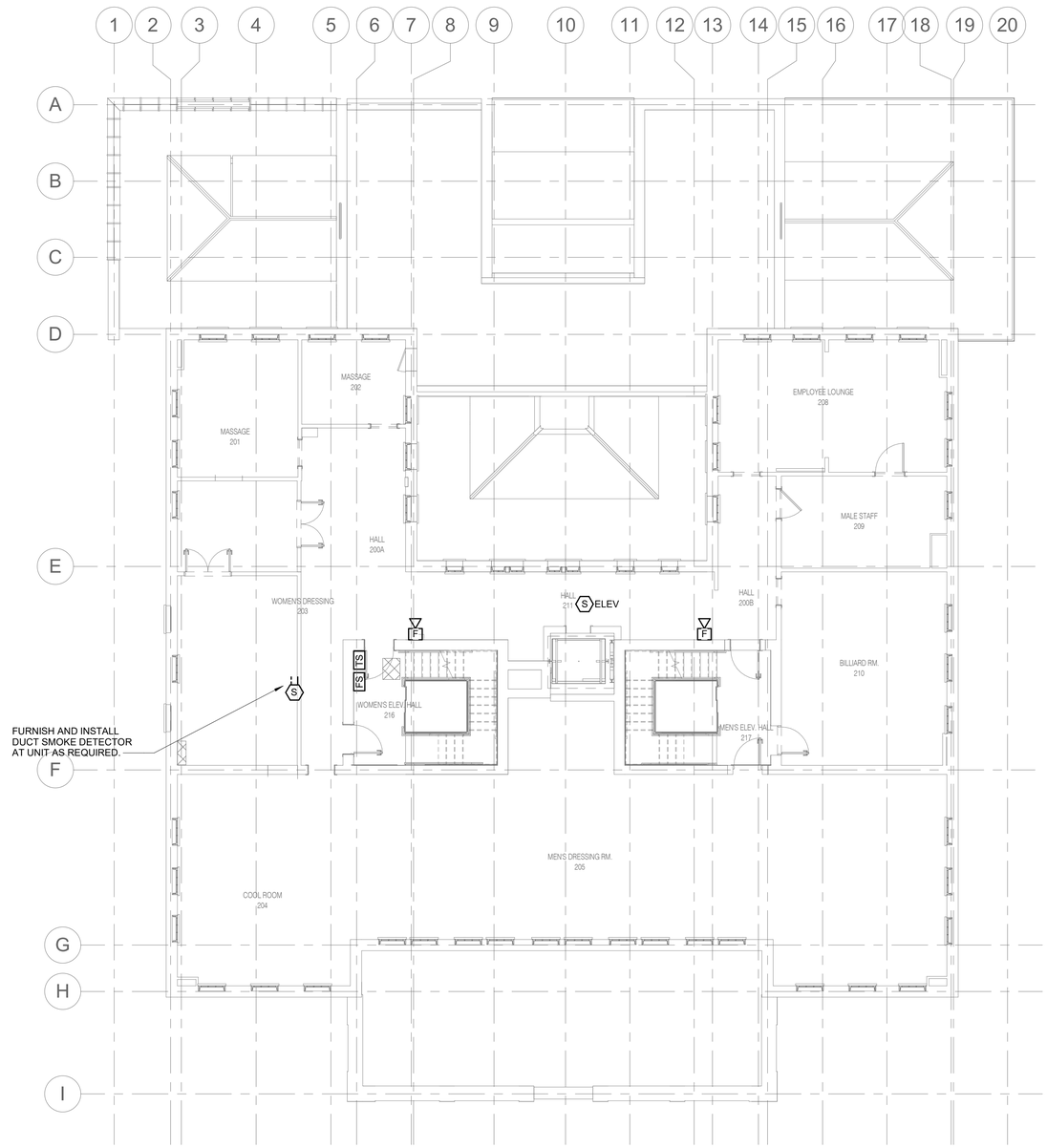
10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EF1.1	TITLE OF SHEET MAURICE BATHHOUSE FIRST FLOOR FIRE ALARM PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 182 OF 286

10/27/2023 1:13:39 PM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.
3. REFER TO FIRE PROTECTION RISER FOR COORDINATION OF INSTALLATION OF TAMPER SWITCH MONITOR AND FLOW SWITCH MONITOR.



1 / EF1.2 SECOND FLOOR FIRE ALARM PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4308
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 17885
ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EF1.2	MAURICE BATHHOUSE SECOND FLOOR FIRE ALARM PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023			PMIS/PKG NO.: 318674 SHEET: 183 OF 286

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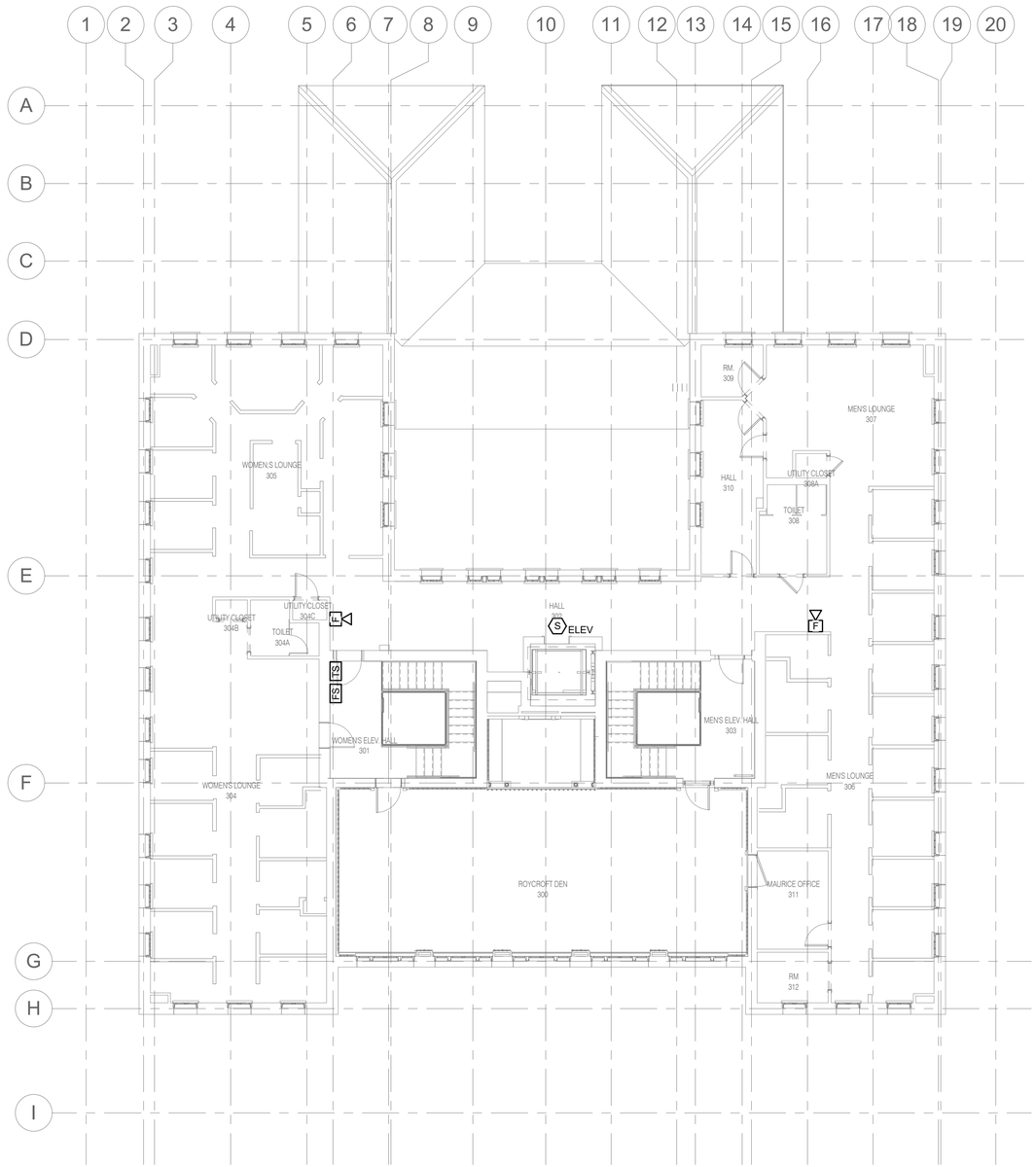
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.
3. REFER TO FIRE PROTECTION RISER FOR COORDINATION OF INSTALLATION OF TAMPER SWITCH MONITOR AND FLOW SWITCH MONITOR.



1 / EF1.3 THIRD FLOOR FIRE ALARM PLAN

1/8" = 1'-0"

0 2 4 6 8 16 32

SCALE OF FEET

BLDG

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp.
No. 4308
ARKANSAS

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LICENSED PROFESSIONAL ENGINEER
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ASHLEE DOWNHAM

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A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	PIP	01 EF1.3	MAURICE BATHHOUSE THIRD FLOOR FIRE ALARM PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023			PMIS/PKG NO. 318674 SHEET 184 OF 286

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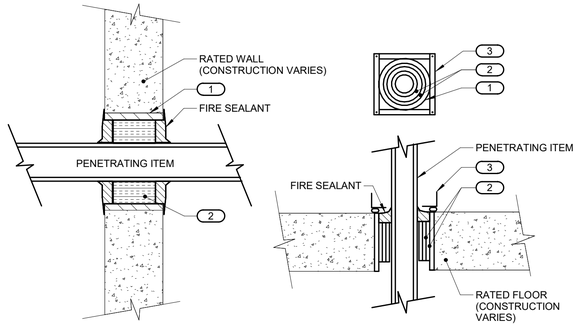


1 FIRE BARRIER PENETRATION

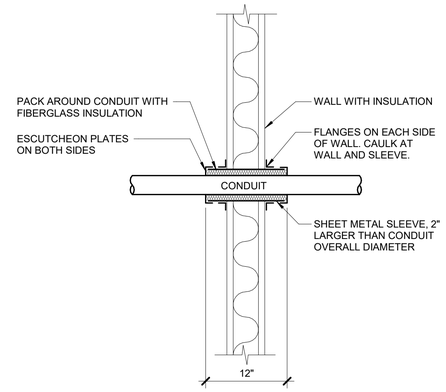
NO SCALE

NOTES:

1. THIS GENERAL DETAIL APPLIES TO ALL ITEMS PENETRATING FIRE RATED WALLS OR FLOORS. THE INTENT IS TO MAINTAIN THE FIRE RATING AND TO ALLOW LONGITUDINAL MOVEMENT. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.

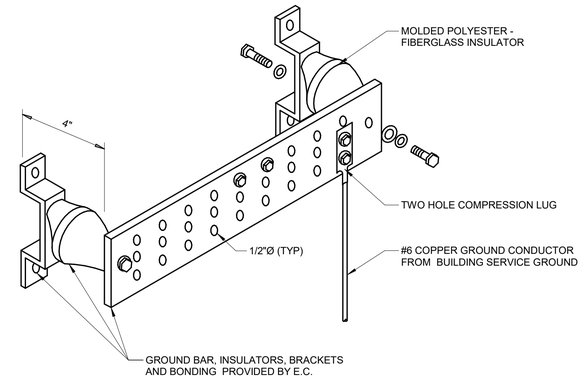
KEYNOTES: (#)

1. SCHEDULE 5 PIPE SLEEVE EMBEDDED IN WALL OR FLOOR, OR SMOOTH CORE DRILL. EACH CONTRACTOR FURNISHES SLEEVE TO G.C., COORDINATES SLEEVE LOCATIONS AND DEBURS SLEEVE. G.C. BUILDS SLEEVE INTO WALL OR FLOOR ALLOWING NO GAP AROUND SLEEVE. IF SLEEVE IS NOT PROVIDED WHEN WALL OR FLOOR IS BUILT, CONTRACTOR SHALL INSTALL SLEEVE. SLEEVE SIZE SHALL ALLOW ANNULAR SPACE REQUIRED BY THE SELECTED FIRE STOP SYSTEM.
2. INSTALL BACKING MATERIAL, SUCH AS MINERAL WOOL SAFING, AS REQUIRED FOR FIRE STOP SYSTEM. INSTALL IN ACCORDANCE WITH FIRE STOP SYSTEM APPLICATION LISTING. SECURE TO WALL OR FLOOR TO ALLOW LONGITUDINAL MOVEMENT OF PENETRATING ITEM WITHOUT MOVEMENT OF FIRE BARRIER.
3. WATER-TIGHT WELDED 1"x1" 20 GAUGE MINIMUM GALVANIZED SHEET METAL ANGLE FRAME, BY CONTRACTOR IN EQUIPMENT ROOMS FOR WATER STOP. PLACE A BEAD OF WATERPROOF SEALANT BETWEEN FLOOR AND BOTTOM OF ANGLE FRAME. SECURE TO FLOOR WITH MASONRY ANCHORS IN CORNERS AND ON 12" MAXIMUM CENTERS. MULTIPLE PENETRATING ITEMS MAY BE ENCLOSED IN ONE FRAME.



2 CONDUIT WALL PENETRATION

NO SCALE

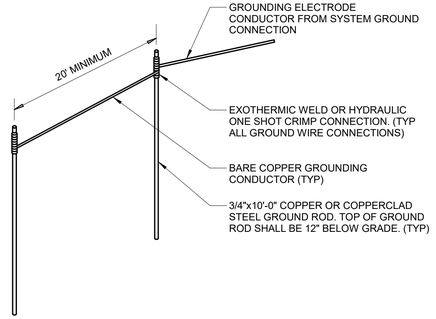


3 GROUND BAR (GB) AND INTERSYSTEM BONDING TERMINAL (IBT) DETAIL

NO SCALE

NOTES:

1. MOUNT BAR AT +6'-6" A.F.F.
2. STANDOFF INSULATORS MUST BE PROVIDED WHEN ZONING THE BAR.



4 GROUND GRID DETAIL

NO SCALE

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 E5.0	TITLE OF SHEET MAURICE BATHHOUSE ELECTRICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 185 OF 286

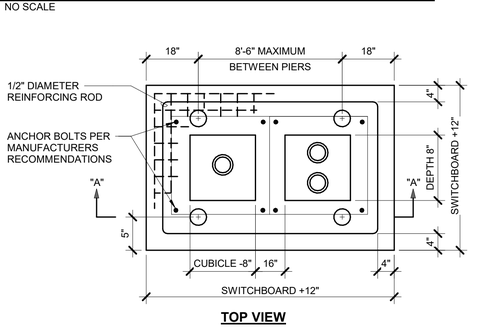
10/27/2023 1:13:36 PM

SYSTEM INPUTS / SEQUENCE OF OPERATION		PANEL/ANNUNCIATOR ALARM INDICATION	PANEL/ANNUNCIATOR SUPERVISORY INDICATION	PANEL/ANNUNCIATOR TROUBLE INDICATION	AUDIBLE ALARMS SEQUENCE	VISUAL ALARMS SEQUENCE	CM ELECTRIC SPRINKLER BELL SEQUENCE	CM MECHANICAL FAN SHUTDOWN SEQUENCE
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL LOW BATTERY			X					
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL BATTERY OR CHARGER FAILURE				X				
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL ABNORMAL SWITCH OR CONTROL POSITION.			X					
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL GROUND FAULT, OPEN CIRCUIT, SHORT CIRCUIT				X				
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL AC POWER LOSS OR IRREGULARITY				X				
NOTIFICATION APPLIANCE CIRCUIT OR SLC LOOP GROUND FAULT, OPEN CIRCUIT, SHORT CIRCUIT				X				
INITIATING DEVICE FAILURE OR COMMUNICATION ERROR				X				
FIRE ALARM PANEL MANUAL FIRE DRILL			X		X	X		
MANUAL PULL STATION	FT F	X			X	X		
SMOKE DETECTOR	S #/_ S #/_	X			X	X		X
SPRINKLER SYSTEM FLOW SWITCH	MM FS	X			X	X	X	
SPRINKLER SYSTEM MONITOR SWITCH	MM TS		X					
CARBON MONOXIDE DETECTOR	C	X			X	X		

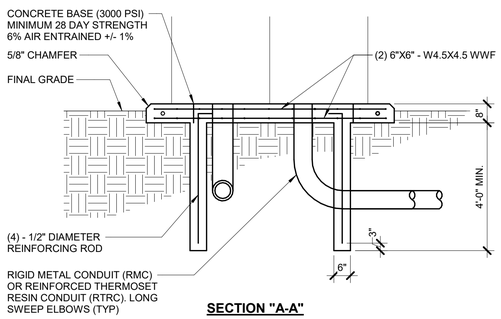
NOTES:

1. ALL SYSTEM EVENTS SHALL BE LOGGED AND DISPLAYED ON THE ANNUNCIATOR INTERFACE, IF APPLICABLE. SEE SPECIFICATIONS FOR MORE INFORMATION AND DESCRIPTIONS OF SEQUENCES OF OPERATION.
2. TOTAL EVACUATION OF OCCUPANTS IS THE STANDARD OPERATING PROCEDURE FOR THIS FACILITY IN THE EVENT OF AN ALARM. ALL NOTIFICATION APPLIANCE CIRCUITS MUST BE INSTALLED AND PROTECTED IN ACCORDANCE WITH THE CIRCUIT SURVIVABILITY REQUIREMENTS DESCRIBED IN NFPA 72. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1 FIRE ALARM OPERATION MATRIX
NO SCALE



TOP VIEW

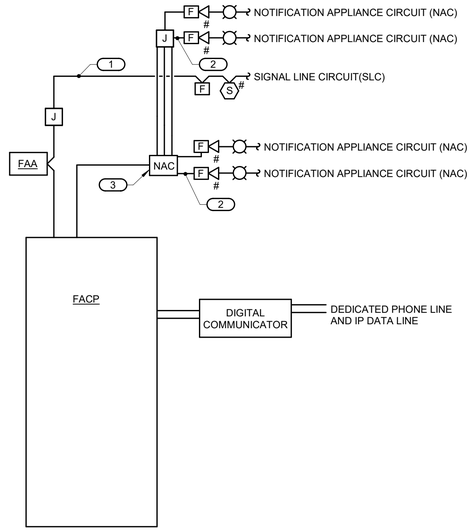


SECTION "A-A"

NOTES:

1. VERIFY FINAL REQUIREMENTS WITH UTILITY COMPANY PRIOR TO INSTALLATION.

4 SWITCHBOARD PAD DETAIL
NO SCALE



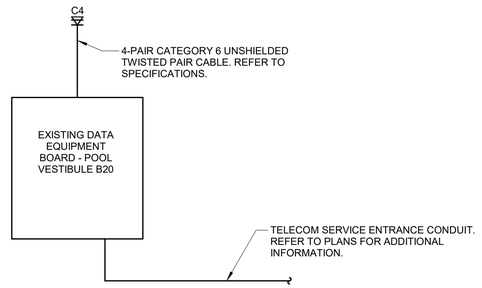
NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF FIRE ALARM CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. THE COMPLETE FIRE ALARM SYSTEM SHALL MEET ALL APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR SHALL COORDINATE ALL WIRE SIZES, TYPES AND REQUIREMENTS WITH THE VENDOR PRIOR TO BID. REFER TO SPECIFICATIONS TO DETERMINE CIRCUIT STYLES AND IF CONDUIT IS REQUIRED OR PLENUM RATED CABLE IS ACCEPTABLE.
4. ALL +120VAC WIRING REQUIRED FOR OPERATION OF THE SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
5. ALL NECESSARY RELAYS MAY NOT BE SHOWN ON THIS PLAN, BUT WHERE REQUIRED FOR PROPER OPERATION OF THE SYSTEM THEY SHALL BE PROVIDED BY THE CONTRACTOR.
6. PARTIAL EVACUATION OR RELOCATION OF OCCUPANTS IS THE STANDARD OPERATING PROCEDURE FOR THIS FACILITY IN THE EVENT OF AN ALARM. THEREFORE, ALL NOTIFICATION APPLIANCE CIRCUITS MUST BE INSTALLED AND PROTECTED IN ACCORDANCE WITH THE CIRCUIT SURVIVABILITY REQUIREMENTS DESCRIBED IN NFPA 72. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
7. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
8. FIRE ALARM SYSTEM NEEDS TO GO OUT TO NATIONAL PARK SERVICES DISPATCH CENTER UTILIZING BOSCH 6600 RECEIVER.

KEYNOTES: (#)

1. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH INITIATION LOOP AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
2. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH NOTIFICATION APPLIANCE CIRCUIT AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
3. PROVIDE NOTIFICATION APPLIANCE EXTENDER PANELS AS REQUIRED. DETERMINATION OF NEED TO BE MADE BY FIRE ALARM VENDOR. REFER TO SPECIFICATIONS FOR REQUIREMENTS AND ACCEPTABLE MOUNTING LOCATIONS.

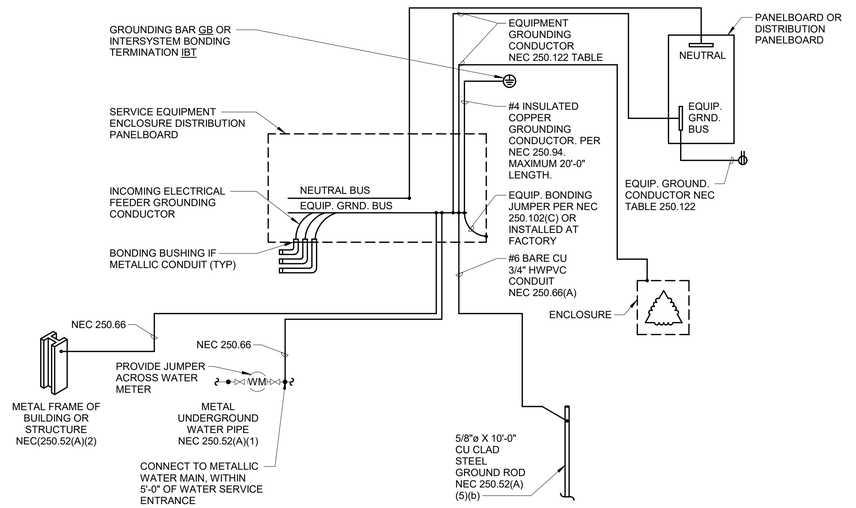
2 FIRE ALARM RISER
NO SCALE



NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF COMMUNICATION CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. ALL WIRING SHALL BE INSTALLED IN CONDUIT.

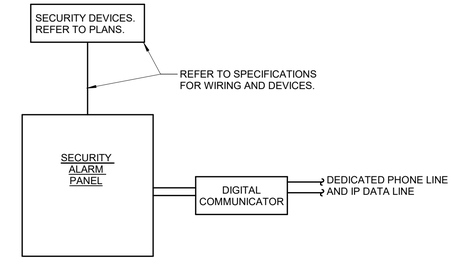
5 DATA AND COMMUNICATION RISER DIAGRAM
NO SCALE



NOTES:

1. 1. REFER TO SPECIFICATION SECTION 26 05 26 GROUNDING AND BONDING.
2. LABEL ALL GROUND CONNECTIONS AT EQUIPMENT.

3 ELECTRICAL SYSTEM GROUNDING DETAIL
NO SCALE



NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF SECURITY ALARM CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. CONTRACTOR SHALL COORDINATE ALL WIRE SIZES, TYPES AND REQUIREMENTS WITH THE VENDOR PRIOR TO BID. REFER TO SPECIFICATIONS TO DETERMINE CIRCUIT STYLES AND IF CONDUIT IS REQUIRED OR PLENUM RATED CABLE IS ACCEPTABLE.
3. ALL +120VAC WIRING REQUIRED FOR OPERATION OF THE SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
4. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
5. SECURITY ALARM SYSTEM NEEDS TO GO OUT TO NATIONAL PARK SERVICES DISPATCH CENTER UTILIZING BOSCH 6600 RECEIVER.

6 SECURITY ALARM RISER
NO SCALE

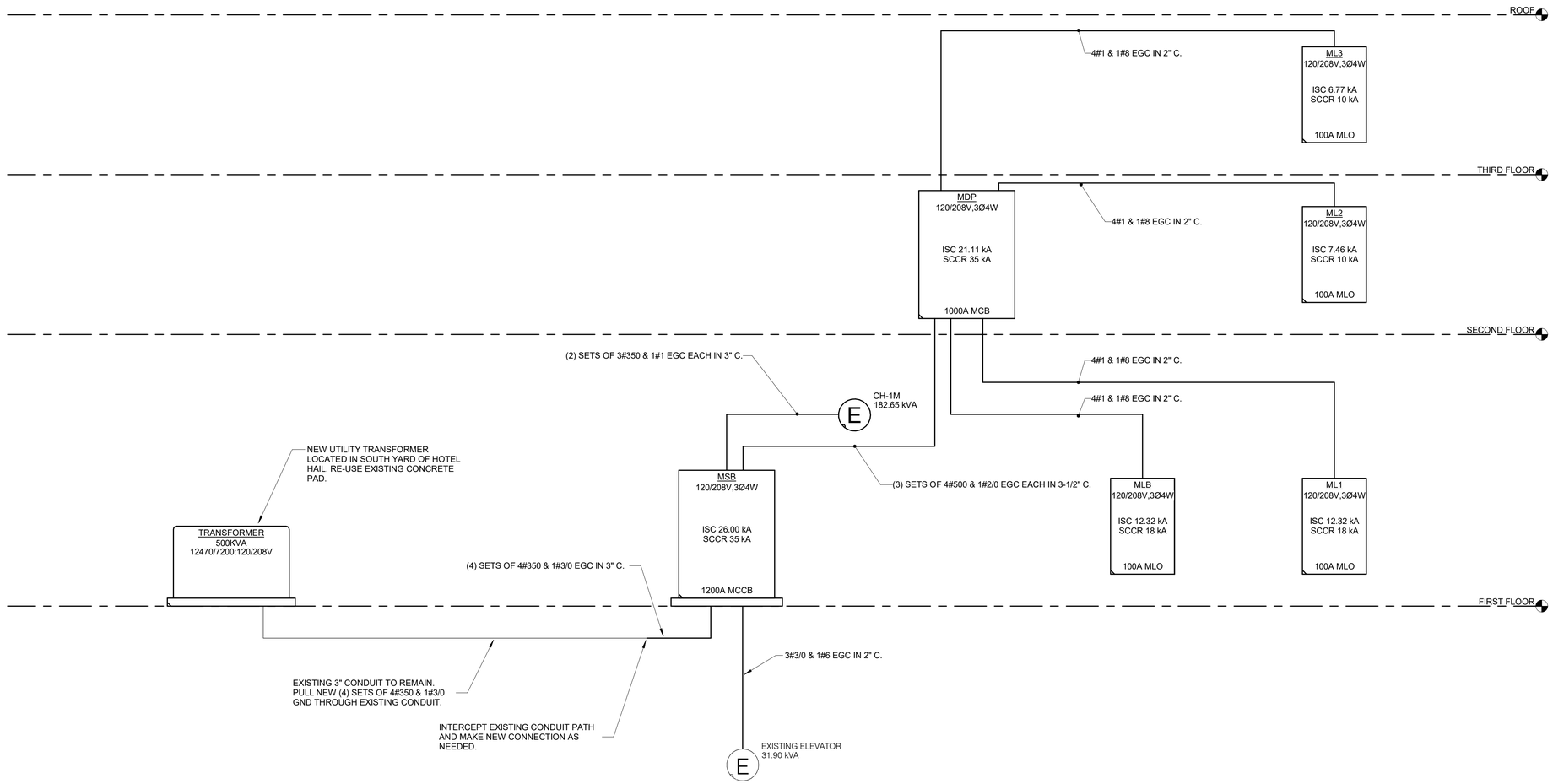
CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 150 KANSAS CITY, MO T: 816.474.0900	PIP	01	MAURICE BATHHOUSE ELECTRICAL DETAILS	626 180065
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM	E5.1		PMIS/PKG NO. 318674
	TECH. REVIEW: PIP		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 186 OF 286
	DATE: 10.27.2023			

10/27/2023 1:13:37 PM



1 ELECTRICAL RISER DIAGRAM

NO SCALE

IMEG Consultants Corp. No. 4306 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: PIP CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 01 EP6.0	TITLE OF SHEET MAURICE BATHHOUSE ELECTRICAL RISER REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 187 OF 286

10/27/2023 1:13:55 PM

LED LUMINAIRE SCHEDULE

(DESC) DOOR:	**DISTRIBUTION:**	**BEAMWIDTH:**	**(L/L) LENS/LOUVER:**	K19 - KSH19 .156" ACRYLIC
FA - FLAT ALUMINUM	II - ANSI/IES TYPE 2 DISTRIBUTION	NSP - VERY NARROW SPOT	A - .125" ACRYLIC	M - MATTE DIFFUSE CLEAR
FS - FLAT STEEL	III - ANSI/IES TYPE 3 DISTRIBUTION	SP - SPOT	B - BAFFLE/LOUVER	N - NONE
RA - REGRESSED ALUMINUM	IV - ANSI/IES TYPE 4 DISTRIBUTION	MD - MEDIUM	C - CLEAR ALZAK	P - POLYCARBONATE
RS - REGRESSED STEEL	V - ANSI/IES TYPE 5 DISTRIBUTION	WD - WIDE	F - FROSTED ACRYLIC	R - HIGH IMPACT DR ACRYLIC
FINISH:		VWD - VERY WIDE	G - TEMPERED GLASS	SS - SEMI-SPECULAR CLEAR
PAF - PAINT AFTER FABRICATION		WW - WALL WASH	K - KSH12 .125" ACRYLIC	O - OTHER (SEE DESCRIPTION)
CFSA - COLOR-FINISH SELECTION BY ARCHITECT				[DESIGN SPECIFIC BLANKS]
(MTG) MOUNTING:	RE - RECESSED		**(WATT) PER:**	FIX - FIXTURE, FT - FOOT, LAMP
CL - CEILING SURFACE	SP - SUSPENDED		**(TYPE) LED**	RGB - COLOR CHANGING LED
CV - COVE	SU - SURFACE		LED - LIGHT EMITTING DIODE	RGBW - COLOR CHANGING + WHITE
FR - FLANGED RECESSED	UC - UNDER CABINET		TLED - TUBULAR LED LAMP	RGBA - COLOR CHANGING + AMBER
P - PERIMETER	WL - WALL		OLED - ORGANIC LED	RLED - RETROFIT LED
PL - POLE	O - OTHER (SEE DESCRIPTION)		DLED - DYNAMIC TUNABLE LED	WLED - WARM DIM LED
(TYPE) DRIVER:				
0-10V - 0-10V DIMMING	EB - ELECTRONIC	HL - HIGH/LOW (100%/50%) STEP DIM		MV - MULTI-VOLTAGE ELECTRONIC
DALI - DIGITAL ADDRESSABLE	ELV - ELECTRONIC LOW VOLTAGE	LINE - LINE VOLTAGE DIMMING		REM - REMOTE
DMX - DIGITAL MULTIPLEX	EM - EMERGENCY BATTERY	ML - MULTI-LEVEL SWITCHING		O - OTHER (SEE DESCRIPTION)

CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN.

VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
UNLESS INDICATED ON LIGHTING PLANS OR BELOW, REFER TO ARCHITECTURAL AND INTERIOR DESIGN ELEVATIONS, SECTIONS AND DETAILS FOR ALL SUSPENDED AND WALL MOUNTED LUMINAIRE MOUNTING HEIGHTS.

				DIMENSIONS				WATT		LED			DRIVER		
ITEM	DESCRIPTION	L/L	MTG	L	W	H	DIA.	ANSI WATTS	PER	TYPE	QTY	DELIVERED LUMENS (MIN)	VOLTS	TYPE	MANUFACTURER AND MODEL
A	2'x2' RECESSED TROFFER FOR LED SOURCE. .125" FROSTED ACRYLIC LENS. FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. PROVIDE WITH EMERGENCY BATTERY PACK IF FIXTURE IS SHOWN AS EMERGENCY.	O	RE	2'-0"	2'-0"	4 1/2"		16 W	FIX	LED	1	3500K CCT, 2000 LUMENS, 80 CRI	120 V	EB	H.E. WILLIAMS 50 SERIES
E2	WALL PACK WITH EMERGENCY BATTERY BACKUP. BLACK FINISH. BLACK CORD.	O	WL	1'-0 77/256"	6 13/128"	8 205/256"		16 W	FIX	LED	1	3500K CCT, 1500 NOMINAL LUMENS, 80 CRI	120 V	120V	GARDCO WALL MOUNT GEO FORM GBM LED WALL SCONCE OR APPROVED EQUAL
EM1	EMERGENCY UNIT, TWO ADJUSTABLE HEADS, HOUSING COLOR PER ARCHITECT. PROVIDE WITH BATTERY BACKUP AND SELF-DIAGNOSTIC TEST.	O	WL	1'-0 1/4"	3 3/4"	4"		2 W	FIX	LED	1	LED	120 V	EM	EMERGI-LITE EL-2SQL LED OR APPROVED EQUAL
EX1	EXIT SIGN RED LETTER, BLACK HOUSING. PROVIDE WITH BATTERY BACKUP AND SELF-DIAGNOSTICS TEST.	O	WL/CL	1'-0 3/4"	4 5/16"	7 1/2"		3.8 W	FIX	LED	1	LED	120 V	EM	LSL LSX OR APPROVED EQUAL
G	LED VAPOR TIGHT FLOODLIGHT. DURABLE DIE-CAST ALUMINUM HOUSING. IP65 RATED.	O	CL			1'-0"	6"	17.7 W	FIX	LED	1	3500K CCT, 1500 LUMENS, 80 CRI	120 V	EB	EATON ALL PRO VAPOR TIGHT FLOODLIGHT
L1	MISSION-STYLED PENDANT. CRAFTSMAN SIGNATURE FIXTURE, FOUR BEIGE ART GLASS LANTERN SHADES WITH DOUBLE BAR MISSION STYLED DESIGNS. SOLID BRASS CHANDELIER IS COMPLEMENTED WITH HARDWARE IN A CRAFTSMAN BROWN FINISH.	O	SP	1'-10 1/2"	2'-7"	2'-7"		400 W	FIX	LED	1	FURNISH WITH FOUR (4) 100 WATT LED LAMPS. 3500K, 80 CRI	120 V		MEYDA OR APPROVED EQUAL
P	WALL MOUNTED MEDIUM SCOPE SCONCE FIXTURE FOR LED SOURCE. 20 DEGREE DOWNLIGHT OPTICS. MEDIUM OUTPUT. COORDINATE FINISH WITH ARCHITECT.	O	WL			1'-0"	6"	20 W	FIX	LED	1	3000K CCT, 2001 LUMENS, 80 CRI	120 V	EB	DELTALIGHT BOXY XL
R	LED FLOOR LIGHT MOUNTED TO CONCRETE PAD ON GROUND. MEDIUM FLOOD DISTRIBUTION. BARN DOORS ACCESSORY FOR GLARE REDUCTION. IP66 RATED. COORDINATE FINISH WITH ARCHITECT.	O	O	4 205/256"	1'-3"	10 51/256"		95.6 W	FIX	LED	1	3000K CCT, 9550 LUMENS, 80 CRI	120 V	EB	VISTA PRO MODEL 1059 SERIES
S4	SQUARE LENSED FIXTURE SUSPENDED AT 8'-0" AFF OR MOUNT TO CEILING, WHICHEVER IS LOWER. UNLESS NOTED OTHERWISE ON PLAN. FURNISH WITH BATTERY PACK WHERE NOTED WITH EM.	A	CL/SP/WL	4'-0"	2 3/4"	3 5/8"		7.5 W	FT	LED	1	3500K CCT, 3681 NOMINAL LUMENS, 80 CRI	120 V	120V	UTOPIA LIGHTING SS OR APPROVED EQUAL
Z1	4.5" SHALLOW PLENEM RECESSED DOWNLIGHT, MEDIUM DISTRIBUTION FLUSH LENS. CLEAR SEMI-SPECULAR ANODIZED REFLECTOR. WHITE POWDER COAT TRIM. REMODEL KIT.	O	RE			5 1/4"	4 1/2"	10.7 W	FIX	LED	1	3500K CCT, 1000 NOMINAL LUMENS, 80 CRI	120 V	120V	H.E. WILLIAMS 4PR LED OR APPROVED EQUAL

LIGHTING SEQUENCE OF OPERATION

NOTES:
1. {L##} DENOTES THE LIGHTING SEQUENCE OF OPERATIONS FOR THIS SPACE.
2. {#B} PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF {RAISE/LOWER AND} SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS AND THE LIGHTING SEQUENCE OF OPERATIONS {L##}. COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER.
3. {Z#} DENOTES LIGHTING CONTROL ZONE. PROVIDE SEPARATE CONTROL OF EACH CONTROLLED ZONE. LUMINAIRES ASSOCIATED WITH THE SAME ZONE SHALL OPERATE TOGETHER WITHIN THE SAME PROGRAMMED SCENE.
4. a = SWITCH DESIGNATION FOR LIGHTING CONTROL
5. VERIFY AND COORDINATE ALL TIME CLOCK SETTINGS WITH OWNER PRIOR TO FINAL PROGRAMMING.
6. VERIFY AND COORDINATE ALL PUSH BUTTON WALL DEVICES AND QUANTITIES OF INDIVIDUAL BUTTONS WITH SCENES AND ZONES PER LOCATION.
7. VERIFY AND COORDINATE ALL PUSH BUTTON QUANTITIES AND SCENE NAMES WITH OWNER PRIOR TO SUBMITTING ENGRAVING TEMPLATE TO MANUFACTURER.

PLAN ID	LIGHTING SWITCHED
{LS1}	Sequence: Switched lights are vacancy controlled in this space. ON: The lights turn on manually via lighting switch. OFF: After the space has been vacant for 20 minutes, the lights will turn off automatically via occupancy sensor or manually via lighting switch.
{LS2}	Sequence: Switched lights are controlled in this space. ON: The lights turn on using switches. OFF: The lights turn off using switches.
{LS3}	Sequence: Switched lights are vacancy controlled in this space. ON: The lights turn on automatically via occupancy sensor. OFF: After the space has been vacant for 20 minutes, the lights will turn off automatically via occupancy sensor.
{PC1}	Sequence: Switched lights are controlled in this space. ON: The lights turn on using photocell. OFF: The lights turn off using photocell.

SWITCHBOARD MSB

ENCLOSURE: NEMA 3R
FED FROM: 0 A/0P @
LOCATION: EXTERIOR

SOLID NEUTRAL GROUND BUS

MAIN: 1,200 A MCCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 35 kA
ISC: 26.00 kA

NOTES: **1. ALL CIRCUIT BREAKERS SHALL HAVE LSI ADJUSTMENT. 2. SELECTIVE COORDINATION IS REQUIRED WITH EXTERIOR MAIN CIRCUIT BREAKER. 3. PROVIDE WITH METERING FOR ALL CIRCUIT BREAKERS.**

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	CHILLER	182.65 kVA	3	800 A	600 A			(2) SETS OF 3#350 & 1#1 EGC EACH IN 3" C.	
2	MDP	142.05 kVA	3	1,000 A	1,000 A			(3) SETS OF 4#500 & 1#2/0 EGC EACH IN 3-1/2" C.	
3	ELEVATOR: ELEV MACHINE B22	31.9 kVA	3	250 A	200 A			3#3/0 & 1#6 EGC IN 2" C.	A
4	SPD	0 kVA	3	100 A	60 A	--	--	--	--
5	SPARE	0 kVA	3	400 A	400 A	--	--	--	--
6	SPARE	0 kVA	3	200 A	200 A	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	5.934 kVA	100.00%	5.934 kVA		
Power	340.563 kVA	100.00%	340.563 kVA	**TOTAL CONNECTED LOAD:**	356.60 kVA
Receptacles	10.1 kVA	99.50%	10.05 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	356.547 kVA
				TOTAL CONNECTED AMPS:	989.81 A
				TOTAL ESTIMATED DEMAND AMPS:	989.7 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: A - FURNISH WITH SHUNT-TRIP CIRCUIT BREAKER.

DISTRIBUTION PANEL MDP

ENCLOSURE: NEMA 1
FED FROM: 1,000 A/3P @ MSB
LOCATION: ELECTRICAL B01D

SOLID NEUTRAL GROUND BUS

MAIN: 1,000 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 35 kA
ISC: 21.11 kA

NOTES: **PROVIDE METERING FOR ALL CIRCUIT BREAKERS.**

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	MLB: BASEMENT	13.68 kVA	3	150 A	100 A			4#1 & 1#8 EGC IN 2" C.	
2	ML1: FIRST FLOOR	11.94 kVA	3	150 A	100 A			4#1 & 1#8 EGC IN 2" C.	
3	ML2: SECOND FLOOR	8.38 kVA	3	150 A	100 A			4#1 & 1#8 EGC IN 2" C.	
4	ML3: THIRD FLOOR	33.22 kVA	3	150 A	100 A			4#1 & 1#8 EGC IN 2" C.	
5	AHU-1M: FIRST FLOOR	25.04 kVA	3	100 A	80 A			3#3 & 1#8 EGC IN 1 1/4" C.	
6	AHU-2M: SECOND FLOOR	11.78 kVA	3	100 A	40 A			3#8 & 1#10 EGC IN 3/4" C.	
7	AHU-3M: SECOND FLOOR	4.72 kVA	3	100 A	25 A			3#10 & 1#10 EGC IN 3/4" C.	
8	DHU-1M: BOILER RM B08	10.81 kVA	3	100 A	45 A			3#6 & 1#10 EGC IN 1" C.	
9	HWP-1M: MECH 103	6.1 kVA	3	100 A	30 A			3#10 & 1#10 EGC IN 3/4" C.	
10	HWP-2M: MECH 103	6.1 kVA	3	100 A	30 A			3#10 & 1#10 EGC IN 3/4" C.	
11	CWP-1M: MECH 203	8.8 kVA	3	100 A	50 A			3#6 & 1#10 EGC IN 1" C.	
12	ACC-2M: UTIL YARD	1.48 kVA	3	100 A	20 A			3#12 & 1#12 EGC IN 3/4" C.	
13	SPARE	0 kVA	3	150 A	100 A	--	--	--	--
14	SPARE	0 kVA	3	150 A	100 A	--	--	--	--
15	SPARE	0 kVA	3	100 A	40 A	--	--	--	--
16	SPARE	0 kVA	3	100 A	40 A	--	--	--	--
17	SPARE	0 kVA	3	100 A	30 A	--	--	--	--
18	SPACE	--	3	--	--	--	--	--	--
19	SPACE	--	3	--	--	--	--	--	--
20	SPACE	--	3	--	--	--	--	--	--
21	SPACE	--	3	--	--	--	--	--	--
22	SPACE	--	3	--	--	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	5.934 kVA	100.00%	5.934 kVA		
Power	126.013 kVA	100.00%	126.013 kVA	**TOTAL CONNECTED LOAD:**	142.05 kVA
Receptacles	10.1 kVA	99.50%	10.05 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	141.997 kVA
				TOTAL CONNECTED AMPS:	394.28 A
				TOTAL ESTIMATED DEMAND AMPS:	394.1 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17685 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED: PIP	SUB SHEET NO. 01	TITLE OF SHEET: MAURICE BATHHOUSE ELECTRICAL SCHEDULES
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	CADD: WMM	EP6.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	TECH. REVIEW: PIP		
	DATE: 10.27.2023		

DRAWING NO. 626 180065
PMIS/PKG NO. 318674
SHEET 188 OF 286

10/27/2023 1:13:57 PM

PANEL MLB

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ MDP
LOCATION: BASEMENT RM. B01

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 18 kA
ISC: 12.32 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: RMS B01, B08, B14, B15, B19	20 A	1	12	12	12	0.9	0.2					12	12	1	20 A	LTS: OVERALL STAIR 1	2	
	3	REC: RMS B02, B11, B17, B20, EXTERIOR	20 A	1	12	12	12			0.72	0.2			12	12	1	20 A	LTS: OVERALL STAIR 2	4	
	5	LTS: BASEMENT LTG	20 A	1	10	10	10					0.77	0.31	12	12	1	20 A	LTS: BASEMENT CORRIDOR LTG	6	
	7	REC: IT EQUIP	20 A	1	12	12	12	0.36	0.67					12	12	1	20 A	FCU-B-3M: POOL VESTIBULE B20	8	
	9	FCU-B-1M: BASEMENT RM B01	20 A	1	12	12	12			0.67	0.67			12	12	1	20 A	FCU-B-4M: MALE ATT. B16	10	
	11	FCU-B-2M: FEMALE ATT. B05	20 A	1	12	12	12					0.67	0.67	12	12	1	20 A	FCU-B-5M: BOILER RM B08	12	
	13	SP-2M: BASEMENT RM B01	20 A	3	12	12	12	1.27	0.2					12	12	1	20 A	SP-1M: STORAGE B07	14	
--	15	--	--	--	--	--	--			1.27	0.5			12	12	1	20 A	ELEV CAB LTS & RECEP: ELEV PIT B12	16	
--	17	--	--	--	--	--	--					1.27	1	12	12	1	20 A	EX. SP PUMP CONTROL: BOILER RM B08	18	
	19	EX. EF-1: BASEMENT RM B01	20 A	1	12	12	12	0.7	0.67					12	12	1	20 A	EX. FCU: ELEV MACHINE B22	20	
--	21	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	30	--
--	31	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	42	--
						Total Load:		4.97 kVA		4.03 kVA			4.69 kVA							
						Total Amps:		42.24		33.55			39.94							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	1.483 kVA	100.00%	1.483 kVA
Power	10.02 kVA	100.00%	10.02 kVA
Receptacles	2.18 kVA	100.00%	2.18 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	13.68 kVA
TOTAL ESTIMATED DEMAND LOAD:	13.683 kVA
TOTAL CONNECTED AMPS:	37.98 A
TOTAL ESTIMATED DEMAND AMPS:	38 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL ML1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ MDP
LOCATION: BASEMENT RM. B01

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 18 kA
ISC: 12.32 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: RMS 103, 104, 105, EXTERIOR	20 A	1	12	12	12	1.26	0.94					10	10	10	1	20 A	LTS: FIRST FLOOR LTG	2	
	3	REC: RMS 102B, 107, 108, 115	20 A	1	12	12	12			1.44	0.05			12	12	12	1	20 A	LTS: FIRST FLOOR CORRIDOR LTG	4	
	5	REC: RMS 109, 110C, 117	20 A	1	12	12	12					0.9	0.5	12	12	12	1	20 A	VAV BOX POWER SUPPLY: MECH 103	6	
	7	AHU-1M UVC: MECH 103	20 A	1	12	12	12	0.3	0.3					12	12	12	1	20 A	AHU-1M LTS: MECH 103	8	
	9	B1-M: MECH 103	20 A	1	12	12	12			0.3	0.43			12	12	12	3	20 A	RF-1M: MECH 103	10	
	11	B2-M: MECH 103	20 A	1	12	12	12					0.3	0.43	--	--	--	--	--	--	12	--
	13	NAC-1: MECH 103	20 A	1	12	12	12	0.2	0.43					--	--	--	--	--	--	14	--
	15	SECURITY ALARM PNL: MECH 103	20 A	1	12	12	12			0.2	0.2			12	12	12	1	20 A	RF-1M TCP: MECH 103	16	
	17	EX. ACCU-1M: NORTHEAST YARD	25 A	2	10	10	10					1.11	0.2	12	12	12	1	20 A	AHU-1M TCP: MECH 103	18	
--	19	--	--	--	--	--	--	1.11	0.2					12	12	12	1	20 A	FIRE ALARM PNL: CLOAK RM 117	20	
	21	FCU-1-1M: MECH 103	20 A	1	12	12	12			1.13	0			--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	30	--
--	31	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	32	--
--	33	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	42	--
						Total Load:		4.75 kVA		3.75 kVA			3.44 kVA							
						Total Amps:		39.96		31.68			28.69							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	0.994 kVA	100.00%	0.994 kVA
Power	7.35 kVA	100.00%	7.35 kVA
Receptacles	3.6 kVA	100.00%	3.6 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	11.94 kVA
TOTAL ESTIMATED DEMAND LOAD:	11.944 kVA
TOTAL CONNECTED AMPS:	33.15 A
TOTAL ESTIMATED DEMAND AMPS:	33.2 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 EP6.2	TITLE OF SHEET MAURICE BATHHOUSE ELECTRICAL SCHEDULES REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 189 OF 286

10/27/2023 11:13:57 PM

PANEL ML2

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ MDP
LOCATION: HALL 211

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC: 7.46 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: SECOND FLOOR	20 A	1	12	12	12	1.08	0.72		10	10	10	1	20 A	LTS: SECOND FLOOR	2	
	3	VAV POWER SUPPLY BOX: 2ND FL ELEC	20 A	1	12	12	12			0.5 0.3	12	12	12	1	20 A	AHU-3M UVC: MEN'S DRESS 205	4	
	5	AHU-2M UVC: MECH 203	20 A	1	12	12	12			0.3 0.3	12	12	12	1	20 A	AHU-3M LTS: MEN'S DRESS 205	6	
	7	AHU-2M LTS: MECH 203	20 A	1	12	12	12	0.3	0.83		12	12	12	1	20 A	GFS-1: MECH 203	8	
	9	UH-1M: MECH 203	20 A	1	12	12	12		0.51	0.3	12	12	12	3	20 A	RF-2M: MECH 203	10	
	11	UH-2M: ATTIC 313	20 A	1	12	12	12			0.51 0.3	--	--	--	--	--	--	12	--
	13	UH-2M: ATTIC 313	20 A	1	12	12	12	0.51	0.3		--	--	--	--	--	--	14	--
	15	WH-1M: MECH 203	20 A	1	12	12	12			0.51 0.51	12	12	12	1	20 A	CP-1: MECH 203	16	
	17	CHILLED WATER SYSTEM TCP: MECH 203	20 A	1	12	12	12			0.2 0.2	12	12	12	1	20 A	AHU-3M TCP: MEN'S DRESS 205	18	
	19	AHU-2M TCP: MECH 203	20 A	1	12	12	12	0.2	0		--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--			0 --	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	42	--
					Total Load:			3.94 kVA		2.63 kVA	1.81 kVA							
					Total Amps:			33.92		22.97	15.08							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	0.724 kVA	100.00%	0.724 kVA
Power	6.58 kVA	100.00%	6.58 kVA
Receptacles	1.08 kVA	100.00%	1.08 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	8.38 kVA
TOTAL ESTIMATED DEMAND LOAD:	8.384 kVA
TOTAL CONNECTED AMPS:	23.27 A
TOTAL ESTIMATED DEMAND AMPS:	23.3 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL ML3

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 100 A/3P @ MDP
LOCATION: HALL 302

SOLID NEUTRAL GROUND BUS

MAIN: 100 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC: 6.77 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: RMS 302, 305, 306, 309, 311, ROOF	20 A	1	12	12	12	1.26	0.55		12	12	12	1	20 A	LTS: THIRD FLOOR	2	
	3	REC: RMS 300, 304	20 A	1	12	12	12			1.08 0.92	12	12	12	1	20 A	LTS: THIRD FLOOR	4	
	5	REC: ROYCROFT DEN 300	20 A	1	12	12	12			0.9 0.92	12	12	12	1	20 A	LTS: THIRD FLOOR	6	
	7	FCU-3-7M: WOMEN LOUNGE 305	20 A	1	12	12	12	0.83	1.66		10	10	10	1	25 A	FCU-3-5M: MEN LOUNGE 307	8	
	9	FCU-3-8M: WOMEN LOUNGE 305	20 A	1	12	12	12			0.83 0.83	12	12	12	1	20 A	FCU-3-4M: MEN LOUNGE 307	10	
	11	FCU-3-9M: WOMEN LOUNGE 304	20 A	1	12	12	12			0.83 0.83	12	12	12	1	20 A	FCU-3-3M: MEN LOUNGE 306	12	
	13	FCU-3-10M: WOMEN LOUNGE 304	20 A	1	12	12	12	0.83	0.83		12	12	12	1	20 A	FCU-3-2M: MEN LOUNGE 306	14	
	15	FCU-3-11M: WOMEN LOUNGE 304	20 A	1	12	12	12			0.83 0.67	12	12	12	1	20 A	FCU-3-1M: MEN LOUNGE 306	16	
	17	FCU-3-6M: HALL 302	20 A	1	12	12	12			0.67 5.64	8	4	4	3	70 A	HP-1M: ROOF	18	
	19	EF-1M: ROOF	20 A	1	12	12	12	0.67	5.64		--	--	--	--	--	--	20	--
	21	LTS: EXTERIOR LIGHTS	20 A	1	10	10	10			0.35 5.64	--	--	--	--	--	--	22	--
--	23	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	30	--
--	31	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	32	--
--	33	SPARE	20 A	1	--	--	--			0 0	--	--	--	1	20 A	SPARE	34	--
--	35	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--			-- --	--	--	--	1	--	SPACE	42	--
					Total Load:			12.28 kVA		11.15 kVA	9.79 kVA							
					Total Amps:			104.05		94.63	81.59							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	2.733 kVA	100.00%	2.733 kVA
Power	27.242 kVA	100.00%	27.242 kVA
Receptacles	3.24 kVA	100.00%	3.24 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	33.22 kVA
TOTAL ESTIMATED DEMAND LOAD:	33.215 kVA
TOTAL CONNECTED AMPS:	92.20 A
TOTAL ESTIMATED DEMAND AMPS:	92.2 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17685 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 01 EP6.3	TITLE OF SHEET MAURICE BATHHOUSE ELECTRICAL SCHEDULES REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 626 180065 PMIS/PKG NO. 318674 SHEET 190 OF 286

10/27/2023 11:58 PM

LED LUMINAIRE SCHEDULE

(DESC) DOOR:	**DISTRIBUTION:**	**BEAMWIDTH:**	**(L/L) LENS/LOUVER:**	K19 - KSH19 .156" ACRYLIC
FA - FLAT ALUMINUM	II - ANSI/IES TYPE 2 DISTRIBUTION	NSP - VERY NARROW SPOT	A - .125" ACRYLIC	M - MATTE DIFFUSE CLEAR
FS - FLAT STEEL	III - ANSI/IES TYPE 3 DISTRIBUTION	SP - SPOT	B - BAFFLE/LOUVER	N - NONE
RA - REGRESSED ALUMINUM	IV - ANSI/IES TYPE 4 DISTRIBUTION	MD - MEDIUM	C - CLEAR ALZAK	P - POLYCARBONATE
RS - REGRESSED STEEL	V - ANSI/IES TYPE 5 DISTRIBUTION	WD - WIDE	F - FROSTED ACRYLIC	R - HIGH IMPACT DR ACRYLIC
FINISH:		VWD - VERY WIDE	G - TEMPERED GLASS	SS - SEMI-SPECULAR CLEAR
PAF - PAINT AFTER FABRICATION		WW - WALL WASH	K - KSH12 .125" ACRYLIC	O - OTHER (SEE DESCRIPTION)
CFSA - COLOR-FINISH SELECTION BY ARCHITECT				[DESIGN SPECIFIC BLANKS]
(MTG) MOUNTING:	RE - RECESSED		**(WATT) PER:**	FIX - FIXTURE, FT - FOOT, LAMP
CL - CEILING SURFACE	SP - SUSPENDED		**(TYPE) LED**	RGB - COLOR CHANGING LED
CV - COVE	SU - SURFACE		LED - LIGHT EMITTING DIODE	RGBW - COLOR CHANGING + WHITE
FR - FLANGED RECESSED	UC - UNDER CABINET		TLED - TUBULAR LED LAMP	RGBA - COLOR CHANGING + AMBER
P - PERIMETER	WL - WALL		OLED - ORGANIC LED	RLED - RETROFIT LED
PL - POLE	O - OTHER (SEE DESCRIPTION)		DLED - DYNAMIC TUNABLE LED	WLED - WARM DIM LED
(TYPE) DRIVER:				
0-10V - 0-10V DIMMING	EB - ELECTRONIC	HL - HIGH/LOW (100%/50%) STEP DIM		MV - MULTI-VOLTAGE ELECTRONIC
DALI - DIGITAL ADDRESSABLE	ELV - ELECTRONIC LOW VOLTAGE	LINE - LINE VOLTAGE DIMMING		REM - REMOTE
DMX - DIGITAL MULTIPLEX	EM - EMERGENCY BATTERY	ML - MULTI-LEVEL SWITCHING		O - OTHER (SEE DESCRIPTION)

CATALOG NUMBER SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE CATALOG NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURER LISTED IS THE BASIS OF DESIGN.

VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH ARCHITECT AND INTERIOR DESIGNER PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER.
UNLESS INDICATED ON LIGHTING PLANS OR BELOW, REFER TO ARCHITECTURAL AND INTERIOR DESIGN ELEVATIONS, SECTIONS AND DETAILS FOR ALL SUSPENDED AND WALL MOUNTED LUMINAIRE MOUNTING HEIGHTS.

				DIMENSIONS				WATT		LED			DRIVER		
ITEM	DESCRIPTION	L/L	MTG	L	W	H	DIA.	ANSI WATTS	PER	TYPE	QTY	DELIVERED LUMENS (MIN)	VOLTS	TYPE	MANUFACTURER AND MODEL
E2	WALL PACK WITH EMERGENCY BATTERY BACKUP. BLACK FINISH. BLACK CORD. FURNISH WITH INTREGRAL PHOTOCELL.	O	WL	1'-0 77/256"	6 13/128"	8 205/256"		16 W	FIX	LED	1	3500K CCT, 1500 NOMINAL LUMENS, 80 CRI	120 V	120V	GARDCO WALL MOUNT GEO FORM GBM LED WALL SCONCE OR APPROVED EQUAL
EM1	EMERGENCY UNIT, TWO ADJUSTABLE HEADS, HOUSING COLOR PER ARCHITECT. PROVIDE WITH BATTERY BACKUP AND SELF-DIAGNOSTIC TEST.	O	WL	1'-0 1/4"	3 3/4"	4"		2 W	FIX	LED	1	LED	120 V	EM	EMERGI-LITE EL-2SQL LED OR APPROVED EQUAL
EX1	EXIT SIGN RED LETTER, BLACK HOUSING. PROVIDE WITH BATTERY BACKUP AND SELF-DIAGNOSTICS TEST.	O	WL/CL	1'-0 3/4"	4 5/16"	7 1/2"		3.8 W	FIX	LED	1	LED	120 V	EM	LSL LSX OR APPROVED EQUAL
S4	SQUARE LENSED FIXTURE. SUSPEND AT 8'-0" AFF OR MOUNT TO CEILING, WHICHEVER IS LOWER	A	CL/SP/WL	4'-0"	2 3/4"	3 5/8"		7.5 W	FT	LED	1	3500K CCT, 3681 NOMINAL LUMENS, 80 CRI	120 V		UTOPIA LIGHTING SS OR APPROVED EQUAL
S8	SQUARE LENSED FIXTURE. SUSPEND AT 8'-0" AFF OR MOUNT TO CEILING, WHICHEVER IS LOWER. FURNISH WITH BATTERY PACK WHERE NOTED.	A	CL/SP/WL	8'-0"	3 5/8"	3 5/8"		7.5 W	FT	LED	1	3500K CCT, 3681 NOMINAL LUMENS, 80 CRI	120 V		UTOPIA LIGHTING SS OR APPROVED EQUAL

NOTES:

1. LIGHT FIXTURES ON PLANS SHOWN AS HALF-SHADED OR INDICATED WITH 'EM' SHALL HAVE AN INTEGRAL EMERGENCY BATTERY PACK. PROVIDE A BATTERY INVERTER AS NEEDED.

LIGHTING SEQUENCE OF OPERATION

NOTES:
1. {L##} DENOTES THE LIGHTING SEQUENCE OF OPERATIONS FOR THIS SPACE.
2. [##B] PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF [RAISE/LOWER AND] SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS AND THE LIGHTING SEQUENCE OF OPERATIONS {L##}. COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER.
3. [Z#] DENOTES LIGHTING CONTROL ZONE. PROVIDE SEPARATE CONTROL OF EACH CONTROLLED ZONE. LUMINAIRES ASSOCIATED WITH THE SAME ZONE SHALL OPERATE TOGETHER WITHIN THE SAME PROGRAMMED SCENE.
4. a = SWITCH DESIGNATION FOR LIGHTING CONTROL
5. VERIFY AND COORDINATE ALL TIME CLOCK SETTINGS WITH OWNER PRIOR TO FINAL PROGRAMMING.
6. VERIFY AND COORDINATE ALL PUSH BUTTON WALL DEVICES AND QUANTITIES OF INDIVIDUAL BUTTONS WITH SCENES AND ZONES PER LOCATION.
7. VERIFY AND COORDINATE ALL PUSH BUTTON QUANTITIES AND SCENE NAMES WITH OWNER PRIOR TO SUBMITTING ENGRAVING TEMPLATE TO MANUFACTURER.

PLAN ID	LIGHTING SWITCHED
{LS1}	Sequence: Switched lights are controlled in this space. ON: The lights turn on manually via lighting switch. OFF: The lights turn off manually via lighting switch.
{LS2}	Sequence: Switched lights are vacancy controlled in this space. ON: The lights shall turn on manually via lighting switch. OFF: After the space has been vacant for 20 minutes, the lights will automatically turn off via occupancy sensor or manually via lighting switch.
{PC1}	Sequence: Switched lights are controlled in this space. ON: The lights turn on using integral photocell. OFF: The lights turn off using integral photocell.

SWITCHBOARD SB-LM

ENCLOSURE: NEMA 1
FED FROM: 20 A/3P @ UTILITY TRANSFORMER
LOCATION: MECHANICAL 106

SOLID NEUTRAL
GROUND BUS

MAIN: 1,000 A MCCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 22 kA
ISC: 16.40 kA

NOTES: **1. ALL CIRCUIT BREAKERS SHALL HAVE LSI ADJUSTMENT. 2. SELECTIVE COORDINATION IS REQUIRED FOR ALL CIRCUIT BREAKERS. 3. PROVIDE WITH METERING FOR ALL CIRCUIT BREAKERS. 4. MAIN CIRCUIT BREAKER FOR SB-LM SHALL BE FURNISHED WITH LSIG ADJUSTMENT.**

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	DP-L	174.36 kVA	3	1,200 A	800 A			(2) SETS OF 4#500 & 1#1/0 EGC IN 3-1/2" C.	
2	L1	4.16 kVA	3	250 A	200 A			4#3/0 & 1#6 EGC IN 2-1/2" C.	
3	L2	3.27 kVA	3	250 A	200 A			4#3/0 & 1#6 EGC IN 2-1/2" C.	
4	SPARE	0 kVA	3	250 A	200 A	--	--	--	--
5	SPARE	0 kVA	3	150 A	100 A	--	--	--	--
6	SPACE	--	3	--	--	--	--	--	--
7	SPACE	--	3	--	--	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	2.894 kVA	100.00%	2.894 kVA		
Power	174.764 kVA	100.00%	174.764 kVA	**TOTAL CONNECTED LOAD:**	181.80 kVA
Receptacles	4.14 kVA	100.00%	4.14 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	181.798 kVA
				TOTAL CONNECTED AMPS:	504.62 A
				TOTAL ESTIMATED DEMAND AMPS:	504.6 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

DISTRIBUTION PANEL DP-L

ENCLOSURE: NEMA 1
FED FROM: 800 A/3P @ SB-LM
LOCATION: MECHANICAL 106

SOLID NEUTRAL
GROUND BUS

MAIN: 800 A MCCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 22 kA
ISC: 15.65 kA

NOTES: **PROVIDE METERING FOR ALL CIRCUIT BREAKERS.**

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	AHU-1L: MECHANICAL 107	36.39 kVA	3	150 A	125 A			3#1 & 1#6 EGC IN 1-1/2" C.	
2	AHU-2L: MECHANICAL 114	50.8 kVA	3	200 A	175 A			3#2/0 & 1#6 EGC IN 2" C.	
3	ACCU-1: OUTSIDE	36.39 kVA	3	150 A	125 A			3#1 & 1#6 EGC IN 1-1/2" C.	
4	ACCU-2: OUTSIDE	50.8 kVA	3	200 A	175 A			3#2/0 & 1#6 EGC IN 2" C.	
5	SPARE	0 kVA	3	250 A	200 A	--	--	--	--
6	SPARE	0 kVA	3	150 A	100 A	--	--	--	--
7	SPACE	--	3	--	--	--	--	--	--
8	SPACE	--	3	--	--	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	174.364 kVA	100.00%	174.364 kVA		
				TOTAL CONNECTED LOAD:	174.36 kVA
				TOTAL ESTIMATED DEMAND LOAD:	174.364 kVA
				TOTAL CONNECTED AMPS:	483.99 A
				TOTAL ESTIMATED DEMAND AMPS:	484 A

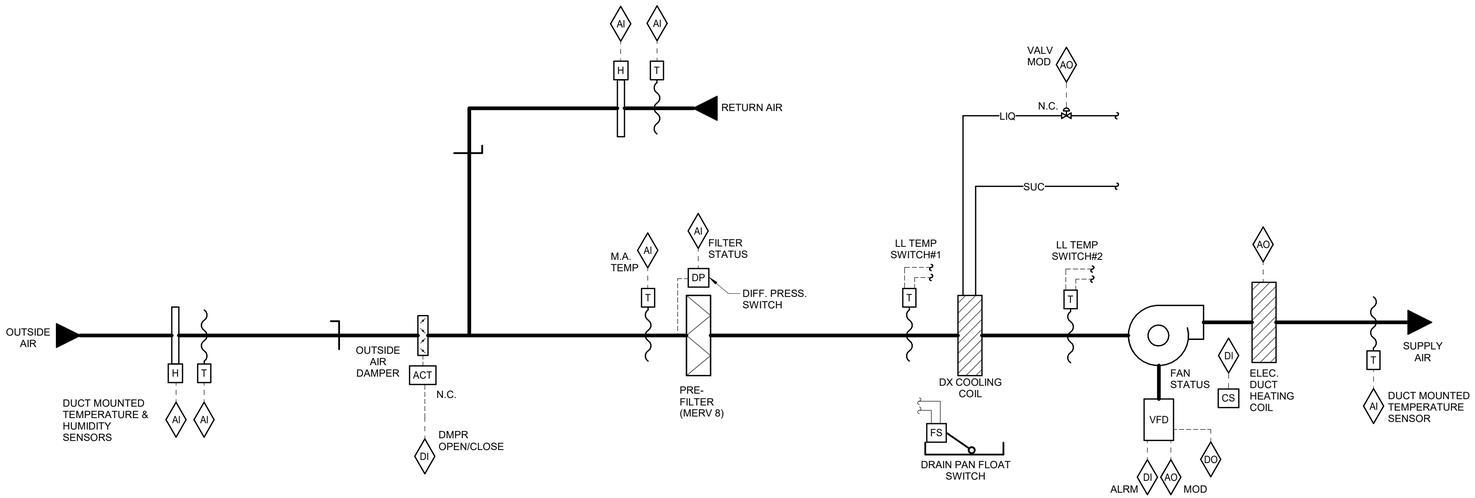
*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

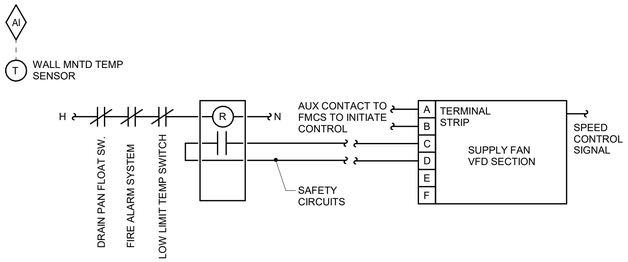
CIRCUIT KEY NOTES:

IMEG Consultants Corp. No. 4306 ARKANSAS
STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM
10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EP6.1	TITLE OF SHEET LIBBEY BATHHOUSE ELECTRICAL SCHEDULES REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 191 OF 286

10/27/2023 11:50:39 AM





SUPPLY FAN VFD CONTROL

CONNECT FIRE ALARM TO AHU START/STOP CIRCUIT SO FIRE ALARM CAN SHUT DOWN AND SO AHU CAN AUTOMATICALLY RESTART AFTER A FIRE ALARM TEST

AHU OUTSIDE AIR FLOW RATE SCHEDULE

SYSTEM	HIGH MINIMUM OUTSIDE AIR FLOW RATE (CFM)	LOW MINIMUM OUTSIDE AIR FLOW RATE (CFM)
AHU-1L	650	650
AHU-2L	700	700

SEQUENCE OF OPERATION:

WHEN AHU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR:
SUPPLY FAN SHALL BE ENABLED TO RUN.

SUPPLY AIR TEMPERATURE CONTROL:
- THE SUPPLY AIR TEMPERATURE WILL BE CONTROLLED TO MAINTAIN THE SPACE COOLING SETPOINT OF 80ºF (ADJ) AND HEATING SETPOINT OF 65ºF (ADJ). THE DX COOLING COIL & ELECTRIC HEATING COIL SCR IN SEQUENCE SO THAT SIMULTANEOUS COOLING & HEATING ARE NOT POSSIBLE EXCEPT IN DEHUMIDIFICATION MODE.
- THE MAXIMUM ALLOWABLE RETURN AIR HUMIDITY SETPOINT SHALL BE 60% (ADJ.). IF RETURN AIR HUMIDITY IS GREATER THAN SETPOINT, RESET DISCHARGE AIR TEMPERATURE TO 52°F UNTIL RETURN AIR HUMIDITY IS 5% LESS THAN MAXIMUM SETPOINT FOR 10 MINUTES (ADJ.).

COOLING COIL OPERATION:
BAS SHALL MODULATE THERMAL EXPANSION VALVE AS REQUIRED TO MAINTAIN THE COOLING TEMPERATURE SET POINT.

HEATING COIL OPERATION:
THE SCR CONTROLLER WILL BE MODULATED TO MAINTAIN THE SPACE HEATING SETPOINT.

ALARMS, INTERLOCKS, AND SAFETIES:
WHEN FIRE ALARM CONTROL PANEL INDICATES AN ALARM CONDITION, AHU SHALL BE SHUT DOWN.

THE FOLLOWING CONDITIONS SHALL SHUT DOWN THE AHU AND SHALL INDICATE AN ALARM CONDITION AT THE BAS WORKSTATION:
- SHOULD ANY ONE FOOT SECTION OF THE MANUAL RESET LOW LIMIT TEMPERATURE SWITCH #1 SENSE AIR TEMP <34°F (ADJ.). IF MULTIPLE FREEZE STATS ARE REQUIRED, WIRE ALL TO A COMMON RESET SWITCH.
- WHEN THE DRAIN PAN OVERFLOW FLOAT SWITCH IS ACTIVATED.

THE FOLLOWING CONDITIONS SHALL INDICATE AN ALARM AT THE FMCS, HOWEVER AHU SHALL CONTINUE TO OPERATE:
- AN ALARM IS INDICATED AT ANY SUPPLY FAN VFD.
- DIFFERENTIAL PRESSURE TRANSDUCER ACROSS FILTER BANK EXCEEDS 1.5 INCHES W.G. (ADJ.)
- SHOULD ANY ONE FOOT SECTION OF THE AUTO RESET LOW LIMIT TEMPERATURE SWITCH #2 SENSE AIR TEMPERATURE <38°F (ADJ.) THE FOLLOWING SHALL OCCUR:
  - THE RETURN AIR DAMPER SHALL FULLY OPEN.
  - THE OUTSIDE AIR DAMPER SHALL FULLY CLOSE.
  - THIS ACTION SHALL OCCUR INDEPENDENT OF THE BAS AHU CONTROLLER. ONCE THE LOW LIMIT TEMPERATURE SWITCH #2 AIR TEMPERATURE RISES ABOVE SET POINT, OPERATION OF THE OUTSIDE AIR, RELIEF AIR, AND RETURN AIR DAMPERS SHALL BE RESTORED. HOWEVER, THE ALARM SHALL CONTINUE UNTIL ACKNOWLEDGED AND MANUALLY RESET BY THE BAS OPERATOR.
- SEND AN ALARM TO THE BAS OPERATOR INTERFACE IF THE DISCHARGE AIR TEMPERATURE IS MORE THAN 5°F (ADJ.) ABOVE OR BELOW SETPOINT.

WHENEVER AHU IS SHUT DOWN THE FOLLOWING SHALL OCCUR:
- THE OUTSIDE AIR DAMPER SHALL FULLY CLOSE.
- SUPPLY FAN VFD SHALL BE DE-ENERGIZED.

1 AIR HANDLING UNIT - DX COOLING AND ELECTRIC HEAT

NO SCALE

IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENCHATT

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: CADD: TECH. REVIEW: DATE: 10.27.2023	SUB SHEET NO. 02 ME8.0	TITLE OF SHEET LIBBEY BATHHOUSE TEMPERATURE CONTROLS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 192 OF 286

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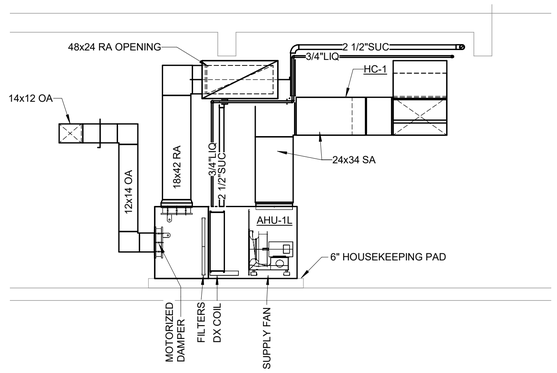
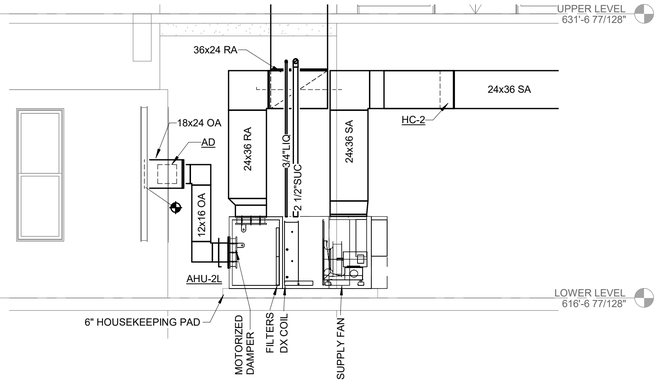


2 AHU-1L SECTION

1/4" = 1'-0"



3 AHU-2L SECTION

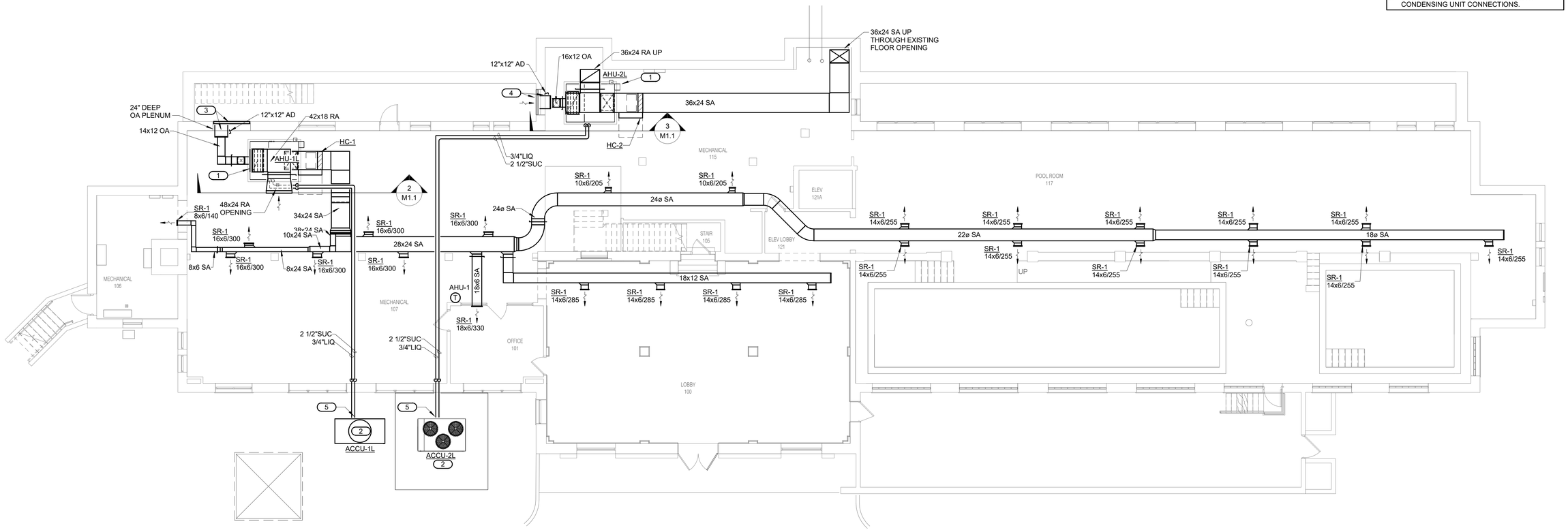
1/4" = 1'-0"

SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. AIR HANDLING UNIT WITH MIN. OA, MERV 8 FILTRATION, AIRFOIL PLENUM SUPPLY FAN AND ELECTRIC DUCT HEATING COIL WITH SCR CONTROL SET UNIT ON 6" MIN. HIGH CONCRETE HOUSEKEEPING PAD. PROVIDE WITH INTEGRAL CONTROLLER AND 7-DAY PROGRAMMABLE THERMOSTAT.
2. CONDENSING UNIT ANCHORED TO CONCRETE PADS WITH ISOLATION MOUNTS. ROUTE REFRIGERANT PIPING TO AIR HANDLING UNIT. PROVIDE REFRIGERANT PIPING RAIN SHIELDS AT PIPING PENETRATIONS OF EXTERIOR WALL.
3. INSTALL NEW 5'-9"x7'-1" RUSKIN ELF 375 DX OR EQUAL LOUVER FULL SIZE OF EXISTING WINDOW OPENING. FIELD VERIFY EXISTING OPENING SIZE. PROVIDE 24" DEEP INSULATED OA PLENUM CONNECTED TO LOUVER. BLANK OFF UNUSED PORTION OF LOUVER WITH INSULATED SHEET METAL SANDWICH PANEL.
4. CONNECT NEW INSULATED 24" DEEP PLENUM TO EXISTING LOUVER. BLANK OFF UNUSED PORTION OF LOUVER WITH INSULATED SHEET METAL SANDWICH PANEL.
5. PROVIDE HOT GAS BYPASS SYSTEM AT CONDENSING UNIT CONNECTIONS.



1/M1.1 LOWER LEVEL PLAN - MECHANICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODENHEIMER

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 M1.1	LIBBEY BATHHOUSE LOWER LEVEL PLAN - MECHANICAL	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: SGB			SHEET 193 OF 286
	DATE: 10.27.2023			

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KEYNOTES

08.09 COVER GLAZED LAYLIGHTS ENTIRELY WITH PLYWOOD, SECURED FROM ATTIC SIDE.

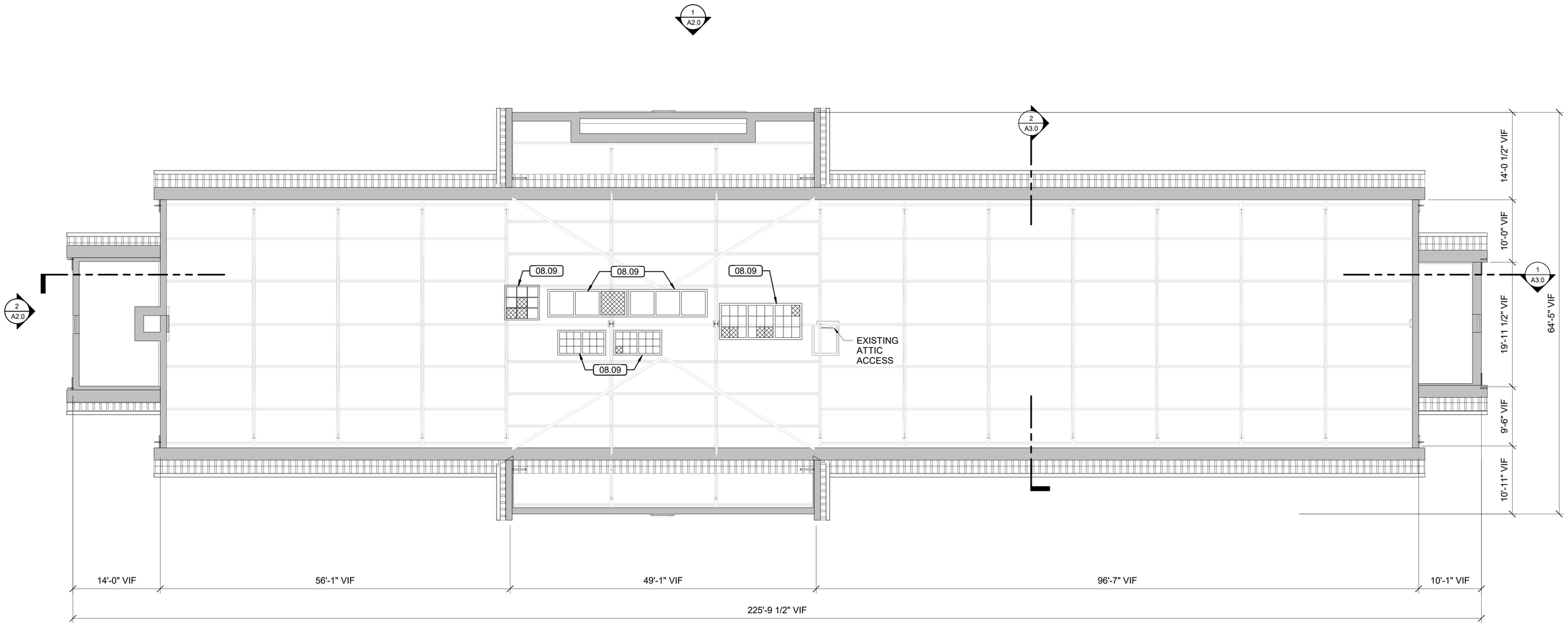
NEW WORK ATTIC PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

REMOVE BROKEN GLASS PIECES

NEW WORK ATTIC PLAN GENERAL NOTES

1. HISTORIC LOBBIES, MEN'S BATH, AND VERTICAL CIRCULATION TO REMAIN AS-IS.
2. PROVIDE CONT. R-19 BATT INSULATION OVER EXIST. UPPER FLOOR CEILINGS TO REMAIN THROUGHOUT FULL EXTENTS OF ATTIC.
3. PROVIDE SAFE ACCESS AT ATTIC LEVEL. NOTIFY CONTRACTING OFFICER ONCE ACCESS IS AVAILABLE FOR ADDITIONAL INVESTIGAITON TO BE CONDUCTED OF PARGE COAT AT UNDERSIDE OF ROOF.



1 A1.3 ATTIC LEVEL PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02 A1.3	LIBBEY BATHHOUSE ATTIC PLAN	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 194 OF 286
	DATE: 10.27.2023			

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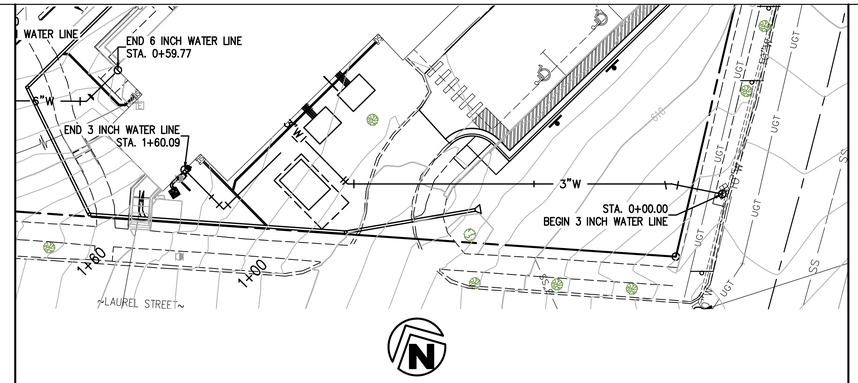
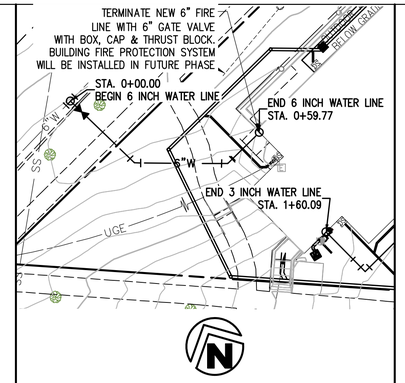
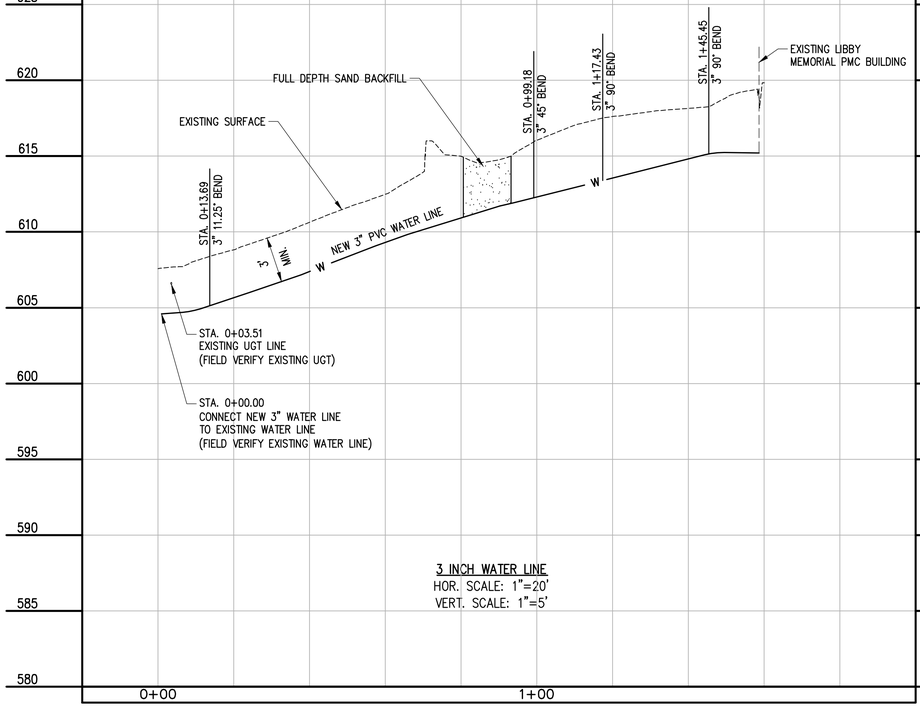
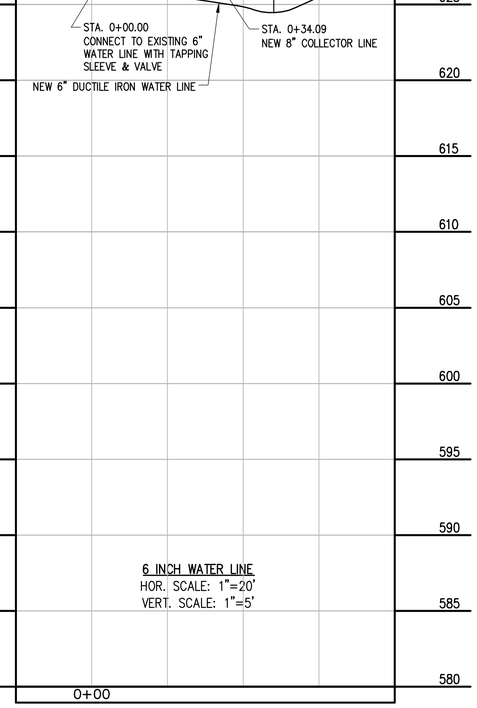




GRAPHIC SCALE IN FEET
20' 0 20'



3 INCH WATER LINE
HOR. SCALE: 1"=20'
VERT. SCALE: 1"=5'



6 INCH WATER LINE
HOR. SCALE: 1"=20'
VERT. SCALE: 1"=5'

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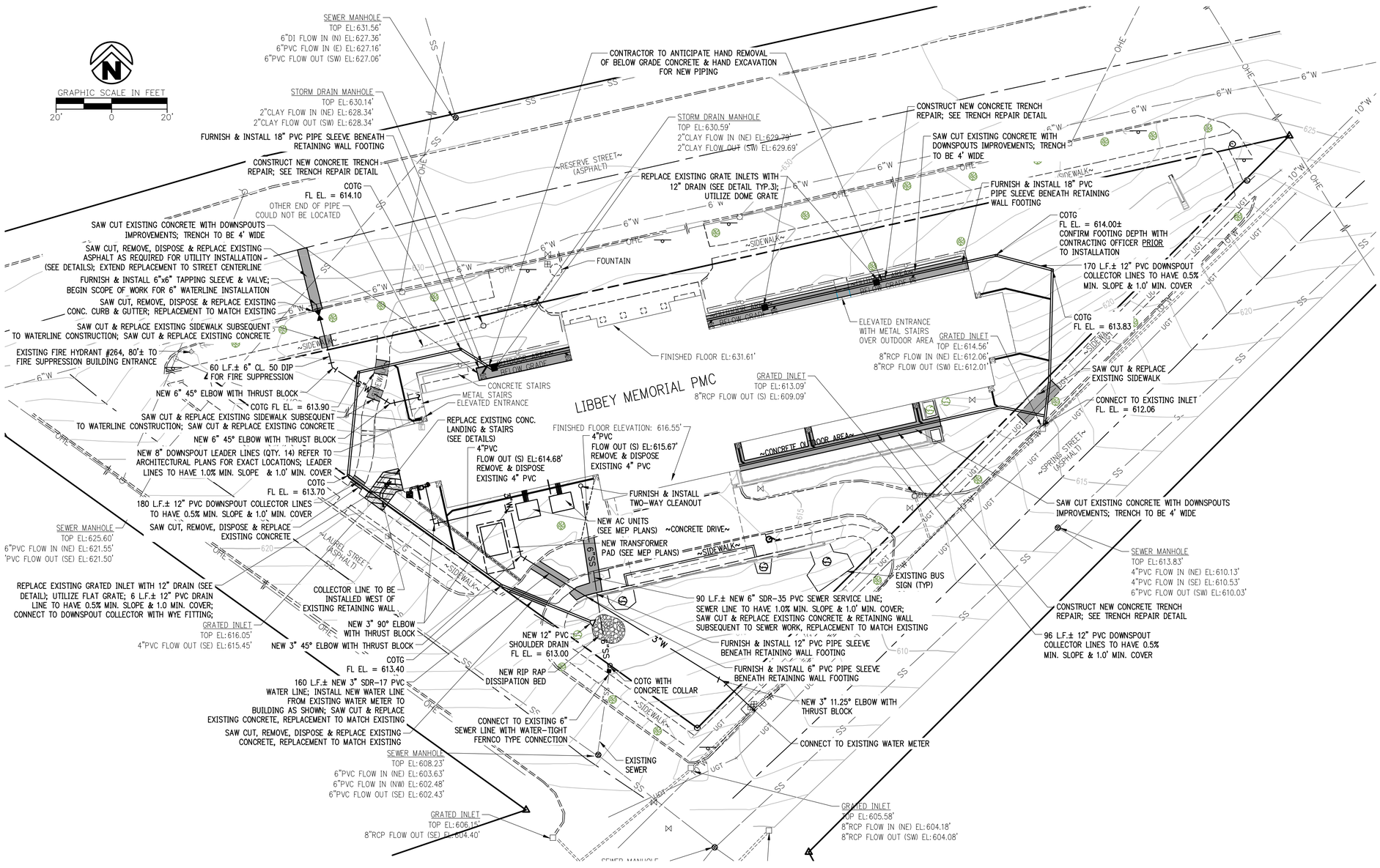
STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE, JR.
10/27/23

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	02	LIBBEY BATHHOUSE PROPOSED WATER LINE P&P REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
CIVIL/SURVEY: **CRAFTON TULL** 908 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	CADD: RU TECH. REVIEW: MB DATE: 10.27.2023	C2.1		PMIS/PKG NO. 318915 SHEET 195 OF 286



UTILITY NOTES

1. THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF EXISTING UTILITIES WITHIN THE WORK ZONE.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES' INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING FACILITIES. CONTRACTOR SHALL COORDINATE AND SCHEDULE TIE-INS/CONNECTIONS WITH ALL UTILITY COMPANIES.
3. ALL UNDERGROUND LINES SHALL BE INSTALLED, INSPECTED, AND APPROVED PRIOR TO BACKFILLING.
4. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
5. GENERAL CONTRACTOR IS TO COORDINATE WITH APPROPRIATE UTILITY COMPANIES PRIOR TO CONSTRUCTION, ADJUSTMENT, OR RELOCATION OF EXISTING UTILITIES.
6. THRUST BLOCKING SHALL BE PROVIDED AT ALL BENDS, TEES, AND FIRE HYDRANTS.
7. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
8. MINIMUM HORIZONTAL SEPARATION BETWEEN WATERLINES AND SANITARY/STORM SEWERS SHALL BE AT LEAST TEN FEET. WHERE WATERLINES CROSS SANITARY SEWERS THE WATERLINE SHALL BE PLACED ABOVE THE SEWER WITH A MINIMUM VERTICAL SEPARATION, OUTSIDE-TO-OUTSIDE, OF 18". IF IT IS NOT POSSIBLE TO CONFORM TO THESE DIMENSIONS OR DEFINED PLACEMENT, THE WATERLINE SHALL BE PLACED BELOW THE SEWER AND ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. A MINIMUM VERTICAL SEPARATION, OUTSIDE TO OUTSIDE, OF 18" SHALL BE MAINTAINED IF THE WATERLINE IS PLACED BELOW THE SEWER.
9. THE CONTRACTOR SHALL INCLUDE IN THE BID PRICE ALL MATERIAL AND LABOR ASSOCIATED WITH THE TESTING OF THE WATER AND SEWER LINES REQUIRED BY THE LOCAL AND/OR STATE AGENCIES.
10. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH FINISHED PAVEMENT ELEVATIONS, AND MANHOLES IN UNPAVED AREAS TO BE 2" ABOVE FINISHED GROUND ELEVATIONS WITH WATER TIGHT LIDS.
11. ALL TRENCHING, PIPE LAYING, AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL REGULATIONS.
12. REFER TO BUILDING PLANS FOR SITE LIGHTING AND ELECTRICAL PLAN.
13. ALL MATERIALS, CONSTRUCTION, AND INSPECTION FOR WATER AND SANITARY SEWER LINES SHALL BE PER THE SPECIFICATIONS OF THE APPROPRIATE AGENCY.
14. THE CONTRACTOR SHALL COORDINATE WITH THE FIRE DEPARTMENT AND THE WATER COMPANY TO PLAN THE IMPROVEMENTS TO THE WATER MAINS AND TO ENSURE ADEQUATE FIRE PROTECTION IS CONSTANTLY AVAILABLE TO THE SITE THROUGHOUT THE PROJECT. CONTRACTOR WILL BE RESPONSIBLE FOR ARRANGING ANY REQUIRED WATER MAIN SHUT-OFFS WITH THE WATER COMPANY DURING CONSTRUCTION. ALL COSTS ASSOCIATED WITH WATERMAIN SHUT-OFFS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR; NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
15. DAMAGE TO ALL EXISTING FACILITIES DESIGNATED TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
16. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF VESTIBULES, SLOPE PAVING, SIDEWALKS, EXIT PORCHES, TRUCK DOCKS, PRECISE BUILDING DIMENSIONS, AND EXACT UTILITY ENTRANCE LOCATIONS.
17. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED AS WELL AS COSTS OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.
18. GENERAL CONTRACTOR SHALL PROVIDE ALL CONDUITS AS SHOWN ON THE PLANS, VERIFY LOCATION OF UTILITY TIE-INS, AND PROVIDE NYLON PULL CORDS INSIDE THE CONDUIT.
19. THE CONTRACTOR SHALL INCLUDE IN BID PRICE THE DAILY RECORD KEEPING OF THE RECORD CONDITION OF ALL OF THE UNDERGROUND UTILITIES, CONSTRUCTION STAKE-OUT, PREPARATION OF THE NECESSARY/REQUIRED WATER AND SEWER RECORD DRAWINGS TO BE SUBMITTED, AND ALL OTHER INFORMATION REQUIRED FOR OBTAINING PERMITS AND RELEASE OF BONDS.
20. ENERGIZED ELECTRICAL LINE SAFETY WARNINGS, AND ADVANCED NOTICES: ALL OWNERS, GENERAL CONTRACTORS, AND SUBCONTRACTORS ASSOCIATED WITH THIS PROJECT SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH, COMPLYING WITH, AND THE ENFORCEMENT OF ARKANSAS CODES AR ST § 11-5-307 AND § AR ST 11-5-308 AND ANY OTHER CURRENT STATE CODES PERTAINING TO ADVANCE NOTICE REQUIREMENTS AND FOR SAFETY OF ALL PERSONNEL, INCLUDING THE GENERAL PUBLIC, PERTAINING TO ANY WORK, MOVEMENT, AND ACTIVITY IN CLOSE PROXIMITY TO ANY ENERGIZED ELECTRICAL LINE.
21. SANITARY SEWER SERVICE SHOWN HEREON IS ESTIMATED TO HAVE AN INVERT ELEVATION THREE FEET BELOW FINISH FLOOR (F.F.-3.0') AT THE BUILDING LINE. IF SANITARY SEWER SERVICE INVERT ELEVATION IS GREATER (DEEPER) THAN THE ELEVATION AS DESCRIBED ABOVE, CONTRACTOR TO CONTACT ENGINEER PRIOR TO COMMENCEMENT OF WORK. LIFT STATION DESIGN IS BASED ON SANITARY SEWER SERVICE INVERT ELEVATION AS PREVIOUSLY DESCRIBED.
22. THE EX. WATER & SEWER MAINS SHOWN HEREON WAS OBTAINED FROM THE CITY OF HOT SPRINGS. GIS EX. FORCE MAIN LOCATION & DEPTH TO BE VERIFIED PRIOR TO CONSTRUCTION.

LEGEND (CONSTRUCT)

SYMBOLS

- SET IRON PIN
- LIGHT POLE
- POWER POLE
- TELEPHONE PEDESTAL
- TV PEDESTAL
- MANHOLE
- SANITARY SEWER CLEANOUT
- GAS METER
- GAS VALVE
- STORM SEWER PIPE
- STRUCTURE NUMBER
- WATER VALVE
- FIRE HYDRANT ASSEMBLY
- AIR RELEASE VALVE
- FIRE DEPARTMENT CONNECTION
- WATER METER
- BACK FLOW PREVENTER
- REDUCER
- RECTANGULAR DROP INLET, GRATED INLET OR JUNCTION BOX (SPECIFY ON PLAN SHEET)
- CIRCULAR DROP INLET, GRATED INLET OR JUNCTION BOX (SPECIFY ON PLAN SHEET)

LINEWORK

- EASEMENT
- CURB
- INTERMEDIATE CONTOUR — 499
- INDEX CONTOUR — 500
- SANITARY SEWER LINE — SS
- GAS LINE — G
- WATER LINE — W
- UNDERGROUND TELEPHONE — UGT
- UNDERGROUND ELECTRIC — UGE
- OVERHEAD ELECTRIC — OHE
- FIBER OPTIC — FO
- UNDERGROUND TELEVISION
- WOOD FENCE
- BUILDING SET BACK
- RIGHT OF WAY
- PROPERTY LINE
- ROAD CENTERLINE

- SAW CUT
- REMOVE EXISTING AREA

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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE, JR.
02/27/23

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS ENGINEER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	02	LIBBEY BATHHOUSE	128 / 182951
	CADD: RU	C1.1	PROPOSED UTILITY PLAN	PMIS/PKG NO. 318915
CIVIL/SURVEY: **CRAFTON TULL** 908 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	TECH. REVIEW: MB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 196 OF 286
	DATE: 10.27.2023			

SEE SURVEYOR'S NOTE #2

SEWER MANHOLE
TOP EL:631.56'
6"DI FLOW IN (N) EL:627.36'
6"PVC FLOW IN (E) EL:627.16'
6"PVC FLOW OUT (SW) EL:627.06'

STORM DRAIN MANHOLE
TOP EL:630.14'
2"CLAY FLOW IN (NE) EL:628.34'
2"CLAY FLOW OUT (SW) EL:628.34'

11
MAG NAIL
N:1985585.97
E:996217.16
630.96

BRASS CAP IN CONCRETE

OTHER END OF PIPE
COULD NOT BE LOCATED

STORM DRAIN MANHOLE
TOP EL:630.59'
2"CLAY FLOW IN (NE) EL:629.79'
2"CLAY FLOW OUT (SW) EL:629.69'

~RESERVE STREET~
(ASPHALT)

CONCRETE BENCH

FOUNTAIN

~OUTDOOR AREA~
~BELOW GRADE~

SUPPORT COLUMNS
(TYPICAL IN THIS AREA)

24"DIA HEAVENLY
BAMBOO
48" DIA JASMINE

FINISHED FLOOR EL:631.61'

ELEVATED ENTRANCE
WITH METAL STAIRS
OVER OUTDOOR AREA

EDGE OF HISTORIC TILE

CONCRETE BENCH

LIBBEY MEMORIAL PMC

GRATED INLET
TOP EL:613.09'
8"RCP FLOW OUT (S) EL:609.09'

GRATED INLET
TOP EL:614.56'
8"RCP FLOW IN (NE) EL:612.06'
8"RCP FLOW OUT (SW) EL:612.01'

BRICK SIGN SUPPORT

12
60 PENNY NAIL
N:1985539.52
E:996418.20
622.66

5/8" ROD

5/8" ROD

5' DIA HOLLY
3' DIA HEAVENLY
BAMBOO

7' DIA ALBELIA
HOLLY
BRICK WALL
GATE

~SIDEWALK~
~GRASS~
~CONCRETE OUTDOOR AREA~

METAL STAIRS
ELEVATED ENTRANCE

CONCRETE RETAINING WALL

HANDRAILS
STAIRS

STAIRS TO LOWER ENTRANCE

FINISHED FLOOR ELEVATION: 616.55'

4"PVC
FLOW OUT (S) EL:615.67'

HANDRAIL
HANDRAIL

~CONCRETE DRIVE~

7' DIA HOLLY

~SPRING STREET~
(ASPHALT)

~LAUREL STREET~
(ASPHALT)

4"PVC
FLOW OUT (S) EL:614.68'
10"WILLOW OAK
11' DRIP

PAMPAS
GRASS

THORNY OLIVE
SHRUBS

5'X4' HOLLY
SHRUB LINE

CANOPY

BRICK WALL

3' DIA HOLLY

9.5' DIA HOLLY

11' DIA-THORNY
OLIVE

538
MAG NAIL
N:1985439.39
E:996115.06
621.14

818
MAG NAIL
N:1985437.15
E:996332.80
612.90

SEWER MANHOLE
TOP EL:625.60'
6"PVC FLOW IN (NE) EL:621.55'
6"PVC FLOW OUT (SE) EL:621.50'

GRATED INLET
TOP EL:616.05'
4"PVC FLOW OUT (SE) EL:615.45'

SEWER MANHOLE
TOP EL:608.23'
6"PVC FLOW IN (NE) EL:603.63'
6"PVC FLOW IN (NW) EL:602.48'
6"PVC FLOW OUT (SE) EL:602.43'

GRATED INLET
TOP EL:606.15'
8"RCP FLOW OUT (SE) EL:604.40'

SEWER MANHOLE
TOP EL:606.20'
6"PVC FLOW IN (SW) EL:602.00'
6"PVC FLOW IN (NW) EL:602.00'
6"PVC FLOW IN (NE) EL:602.05'
6"PVC FLOW OUT (SE) EL:601.90'

GRATED INLET
TOP EL:604.76'
FLOW OUT (SW) EL:603.26'

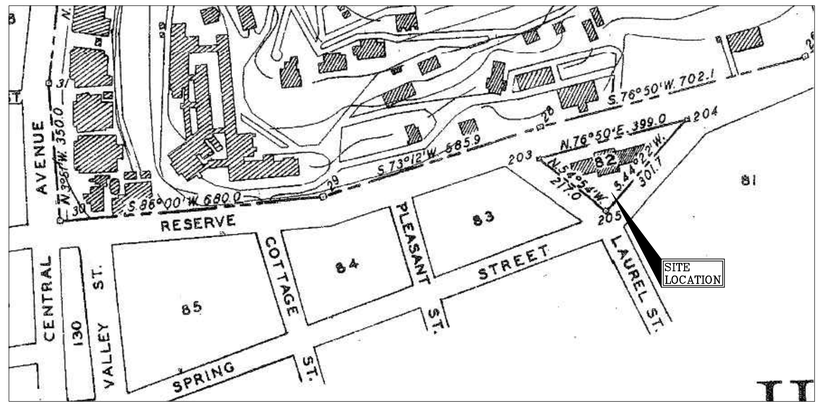
GRATED INLET
TOP EL:605.58'
8"RCP FLOW IN (NE) EL:604.18'
8"RCP FLOW OUT (SW) EL:604.08'

6" CONCRETE DISC

SEWER MANHOLE
TOP EL:613.83'
4"PVC FLOW IN (NE) EL:610.13'
4"PVC FLOW IN (SE) EL:610.53'
6"PVC FLOW OUT (SW) EL:610.03'

NOTES:

1. THIS MAP REPRESENTS A TOPOGRAPHIC SURVEY FOR STRATA ARCHITECTURE AND PRESENTATION FOR THE PURPOSE OF ENGINEERING DESIGN OF SITE IMPROVEMENTS.
2. NORTH IS REFERENCED TO NAD83 (2011) AR STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, U.S. SURVEY FEET AS DETERMINED BY GPS OBSERVATION.
3. ELEVATIONS ARE REFERENCED TO NAVD88 AS DETERMINED THROUGH GPS OBSERVATIONS.
4. UNDERGROUND UTILITIES ARE SHOWN BASED ON MARKINGS LEFT PURSUANT TO ARKANSAS ONE CALL LOCATE REQUEST TICKET NUMBER 220810-1854, GARLAND COUNTY, ARKANSAS GIS WEB SITE, AND ABOVE GROUND VISIBLE EVIDENCE. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THIS SURVEY TO DETERMINE THE EXISTENCE OR ACCURATE LOCATION OF UNDERGROUND UTILITIES. FIELD VERIFY ALL UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATIONS.
5. PROPERTY LINES SHOWN ARE BASED ON THE FINAL PLAT OF HOT SPRINGS NATIONAL PARK.
6. THIS PROPERTY LIES WITHIN THE CITY LIMITS OF HOT SPRINGS, ARKANSAS AND IS SUBJECT TO ZONING RESTRICTIONS FOR ZONE "R-4", MEDIUM/HIGH DENSITY RESIDENTIAL, PER TITLE 16 OF THE HOT SPRINGS CITY CODE, THE FOLLOWING RESTRICTIONS APPLY:
   A. THE FRONT YARD SETBACK IS 25 FEET.
   B. THE REAR YARD SETBACK IS 7.5 FEET.
   C. THE SIDE YARD SETBACK IS 7.5 FEET.
   D. MAXIMUM FLOOR TO AREA RATIO – 35%.
7. THE SUBJECT PROPERTY LIES IN FLOOD ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, BASED ON GRAPHICAL MAPPING AND SCALING ONLY FROM F.E.M.A. FLOOD INSURANCE RATE MAP NO. 05051C0345D, LAST REVISED JANUARY 20, 2010
8. FIELD WORK WAS COMPLETED AUGUST 16, 2022.
9. DRIP LINE MEASUREMENTS SHOWN HEREON REFLECT THE DISTANCE FROM THE TRUNK TO THE EDGE OF THE DRIP LINE.



LEGEND

- DOWNSPOUT
- SITE CONTROL AS NOTED
- FOUND MONUMENT AS NOTED
- CALCULATED POSITION
- FLAG POLE
- SIGN
- TREE
- SHRUB
- ELECTRIC BOX
- ELECTRIC METER
- HVAC UNIT
- GUY WIRE
- LIGHT POLE
- UTILITY POLE
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- GAS METER
- GAS VALVE
- STORM DRAIN MANHOLE
- SEWER MANHOLE
- CLEAN OUT
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- PROPERTY LINE
- ROAD CENTERLINE
- LOT LINE
- SS — SEWER
- SS — STORM DRAIN
- OHE — OVERHEAD ELECTRIC
- UGT — UNDERGROUND TELEPHONE
- W — UNDERGROUND WATER
- G — UNDERGROUND GAS LINE
- MAJOR CONTOUR (5')
- MINOR CONTOUR (1')

BENCHMARK TABLE

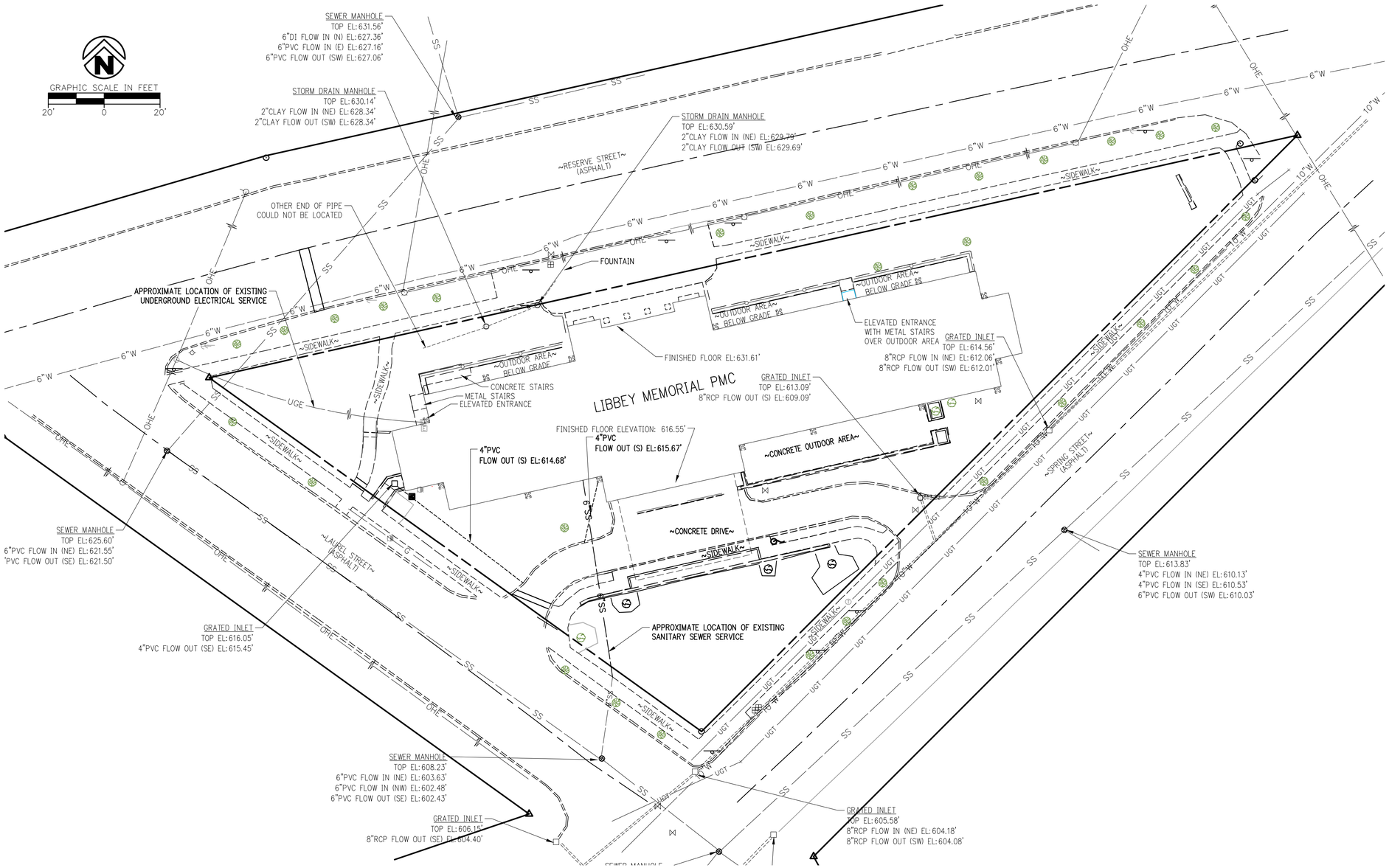
PT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
11	1985585.9740	996217.1650	630.96	TVSMAGNL
12	1985539.5180	996418.2030	622.66	TVS60PN
538	1985439.3870	996115.0630	621.14	TVSMAGNL
818	1985437.1510	996332.7950	612.90	TVSMAGNL

20 15 10 5 0 10 20 30 40 50
SCALE: 1" = 20'

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE JR.
10/27/23

CERTIFICATE OF AUTHORIZATION
CRAFTON, TULL & ASSOCIATES, INC.
No. 109
ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: **STRATA ARCHITECTURE** 1701 IOAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	--	02	LIBBEY PHYSICAL MEDICINE CENTER TOPOGRAPHIC SURVEY REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
CIVIL/SURVEY: **CRAFTON TULL** 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	CADD: CJM TECH. REVIEW: SJB DATE: 10.27.2023	C0.0		PMIS/PKG NO. 318915 SHEET 197 OF 286



LEGEND (EXISTING SYMBOLS)

SYMBOLS

- FOUND IRON PIN
- LIGHT POLE
- POWER POLE
- TELEPHONE PEDESTAL
- TV PEDESTAL
- MANHOLE
- SANITARY SEWER CLEANOUT
- GAS METER
- GAS VALVE
- STORM SEWER PIPE
- DOWN GUY
- WATER VALVE
- FIRE HYDRANT ASSEMBLY
- AIR RELEASE VALVE
- FIRE DEPARTMENT CONNECTION
- WATER METER
- SPRINKLER HEAD
- ELECTRIC PEDESTAL
- GRATED INLET
- DROP INLET
- TREE
- TREE TO BE REMOVED

LINEWORK

- EASEMENT
- CURB
- INTERMEDIATE CONTOUR
- INDEX CONTOUR
- SANITARY SEWER LINE
- GAS LINE
- WATER LINE (SPECIFY SIZE & TYPE)
- UNDERGROUND TELEPHONE
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- UNDERGROUND TELEVISION
- OVERHEAD TELEVISION
- CHAIN LINK FENCE
- WOOD FENCE
- FIBER OPTIC
- RIGHT OF WAY
- ROAD CENTERLINE

EXISTING UTILITY NOTE:

EXISTING UTILITIES SHOWN HEREON WERE LOCATED BASED ON ABOVE GROUND OBSERVABLE EVIDENCE, CITY OF HOT SPRINGS GIS & FIELD OBSERVATIONS. CONTRACTOR TO LOCATE EXISTING UTILITY SERVICE LINES, WITH DEPTHS, PRIOR TO CONSTRUCTION.

Arkansas One Call 811
Know what's **below**.
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STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No.15905
DANIEL L. GEORGE, JR.
07/27/23

CERTIFICATE OF AUTHORIZATION
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	CADD: RU		EXISTING UTILITY PLAN	PMIS/PKG NO. 318915
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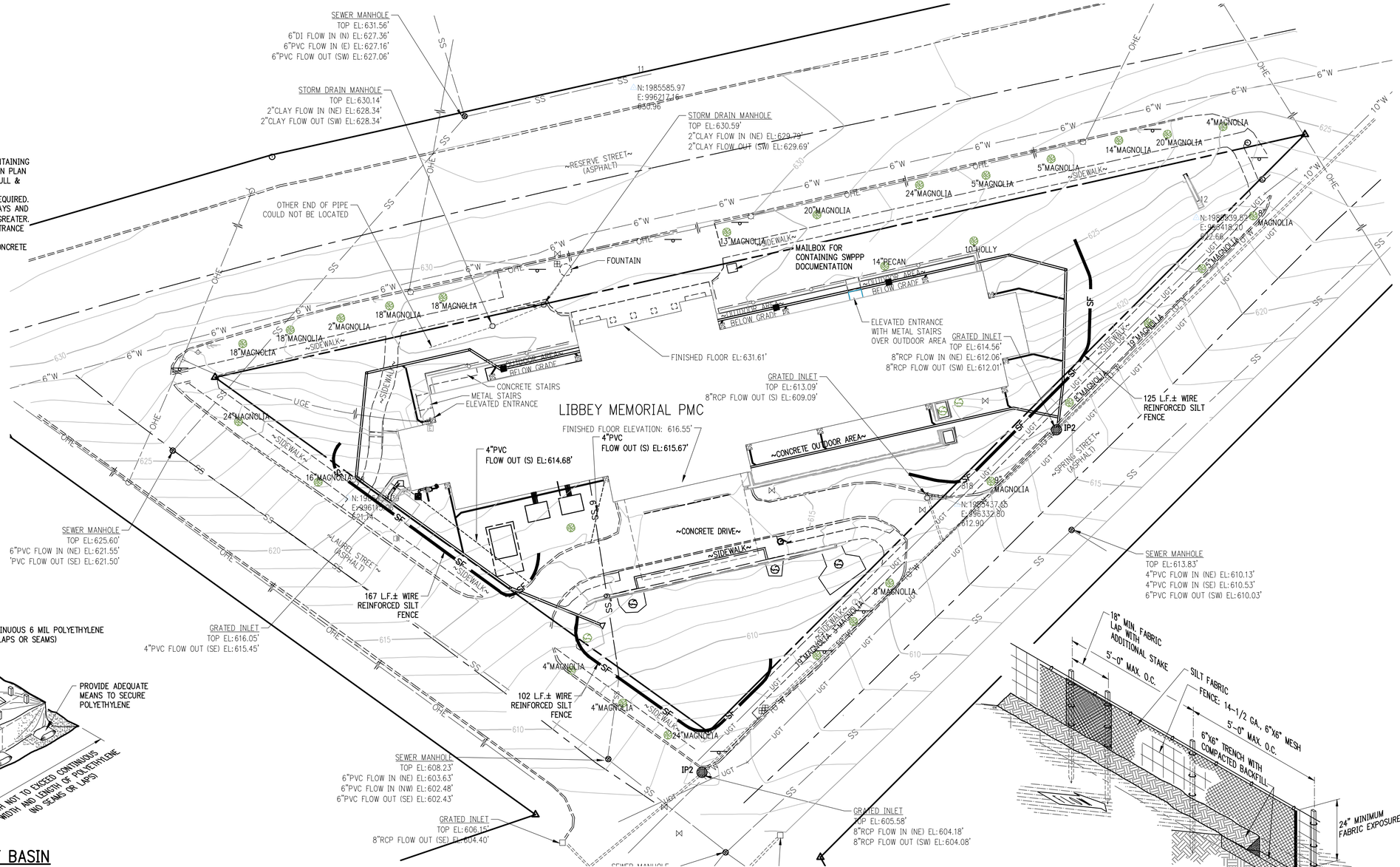
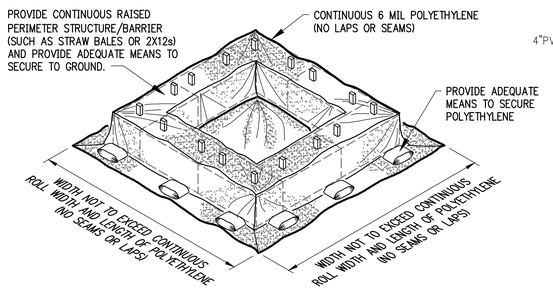
	DATE: 10.27.2023			

GRAPHIC SCALE IN FEET
20' 0 20'

EROSION CONTROL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING, MAINTAINING AND COMPLYING WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) DATED OCTOBER 2023 AND PREPARED BY CRAFTON, TULL & ASSOCIATES.
2. A CITY OF HOT SPRINGS STORMWATER PERMIT WILL NOT BE REQUIRED.
3. SITE INSPECTIONS MUST BE MADE AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT 0.25" OR GREATER.
4. THE SWPPP MAILBOX IS LOCATED AT THE RESERVE STREET ENTRANCE TO THE LIBBEY BATHHOUSE.
5. CONTRACTOR TO COORDINATE WITH OWNER FOR TEMPORARY CONCRETE WASHOUT LOCATION.





CONCRETE WASH-OUT BASIN
NTS

WIRE-BACKED SILT FENCE
NTS

EROSION CONTROL LEGEND

PS	PERMANENT SEEDING	CD	ROCK CHECK DAM	OP1	RIP RAP SLOPE PROTECTION (SEE SIZE THIS SHEET)
TPS	TEMPORARY PARKING AND STORAGE	CE	STABILIZED CONSTRUCTION EXIT (ENTRANCE)	ECL	PERMANENT EROSION CONTROL LINING
	BOUNDARY LINE	DD	CHANNELED DIVERSIONS	SB	TEMPORARY SEDIMENT BASIN
	RIGHT OF WAY LINE	DS	DEWATERING SYSTEM / STRUCTURE	FFT	FIBER FLOCCULENT TUBE
	LIMITS OF DISTURBANCE	SF	SILT FENCE		
	GRADE BREAK	ST	SEDIMENT BASIN WITH STONE OUTLET		
xxx	CONTOUR ELEVATIONS	IP1	BLOCK AND AGGREGATE INLET SEDIMENT DEVICE		
	STORM DRAIN	IP2	CURB INLET FILTER SOCK		
XX.X%	DIRECTION OF OVERLAND FLOW W/ GRADE	IP3	GRATED INLET GRAVEL SEDIMENT FILTER		
	LIMITS OF DRAINAGE SUB-BASIN	IP4	SILT FENCE INLET PROTECTION		

NOTE: SEE SITE PLAN FOR EXISTING LEGEND SYMBOLS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE, JR. 10/27/23

CRAFTON, TULL & ASSOCIATES, INC. No. 109 CERTIFICATE OF AUTHORIZATION ARKANSAS ENGINEER

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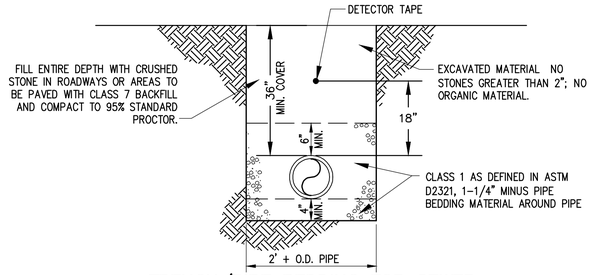
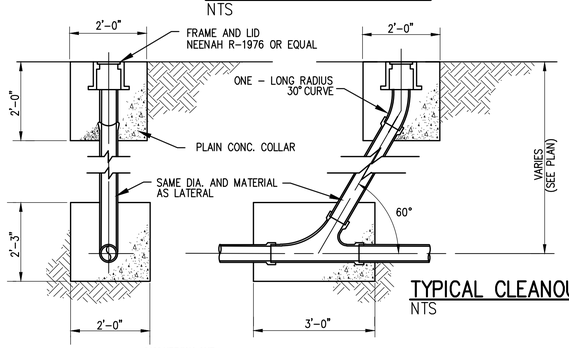
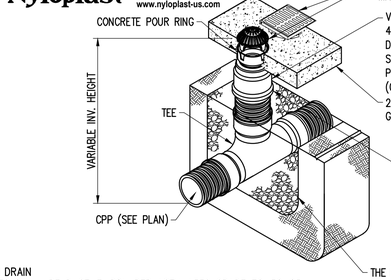
	DATE: 10.27.2023			



TRENCH/PIPE BEDDING FOR SEWER SANITARY SEWER MAINS
NTS



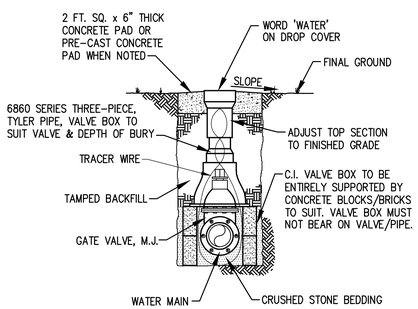
TYPICAL CLEANOUT
NTS



NOTES ON DRAIN
1. GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. DRAIN TO BE NYLOPLAST 2712AG OR APPROVED EQUAL WITH 12"ø RISER PIPE.
3. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), & PVC SEWER.

12" DRAIN DETAIL
SCALE: NTS

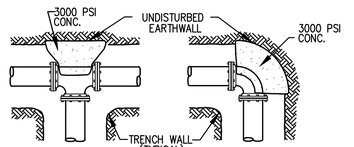
NOTES:
1. 6850 SERIES TWO-PIECE, TYLER PIPE, VALVE BOX TO SUIT VALVE AT DEPTH OF BURY EXCEEDING 4 FEET.
2. IF DEPTH OF BURY EXCEEDS 4 FT., A SELF-LOCKING VALVE EXTENSION STEM BY HUGHES SUPPLY SHALL BE REQUIRED. THE VALVE EXTENSION STEM SHALL EXTEND TO 2 FOOT BELOW FINISHED GRADE SURFACE



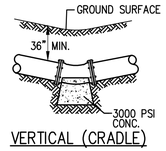
STANDARD DEPTH

GATE VALVE
NTS

NOTES:
1. ALL FITTINGS SHALL BE MECHANICAL JOINT WITH RETAINER GLANDS.
2. DO NOT COVER BELLS OR FLANGES WITH CONCRETE.
3. WRAP ALL FITTINGS WITH VISQUEEN.
4. BACK ALL TEES ACCORDING TO SIZE OF BRANCH.
5. BACKING FUTURE LINE EXTENSIONS SHALL BE SUCH THAT LATER REMOVAL IS POSSIBLE.
6. ALL BENDS WHERE FITTINGS ARE USED, BOTH HORIZONTAL AND VERTICAL, SHALL BE ANCHORED BY THRUST BLOCKING.
7. REACTION BACKING TABLE IS BASED ON 200 P.S.I. + WATER HAMMER (50% MINIMUM AND SOIL BEARING PRESSURE OF 2,000 LB./SQ. FT. ADDITIONAL BACKING MAY BE REQUIRED IN SOME AREAS AS DIRECTED BY ENGINEER.



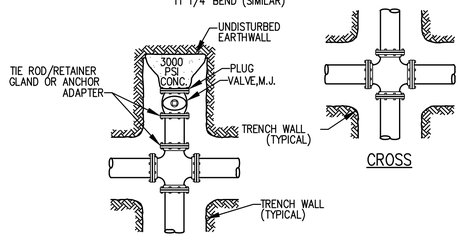
TEE



VERTICAL (CRADLE)

90° BEND
45° BEND (SIMILAR)
22 1/2° BEND (SIMILAR)
11 1/4° BEND (SIMILAR)

45° BEND
22 1/2° BEND (SIMILAR)
11 1/4° BEND (SIMILAR)



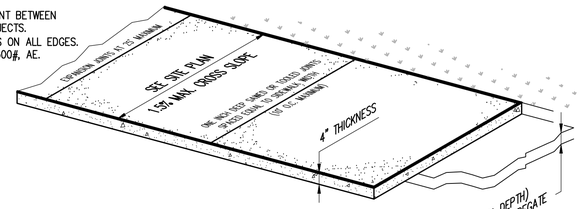
CROSS

CROSS WITH PLUG/CAP
TEE WITH PLUG (SIMILAR)

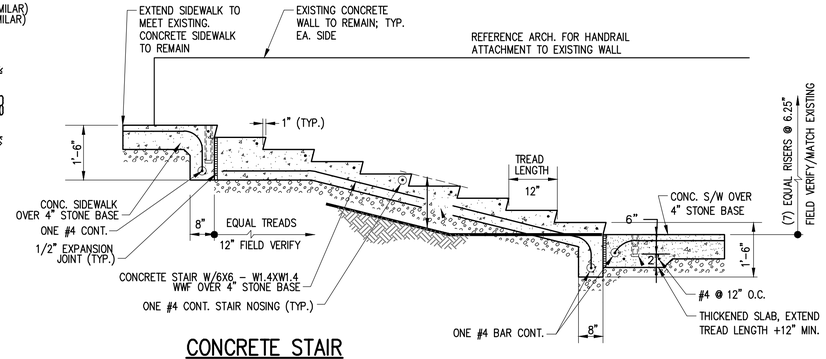
REACTION BACKING TABLE					
REQUIRED SQ. FT. OF UNDISTURBED EARTHWALL FOR REACTION BACKING					
SIZE	TYPE OF FITTINGS				
	TEE OR PLUG/CAP	90°	45°	22 1/2°	11 1/4°
2"	1	1	1	1	1
3"	1	1	1	1	1
4"	2	2	1	1	1
6"	3	3	2	1	1
8"	4	4	3	2	2
12"	10	10	5	3	2
20"	26	26	14	7	4
24"	38	38	20	10	7
30"	59	59	32	16	10

THRUST BLOCKING
NTS

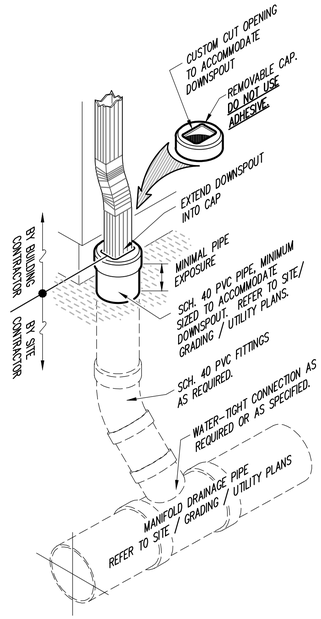
NOTES:
1. PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS.
2. PROVIDE 1/2" TOOLED RADIUS ON ALL EDGES.
3. CONCRETE TO BE MINIMUM 3500#, AE.



PRIVATE SIDEWALK WITH NO CURB
NTS

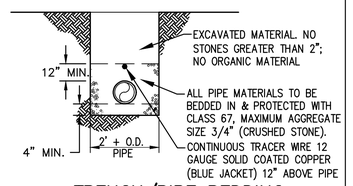


CONCRETE STAIR
NTS NOTE: REFER TO SITE AND GRADING PLANS FOR STAIR LENGTH, RISE AND LOCATION

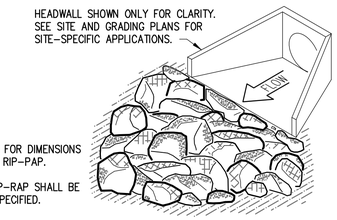


EXTERIOR DOWNSPOUT COLLECTOR
NTS

NOTES:
1. FILL ENTIRE DEPTH WITH CLASS 7 CRUSHED STONE IN ROADWAYS OR AREAS TO BE PAVED. REFER TO CONCRETE CROSSING REPAIR.



TRENCH/PIPE BEDDING FOR WATER MAINS
NTS

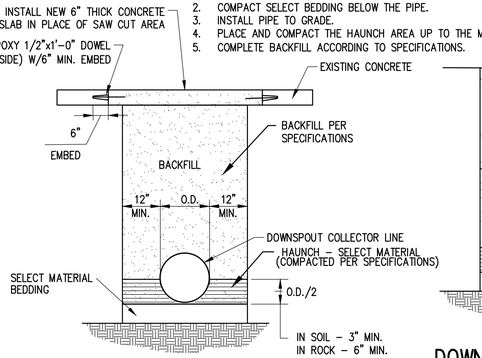


STONES SHALL CONSIST OF FIELD STONE OR ROUGH, UNHEWN QUARRY STONE AS NEARLY UNIFORM IN SIZE AS PRACTICAL. STONES SHALL BE DENSE, RESISTANT TO THE ACTION OF WIND AND WATER, AND SUITABLE IN ALL ASPECTS FOR THE INTENDED USE. ALL STONES SHALL WEIGH BETWEEN 50-150 POUNDS EACH AND AT LEAST 60% OF THE STONES SHALL WEIGH MORE THAN 100 POUNDS EACH.

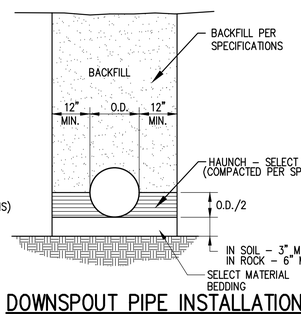
RIP-RAP SLOPE PROTECTION
NTS

NOTES:
1. UNDER PAVEMENT, BACKFILL ENTIRE EXCAVATION WITH ARDOT CLASS 7 AGGREGATE BASE COURSE (OR APPROVED EQUAL) COMPACTED IN 8" LIFTS TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY.

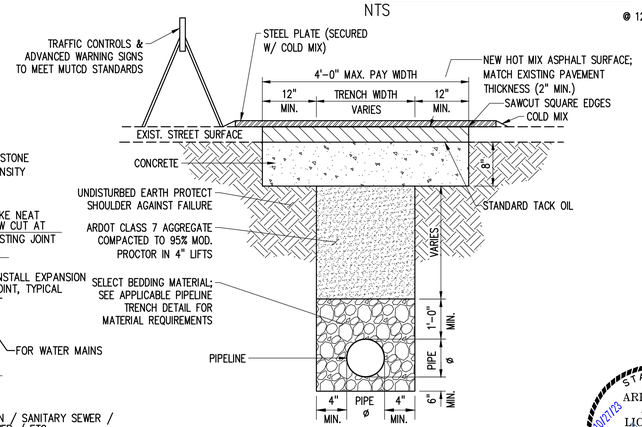
CONSTRUCTION SEQUENCE
1. PLACE SELECT BEDDING MATERIAL TO GRADE.
2. COMPACT SELECT BEDDING BELOW THE PIPE.
3. INSTALL PIPE TO GRADE.
4. PLACE AND COMPACT THE HAUNCH AREA UP TO THE MIDDLE OF THE PIPE.
5. COMPLETE BACKFILL ACCORDING TO SPECIFICATIONS.



CONCRETE TRENCH DRAIN
NTS

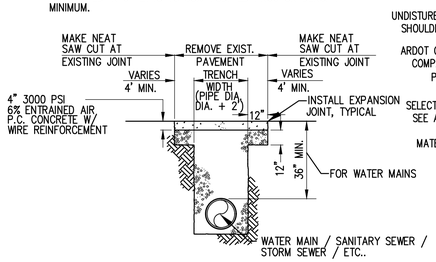


DOWNSPOUT PIPE INSTALLATION
NTS



TRENCH DETAIL UNDER EXISTING PAVED AREAS
SCALE: N.T.S.

NOTES:
1. BACKFILL ENTIRE EXCAVATION WITH CLASS 7 CRUSHED STONE COMPACTED IN 6" LIFTS TO 95% MODIFIED PROCTOR DENSITY MINIMUM.



CONCRETE CROSSING REPAIR
NTS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No.15905 DANIEL L. GEORGE, JR. 10/27/23

CERTIFICATE OF AUTHORIZATION CRAFTON, TULL & ASSOCIATES, INC. No. 109 ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
PRIME/ARCH: STRATA ARCHITECTURE 1701 OAK STREET, SUITE 100 KANSAS CITY, MO T: 816.474.0900	MB	02	LIBBEY BATHHOUSE	128 / 182951
	CADD: RU		DETAILS SHT. 1	PMIS/PKG NO. 318915
CIVIL/SURVEY: CRAFTON TULL 928 AIRPORT ROAD HOT SPRINGS, AR 71913 T: 501.767.2366	TECH. REVIEW: MB	C5.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 200 OF 286
	DATE: 10.27.2023			

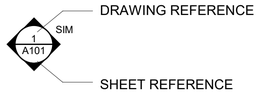
Arkansas One Call 811 Know what's **below**. **Call** before you dig.

ABBREVIATIONS

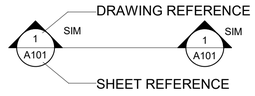
A/C	AIR CONDITIONING
ABA	ARCHITECTURAL BARRIERS ACT
ABT	ABOUT
ACCESS	ACCESSIBLE
ACM	ASBESTOS CONTAINING MATERIAL
ACOUS	ACOUSTIC
ACP	ACOUSTICAL CEILING PANEL
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINIUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL, URE)
ASPH	ASPHALT(IC)
ASSOC	ASSOCIATED
AUTO	AUTOMATIC
AWP	ACOUSTICAL WALL PANEL
BD	BOARD
BIT	BITUMINOUS, BITUMEN
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BS	BOTH SIDES
BTWN	BETWEEN
CAB	CABINET
CEM	CEMENT
CJ	CONTROL JOINT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CO	CONTRACTING OFFICER
COL	COLUMN
COM	COMMUNICATIONS
CONC	CONCRETE
COND	CONDITION
CONFIG	CONFIGURATION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET(ED)
CT	CERAMIC TILE
CTR	CENTER
D	DEEP
DEG	DEGREE
DF	DRINKING FOUNTAIN
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DN	DOWN
DR	DOOR
DTL	DETAIL
DWG(S)	DRAWING(S)
E	EAST
E-P	EPOXY PAINT
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION (TOPO)
ELEC	ELECTRICAL
ELEV	ELEVATION (ARCH),ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOS(E,URE)
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE(D)
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED, EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FAS	FASTEN(ER)
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FACE
FGL	FIBERGLASS
FHC	FIRE HOSE CABINET
FIN(S)	FINISH(ES)
FIXT	FIXTURE
FL	FLOOR(ING)
FLAM	FLAMMABLE
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOS	FACE OF STUDS
FP	FIREPROOF(ING)
FR	FRAME(D,ING)
FT	FEET
FTG	FOOTING
FUR	FURR(ED,ING)
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACT(OR)
GL	GLASS, GLAZING
GOVT	GOVERNMENT
GT	GROUT
GWB	GYPSUM WALLBOARD
H	HIGH
HC	HOLLOW CORE
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCH(ES)
INCAN	INCANDESCENT
INCL	INCLUDE(D,ING)
INSUL	INSULATION, INSULATED
INT	INTERIOR
JAN	JANITOR
JT(S)	JOINT(S)
N	NORTH
KIT	KITCHEN
LAM	LAMINATE(D)
LAV	LAVATORY
LBL	LABEL
LF	LINEAR FOOT
LH	LEFT HAND
LL	LIVE LOAD
LP	LOW POINT
LTG	LIGHTING
LTL	LINTEL
MAS	MASONRY
MATL	MATERIAL(S)
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
JC	JANITOR CLOSET
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPS	NATIONAL PARK SERVICE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
PAR	PARALLEL
PART	PARTITION
PC	PRECAST
PERF	PERFORATE(D)
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLWD	PLYWOOD
PNL	PANEL(ED)
PR	PAIR
PREP	PREPARE (SURFACE)
PROV	PROVIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PTD	PAINT(ED)
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS, RISER
RB	RUBBER BASE
REF	REFERENCE
REINF	REINFORCED
REQ / REQS	REQUIREMENT(S)
REQD / REQ'D	REQUIRED
RES	RESILIENT
RET	RETAINING
REV	REVISION(S) / REVISE(D)
RFG	ROOFING
RH	RIGHT HAND
RL	RAIN LEADER
RM	ROOM
RO	ROUGH OPENING
S	SOUTH, SEAL
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SLL	SOUND / LIGHT LOCK
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAINLESS
STD	STANDARD
STL	STEEL
STN	STAIN
STO	STORAGE
STRUC	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TECH	TECHNOLOGY
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TOP OF CURB
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSPARENT
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VU	VENTILATION UNIT
VWC	VINYL WALLCOVERING
W	WIDE, WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WALL HUNG
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
#	NUMBER
&	AND
+	EXIST (OR APPROX) DIM - VIF
@	AT
C	CENTER LINE
L	ANGLE

SYMBOLS

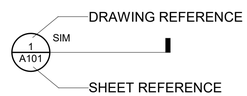
INTERIOR ELEVATION



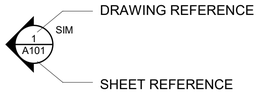
BLDG SECTION CUT



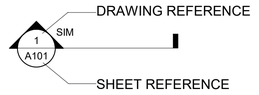
DETAIL CUT



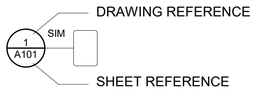
EXTERIOR ELEVATION



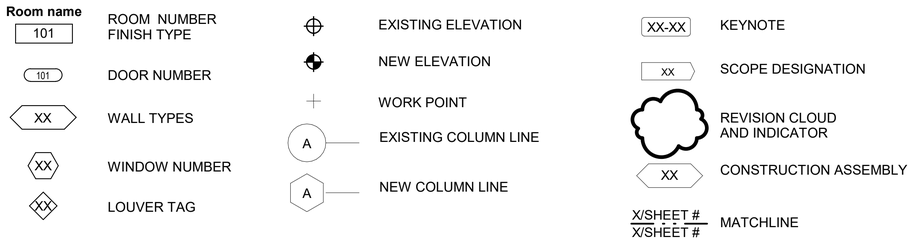
WALL SECTION CUT



DETAIL / PLAN



SYMBOLS



CODE SUMMARY

APPLICABLE CODES AND STANDARDS

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE - CHAPTER 12
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
NFPA 70 NEC 2023 - NATIONAL ELECTRICAL CODE
NFPA 72 - NATIONAL FIRE ALARM CODE
NFP90A - INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS
NFPA 13 - INSTALLATION OF STANDPIPES, PRIVATE HYDRANTS AND HOSE SYSTEMS
ASHRAE 90.1 2016 - ENERGY STANDARD FOR BUILDINGS
2021 ICC/ANSI 117.1 STANDARDS
ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS (ABAAS)

ACTUAL BUILDING AREA

FIRST FLOOR: 10,040 GSF
SECOND FLOOR: 10,030 GSF

TOTAL: 20,070 GSF

TYPE OF CONSTRUCTION

TYPE II-B, UNSPRINKLED
REINFORCED CONCRETE STRUCTURE (FLOORS, BEAMS, COLUMNS)
EXTERIOR NON-STRUCTURAL MASONRY WALL INFILL AND STUCCO FINISH
WIRE MESH PLASTER CEILING AT SECOND FLOOR
STEEL ROOF FRAMING WITH PLASTER INFILL AND CLAY TILE ROOFING

BUILDING HEIGHT

EXISTING (NON-SPRINKLERED): ALLOWED 55 FEET AND 2 STORIES
NO CHANGES TO THE BUILDING HEIGHT

OCCUPANCY CLASSIFICATION

EXISTING USE GROUP A-3 INDOOR SWIMMING POOLS (WITHOUT SPECTATOR SEATING) / GROUP B BUSINESS
- FIRST FLOOR: A3 (INDOOR SWIMMING POOLS (WITHOUT SPECTATOR SEATING)) AND B (OFFICES)
- SECOND FLOOR: B (LOBBY, SPA)

PROPOSED USE: UNOCCUPIED

SUMMARY OF WORK

THE LIBBEY BATHHOUSE PROJECT TO BE STABILIZED FOR MOTHBALLING PURPOSES. INCLUDING MINOR REPAIRS TO EXISTING MATERIALS, INCLUSION OF NEW HVAC, UTILITY CONNECTIONS, AND ELECTRICAL UPGRADES.

ALTERATIONS

HISTORIC BUILDING, IEBC CHAPTER 12

ALTERATION LEVEL 1, IEBC CHAPTER 7
REMOVAL OF EXISTING NON-HISTORIC PARTITIONS

FIRE SPRINKLER

NO SPRINKLERS AND NOT REQUIRED PER IEBC 1011.2.1

FIRE ALARMS

NO FIRE ALARM PULL STATIONS AND NOTIFICATIONS IN BUILDING
PROPOSED TO ADD FIRE ALARM PULL STATIONS AND NOTIFICATIONS

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 02 A0.1	TITLE OF SHEET LIBBEY BATHHOUSE SYMBOLS AND ABBREVIATIONS, AND CODE SUMMARY REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 201 OF 286

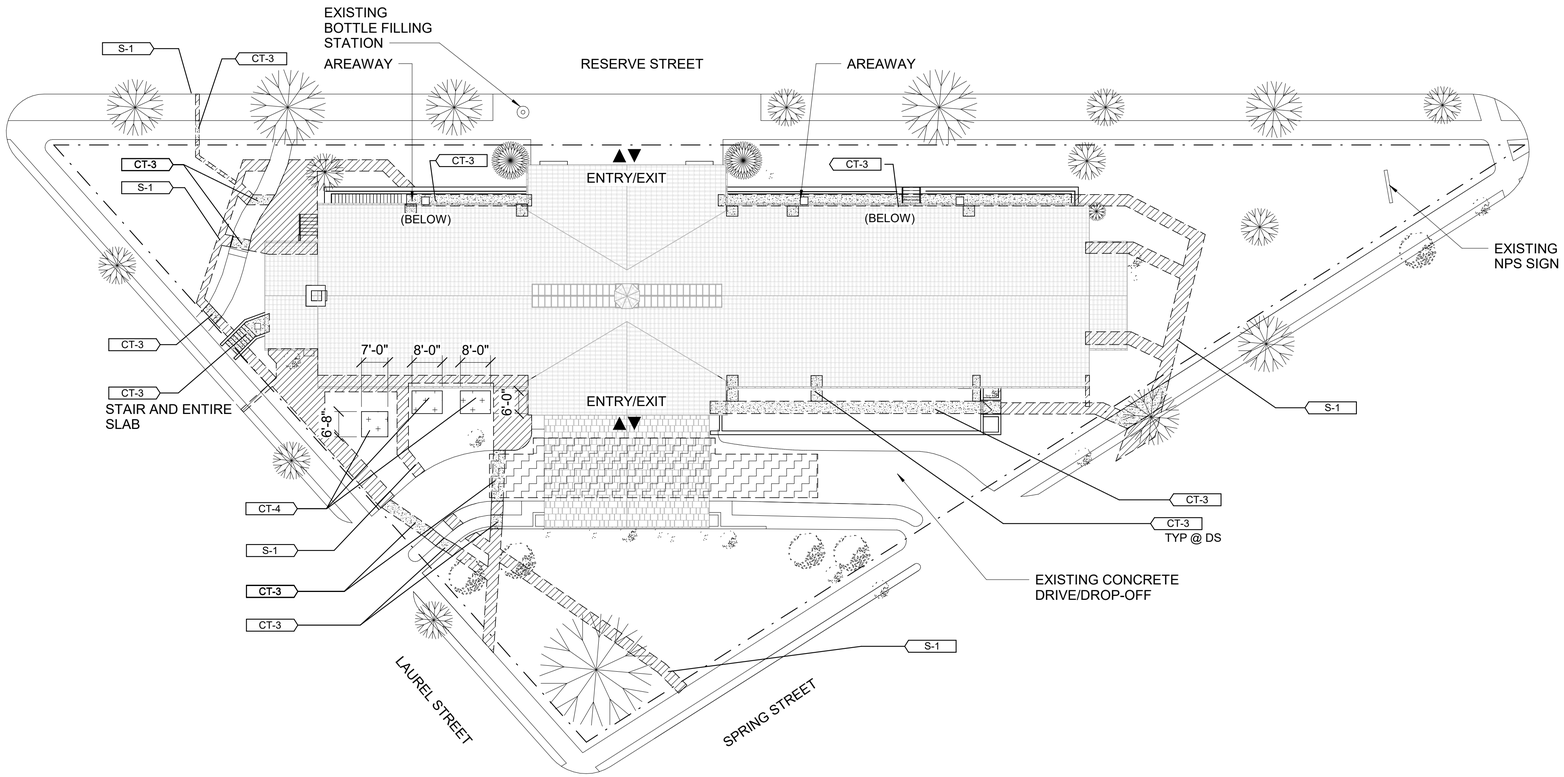
11/2/2023 6:56:46 PM

SITE PLAN LEGEND

- S-1 — RESTORE LAWN WHERE DISTURBED FOR UTILITY TRENCHING
- CT-3 — CUT & PATCH CONCRETE PAVING & CURB (WHERE APPLICABLE) ON GRADE TO MATCH EXISTING - TO ALLOW DRAINAGE SYSTEM WORK - REFER TO CIVIL
- CT-4 — PROVIDE CONCRETE PAD - COORD WITH STRUCTURAL
- PROVIDE GRATED DRAIN INLET - REFER TO CIVIL AND MEP
- CONTRACTOR STAGING AREA
- PROPERTY LINE
- BUILDING EGRESS
- EXISTING TREES OR HEDGES TO REMAIN

SITE PLAN GENERAL NOTES

1. DO NOT REMOVE, ALTER OR DISFIGURE ANY EXISTING MATERIALS, ELEMENTS OR FINISHES UNLESS INDICATED ON THE DRAWINGS OR SPECIFICATIONS. IF ANY WORK IMPACTS EXISTING MATERIALS OR FINISHES TO REMAIN BEYOND THOSE IDENTIFIED, NOTIFY CONTRACTING OFFICER IN WRITING AT LEAST (10) DAYS IN ADVANCE OF START OF THE WORK, AND OBTAIN WRITTEN RESPONSE PRIOR TO PROCEEDING WITH THE WORK.
2. THIS DRAWING IS PROVIDED AS AN OVERVIEW OF SITE STAGING REQUIREMENTS, TO ASSIST THE CONTRACTOR IN UNDERSTANDING SITE ACCESS AND CONSTRAINTS AND WITH PREPARATION OF THE WORK PLAN FOR CONSTRUCTION OF THE PROJECT. THE INFORMATION ON THIS DRAWING DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR THE SAFETY AND SECURITY OF THE JOB SITE, MEANS AND METHODS OF CONSTRUCTION, SCHEDULING AND SEQUENCING OF THE WORK, PROTECTION OF THE GENERAL PUBLIC, OR PREPARATION OF A COMPREHENSIVE WORK PLAN FOR THE PROJECT.
3. REFER TO ARCHITECTURAL DRAWINGS FOR COMPLETE EXTENT OR WORK AT EXISTING BUILDING.
4. THE CONTRACTOR SHALL ARRANGE AT THEIR EXPENSE FOR ANY STAGING AND STORAGE FOR EQUIPMENT AND MATERIAL.
5. CONTRACTOR MUST PROVIDE AND SUBMIT FOR APPROVAL THE FOLLOWING. LOCATION OF CONTRACTORS STAGING AND LAYOUT AREA. TEMPORARY FACILITIES AND OR SERVICES. ALL CONSTRUCTION AREAS MUST BE CLEANED UP AND ALL DEBRIS REMOVED FROM SITE EACH END OF WORK DAY.
6. CONTRACTOR TO PROVIDE PARK ARCHAEOLOGIST 48 HOURS NOTICE PRIOR TO ANY GROUND DISTURBANCE ACTIVITY TO ALLOW ARCHAEOLOGIST ABILITY TO MONITOR WORK. CONTRACTOR TO STOP WORK AND NOTIFY COR IF ANY POTENTIAL ARTIFACTS ARE UNCOVERED DURING GROUND DISTURBING ACTIVITY.
7. THE LIMIT OF CONSTRUCTION IS EQUAL TO THE PROPERTY LINE AS WELL AS SELECT EXTENSIONS INTO THE RIGHT OF WAY AND STREET - REFER TO CIVIL.
8. ALL EXISTING LANDSCAPING THROUGHOUT SITE IS TO REMAIN, UON. PROTECT FROM DAMAGE DURING ADJACENT WORK.



1 AS1.0 SITE PLAN
1" = 20'-0"

20' 10' 0' 20' 40'
1"= 20' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 912190
STATE OF ARKANSAS

A/E FIRMS: ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 02 AS1.0	TITLE OF SHEET: LIBBEY BATHHOUSE ARCHITECTURAL SITE WORK PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 202 OF 286

11/2/2023 6:56:54 PM

KEYNOTES

02.03 PROTECT EXISTING WALL, GLAZING, AND DOOR TO REMAIN

02.05 REMOVE TOILET ACCESSORIES FROM WALLS

02.06 REMOVE TOILET PARTITIONS

02.08 REMOVE EXISTING EXTERIOR DOOR, FRAME, AND HARDWARE

02.13 REMOVE STONE SHOWER ENCLOSURE AND TILE BASE

02.15 REMOVE EXISTING EXTERIOR HOLLOW METAL DOOR, HOLLOW METAL FRAME, HARDWARE, WOOD BLOCKING AND WOOD TRIM; EXISTING TRANSOM AND WOOD DOOR FRAME TO REMAIN. NOTIFY CONTRACTING OFFICER ONCE TRIM IS REMOVED TO CONFIRM HIDDEN CONDITIONS PRIOR TO PROCUREMENT OF NEW DOOR AND FRAME.

02.18 REMOVE EXISTING WINDOW.

02.19 REMOVE CEILING ONLY. PLASTER WALLS TO REMAIN.

DEMOLITION PLAN LEGEND

EXISTING WALLS TO REMAIN

REMOVE EXISTING BLOCK OR CLAY TILE MASONRY & PLASTER WALLS INCLUDING FINISHES AND CASEWORK

REMOVE EXISTING CONSTRUCTION - REFER TO KEYNOTES

REMOVE EXISTING DOOR AND FRAME

REMOVE EXISTING PLASTER WALLS AND CEILING

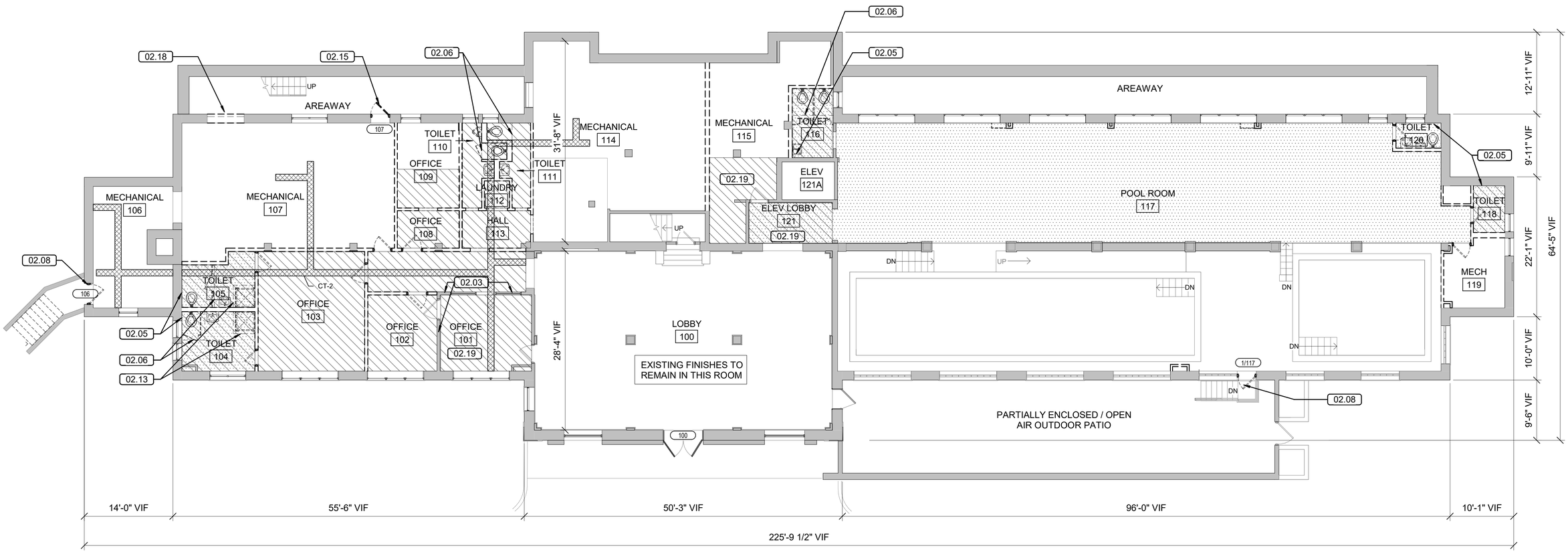
REMOVE EXISTING TILE FLOORS & SETTING MATERIALS DOWN TO SUBSTRATE (PORCELAIN/GLAZED TILE UON)

CONCRETE

CT-2
APPROXIMATE AREA OF CONC. FLOOR SLAB TO BE REMOVED FOR UTILITY WORK, COORDINATE WITH MEP SCOPE

DEMOLITION PLAN GENERAL NOTES

1. EXISTING FLOOR TO CEILING PARTITIONS INDICATED TO BE DEMOLISHED INCLUDES DOORS/FRAMES AND FINISHES/CASEWORK ATTACHED TO SUCH WALLS.
2. REMOVE ALL DEBRIS FROM FLOORS, THROUGHOUT BUILDING.
3. ALL AREAS OR ELEMENTS NOT DESIGNATED TO BE DEMOLISHED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING ADJACENT DEMOLITION WORK.
4. ALL EXISTING EXTERIOR WINDOWS ARE TO REMAIN, UON. PROTECT FROM DAMAGE DURING ADJACENT WORK.
5. ALL EXISTING CEILINGS AND LAYLIGHTS THROUGHOUT UPPER FLOOR ARE TO REMAIN. PROTECT FROM DAMAGE DURING ADJACENT WORK.
6. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.
7. ELEVATOR IS NOT OPERATIONAL. CONTRACTOR IS NOT TO OCCUPY, OPERATE, OR PLACE ANY MATERIALS IN THE ELEVATOR CAB OR HOISTWAY.



1 AX1.1 LOWER LEVEL DEMOLITION PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02	LIBBEY BATHHOUSE LOWER LEVEL DEMOLITION PLAN	128 182951
	CADD: GK	AX1.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: KG			SHEET 203 OF 286
	DATE: 10.27.2023			

11/2/2023 6:56:55 PM

KEYNOTES

02.05	REMOVE TOILET ACCESSORIES FROM WALLS
02.06	REMOVE TOILET PARTITIONS
02.07	REMOVE WOOD LOCKER ROOM STALLS
02.09	REMOVE PLASTERED WALL ABOVE TILED WAINSCOT. LOWER SECTION OF WALL WITH TILE FACING POOL ROOM TO REMAIN IN PLACE.
02.11	REMOVE EXISTING EXTERIOR DOOR, FRAME, AND HARDWARE; EXISTING TRANSOM TO REMAIN.
02.13	REMOVE STONE SHOWER ENCLOSURE AND TILE BASE
02.14	REMOVE STONE SHOWER ENCLOSURE AND RAISED TILE BASE
02.17	REMOVE EXISTING EXTERIOR DOOR AND HARDWARE. FRAME AND TRANSOM TO REMAIN. REMOVE AND SALVAGE PULL HARDWARE.

DEMOLITION PLAN LEGEND

- EXISTING WALLS TO REMAIN
- REMOVE EXISTING BLOCK OR CLAY TILE MASONRY & PLASTER WALLS INCLUDING FINISHES AND CASEWORK
- REMOVE EXISTING CONSTRUCTION - REFER TO KEYNOTES
- REMOVE EXISTING DOOR AND FRAME
- REMOVE EXISTING PLASTER WALLS AND CEILING
- REMOVE EXISTING TILE FLOORS & SETTING MATERIALS DOWN TO SUBSTRATE (PORCELAIN/GLAZED TILE UON)

CONCRETE

- CT-2 APPROXIMATE AREA OF CONC. FLOOR SLAB TO BE REMOVED FOR UTILITY WORK, COORDINATE WITH MEP SCOPE

DEMOLITION PLAN GENERAL NOTES

1. EXISTING FLOOR TO CEILING PARTITIONS INDICATED TO BE DEMOLISHED INCLUDES DOORS/FRAMES AND FINISHES/CASEWORK ATTACHED TO SUCH WALLS.
2. REMOVE ALL DEBRIS FROM FLOORS, THROUGHOUT BUILDING.
3. ALL AREAS OR ELEMENTS NOT DESIGNATED TO BE DEMOLISHED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING ADJACENT DEMOLITION WORK.
4. ALL EXISTING EXTERIOR WINDOWS ARE TO REMAIN, UON. PROTECT FROM DAMAGE DURING ADJACENT WORK.
5. ALL EXISTING CEILINGS AND LAYLIGHTS THROUGHOUT UPPER FLOOR ARE TO REMAIN. PROTECT FROM DAMAGE DURING ADJACENT WORK.
6. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.
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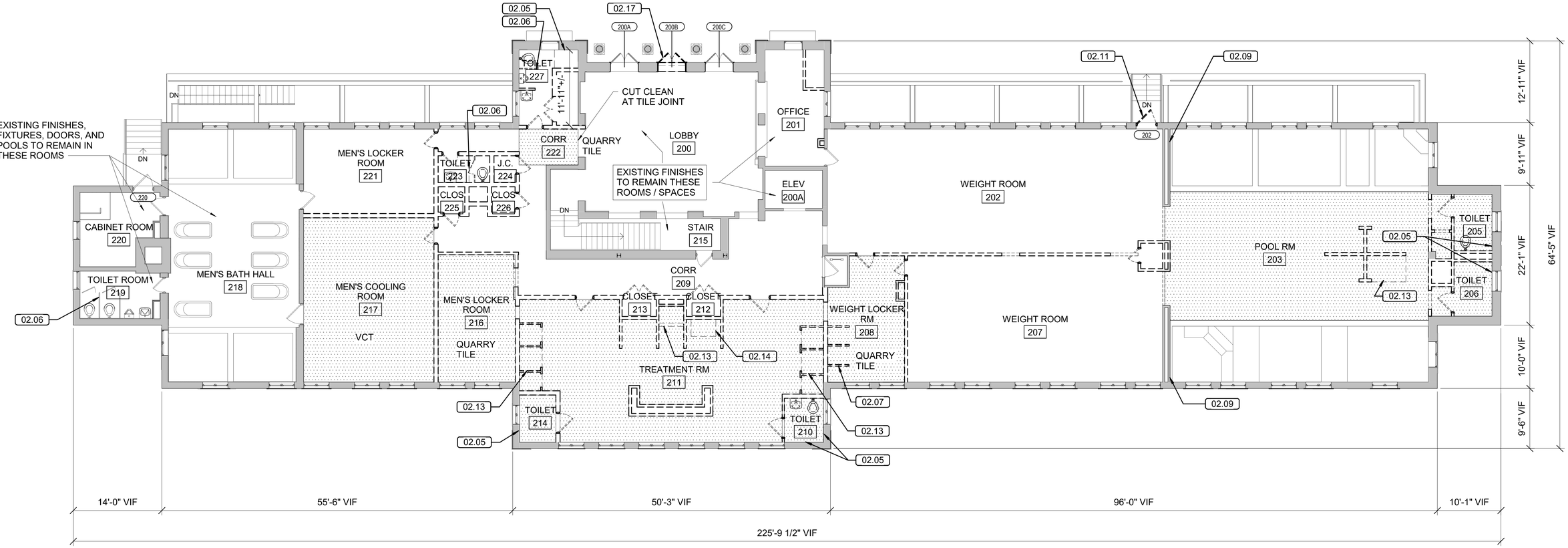

1 AX1.2 — UPPER LEVEL DEMOLITION PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT — PATRICK M ROACH — License Number 912190 — STATE OF ARKANSAS

A/E FIRMS	ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888
DESIGNED:	GK
CADD:	GK
TECH. REVIEW:	KG
DATE:	10.27.2023
SUB SHEET NO.	02 AX1.2
TITLE OF SHEET	LIBBEY BATHHOUSE — UPPER LEVEL DEMOLITION PLAN — REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	204 OF 286

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KEYNOTES

05.05	WALL MOUNTED PIPE HANDRAIL WITH BRACKETS
06.01	REPLACE WOOD TREADS, PAINT TO MATCH EXISTING
08.07	LOUVER IN EXISTING OPENING, SEE MECHANICAL.
10.01	SURFACE MOUNTED FIRE EXTINGUISHER CABINET

NEW WORK PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

CONCRETE

CT-1
REMOVE DEBRIS, SOILS, AND BIOLOGICAL GROWTH FROM CONCRETE SLAB ON GRADE

CT-2
APPROXIMATE AREA OF CONC. FLOOR SLAB TO BE INFILLED TO MATCH ADJACENT EXISTING. REFER TO STRUCTURAL FOR DETAILS.

STUCCO

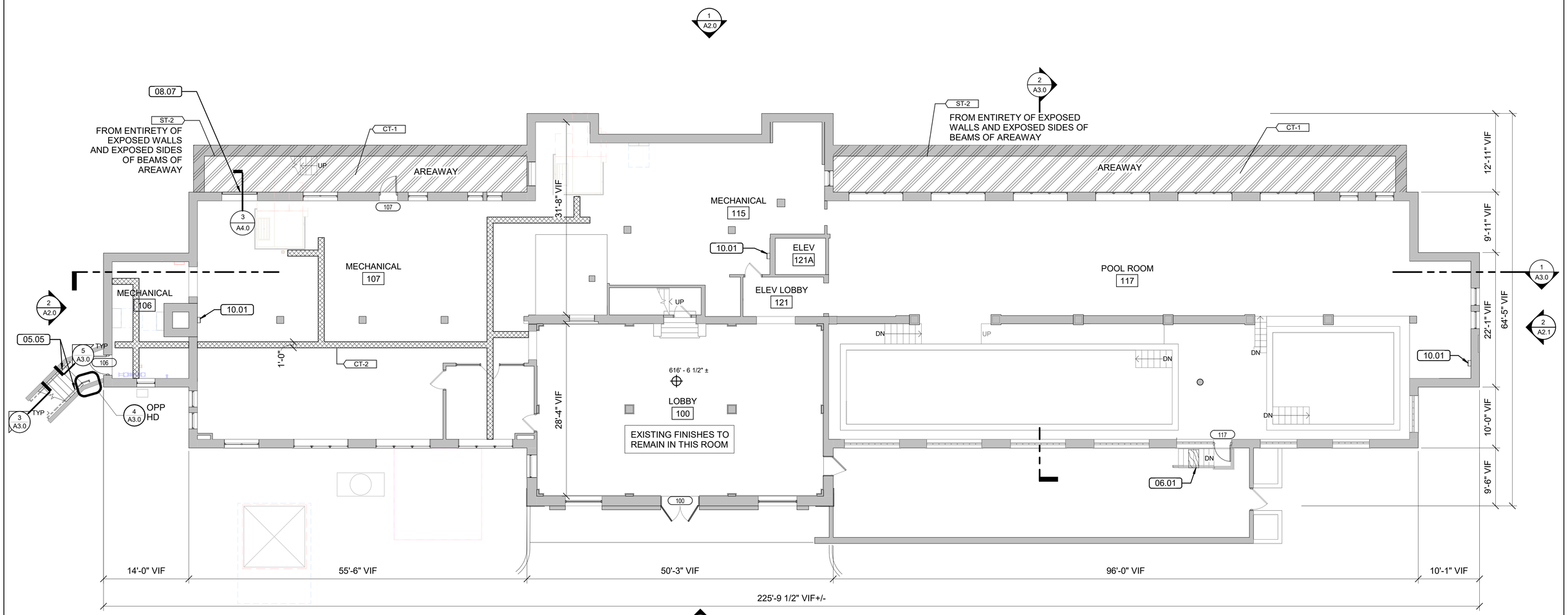
ST-2
REMOVE / CLEAN BIOLOGICAL GROWTH FROM STUCCO.

GYPSUM BOARD

GB-1
PROVIDE UNFINISHED GYPSUM BOARD COVERS OVER OPENINGS LEFT IN PLASTER CEILING WHERE OPENINGS EXIST, WALLS ARE BEING REMOVED, OR MECHANICAL DUCTWORK PENETRATIONS/INTAKES/EXHAUST GRILLES REMOVED - COORDINATE WITH MECHANICAL DEMO.

NEW WORK PLAN GENERAL NOTES

1. HISTORIC LOBBIES, MEN'S BATH, AND VERTICAL CIRCULATION TO REMAIN AS-IS.
2. PROTECT EXISTING CONSTRUCTION AND FINISHES TO REMAIN FROM DAMAGE IN AREAS IMMEDIATELY ADJACENT TO AREAS OF WORK. PATCH REPAIRS AS REQUIRED TO MATCH EXISTING.
3. BROOM CLEAN FLOORS THROUGH BUILDING, FOLLOWING ALL WORK.
4. ELEVATOR IS NOT OPERATIONAL. CONTRACTOR IS NOT TO OCCUPY, OPERATE, OR PLACE ANY MATERIALS IN THE ELEVATOR CAB OR HOISTWAY.



1 A1.1 LOWER LEVEL PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 812190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02 A1.1	LIBBEY BATHHOUSE LOWER LEVEL PLAN	128 / 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 205 OF 286
	DATE: 10.27.2023			

11/2/2023 6:56:48 PM

KEYNOTES

09.10 INSTALL UNFINISHED GYPSUM BOARD COVERS OVER OPENINGS LEFT IN PLASTER WALL WHERE MECHANICAL GRILLES ARE REMOVED - COORDINATE WITH MECHANICAL

10.01 SURFACE MOUNTED FIRE EXTINGUISHER CABINET

10.02 EXISTING FIRE EXTINGUISHER TO REMAIN

NEW WORK PLAN LEGEND

EXISTING CONSTRUCTION TO REMAIN

CONCRETE

CT-1
REMOVE DEBRIS, SOILS, AND BIOLOGICAL GROWTH FROM CONCRETE SLAB ON GRADE

CT-2
APPROXIMATE AREA OF CONC. FLOOR SLAB TO BE INFILLED TO MATCH ADJACENT EXISTING. REFER TO STRUCTURAL FOR DETAILS.

STUCCO

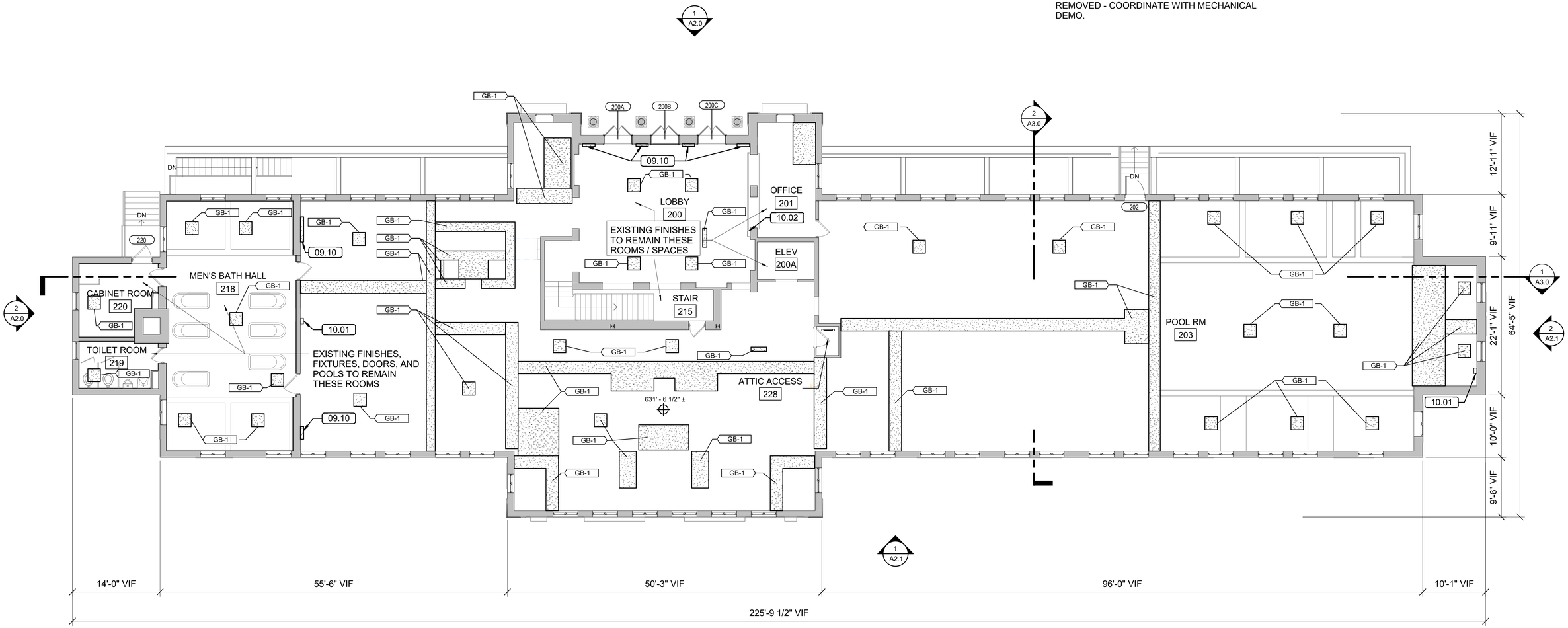
ST-2
REMOVE / CLEAN BIOLOGICAL GROWTH FROM STUCCO.

GYPSUM BOARD

GB-1
PROVIDE UNFINISHED GYPSUM BOARD COVERS OVER OPENINGS LEFT IN PLASTER CEILING WHERE OPENINGS EXIST, WALLS ARE BEING REMOVED, OR MECHANICAL DUCTWORK PENETRATIONS/INTAKES/EXHAUST GRILLES REMOVED - COORDINATE WITH MECHANICAL DEMO.

NEW WORK PLAN GENERAL NOTES

1. HISTORIC LOBBIES, MEN'S BATH, AND VERTICAL CIRCULATION TO REMAIN AS-IS.
2. PROTECT EXISTING CONSTRUCTION AND FINISHES TO REMAIN FROM DAMAGE IN AREAS IMMEDIATELY ADJACENT TO AREAS OF WORK. PATCH REPAIRS AS REQUIRED TO MATCH EXISTING.
3. BROOM CLEAN FLOORS THROUGH BUILDING, FOLLOWING ALL WORK.
4. ELEVATOR IS NOT OPERATIONAL. CONTRACTOR IS NOT TO OCCUPY, OPERATE, OR PLACE ANY MATERIALS IN THE ELEVATOR CAB OR HOISTWAY.



1 A1.2 UPPER LEVEL PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 912190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02 A1.2	LIBBEY BATHHOUSE UPPER LEVEL PLAN	128 / 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 206 OF 286
	DATE: 10.27.2023			

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KEYNOTES

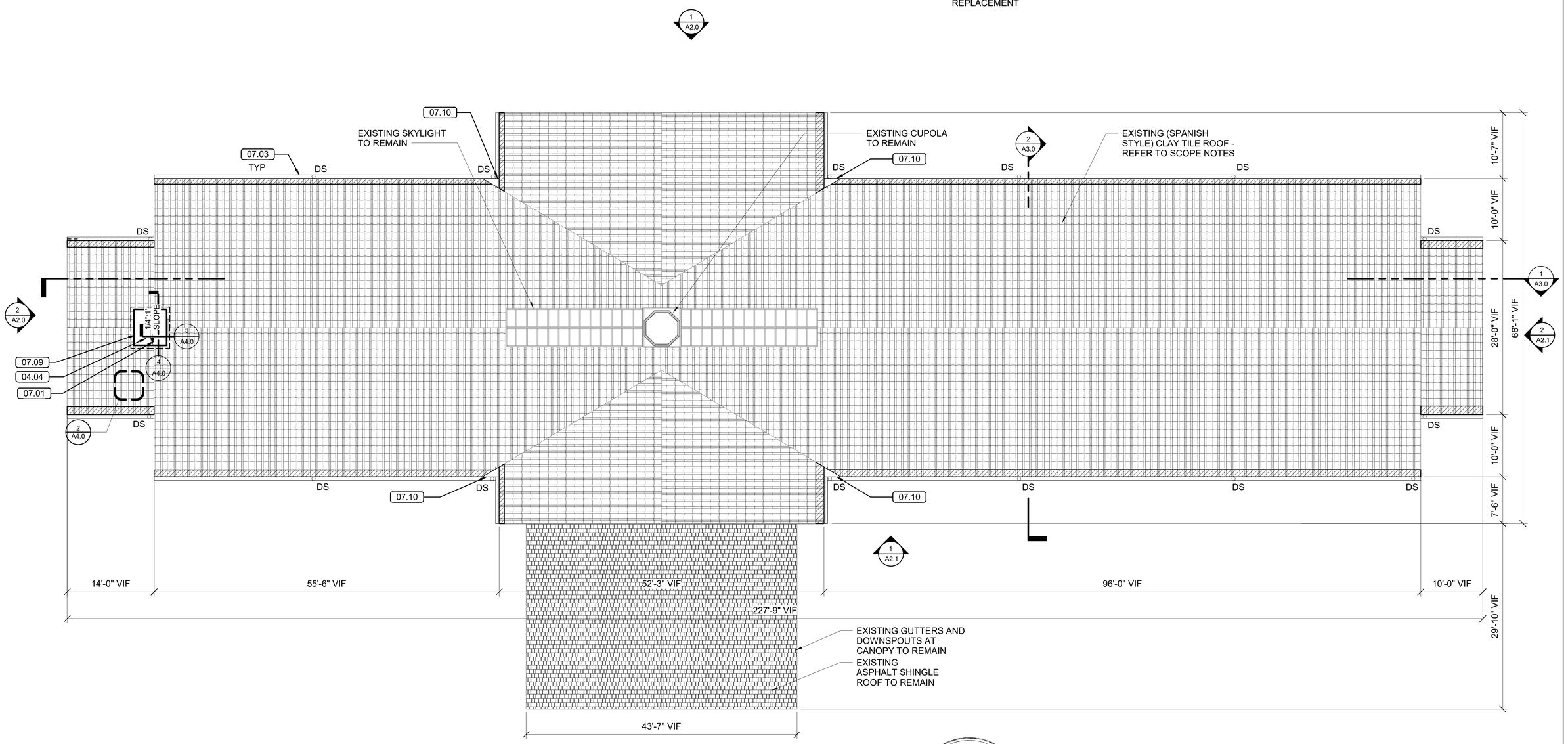
04.04	REMOVE DEBRIS FROM INSIDE OF CHIMNEY
07.01	COPPER METAL CHIMNEY CAP
07.03	REMOVE COPPER GUTTERS. REPLACE WITH 7" SEMI-CIRCULAR COPPER GUTTERS TO MATCH EXISTING
07.09	REMOVE SEALANT JOINT AND RESEAL REGLET JOINT WHERE COPPER FLASHING RETURNS INTO STUCCO WALL FINISH
07.10	REPLACE COPPER PAN FLASHING AT VALLEY TERMINATION (TO MATCH EXISTING) OVER SLIP SHEET AND NEW WATERPROOFING UNDERLAYMENT TO ALLOW GUTTER REPLACEMENT SIM. TO DETAIL 1/A4.0. SALVAGE AND REINSTALL OR REPLACE TO MATCH EXISTING THE PROFILED GUTTER FACE DAMS, TYP.; SOLDER L-SHAPED DIVERTER TO PAN FLASHING TO ROUTE DRAINAGE DIRECTLY FROM VALLEY TO GUTTER

ROOF PLAN LEGEND

- EXISTING CLAY TILE ROOFING TO REMAIN, U.O.N
- EXISTING ASPHALT ROOFING TO REMAIN, U.O.N
- DS — EXISTING DOWN SPOUT TO REMAIN, U.O.N. RE-SOLDER FLANGE CONNECTIONS TO NEW GUTTERS
- ELEMENT TO BE PROVIDED PER KEYNOTE
- REMOVE AND RESET BOTTOM ROW OF CLAY TILE FOR GUTTER REMOVAL AND REPLACEMENT. ALLOWANCE OF APPROXIMATELY 50 PIECES FOR REPLACEMENT

ROOF GENERAL NOTES

1. PROTECT EXISTING CONSTRUCTION AND FINISHES TO REMAIN FROM DAMAGE IN AREAS IMMEDIATELY ADJACENT TO AREAS OF WORK. PATCH REPAIR AS REQUIRED TO MATCH EXISTING.
2. REPAIR SCOPE IS BASED ON LIMITED FIELD OBSERVATIONS AND EXTENTS OF WORK ARE TO BE VERIFIED IN FIELD BY CONTRACTOR.
3. IN ADDITION TO WORK AT GUTTERS, REPLACE SELECT BROKEN CLAY (SPANISH STYLE) ROOF TILES TO MATCH EXISTING (APPROXIMATELY 20 PIECES) THROUGHOUT FIELD - REFER TO DETAIL 5/A4.0.



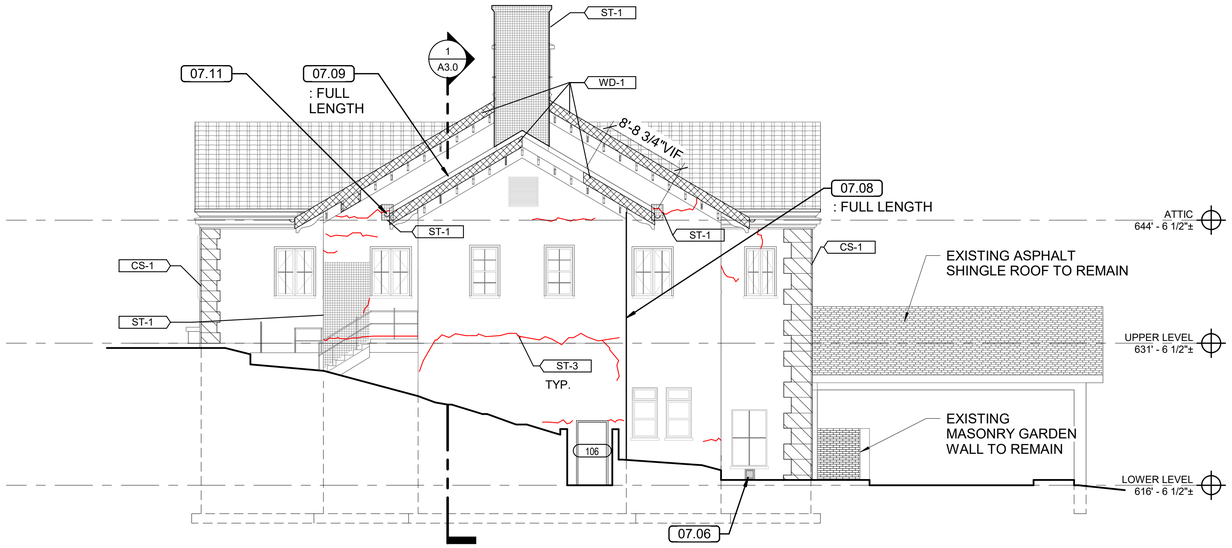
1 A1.4 ROOF PLAN
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 812190
STATE OF ARKANSAS

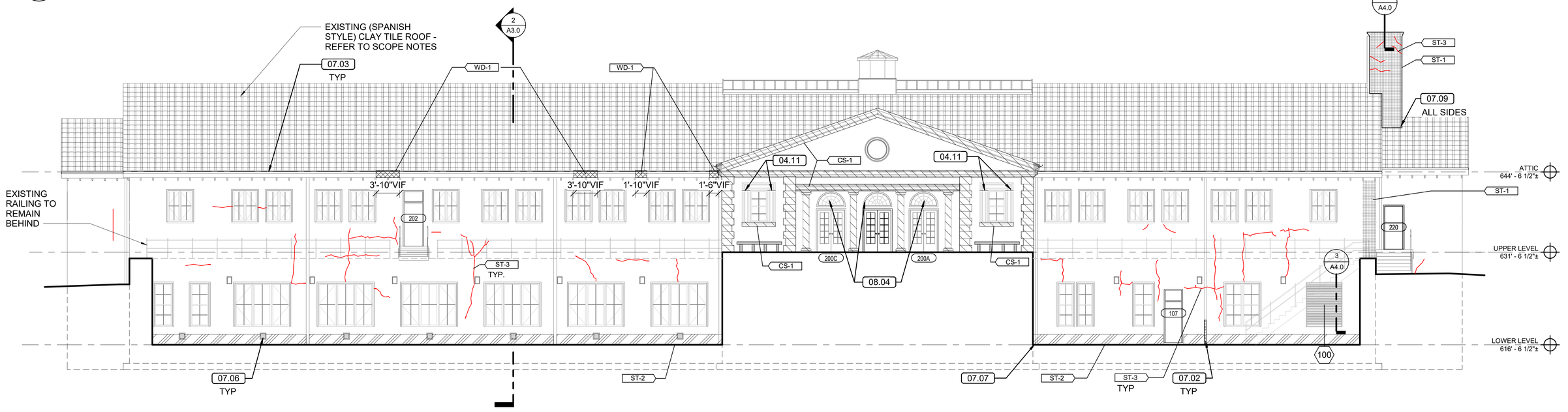
A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 02 A1.4	TITLE OF SHEET LIBBEY BATHHOUSE ROOF PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 207 OF 286

11/2/2023 6:56:48 PM



2 A2.0 WEST EXTERIOR ELEVATION

1/8" = 1'-0"



1 A2.0 NORTH EXTERIOR ELEVATION

1/8" = 1'-0"

ELEVATION DETERIORATION LEGEND

STUCCO

ST-1
REMOVE LOOSE, DAMAGED AND /OR STRUCTURALLY UNSOUND STUCCO AND REPLACE WITH NEW STUCCO AND PAINT TO MATCH EXISTING. LEAD IS PRESENT IN PAINT. REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR PRECAUTION AND DISPOSAL.

ST-2
REMOVE / CLEAN BIOLOGICAL GROWTH FROM STUCCO.

ST-3
REPAIR CRACKS AND OPEN JOINTS IN STUCCO, PREP AND PAINT TO MATCH EXISTING.

METAL

MT-1
PREP AND COAT EXPOSED AND DETERIORATING REINFORCING

CAST STONE

CS-1
CLEAN ATMOSPHERIC AND BIOLOGICAL STAINING AND APPLY CONSOLIDANT TO ALL EXPOSED FACES, INCLUDING UNDERSIDES OF SOFFITS,W ALL RETURNS, AND DIAMETER OF COLUMNS OF EXISTING CAST STONE. REPOINT ALL OPEN JOINTS WITH MORTAR (APPROX 25%)

WOOD

WD-1
REMOVE DETERIORATED WOOD TRIM AND REPLACE TO MATCH EXISTING PROFILE, FINISH, AND COLOR. ASSUME REPLACEMENT OF WOOD BLOCKING WHERE WOOD FASCIA REPLACEMENT IS NOTED

ELEVATION GENERAL NOTES

1. PROTECT EXISTING CONSTRUCTION AND FINISHES TO REMAIN FROM DAMAGE IN AREAS IMMEDIATELY ADJACENT TO AREAS OF WORK. PATCH REPAIR AS REQUIRED TO MATCH EXISTING.
2. REPAIR SCOPE IS BASED ON LIMITED FIELD OBSERVATIONS AND EXTENTS OF WORK ARE TO BE VERIFIED IN FIELD BY CONTRACTOR.
3. RESEAL LOCATIONS OF OPEN JOINTS AT PERIMETER JOINTS OF MASONRY OPENINGS AROUND EXTERIOR DOORS AND WINDOWS (APPROX. 20% TOTAL LINEAR FEET).
4. INSPECT EXISTING WOOD FASCIA EXPOSED IN ALL LOCATIONS ONCE GUTTERS ARE REMOVED - ASSUME 50% OF TOTAL LENGTH DETERIORATED AND TO BE REPLACED TO MATCH EXISTING.
5. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING FINISHES - REFER TO ENVIRONMENTAL REPORT. REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES

04.11	REPOINT OPEN CAST STONE JOINTS
07.02	REPLACE BOTTOM SECTION OF DOWNSPOUT TO MATCH EXISTING. CONNECT TO EXISTING STORM BOOT WITH DOWNSPOUT ADAPTER.
07.03	REMOVE COPPER GUTTERS. REPLACE WITH 7" SEMI-CIRCULAR COPPER GUTTERS TO MATCH EXISTING
07.06	REPLACE VENT COVER
07.07	REPLACE BOTTOM SECTION OF DOWNSPOUT TO MATCH EXISTING. CONNECT TO AND INSTALL NEW STORM BOOT WITH DOWNSPOUT ADAPTER. REFER TO CIVIL.
07.08	REMOVE AND INSTALL NEW CONTINUOUS JOINT SEALANT AT INTERIOR CORNER
07.09	REMOVE SEALANT JOINT AND RESEAL REGLET JOINT WHERE COPPER FLASHING RETURNS INTO STUCCO WALL FINISH
07.11	REMOVE AND INSTALL NEW CONTINUOUS JOINT SEALANT AT INTERSECTION OF GUTTER AND STUCCO
08.04	PREP AND REPAINT WOOD TRANSOM WINDOWS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 912190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02 A2.0	LIBBEY BATHHOUSE EXTERIOR ELEVATIONS	128 / 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 208 OF 286
	DATE: 10.27.2023			

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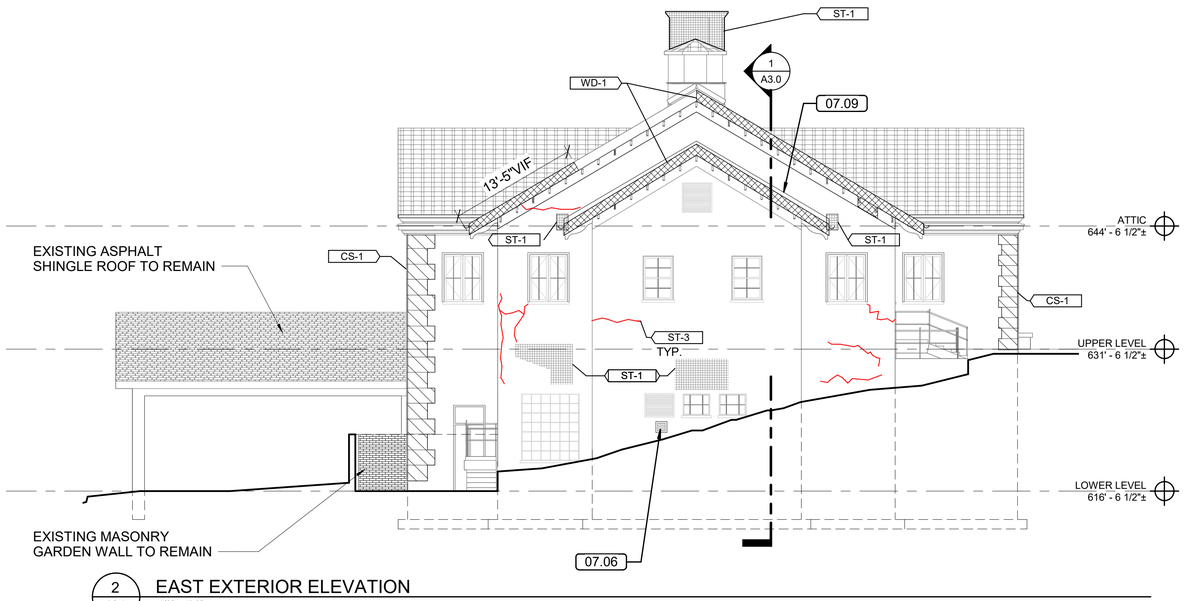
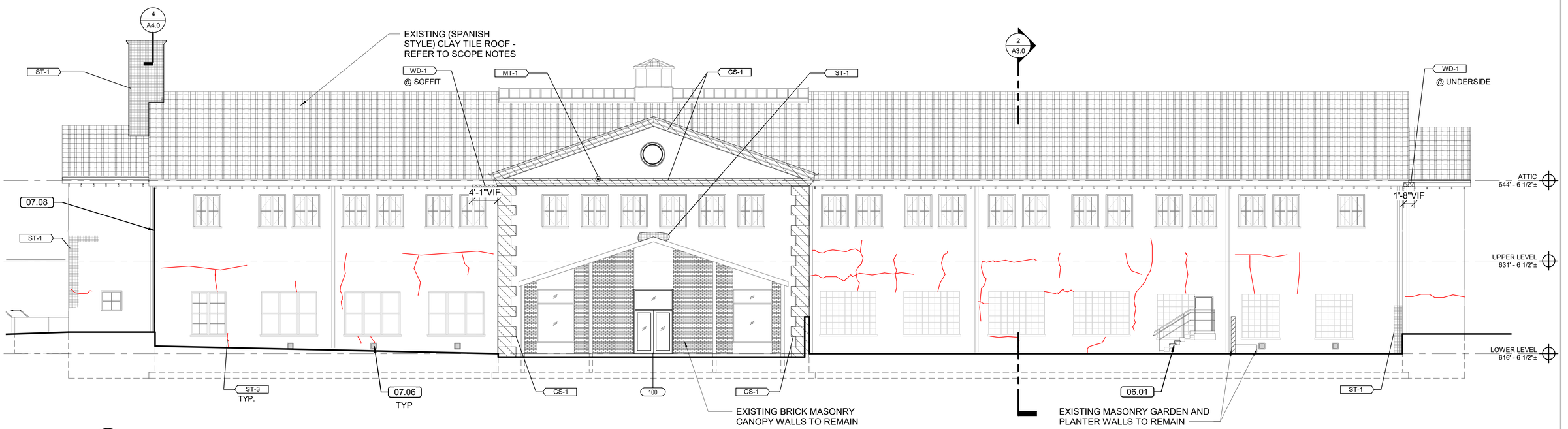


2 A2.1 EAST EXTERIOR ELEVATION
1/8" = 1'-0"



1 A2.1 SOUTH EXTERIOR ELEVATION
1/8" = 1'-0"

ELEVATION DETERIORATION LEGEND

STUCCO

ST-1
REMOVE LOOSE, DAMAGED AND /OR STRUCTURALLY UNSOUND STUCCO AND REPLACE WITH NEW STUCCO AND PAINT TO MATCH EXISTING. LEAD IS PRESENT IN PAINT. REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR PRECAUTION AND DISPOSAL.

ST-2
REMOVE / CLEAN BIOLOGICAL GROWTH FROM STUCCO.

ST-3
REPAIR CRACKS AND OPEN JOINTS IN STUCCO, PREP AND PAINT TO MATCH EXISTING.

METAL

MT-1
PREP AND COAT EXPOSED AND DETERIORATING REINFORCING

CAST STONE

CS-1
CLEAN ATMOSPHERIC AND BIOLOGICAL STAINING AND APPLY CONSOLIDANT TO ALL EXPOSED FACES, INCLUDING UNDERSIDES OF SOFFITS,W ALL RETURNS, AND DIAMETER OF COLUMNS OF EXISTING CAST STONE. REPOINT ALL OPEN JOINTS WITH MORTAR (APPROX 25%)

WOOD

WD-1
REMOVE DETERIORATED WOOD TRIM AND REPLACE TO MATCH EXISTING PROFILE, FINISH, AND COLOR. ASSUME REPLACEMENT OF WOOD BLOCKING WHERE WOOD FASCIA REPLACEMENT IS NOTED

ELEVATION GENERAL NOTES

1. PROTECT EXISTING CONSTRUCTION AND FINISHES TO REMAIN FROM DAMAGE IN AREAS IMMEDIATELY ADJACENT TO AREAS OF WORK. PATCH REPAIR AS REQUIRED TO MATCH EXISTING.
2. REPAIR SCOPE IS BASED ON LIMITED FIELD OBSERVATIONS AND EXTENTS OF WORK ARE TO BE VERIFIED IN FIELD BY CONTRACTOR.
3. RESEAL LOCATIONS OF OPEN JOINTS AT PERIMETER JOINTS OF MASONRY OPENINGS AROUND EXTERIOR DOORS AND WINDOWS (APPROX. 20% TOTAL LINEAR FEET).
4. INSPECT EXISTING WOOD FASCIA EXPOSED IN ALL LOCATIONS ONCE GUTTERS ARE REMOVED - ASSUME 50% OF TOTAL LENGTH DETERIORATED AND TO BE REPLACED TO MATCH EXISTING.
5. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING FINISHES - REFER TO ENVIRONMENTAL REPORT. REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES

06.01	REPLACE WOOD TREADS, PAINT TO MATCH EXISTING
07.06	REPLACE VENT COVER
07.08	REMOVE AND INSTALL NEW CONTINUOUS JOINT SEALANT AT INTERIOR CORNER
07.09	REMOVE SEALANT JOINT AND RESEAL REGLET JOINT WHERE COPPER FLASHING RETURNS INTO STUCCO WALL FINISH

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 02 A2.1	TITLE OF SHEET LIBBEY BATHHOUSE EXTERIOR ELEVATIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 209 OF 286

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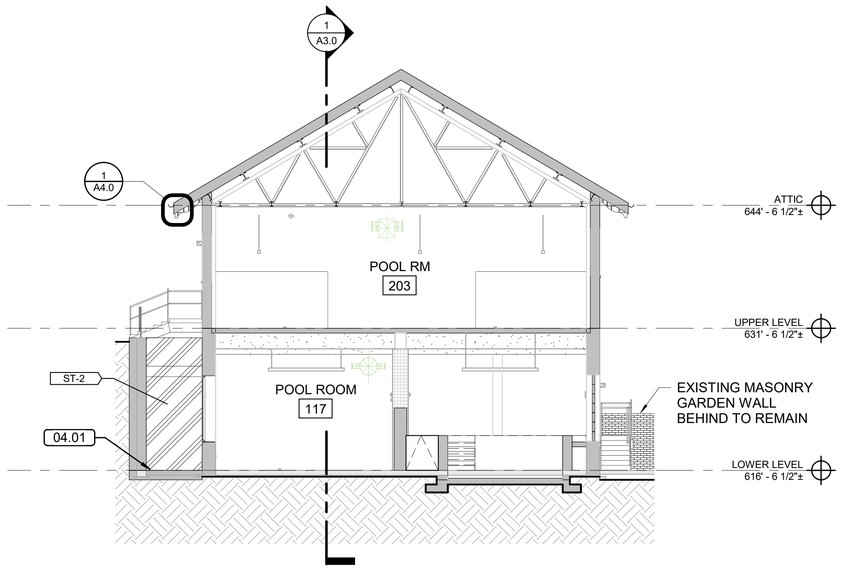
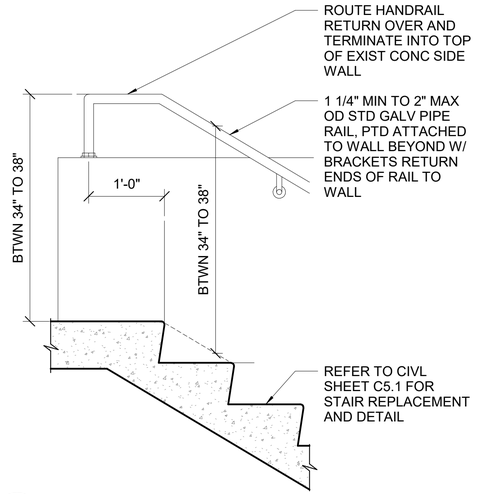


2 A3.0 BUILDING SECTION 2
1/8" = 1'-0"



3 A3.0 WALL HANDRAIL AT TOP LANDING
1" = 1'-0" REFERRED FROM: A1.1

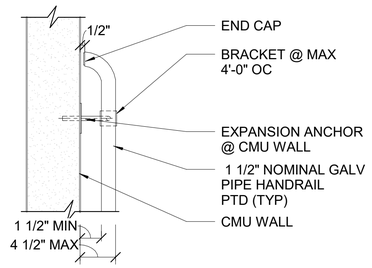
DETERIORATION LEGEND

STUCCO

ST-1
REMOVE LOOSE, DAMAGED AND /OR STRUCTURALLY UNSOUND STUCCO AND REPLACE WITH NEW STUCCO AND PAINT TO MATCH EXISTING. LEAD IS PRESENT IN PAINT. REFER TO HAZARDOUS MATERIAL SPECIFICATIONS FOR PRECAUTION AND DISPOSAL.

ST-2
REMOVE / CLEAN BIOLOGICAL GROWTH FROM STUCCO.

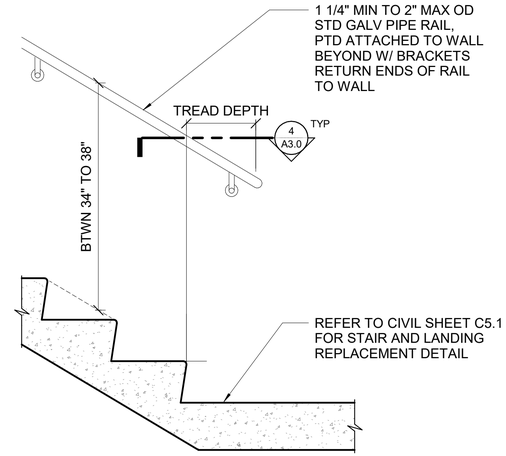
ST-4
PREP AND REPAINT EXISTING STUCCO TO REMAIN.



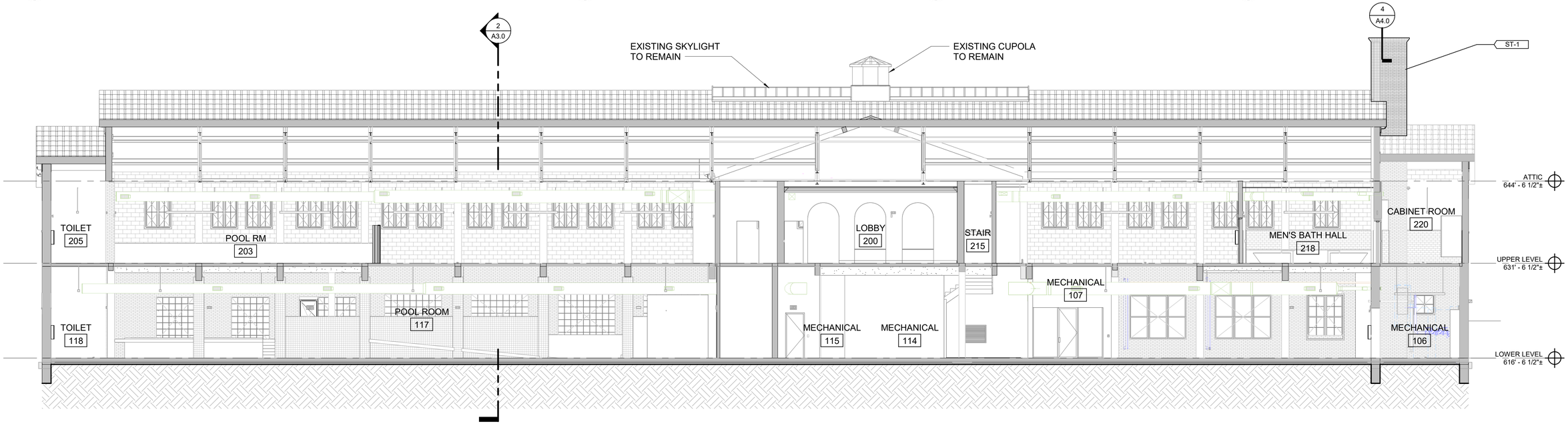
4 A3.0 PLAN DET HANDRAIL
1 1/2" = 1'-0" REFERRED FROM: A1.1

KEYNOTES

04.01 REMOVE DEBRIS AND BIO-GROWTH FROM CONCRETE SLAB TO REMAIN



5 A3.0 WALL HANDRAIL ELEVATION AT BOTTOM LANDING
1" = 1'-0" REFERRED FROM: A1.1



1 A3.0 BUILDING SECTION 1
1/8" = 1'-0"

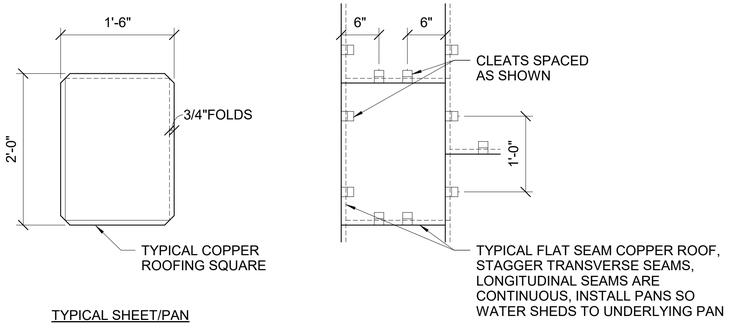
1' 6" 0 1' 2'
1" = 1' - 0" SCALE OF FEET

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 912190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888	GK	02 A3.0	LIBBEY BATHHOUSE BUILDING SECTIONS	128 / 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 210 OF 286
	DATE: 10.27.2023			

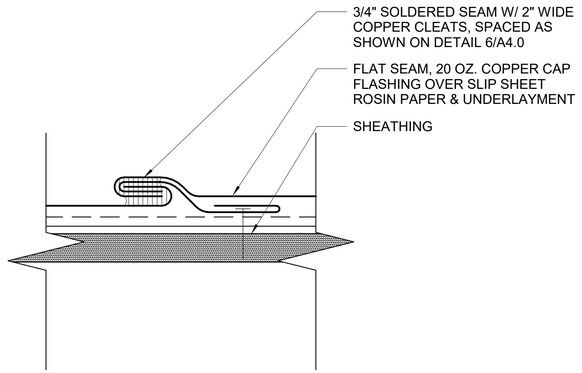
11/2/2023 6:56:53 PM



TYPICAL SHEET/PAN

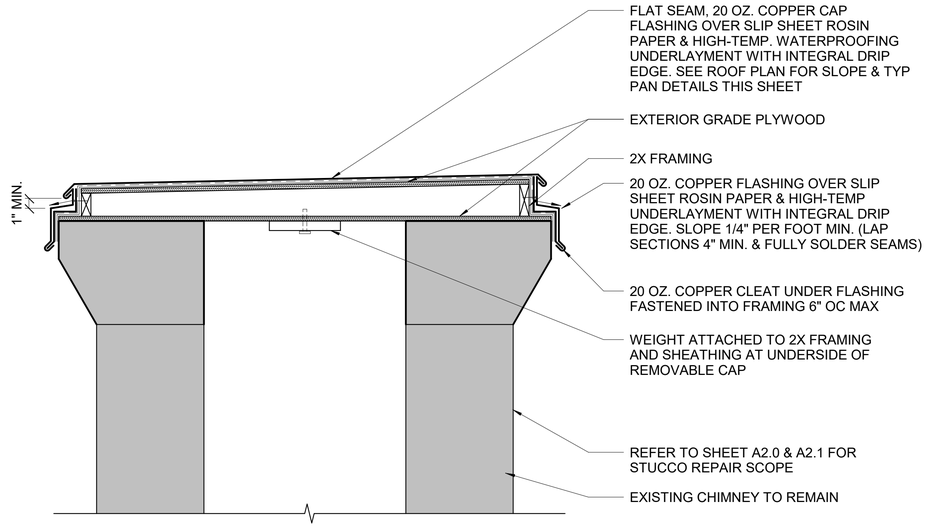
6 A4.0 TYP. FLAT SEAM DETAILS

1" = 1'-0" REFERRED FROM:



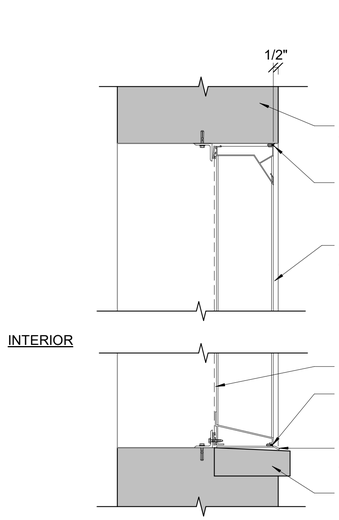
5 A4.0 COPPER FLAT SEAM

6" = 1'-0" REFERRED FROM: A1.4



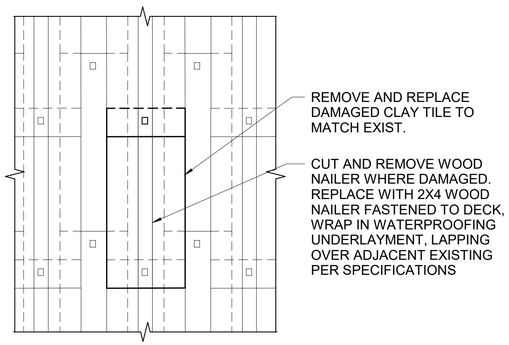
4 A4.0 CHIMNEY METAL CAP SECTION DETAIL

1" = 1'-0" REFERRED FROM: A1.4



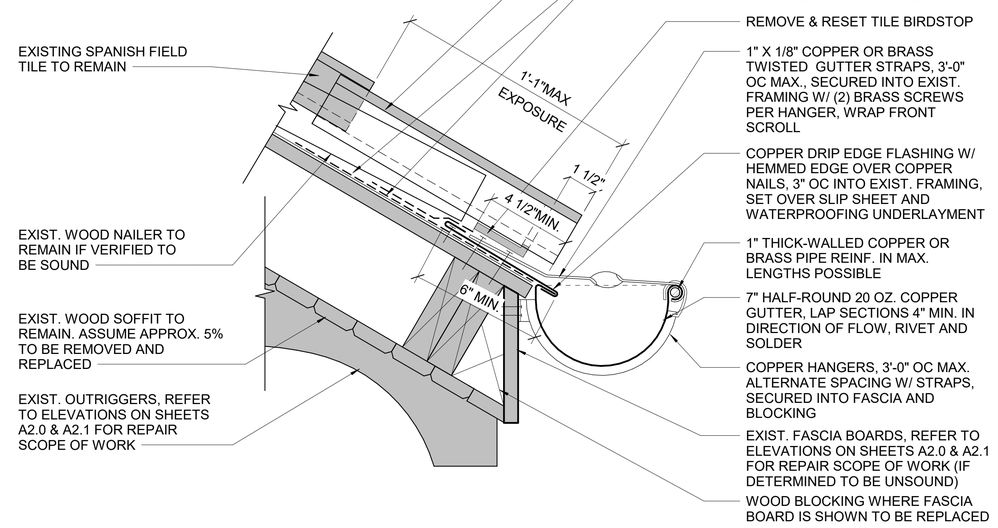
3 A4.0 LOUVER SECTION DETAIL

1 1/2" = 1'-0"



2 A4.0 MISC. CLAY FIELD TILE REPLACEMENT

1 1/2" = 1'-0" REFERRED FROM: A1.4



1 A4.0 TYP. GUTTER REPLACEMENT DETAIL (VALLEY PAN FLASHING LOCATIONS SIM)

3" = 1'-0"

3" 2" 1" 0" 3"
6" = 1' - 0" SCALE OF FEET

12" 6" 0" 1'
1 1/2" = 1' - 0" SCALE OF FEET

6" 3" 0" 6"
3" = 1' - 0" SCALE OF FEET

1' 6" 0 1' 2'
1" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 912190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	02 A4.0	LIBBEY BATHHOUSE EXTERIOR DETAILS	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 211 OF 286
	DATE: 10.27.2023			

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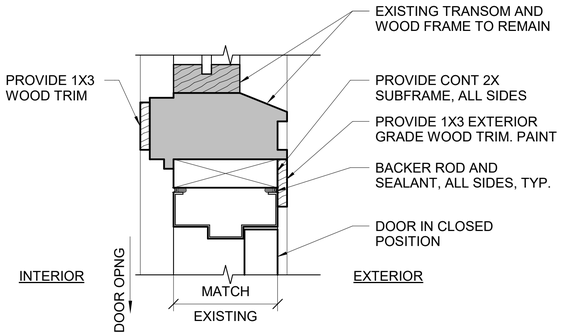
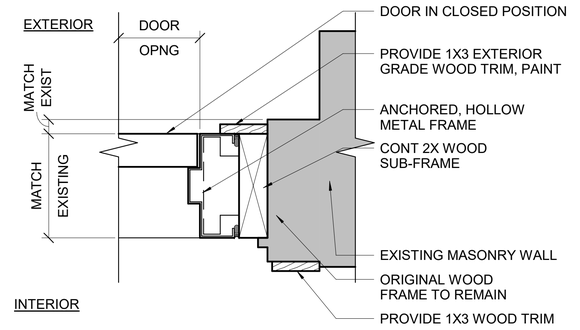


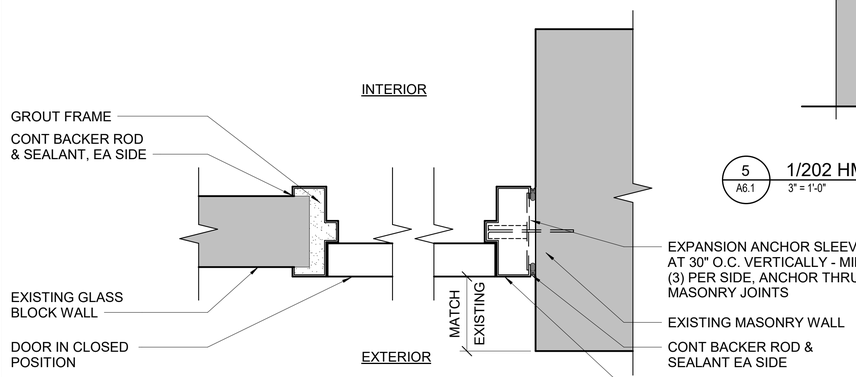
8 A6.1 — 1/107 HM DOOR FRAME - HEAD AT EXISTING TRANSOM

3" = 1'-0" REFERRED FROM:



7 A6.1 — 1/107 HM DOOR FRAME - JAMB

3" = 1'-0"

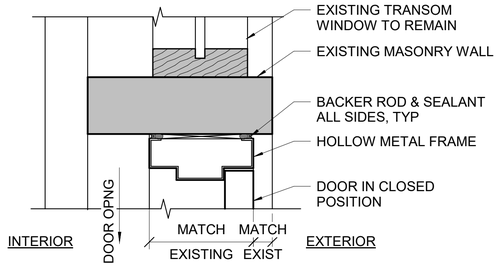


6 A6.1 — 1 /117 HM DOOR FRAME - JAMB

3" = 1'-0"

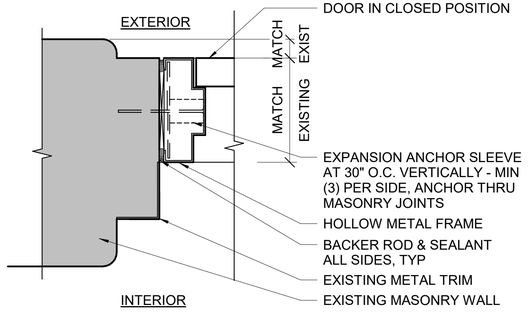
DOOR SCHEDULE

LOCATION		DOOR						FRAME							HARD WARE	
DOOR NUMBER	LOCATION	SIZE W	SIZE H	T	TYPE	MAT'L	FINISH	TYPE	MAT'L	FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	HDWR SET	NOTES
LOWER LEVEL																
100	LOBBY	6' - 0"	7' - 0"	1 3/4"	ETR	ALUM	ETR	ETR	ALUM	ETR	---	---	---	--	HD-1	
106	MECHANICAL	3' - 0"	6' - 8"	1 3/4"	B	HM	PTD	F2	HM	PTD	2/A6.1	2/A6.1	1/A6.1	---	HD-2	
107	MECHANICAL	2' - 8"	6' - 8"	1 3/4"	B	HM	PTD	F2	HM	PTD	8/A6.1	7/A6.1	1/A6.1	---	HD-3	1
117	POOL ROOM	2' - 8"	6' - 1"	1 3/4"	B	HM	PTD	F2	HM	PTD	3/A6.1	6/A6.1	1/A6.1	--	HD-2	
UPPER LEVEL																
200A	LOBBY	4' - 4"	6' - 10"	1 1/2"	ETR	WD	ETR	ETR	WD	ETR	---	---	---	---	-	3 & 4
200B	LOBBY	4' - 4"	6' - 10"	1 1/2"	A	WD	PTD	ETR	WD	PTD	---	---	---	---	HD-6	2
200C	LOBBY	4' - 4"	6' - 10"	1 1/2"	ETR	WD	ETR	ETR	WD	ETR	---	---	---	---	-	3 & 4
202	MEN'S WEIGHT / POOL ROOM	3' - 0"	7' - 0"	1 3/4"	B	HM	PTD	F2	HM	PTD	4/A6.1	5/A6.1	1/A6.1	---	HD-5	
220	CABINET ROOM	3' - 0"	7' - 0"	1 3/4"	ETR	HM	ETR	ETR	HM	ETR	---	---	---	--	HD-7	
Grand total: 9																



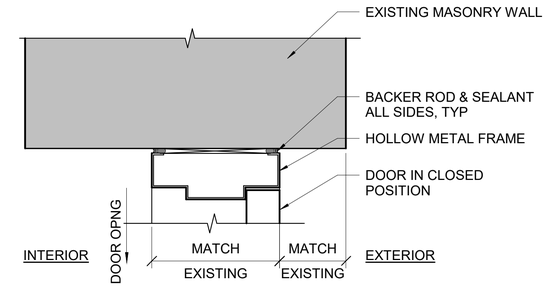
4 A6.1 — 1/202 HM DOOR FRAME - HEAD AT EXISTING TRANSOM

3" = 1'-0"



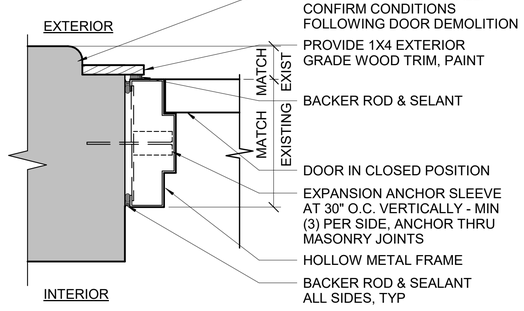
5 A6.1 — 1/202 HM DOOR FRAME - JAMB

3" = 1'-0"



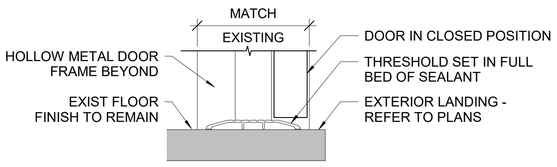
3 A6.1 — HM DOOR FRAME AT EXISTING - HEAD

3" = 1'-0"



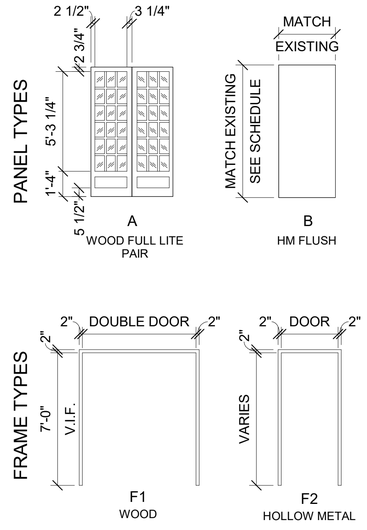
2 A6.1 — HM DOOR FRAME AT EXISTING - JAMB (HEAD SIM)

3" = 1'-0"



1 A6.1 — HM DOOR AT EXISTING - SILL

3" = 1'-0"



DOOR TYPES LEGEND

1/4" = 1'-0"

6" 3" 0" 6"

3" = 1' - 0" SCALE OF FEET

4' 2' 0 4' 8'

1/4" = 1' - 0" SCALE OF FEET

GENERAL NOTES

A. FIELD VERIFY ALL EXISTING OPENINGS TO RECEIVE NEW DOOR LEAFS AND/OR FRAMES.

DOOR MATERIAL LEGEND

ALUM	ALUMINUM
HM	HOLLOW METAL
WD	WOOD
PT	PAINT
ETR	EXISTING TO REMAIN

DOOR REMARKS

1. REMOVE EXISTING ADDED WOOD FRAMING/TRIM, LEAVING ORIGINAL WOOD FRAME/TRIM IN PLACE. PACK AROUND THE ORIGINAL WITH NEW WOOD SUBFRAMING TO CREATE NEW FLUSH OPENING FOR NEW HM FRAME TO SIT WITHIN.
2. PREP AND REPAINT EXISTING FRAME WHERE DOOR LEAFS TO BE REPLACED.
3. REMOVE INTERIOR DOOR PULLS. INSTALL VERTICAL 2X FRAMING AGAINST DOOR LEAFS AT INTERIOR MEETING STILE TO COVER GAP BETWEEN LEAFS. CONTINUOUS SEALANT AT EDGES OF 2X AND DOOR FACE.
4. PIN DOOR IN PLACE USING FIXED SCREWS BETWEEN DOOR LEAF AND FRAME AT INTERIOR JAMBS. MINIMUM THREE LOCATIONS AT EACH SIDE. DO NOT SCREW THROUGH INTERIOR STOP OR TRIM.

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	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG			SHEET 212 OF 286
	DATE: 10.27.2023			

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GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 INTERNATIONAL EXISTING BUILDING CODE AND 2021 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THESE GOVERNING CODES.
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
   - B. ACI COLLECTION, LATEST EDITION
   - C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
2. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.)
4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
5. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
6. WELDED WIRE REINFORCEMENT (W.W.R.) SHALL CONFORM TO ASTM A1064, WITH A MINIMUM YIELD STRENGTH OF 65,000 PSI.
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ALL OTHER DISCIPLINES. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6".
8. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEP TRADE SUBMITTALS FOR CONTRACTING OFFICER REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAID INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS AND WALLS TOGETHER.
9. ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
10. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
    - A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3"
    - B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      - a. 2" (#6 THROUGH #18 BARS)
      - b. 1-1/2" (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
    - C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
      - a. SLABS, JOISTS, AND WALLS:
        - 1-1/2" (#14 THROUGH #18 BARS)
        - 3/4" (#11 BAR AND SMALLER)
      - b. BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES (STIRRUPS, TIES, SPIRALS, HOOPS, AND PRIMARY REINFORCEMENT): 1-1/2"
11. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
12. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERT AND EMBED ITEMS.
13. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS".
   - B. AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
   - C. AMERICAN WELDING SOCIETY (AWS D1.1) "STRUCTURAL WELDING CODE - STEEL".
   - D. RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
2. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
   - A. WIDE FLANGE BEAMS, COLUMNS, AND STRUCTURAL TEES: ASTM A992.
   - B. HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C.
   - C. CHANNELS, ANGLES, AND PLATES: ASTM A36 UNLESS OTHERWISE NOTED.
   - D. BOLTED CONNECTIONS SHALL BE PER ASTM F3125. GRADES ARE TO BE SELECTED AS FOLLOWS:
     - a. STANDARD BEAM TO BEAM/GIRDER: ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN SNUG-TIGHTENED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
     - b. BEAM/GIRDER TO COLUMN CONNECTIONS, COLUMN SPLICES AND BOLTS EXPERIENCING TENSION LOADS (UNLESS OVERSIZED OR SLOTTED HOLES ARE USED, IN WHICH CASE SLIP-CRITICAL JOINTS SHALL BE USED): ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN PRETENSIONED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
   - E. ANCHOR RODS: ASTM F1554, GRADE 36.
3. STEEL CONNECTION SHALL BE STANDARD AISC FRAMED BEAM CONNECTIONS, AND SHALL BE DESIGNED BY A LICENSED ENGINEER WORKING FOR THE FABRICATOR, WHO SHALL PROVIDE CALCULATIONS, UTILIZING LRFD LOADS AND PROCEDURES.
   - A. WHERE CONNECTIONS HAVE BEEN DESIGNED BY A LICENSED ENGINEER, STEEL CONTRACTOR IS RESPONSIBLE FOR INTEGRATING RESULTS OF ALL CALCULATIONS INTO THE SHOP DRAWINGS.
   - B. UNLESS OTHERWISE NOTED ON PLAN, PROVIDE CONNECTIONS BASED ON MINIMUM SHEAR CAPACITY REQUIREMENTS IN THE FOLLOWING TABLE
     - WHICH ARE BASED ON AISC DOUBLE ANGLE CONNECTIONS.

STRUCTURAL STEEL (CONT.)

MINIMUM SHEAR CAPACITY REQUIREMENTS		
BEAM DEPTH (NOMINAL)	MIN. SHEAR CAPACITY LRFD (Kips)	MIN. NUMBER OF BOLT ROWS
8", 10"	34	2
12", 14"	54	3
16"	68	3
18"	82	4
21"	117	4
24"	157	5
27"	211	6
30"	242	7
33"	284	7
36"	315	8
40"+	345	9

   - B. REINFORCING IS TO BE PROVIDED AT CONNECTIONS WHERE CUTS REDUCE THE SHEAR OR MOMENT CAPACITY BELOW THAT REQUIRED TO SUSTAIN THE REACTION. FLANGES AND WEBS ARE TO BE REINFORCED WHERE THE LOCAL CAPACITY TO SUSTAIN CONNECTION LOADS ARE INADEQUATE. CUTS OR COPES MAY PREVENT MINIMUM NUMBER OF BOLT ROWS SHOWN ABOVE FROM BEING ACHIEVED, WHICH IS ACCEPTABLE PENDING WRITTEN APPROVAL AND CONFIRMATION THAT MINIMUM SHEAR CAPACITY HAS BEEN MET.
   - C. CONNECTIONS SHALL BE DESIGNED FOR SHEAR AND ECCENTRICITY, CONSIDERING THAT THE CONNECTIONS ARE AN EXTENSION OF THE BEAMS AND GIRDERS.
4. MINIMUM WELD SIZE IS 1/4" FILLET UNLESS NOTED OTHERWISE.
5. ALL BEAMS EXCEPT CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED SO THAT NATURAL CAMBER RAISES CANTILEVER END.
6. FIELD CUTTING OR BURNING OF STEEL IS PROHIBITED EXCEPT WITH THE EXPRESS WRITTEN APPROVAL OF THE CONTRACTING OFFICER. (IN WHICH CASE ALL BURNING OF STEEL MUST CONFORM TO THE THERMAL CUTTING REQUIREMENTS OF AISC AND AWS)
7. WELDING SHALL BE PERFORMED BY CERTIFIED, AWS-QUALIFIED WELDERS. WELDING ELECTRODES FOR CARBON STEEL SHALL BE AWS 5.1, CLASS E70XX. WELDING ELECTRODES FOR ASTM A276 STAINLESS STEEL, TYPE 304, SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E308; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER308. WELDING ELECTRODES FOR ASTM A276 TYPE 316L STAINLESS STEEL SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E316; OR AWS A5.9 FOR GAS METAL ARC WELDING.
8. SHOP PAINT EXPOSED STEEL MEMBERS, STEEL MEMBERS NOT ENCASED IN CONCRETE OR SPRAY FIREPROOFED, AND ALL STEEL MEMBERS AT THE EXTERIOR WALL WITH TNEMEC V10-99 OR APPROVED EQUAL EXCEPT FOR MEMBERS TO BE HOT DIPPED GALVANIZED.
9. LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:

MASONRY OPENING	LINTEL
4' - 0" OR LESS	L4x3-1/2x5/16 LLV
4' - 1" TO 7' - 0"	L6x3-1/2x5/16 LLV

   - A. 3-1/2" LEGS ARE HORIZONTAL.
   - B. PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS.
   - C. PROVIDE L5x5x5/16 ANGLES FOR 6" THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 6' - 0".
   - D. PROVIDE MINIMUM 6" BEARING AT EACH END.
   - E. LINTELS OVER 6' - 4" SHALL BE FIREPROOFED.
12. SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
13. SHOP DRAWING SUBMITTALS SHALL FOLLOW THE FOLLOWING SEQUENCE (WITH EACH NOT BEING SUBMITTED UNTIL THE PREVIOUS ONE IS APPROVED):
    - A. JOB STANDARDS (BASIS OF DESIGN AND REPRESENTATIVE CALCULATIONS FOR VARIOUS CONNECTION TYPES)
    - B. ERECTION PLANS
    - C. PIECE DETAILS AND PIECE-SPECIFIC CONNECTION CALCULATIONS

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS

1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY CONTRACTING OFFICER PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSUMPTIONS AND CONDITIONS OF THE MPII. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.
2. INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND CONTRACTING OFFICER WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.
   - A. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPII AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.
3. EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE CONTRACTING OFFICER.
4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF CONCRETE, AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS (CONT.)

5. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY, GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.
6. SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACTING OFFICER. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPII. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACTING OFFICER PRIOR TO USE.

SPECIAL INSPECTIONS (IBC)

1. REFERENCE NPS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR FULL LIST OF REQUIREMENTS.
2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

STRUCTURAL SYSTEM DESCRIPTION

FOLLOWING WHAT HAS BEEN DOCUMENTED IN 1920 ORIGINAL STRUCTURAL DRAWINGS, 1956 RENOVATION DRAWINGS, 2022 SD REHAB DRAWINGS BY SEA, AND SITE OBSERVATIONS PERFORMED BY SILMAN IN FEBRUARY & JULY 2023, THE STRUCTURAL DESCRIPTION IS AS FOLLOWS:
THE GRAVITY SYSTEM OF THE BUILDING IS GENERALLY COMPRISED OF STEEL OPEN WEB ROOF TRUSSES THAT SPAN TO THE PERIMETER STRUCTURE, SECOND FLOOR REINFORCED CONCRETE SLABS AND BEAMS SUPPORTED BY PERIMETER STRUCTURE AND INTERIOR REINFORCED CONRETE COLUMNS, AND FIRST FLOOR SLAB ON GRADE. STRUCTURE WITHIN THE EXTERIOR WALLS IS BELIEVED TO BE REINFORCED CONCRETE COLUMNS AND SPANDREL BEAMS WITH TERRACOTTA TILE INFILL. BOTH WALLS AND CONCRETE COLUMNS BEAR ON REINFORCED CONCRETE WALL AND SPREAD FOOTINGS RESPECTIVELY. LIBBEY BATHHOUSE WAS CONSTRUCTED IN 1922. MOST BUILDINGS CONSTRUCTED IN THIS REGION AND ERA WERE NOT DESIGNED WITH AN EXPLICITLY DEFINED LATERAL FORCE RESISTING SYSTEM. AN ACCEPTABLE STRUCTURAL SYSTEM TO RESIST LATERAL FORCES WAS STEEL OR CONCRETE FRAMED BUILDINGS DESIGNED TO SUPPORT GRAVITY LOADS SURROUNDED BY WELL-PROPORTIONED MASONRY OR CONCRETE WALLS.
THE SCOPE OF WORK WITHIN THESE DOCUMENTS DOES NOT ALTER THE EXISTING STRUCTURAL BEHAVIORS OR LOAD PATHS. THEREFORE, PER 2021 INTERNATIONAL EXISTING BUILDING CODE SECTION 706 AND 1205, REPAIRS CAN BE INSTALLED TO BRING THE BUILDING BACK TO THE ORIGINAL CAPACITY AT THE TIME OF CONSTRUCTION. REFERENCE SILMAN MEMO DATED JULY 5, 2023 FOR SEISMIC SAFETY CONSIDERATIONS PER STANDARDS OF SEISMIC SAFETY FOR EXISTING FEDERALLY OWNED AND LEASED BUILDINGS; ICSSC RECOMMENDED PRACTICE 10 (RP 10-22). NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.

TEMPORARY SHORING

1. DETERMINATION OF THE FULL SCOPE AND EXTENT OF ALL TEMPORARY SHORING WORK AND SEQUENCING REQUIRED TO SAFELY EXECUTE THE STRUCTURAL WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S ENGINEER.
2. THE DESIGN OF TEMPORARY SHORING BY THE CONTRACTOR'S ENGINEER SHALL ABIDE BY THE REQUIREMENTS IN THE GENERAL NOTES.
3. THE DESIGN OF TEMPORARY SHORING, AND DETERMINATION OF THE EXTENT OF TEMPORARY SHORING, ARE NOT THE RESPONSIBILITY OF SILMAN.

DESIGN PARAMETER TABLE		
GOVERNING CODES:		2021 INTERNATIONAL BUILDING CODE & 2021 INTERNATIONAL EXISTING BUILDING CODE
RISK CATEGORY:		II (BASED ON CURRENT UNOCCUPIED STATE; DESIGN PARAMETERS ARE SUBJECT TO CHANGE ONCE FUTURE OCCUPANCY...
SNOW LOAD:		
10	Pg	GROUND SNOW LOAD
8	Pf	FLAT-ROOF SNOW LOAD
1.0	Ce	SNOW EXPOSURE FACTOR
1.0	Is	SNOW LOAD IMPORTANCE FACTOR
1.1	Ct	THERMAL FACTOR (ASSUMED FOR MAIN BUILDING)
0.9	Cs	SLOPE FACTOR
7.2	Ps	SLOPED ROOF SNOW LOAD
WIND LOAD:		
105	Vult	ULTIMATE DESIGN WIND SPEED
84	Vasd	NOMINAL DESIGN WIND SPEED
1.0	I	WIND IMPORTANCE FACTOR
C		WIND EXPOSURE CATEGORY
0.18	GCPi	INTERNAL PRESSURE COEFFICIENT
SEISMIC DESIGN:		
1.0	I	SEISMIC IMPORTANCE FACTOR
0.238	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.111	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
C		SITE CLASS
0.206	S(ds)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT...
0.111	S(d1)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND...
B		SEISMIC DESIGN CATEGORY
SEE STRUCTURAL DESCRIPTION ON S0.1. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.		BASIC SEISMIC FORCE RESISTING SYSTEM

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14677
10/27/2023
NATHANIEL OPPENHEIMER

CONCRETE MIX DESIGN								
AREA	F'c AT 28 DAYS (psi)	NOTES	DENSITY	DURABILITY EXPOSURE CATEGORIES AND CLASSES (ACI 318 TABLE 4.2.1.)				NOTES
				FREEZING AND THAWING (F)	SULFATE (S)	PERMEABILITY (P)	CORROSION PROTECTION OF REINFORCEMENT (C)	
SITE CONCRETE (LIGHT POSTS, FENCE POSTS, ETC.)	3500	MAX w/c = 0.45	NORMAL WEIGHT	F3	S0	P0	C1	
EXTERIOR SLAB ON GRADE	5000			F3	S0	P0	C2	REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR SLABS
INTERIOR SLAB ON GRADE	4000			F0	S0	P0	C0	
STRUCTURED SLAB	6000			F0	S0	P0	C0	

10/24/2023 1:33:35 PM

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02	LIBBEY BATHHOUSE GENERAL STRUCTURAL NOTES & DESIGN TABLES	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM	S0.1	REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			213 OF 286
	DATE: 10.27.2023			

LEGEND

- EXISTING CONCRETE FOOTING
- WALL OR CONCRETE BEAM BELOW
- EXISTING WALL, BEAM FLOOR, OR FOUNDATION (SEE NOTES FOR MATERIAL)
- EXISTING CONCRETE COLUMN
- EXISTING STEEL COLUMN
- EXISTING STEEL BEAM
- (E) SLAB — EXISTING ONE WAY FLOOR SLAB, OPEN ARROW INDICATES SPAN DIRECTION
- S.O.G. — SLAB ON GRADE (SEE SCHEDULE)
- RAMP/SLOPED FLOOR (TAIL INDICATES HIGH END)
- STEP IN SLAB/FRAMING
- OPENING IN SLAB
- EXISTING OPENING IN EXISTING SLAB
- (#) KEYNOTE
- #△ REVISION
- WP — STEEL BEAM WALL PLATE CONNECTION (SEE DETAIL)

STANDARD ABBREVIATIONS

ADD'L	ADDITIONAL
ADJ.	ADJACENT
A/E	DESIGN TEAM OF RECORD
ALT.	ALTERNATE
APPROX.	APPROXIMATE/APPROXIMATELY
ARCH.	ARCHITECT/ARCHITECTURAL
BLDG.	BUILDING
B.O.	BOTTOM OF
BOT.	BOTTOM
BRG.	BEARING
C.I.P.	CAST IN PLACE
CLR.	CLEAR
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONT.	CONTINUOUS
COORD.	COORDINATE/COORDINATION
COTR	CONTRACT OFFICER'S TECHNICAL REPRESENTATIVE
CTR.	CENTER
DEMO	DEMOLITION/DEMOLISH
DIA.	DIAMETER
DIM.	DIMENSION
DWG(S)	DRAWING(S)
DWL.	DOWEL
EA.	EACH
E.F.	EACH FACE
EMBED.	EMBEDMENT
E.O.R.	ENGINEER OF RECORD
EQ.	EQUAL
E.S.	EACH SIDE
E.W.	EACH WAY
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH
FLR.	FLOOR
F.S.	FAR SIDE
FT.	FEET
FTG.	FOOTING
GA.	GAGE
GALV.	GALVANIZED
G.B.	GRADE BEAM
HORIZ.	HORIZONTAL
INFO	INFORMATION
INT.	INTERIOR
LLBB	LONG LEGS BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
L.W.	LIGHTWEIGHT
MAX.	MAXIMUM
MECH.	MECHANICAL
MEP	MECH., ELECT., PLUMBING, & FIRE PROTECTION
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MPII	MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS
N.F.	NEAR FACE
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
N.W.	NORMAL WEIGHT
O.C.	ON CENTER
O.F.	OUTSIDE FACE
OPNG.	OPENING
OPP.	OPPOSITE
PL.	PLATE
PSF	POUNDS PER SQUARE FOOT
REINF.	REINFORCE(D)/REINFORCEMENT
REQ'D	REQUIRED
REV.	REVISION
SCHED.	SCHEDULE
SECT.	SECTION
SLBB	SHORT LEGS BACK-TO-BACK
SIM.	SIMILAR
S.O.G.	SLAB ON GRADE
SPEC.	SPECIFICATION
STD.	STANDARD
STIFF.	STIFFENER
STL.	STEEL
T & B	TOP & BOTTOM
TEMP.	TEMPORARY/TEMPERATURE
THK.	THICK(NESS)
T.O.	TOP OF
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W.W.R.	WELDED WIRE REINFORCEMENT
#	NUMBER/SIZE
Ø	DIAMETER

STANDARD ABBREVIATIONS FOR EXISTING STRUCTURES

(E)	EXISTING MEMBER OR DIMENSION
EXIST.	EXISTING
T.C.	TERRA COTTA
V.I.F.	VERIFY IN FIELD

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS

ARCH:
QUINN EVANS
219 1/2 N. MAIN STREET
ANN ARBOR, MI
T: 734.663.5888

ENG:
SILMAN
211 N 4TH AVE.
ANN ARBOR, MI
T: 734.800.2460

DESIGNED: KH
CADD: CM
TECH. REVIEW: NH
DATE: 10.27.2023

SUB SHEET NO. 02 S0.2

TITLE OF SHEET
LIBBEY BATHHOUSE
LEGEND & ABBREVIATIONS

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 / 182951
PMIS/PKG NO. 318915
214 OF 286

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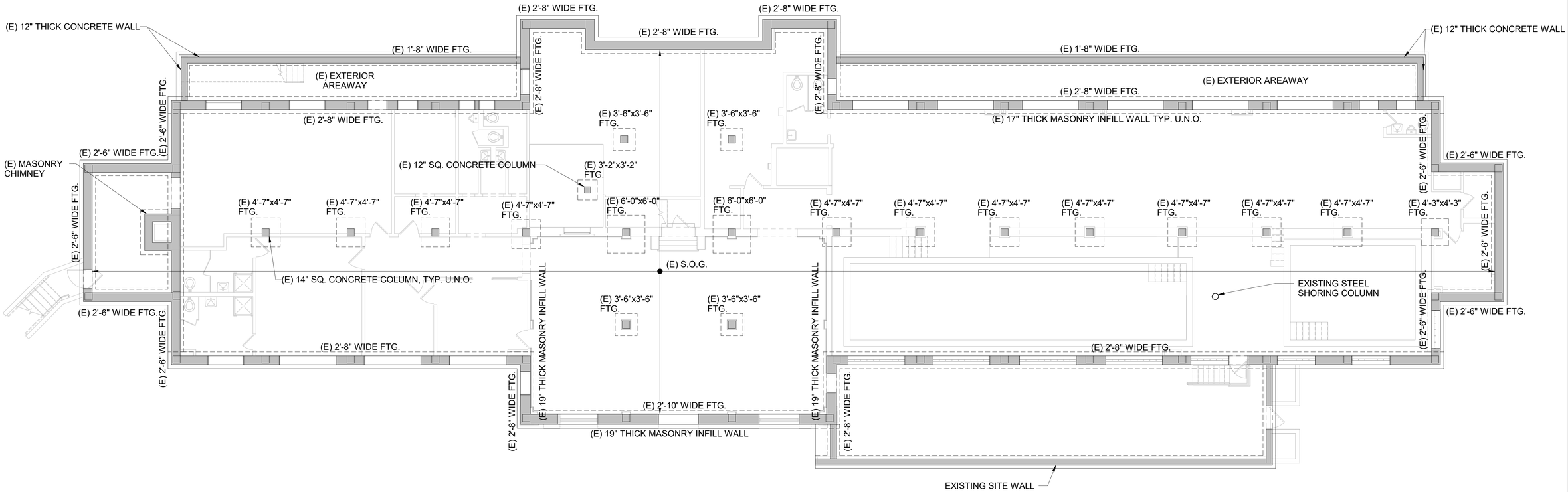
SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. PERIMETER MASONRY WALLS ARE NON-LOAD BEARING INFILL BETWEEN CONCRETE COLUMNS.



1 S1.1 EXISTING LOWER LEVEL PLAN

1/8" - 1'-0" SCALE (A)

SCALE (A) 8 0 8 16 SCALE OF FEET

STATE OF ARKANSAS — REGISTERED PROFESSIONAL ENGINEER — No. 14677 — 10/27/2023 — NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888 ENG: SILMAN, 211 N 4TH AVE, ANN ARBOR, MI, T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	02 S1.1	LIBBEY BATHHOUSE EXISTING FOUNDATION / LOWER LEVEL PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 PMIS/PKG NO. 182951 318915 215 OF 286

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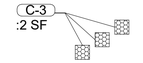
SHEET NOTES

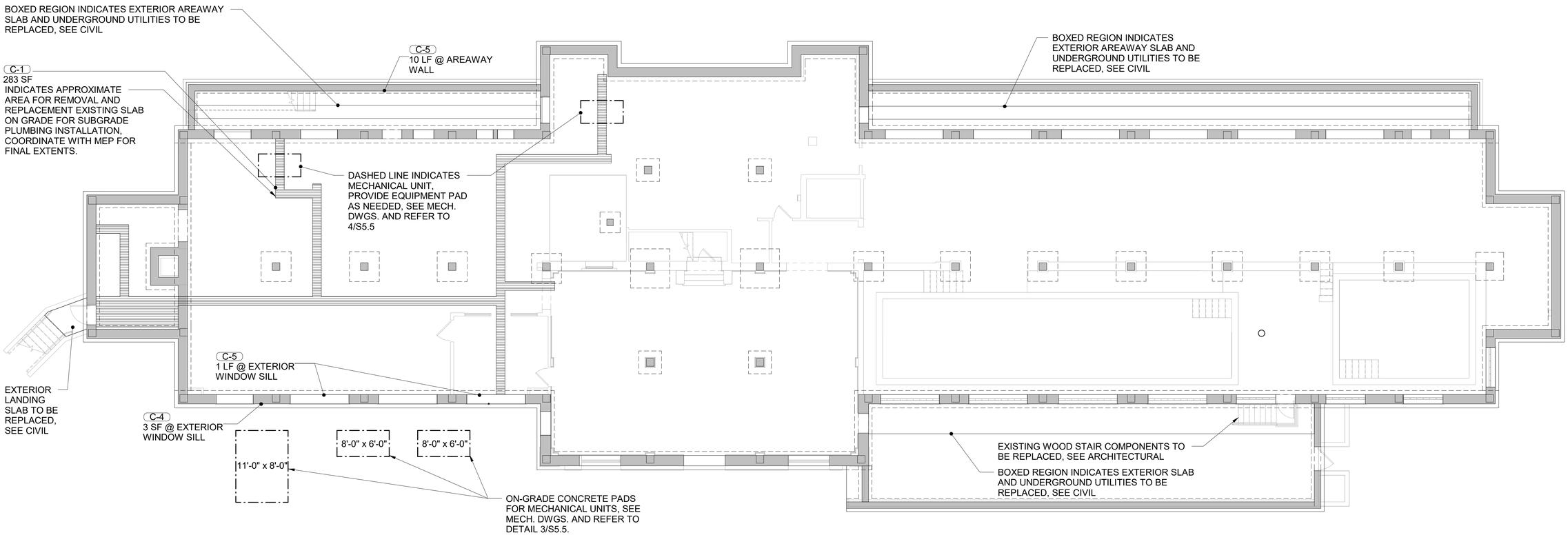
MASTER KEYNOTE LIST FOR REPAIRS	
KEY	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 4 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 3 & 5 ON S5.3.
S-1	REPLACEMENT OF POSITIVE STEEL ROOF RAFTER ATTACHMENT.

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE. SEE REPAIR QUANTITIES ON S5.1 FOR TOTAL REPAIR AMOUNTS.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
5. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.



1 / S1.2 LOWER LEVEL REPAIR PLAN

1/8" - 1'-0" SCALE (A)

SCALE (A) 8 0 8 16

SCALE OF FEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S1.2	LIBBEY BATHHOUSE LOWER LEVEL REPAIR PLAN	128 182951
ENG: SILMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			216 OF 286
	DATE: 10.27.2023			

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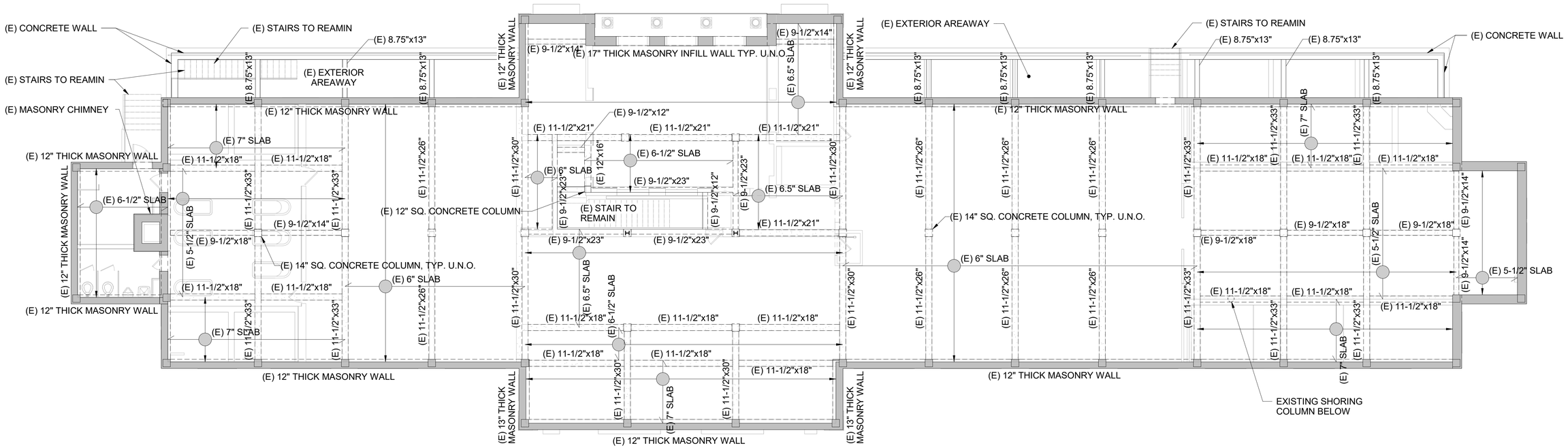
SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
2. VERIFY ALL DIMENSIONS IN FIELD, INCLUDING FRAMING SIZES SHOWN ON PLAN. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
3. COORDINATE ALL SLAB OPENINGS, SLOPES, SLEEVES, DEPRESSIONS, EDGE DIMENSIONS AND CURBS WITH ARCHITECT, CIVIL, MEP AND OTHER PRIME CONTRACTORS; REFER TO REPAIR SHEETS
4. SEE ARCHITECTURAL DRAWINGS FOR ALL OTHER INFORMATION NOT SHOWN.
5. PERIMETER MASONRY WALLS ARE NON-LOAD BEARING INFILL BETWEEN CONCRETE COLUMNS.
6. FRAMING ELEMENTS DESIGNATED AS (E) #" X #" INDICATE EXISTING CONCRETE BEAMS OF APPROXIMATE #" WIDTH X #" DEPTH.



1 S1.3 EXISTING UPPER LEVEL PLAN
1/8" - 1'-0" SCALE (A)

SCALE (A) 8 0 8 16
SCALE OF FEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER
No. 14677
NATHANIEL OPPENHEIMER
10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S1.3	LIBBEY BATHHOUSE EXISTING UPPER LEVEL PLAN	128 182951
ENG: SIMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			217 OF 286
	DATE: 10.27.2023			

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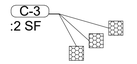
SHEET NOTES

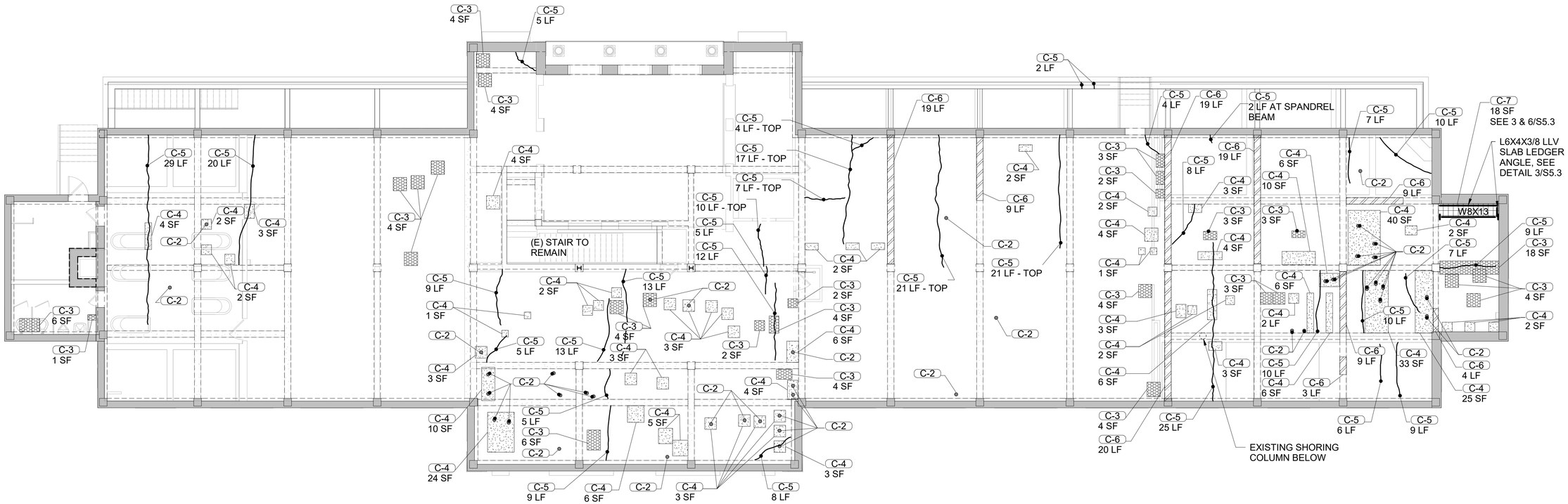
MASTER KEYNOTE LIST FOR REPAIRS	
KEY	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 4 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 3 & 5 ON S5.3.
S-1	REPLACEMENT OF POSITIVE STEEL ROOF RAFTER ATTACHMENT.

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE. SEE REPAIR QUANTITIES ON S5.1 FOR TOTAL REPAIR AMOUNTS.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
5. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.



SCALE (A) 8 0 8 16
SCALE OF FEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
NATHANIEL OPPENHEIMER

1 / S1.4 UPPER LEVEL REPAIR PLAN
1/8" - 1'-0" SCALE (A)

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S1.4	LIBBEY BATHHOUSE UPPER LEVEL REPAIR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			218 OF 286

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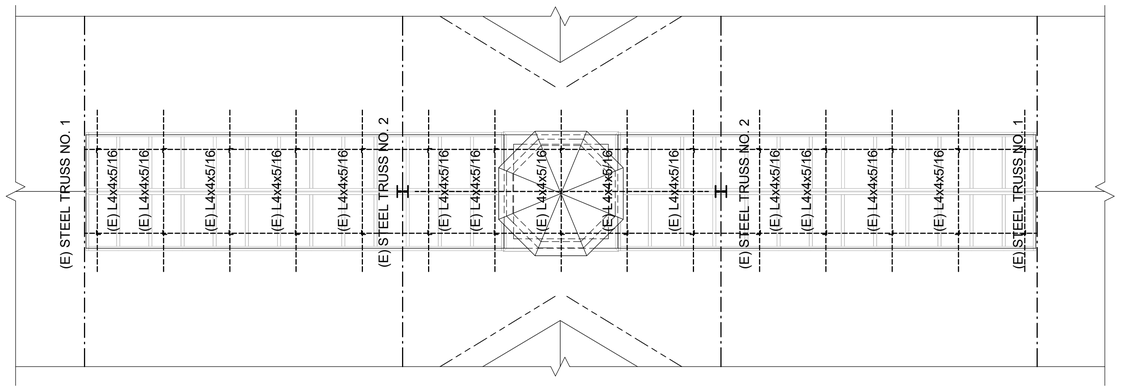

2 S1.5 ROOF PARTIAL PLAN

1/4" = 1'-0" SCALE (B)

SHEET NOTES

1. ALL CONDITIONS SHALL BE FIELD VERIFIED AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR REVIEW TO OCCUR PRIOR TO REPAIR, NEW FRAMING FABRICATION, AND INSTALLATION; REFER TO REPAIR SHEETS.
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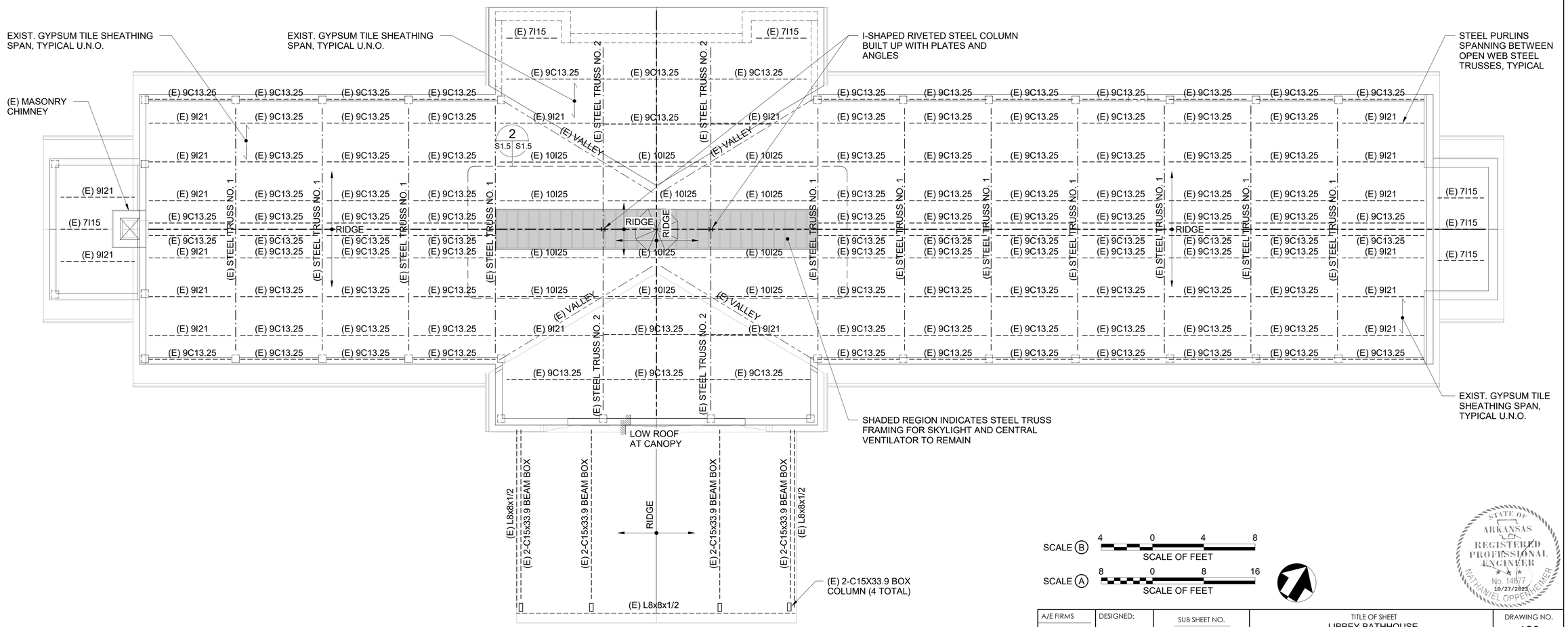


1 S1.5 EXISTING ROOF PLAN

1/8" - 1'-0" SCALE (A)

SCALE (B) 4 0 4 8 SCALE OF FEET

SCALE (A) 8 0 8 16 SCALE OF FEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023 NATHANIEL OPPENHEIMER

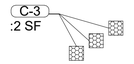
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S1.5	LIBBEY BATHHOUSE EXISTING ROOF PLAN	128 182951
ENG: SIJMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	219 OF 286
	DATE: 10.27.2023			

10/24/2023 1:33:41 PM

SHEET NOTES

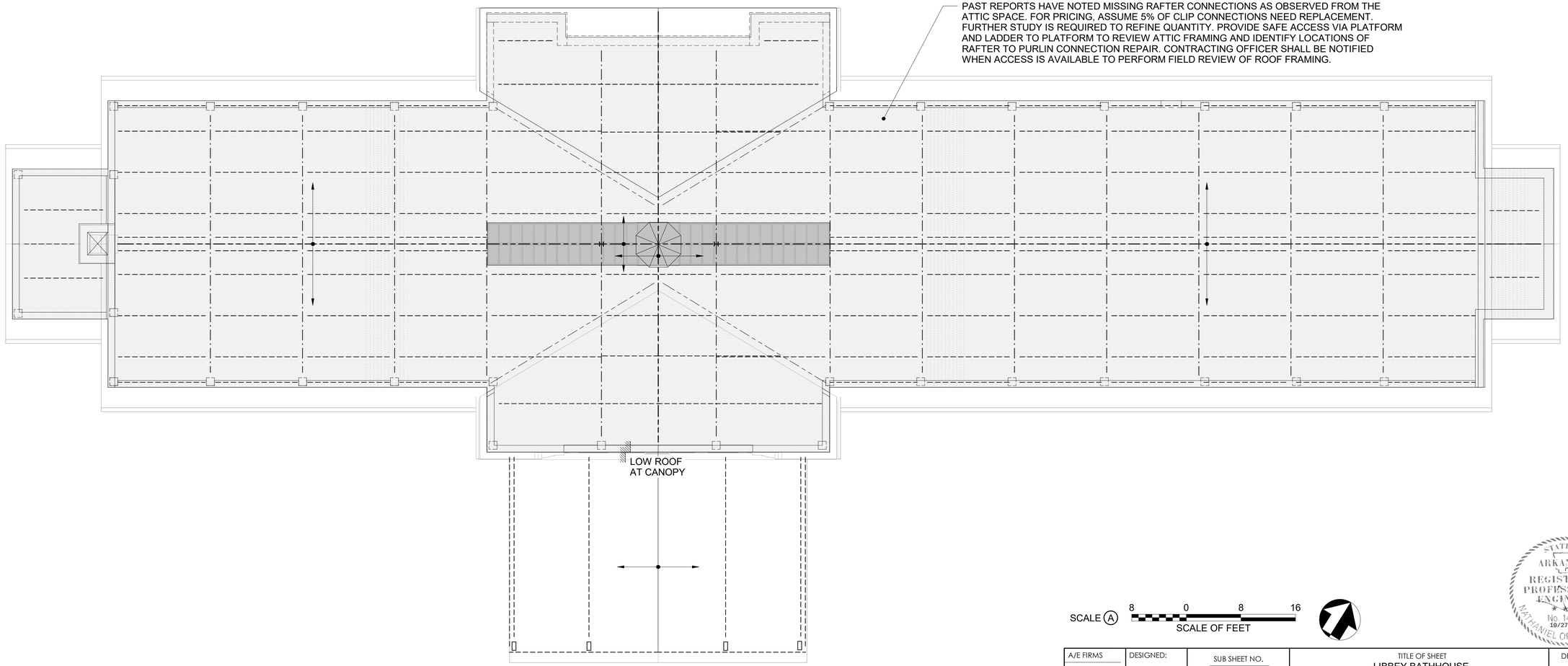
MASTER KEYNOTE LIST FOR REPAIRS	
KEY	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 4 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 3 & 5 ON S5.3.
S-1	REPLACEMENT OF POSITIVE STEEL ROOF RAFTER ATTACHMENT.

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE. SEE REPAIR QUANTITIES ON S5.1 FOR TOTAL REPAIR AMOUNTS.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. CARE SHOULD BE TAKED TO MINIMIZE IMPACT TO NEARBY FRAMING ELEMENTS OR WALLS BELOW. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.
5. EACH KEYNOTE LEADER REPRESENTS AN INDIVIDUAL INSTANCE OF REPAIR WITH THE QUANTITY INDICATED. FOR EXAMPLE:



INDICATES THREE INSTANCES OF 2 SF REPAIRS = 6 SF TOTAL REPAIR.

6. REFER TO DETAILS ON S5.X SERIES SHEETS FOR APPLICABLE DETAILS.
7. ALL REPAIR AREAS ARE BASED ON LIMITED VISUAL OBSERVATION. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.



1 S1.6 ROOF REPAIR PLAN
1/8" - 1'-0" SCALE (A)

SCALE (A) 8 0 8 16
SCALE OF FEET

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14677
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888 ENG: SILMAN, 211 N 4TH AVE, ANN ARBOR, MI, T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	02 S1.6	LIBBEY BATHHOUSE ROOF REPAIR PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 220 OF 286

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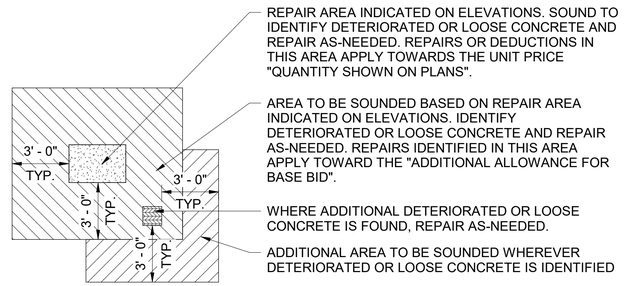
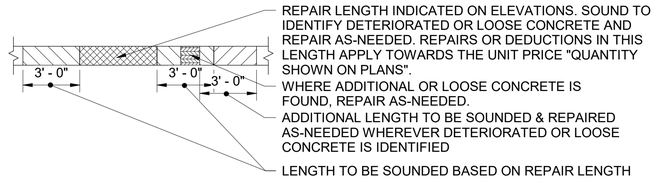
NOTES - CONCRETE REPAIRS:

1. TYPICAL DETAILS
   A. THE DETAILS SHOWN ON THIS SHEET ARE REFERENCED ON PLANS AND ELEVATIONS FOR SPECIFIC CONCRETE REPAIRS AND ARE BASED ON LIMITED FIELD INVESTIGATION. CONTRACTOR TO PROVIDE A UNIT PRICE FOR REPAIR WORK BASED ON UNITS AS IDENTIFIED IN KEYNOTE TABLE.
   B. REFER TO SPECIFICATION SECTION 03 0130 "MAINTENANCE OF CONCRETE" FOR ADDITIONAL REQUIREMENTS.
2. PROCEDURE
   A. THE FOLLOWING SEQUENCE DESCRIBES THE EXPECTED PROCEDURE AT CONCRETE AND CONCRETE-ENCASED MEMBERS:
      a. SOUND MEMBER TO IDENTIFY ANY LOOSE OR DETERIORATED CONCRETE. SOUNDING SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE EXTENTS OF LENGTHS OR AREAS INDICATED ON ELEVATIONS. WHERE ADDITIONAL LOOSE OR DETERIORATED MATERIAL IS FOUND, SOUND AN ADDITIONAL 3 FEET IN ALL DIRECTIONS BEYOND THE LENGTH OR AREA OF ADDITIONAL DETERIORATION. SEE DETAIL TO RIGHT.
      b. REMOVE ANY LOOSE OR DETERIORATED CONCRETE MATERIAL PER THE SPECIFICATIONS.
      c. ALL OXIDIZED AND CORRODED BARS SHALL BE EXPOSED AND CLEANED WITH WIRE BRUSHING, SANDBLASTING, OR OTHER APPROVED METHODS PER THE SPECIFICATIONS. AFTER CLEANING CORRODED BARS SHALL BE REVIEWED FOR STRUCTURAL ADEQUACY BY THE CONTRACTOR, USING THE INFORMATION BELOW IN THE SECTION "CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES." CONTRACTOR IS TO NOTIFY CONTRACTING OFFICER IF ASSESSMENT REQUIRES ADDITIONAL SUPPORT FROM CONTRACTING OFFICER.
      d. PROVIDE ADDITIONAL REINFORCEMENT IF REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER PER THE DETAILS AND SPECIFICATIONS (SEE NOTE 5.E BELOW).
      e. PREPARE CONCRETE SURFACES TO BE RESTORED PER THE DETAILS, SPECIFICATIONS, AND MANUFACTURER'S PRINTED INSTRUCTIONS.
      f. PLACE NEW REPAIR MORTAR AS NOTED IN THE DETAILS, AND SPECIFICATIONS. COORDINATE FINISH REQUIREMENTS WITH THE CONTRACTING OFFICER.
3. INSPECTIONS & QUALITY CONTROL
   A. REFER TO THE SPECIFICATIONS FOR INSPECTIONS AND QUALITY CONTROL REQUIREMENTS.
4. CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES

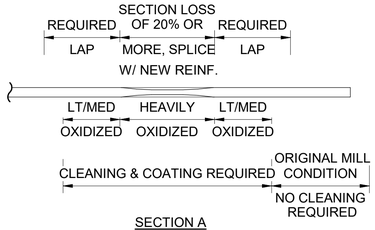
   A. PREPARE SURFACES TO BE RESTORED IN COMPLIANCE WITH PRODUCT MANUFACTURER'S PRINTED INSTRUCTIONS AND AS SPECIFIED. CLEAN AREAS TO BE RESTORED WITH WIRE BRUSH AND COMPRESSED AIR OR WATER TO REMOVE ALL LOOSE MATERIALS, INCLUDING OIL, DIRT, DUST, OR OTHER FOREIGN MATERIAL FROM SURFACES TO BE REPAIRED.
   B. REMOVE LOOSE AND DETERIORATED CONCRETE BY MECHANICAL MEANS DOWN TO SOUND CONCRETE SUBSTRATE. DO NOT CUT EXISTING REINFORCING. DETAIL THE EDGE OF THE PATCH TO A 1/2" MINIMUM DEPTH TO PREVENT FURTHER EDGING. CHIP CONCRETE SUBSTRATE TO OBTAIN A FRACTURED AGGREGATE SURFACE WITH A MINIMUM SURFACE PROFILE OF 1/8" DEPTH. SEE TYPICAL REPAIR DETAILS ON S5.2 & S5.3 FOR ADDITIONAL CONCRETE PREP PER CONDITION.
   C. ALL OXIDIZED AND CORRODED BARS SHALL BE UNDERCUT A MINIMUM OF 3/4" OR 1/4" LARGER THAN THE LARGEST SIZE AGGREGATE IN THE PATCHING CONCRETE, WHICHEVER IS GREATER. EXPOSED BARS WHICH ARE NOT OXIDIZED OR CORRODED DO NOT HAVE TO BE UNDERCUT IF LESS THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED AND THE BOND BETWEEN THE BAR AND CONCRETE IS INTACT. IF THE BOND IS BROKEN OR MORE THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED, THEN THE BAR SHALL BE UNDERCUT AS DESCRIBED IN SECTION C.
   D. CLEAN REINFORCING STEEL OF OXIDATION USING A WIRE BRUSH. THE REINFORCING BARS SHALL BE CLEANED TO BRIGHT METAL. APPLY ANTI-CORROSION PRIMER AND BONDING BRIDGE. COAT THE REINFORCEMENT OR OTHER STEEL TO REMAIN WITH CORROSION INHIBITOR.
   E. IF REDUCED SECTION OF REINFORCEMENT IS LESS THAN 80% OF ORIGINAL AREA, PROVIDE ADDITIONAL REINFORCING STEEL OF 1.5X AREA LOST OR GREATER OR REPLACE WITH NEW.
   F. REINFORCING SHALL BE ADDED ACCORDING TO NOTES BELOW AND SECTIONS A AND B.
      1. SPLICE LENGTH SHOWN SHALL EXTEND ON BOTH ENDS OF HEAVILY OXIDIZED SECTION FROM THE POINT WHERE THE EXISTING BAR IS BEING SPLICED.
      2. IF LAP SPLICE OF ADDITIONAL STEEL EXTENDS BEYOND THE REPAIR AREA PERIMETER, CUT A NOTCH IN THE EXISTING CONCRETE TO PROVIDE A 3/4" CLEAR SPACE BEHIND AND ON EACH SIDE OF THE ADDED STEEL.
      3. BOTTOM BAR SPLICE NEED NOT EXTEND BEYOND THE FACE OF SUPPORT OF THE BEAM OR GIRDER.
      4. IF ADDED STEEL ENCOUNTERS END OF MEMBER, PROVIDE HOOK OR MECHANICAL ANCHOR TO DEVELOP THE STEEL TENSION CAPACITY. DRILL & GROUT AS REQ'D.
      5. IF OBSTRUCTION PREVENTS FULL SPLICE LENGTH, USE MECHANICAL TENSION SPLICE COUPLER. CUT AND CONNECT TO EXIST REINF.
   G. SATURATE THE SURFACE OF THE PREPARED CONCRETE WITH WATER FOR A MAXIMUM OF TWO HOURS PRIOR TO THE PLACEMENT OF THE NEW CONCRETE. NO STANDING WATER AT THE TIME OF PATCH INSTALLATION.
   H. JUST PRIOR TO NEW CONCRETE PLACEMENT, APPLY A SCRUB COAT OF A THIN CEMENT SLURRY WITH A STIFF BRUSH. SLURRY MUST BE SCRUBBED INTO SUBSTRATE, FILLING ALL PORES AND VOIDS.
   I. APPLY REPAIR MORTAR PER MANUFACTURER'S REQUIREMENTS. AT AREAS WHERE THE DEPTH OF REPAIR TO SOUND CONCRETE EXCEEDS THE MAXIMUM THICKNESS OF A SINGLE LIFT AS INDICATED BY THE MORTAR MANUFACTURER, APPLY THE PATCHING MORTAR IN MULTIPLE LIFTS WITH THICKNESS NOT EXCEEDING THE MAXIMUM. ALLOW SUFFICIENT CURING TIME AND SCORE MORTAR SURFACE BETWEEN LIFTS.
   J. PLACE CONCRETE TO REPAIR PATCH/MORTAR MINIMUM 3/4" COVER OVER REINFORCING BARS FOR INTERIOR CONDITIONS AND 1-1/2" FOR EXTERIOR CONDITIONS.
   K. STRIKE OFF SURFACES AS NECESSARY AND ALLOW CONCRETE REPAIR PATCH/MORTAR TO SET. COORDINATE WITH CONTRACTING OFFICER FOR FINAL FINISH APPEARANCE, CURE BY COVERING EXPOSED SURFACES WITH WET BURLAP.



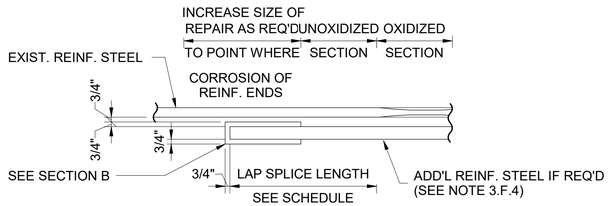
REPAIRS (BASED ON AREA)



REPAIRS (BASED ON LENGTH)



SECTION A



SECTION B

SLAB BAR REPAIR SPLICE SCHEDULE			
EXISTING BAR SIZE	BOT BARS	TOP BARS	REMARKS
#3	12"	16"	
#4	16"	22"	
#5	20"	27"	
#6	25"	35"	
#7	34"	48"	
#8	45"	63"	

REINFORCEMENT REPAIR

MASTER KEYNOTE LIST FOR REPAIRS	
KEY	REPAIR DESCRIPTION
C-1	SLAB ON GRADE REPLACEMENT, SEE DETAIL 1 ON S5.2.
C-2	INFILL SMALL OPENING IN CONCRETE SLAB, LESS THAN 6" DIAMETER, SEE DETAIL 2 ON S5.2.
C-3	INFILL OPENING IN CONCRETE SLAB, 6" TO 24" SQUARE, SEE DETAILS 3 & 4 ON S5.2.
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 5,6, & 7 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE DETAILS 1 & 2 ON S5.3 BASED ON CRACK SIZE.
C-6	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE BEAM. REFER TO DETAIL 4 ON S5.3 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-7	FULL BAY CONCRETE SLAB REPLACEMENT, SEE DETAIL 3 & 5 ON S5.3.
S-1	REPLACEMENT OF POSITIVE STEEL ROOF RAFTER ATTACHMENT.

NOTES:

1. QUANTITY DENOTES NUMBER OF INSTANCES, SQUARE FOOTAGE (SF), OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. FLOOR FRAMING REPAIRS SHOWN ON PLAN ARE INTENDED TO BE UNDERSIDE REPAIRS PERFORMED FROM THE LEVEL BELOW, TYPICAL UNLESS NOTED OTHERWISE. WALL REPAIRS SHOWN ON PLAN ARE INTENDED TO BE PERFORMED FROM THE LEVEL THAT IT IS INDICATED.

REPAIR QUANTITY SUMMARY						
KEYNOTE	DETAIL / SHEET	REFRENCE SPEC.	UNIT OF MEASURE	QTY. ON PLANS (APPROX.)	ADD. ALLOWANCE FOR HIDDEN CONDITIONS	TOTAL FOR BID
C-1	S5.2	03 3000	EACH	283	20%	340
C-2	S5.2	03 0130	SQUARE FEET	24	20%	29
C-3	S5.2	03 0130	SQUARE FEET	142	20%	170
C-4	S5.2	03 0130	SQUARE FEET	308	20%	370
C-5	S5.3	03 0130	LINEAR FEET	335	20%	402
C-6	S5.2 & S5.3	03 0130	LINEAR FEET	120	20%	144
C-7	S5.3	03 0130	SQUARE FEET	18	20%	22
S-1		05 1200	EACH	16		20

PRICING NOTES

1. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS AND LIGHTING FOR THE OWNER'S REPRESENTATIVE, CONTRACTING OFFICER, AND INSPECTORS TO OBSERVE ALL REPAIRS UPON REQUEST AND AS REQUIRED PER THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS. WHERE ACCESS IS VIA LIFT, THE CONTRACTOR SHALL PROVIDE A CERTIFIED LIFT OPERATOR UPON REQUEST.
2. QUANTITY SHOWN ON PLANS. REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
3. ADDITIONAL ALLOWANCE - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
4. QUANTITIES SHOWN ON PLANS AND ADDITIONAL ALLOWANCES ARE APPROXIMATE. ACTUAL REPAIR QUANTITIES SHALL BE TRACKED BY THE OWNER'S REPRESENTATIVE AND/OR THE GENERAL CONTRACTOR TO DETERMINE ADDITIONS OR DEDUCTIONS FROM THE BASE BID. REFER TO THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS FOR REQUIREMENTS TO IDENTIFY ACTUAL REPAIR QUANTITIES.
5. PROVIDE UNIT PRICING FOR EACH KEYNOTE REPAIR TYPE INDICATED IN THE TABLE ABOVE.
6. PROVIDE UNIT PRICING FOR ADDITIONAL MATERIALS AND LABOR TO ACCOUNT FOR CHANGES IN WEIGHT OR VOLUME OF MATERIALS FROM THE ASSUMPTIONS IN THE BASE BID. REFER TO THE "STEEL REPAIR NOTES" AND "CONCRETE REPAIR NOTES" AND REPAIR DETAILS FOR ADDITIONAL INFO. BOTH THE QUANTITY SHOWN ON PLANS AND ADDITIONAL ALLOWANCE WILL BE ADJUSTED FROM THE SCHEDULED MATERIALS (SHOWN ON "PRICING DETAILS") TO ACTUAL MATERIALS (SHOWN ON "CONSTRUCTION DETAILS") TO ACCOUNT FOR CHANGES IN THE WEIGHT OR VOLUME OF THE REPAIR MATERIAL ONLY.
   A. FABRICATED STRUCTURAL STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR CHANNELS, ANGLES, AND PLATES TO BE USED FOR REINFORCEMENT OF EXISTING STEEL, SHOP FABRICATED, DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   B. CONCRETE REINFORCING STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR REINFORCING BARS USED FOR REPAIRS, CUT, BENT (AS NEEDED), DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   C. CONCRETE REPAIR VOLUME - PROVIDE A UNIT PRICE FOR EACH CUBIC FOOT OF CONCRETE REPAIR OR PATCHING PREPARED, FURNISHED AND INSTALLED. PRICE SHALL INCLUDE LABOR FOR CHIPPING CONCRETE, PLUS LABOR AND MATERIAL FOR INSTALLING REPAIR MORTAR OR SHOTCRETE.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14877
10/27/2023
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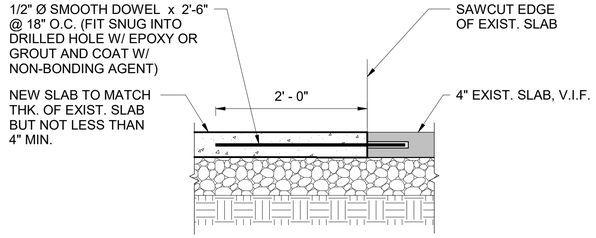
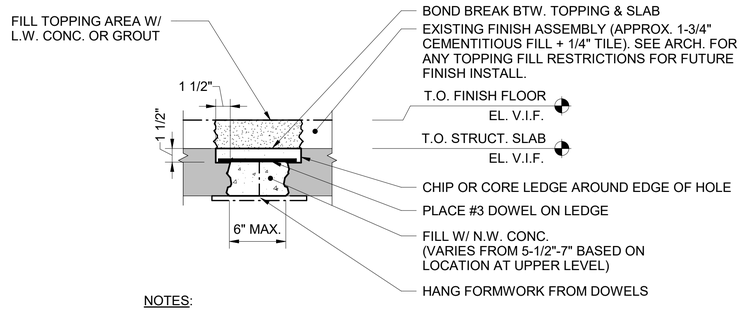


NOTE: DO NOT UNDERMINE EXIST. SLAB.

1 S5.2 TYPICAL ATTACHMENTS OF NEW SLAB ON GRADE TO EXISTING (KEYNOTE C-1)

N.T.S.

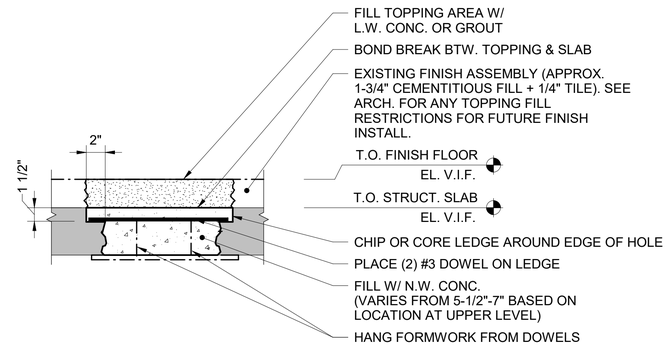


NOTES:

1. AS AN ALTERNATIVE TO LEDGE & DOWELS, CONTRACTOR MAY ROUGHEN VERT. SURFACES AND USE PATCHING MORTAR FOR INFILL.
2. CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.

2 S5.2 TYPICAL SLAB PATCH AT EXIST. OPENING LESS THAN 6" (KEYNOTE C-2)

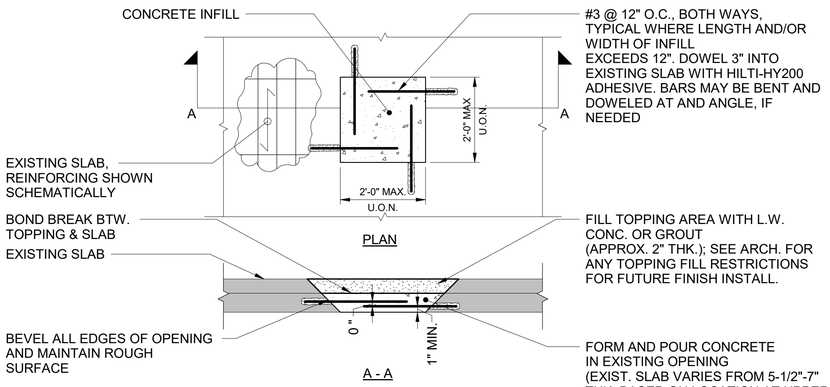
N.T.S.



NOTE: CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.

3 S5.2 TYPICAL SLAB PATCH AT EXISTING OPENING 6" TO 12" (KEYNOTE C-3)

N.T.S.



NOTES:

1. CONTRACTOR TO REMOVE ANY CONDUIT, LIGHT BOXES, OR OTHER EMBED. MATERIALS PRIOR TO REPAIR.
2. WHEN BEVELING EDGES OF EXISTING OPENINGS, CONTRACTOR SHALL TAKE CARE TO AVOID EXCESSIVE SLAB REMOVAL OR DAMAGE TO SURROUNDING EXISTING SLAB.
3. CONTRACTOR SHALL USE HAND TOOLS FOR SLAB PREPARATION.
4. WHEN EXISTING REINFORCEMENT IS PRESENT, PROVIDE MININUM 1" COVER ALL AROUND BAR TO ALLOW NEW CONCRETE TO ENGAGE EXISTING BAR. REMOVE ANY CORROSION FROM EXISTING REINFORCING.

4 S5.2 TYPICAL SLAB PATCH AT EXISTING OPENING 12" TO 24" (KEYNOTE C-3)

N.T.S.

REPAIR PROCEDURE:

1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. REMOVE RUST, SCALE, OIL AND ANY OTHER FOREIGN MATERIALS FROM STEEL REINFORCING BARS.
3. COAT EXISTING CONCRETE AND STEEL WITH ANTI-CORROSION AGENTS AS SPECIFIED BY MANUFACTURER.
4. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.

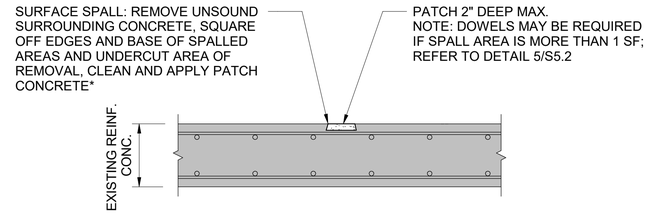
*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

5 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR EXPOSED BUT INTACT (KEYNOTE C-4 & C-6)

N.T.S.

REPAIR PROCEDURE:

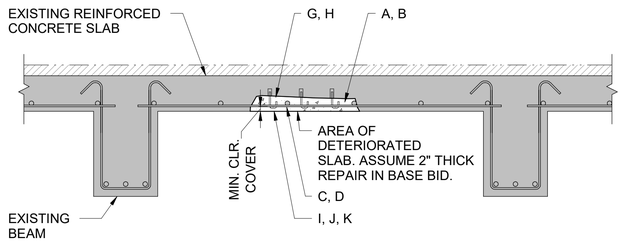
1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

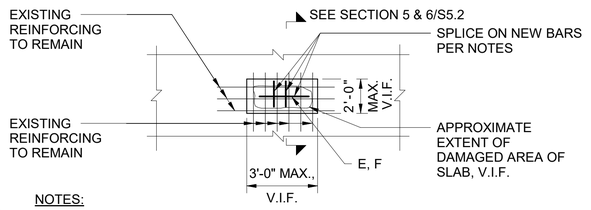
6 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR NOT EXPOSED (KEYNOTE C-4 & C-6)

N.T.S.



7 S5.2 TYPICAL DETAIL - BAR REINFORCED SLAB & WALL REPAIR (KEYNOTE C-4)

N.T.S.



NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. REFER TO DETAILS 5 & 6 ON S5.2 FOR ADDITIONAL REPAIR DIRECTIVES.
3. REPAIR MAY BE USED ON TOP OR BOTTOM SURFACE OF SLAB AND WALLS. SEE NOTES FOR CONCRETE PATCHING MATERIALS FOR HORIZONTAL AND VERTICAL APPLICATIONS.

PLAN

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S5.2	LIBBEY BATHHOUSE TYPICAL CONCRETE REPAIR DETAILS	128 182951
ENG: SIJAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: NH			
	DATE: 10.27.2023			222 OF 286

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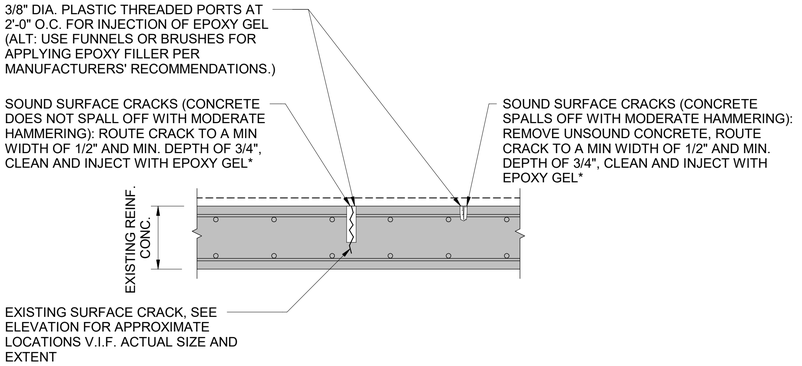
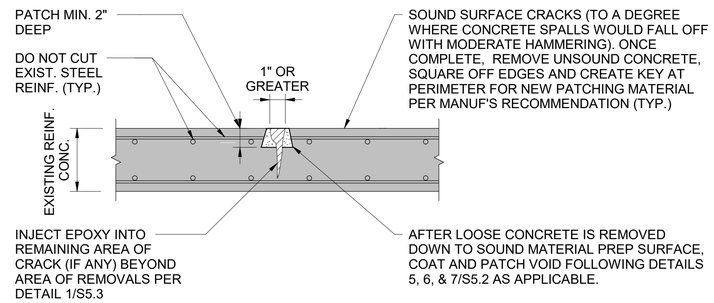


NOTE: FOR CRACKS SMALLER THAN 1/8" IN WIDTH/THICKNESS, NO REPAIR NECESSARY. FOR CRACKS LARGER THAN 1" IN WIDTH/THICKNESS, SEE DETAIL 2/S5.3

*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

1 S5.3 TYPICAL DETAIL CONCRETE CRACK REPAIR, SMALL (KEYNOTE C-5)

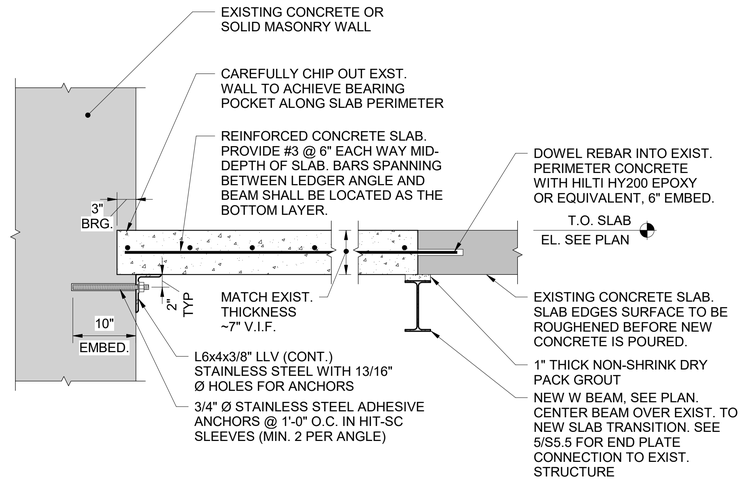
N.T.S.



*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

2 S5.3 TYPICAL DETAIL CONCRETE CRACK REPAIR, LARGE (KEYNOTE C-5)

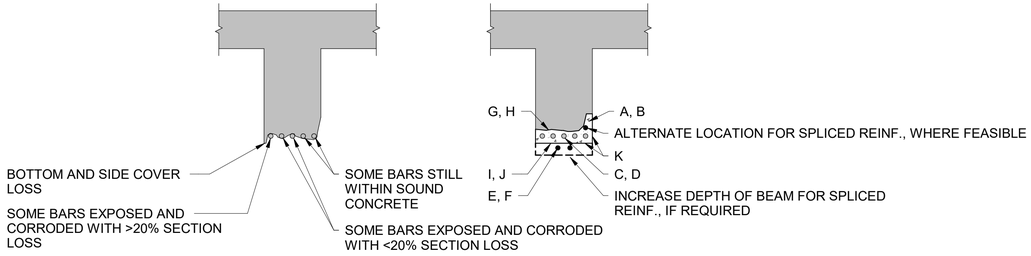
N.T.S.



NOTE: CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE EXISTING CONCRETE REINFORCEMENT PRIOR TO ANCHORAGE OR EMBEDMENT INSTALLATION.

3 S5.3 TYPICAL SHELF ANGLE AT EXISTING LOAD BEARING WALL

N.T.S.

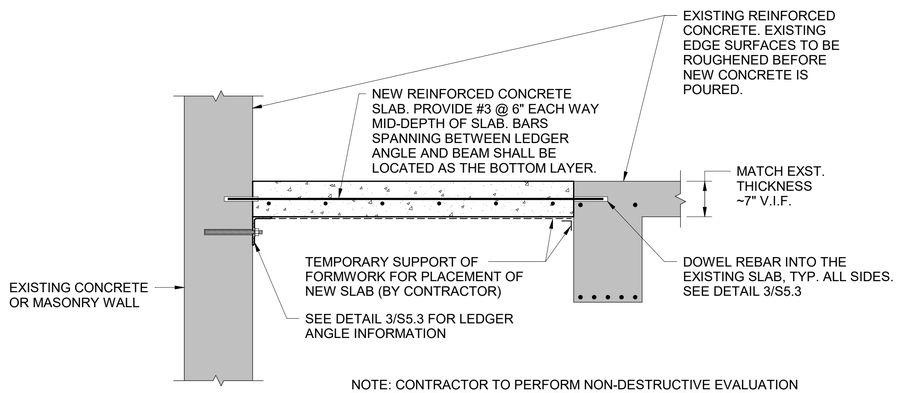


NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. WHERE ADDED SPLICED REINFORCEMENT IS REQUIRED, ASSUME (2) NEW SPLICED BARS.
3. REFER TO DETAILS 5 & 6 ON S5.2. FOR ADDITIONAL INFORMATION ON CONCRETE REPAIR SCOPE. PROVIDE STAINLESS STEEL HOOKED DOWELS SET IN REPAIR MATERIAL AT ALL C-6 APPLICATIONS.

4 S5.3 TYPICAL DETAIL - CONCRETE BEAM/GIRDER REPAIR (KEYNOTE C-6)

N.T.S.



NOTE: CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE EXISTING CONCRETE REINFORCEMENT PRIOR TO ANCHORAGE OR EMBEDMENT INSTALLATION.

5 S5.3 TYPICAL DETAIL - FULL BAY REPLACEMENT WITH FORMED CONCRETE (KEYNOTE C-7)

N.T.S.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 ENG: **SIUMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	DESIGNED: KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	SUB SHEET NO. 02 S5.3	TITLE OF SHEET LIBBEY BATHHOUSE TYPICAL CONCRETE REPAIR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 223 OF 286

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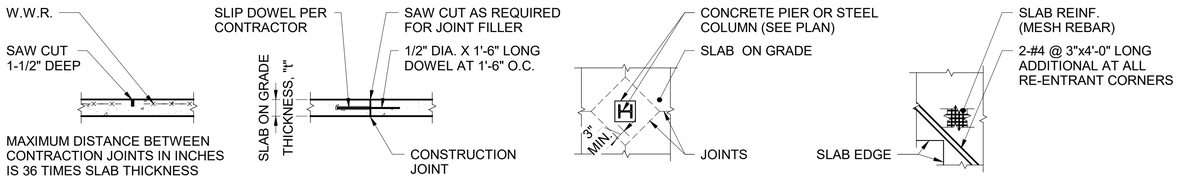
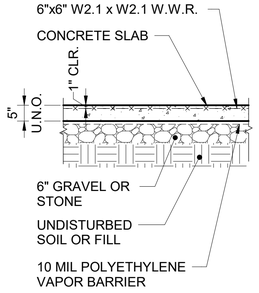
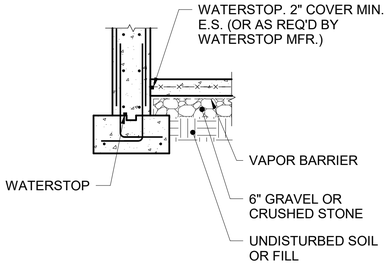


SAWED CONTRACTION JOINT | CONSTRUCTION JOINT | ISOLATION JOINT AT COLUMN | ADDITIONAL REINFORCEMENT AT ALL RE- ENTRANT CORNERS



SLAB ON GRADE



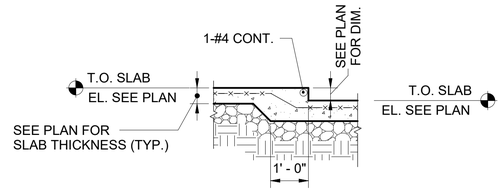
SLAB-ON-GRADE & WALL INTERFACE

NOTES:

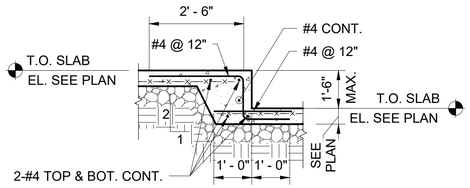
1. SLAB ON GRADE SHALL BE PLACED IN ALTERNATING STRIPS WHERE EACH SINGLE STRIP DOES NO EXCEED 36 TIMES SLAB THICKNESS WIDTH IN INCHES. ALTERNATIVELY, LARGE BLOCK PLACEMENTS WITH INTERIOR CONTRACTION JOINTS ARE ACCEPTABLE IF THE CONTRACTION JOINTS ARE MADE IN BOTH DIRECTIONS AT SPECIFIED INTERVALS IN A TIMELY MANNER.
2. SAWED CONTRACTION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING IN INCHES OF 36 TIMES THE SLAB THICKNESS. JOINTS SHALL BE SAWED NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED.
3. GRAVEL OR CRUSHED STONE BASE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT.

1 S5.4 TYPICAL SLAB ON GRADE

N.T.S.



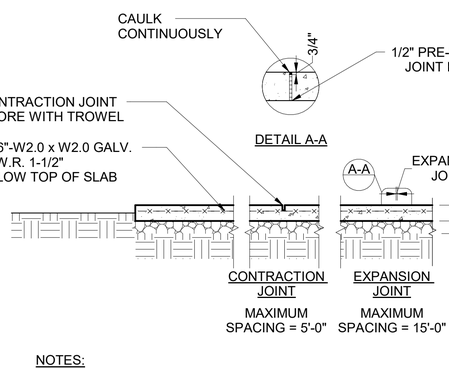
STEP LESS THAN OR EQUAL TO SLAB THICKNESS



STEP GREATER THAN SLAB THICKNESS

2 S5.4 TYPICAL STEP IN SLAB ON GRADE

N.T.S.

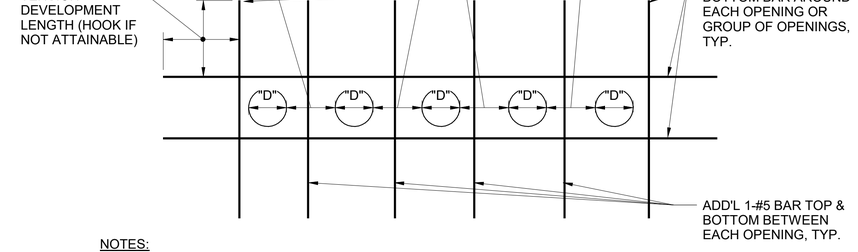


NOTES:

1. UNDISTURBED SOIL OR FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT REMOVE ORGANIC MATERIAL.
2. BROOM FINISH UNLESS NOTED OTHERWISE.

3 S5.4 TYPICAL EXTERIOR PAVING

N.T.S.



NOTES:

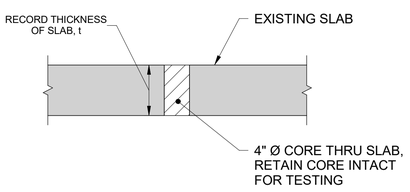
1. LIMIT 5 PENETRATIONS IN A ROW IN ANY DIRECTION.
2. COORDINATE WITH TYPICAL DETAIL FOR FORMED CONCRETE SLAB PIPE SLEEVE.
3. SHOULD PENETRATIONS BE CUT AFTER CONCRETE IS POURED, CONTRACTOR TO SUBMIT PLAN SHOWING ALL PROPOSED CORE DRILLING LOCATIONS TO CONTRACTING OFFICER FOR APPROVAL. CONTRACTOR TO USE NDE METHODS TO LOCATE REBAR PRIOR TO CUTTING SLAB.
4. FOR ANY GROUPS OF PENETRATIONS THAT EXCEED THE SPACING OR QUANTITY LIMITS IN THIS DETAIL, GROUP OF PENETRATIONS SHALL BE TREATED AS A SLAB OPENING. SEE "TYPICAL ADDITIONAL REINFORCEMENT AT OPENING IN FRAMED SLAB DETAIL" IN S-500 SERIES.
5. GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEPS TRADE SUBMITTALS FOR CONTRACTING OFFICER REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAYED INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS TOGETHER.

4 S5.4 TYPICAL SLAB PENETRATION WITH SLEEVE DIAMETER LESS THAN 6"

N.T.S.

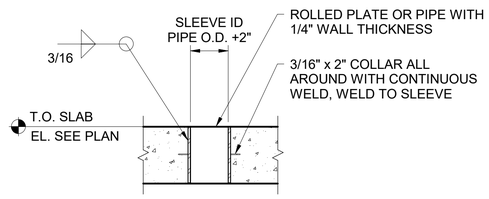
NOTES:

1. S=1.5d MIN., LARGER d GOVERNS.
2. NO BEAM BEARING ABOVE OPENINGS UNLESS DIMENSION A IS 4'-0" OR LARGER.
3. DIMENSION A IS NOT RESTRICTED FOR CONTINUOUS CONCRETE SLAB BEARING. A=0'-8" MIN. BELOW UNTOPPED DECK.
4. VERTICAL ALIGNMENTS OF STACKED OPENINGS IS REQUIRED. STACKING OPENINGS VERTICAL IN LIEU OF WIDE HORIZONTAL ROWS IS PREFERRED.
5. SEE __/____ FOR LINTELS WHEN ABOVE LAYOUT CANNOT BE ACHIEVED.
6. MAX. CORE SIZE = 12"
7. * DENOTES NO RESTRICTIONS IN NUMBER IF VERTICALLY ALIGNED
8. LOCATE AND COORDIANTE WALL PENETRATIONS WITH EXISTING WALL REBAR USING GPR OR OTHER NON-DESTRUCTIVE TECHNIQUES



5 S5.4 TYPICAL CORE THROUGH EXISTING SLAB

N.T.S.



NOTE: PROVIDE CLEAR SPACE BETWEEN PIPE AND/ OR OPENINGS A MINIMUM 6" OR PIPE SLEEVE DIAMETER APART (WHICHEVER IS GREATER.)

6 S5.4 TYPICAL PIPE SLEEVE IN CONCRETE SLAB

N.T.S.

7 S5.4 TYPICAL CORING RESTRICTIONS IN EXISTING WALL

N.T.S.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

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ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	02 S5.4	LIBBEY BATHHOUSE TYPICAL DETAILS	128 182951
ENG: **SIMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			224 OF 286

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DEFORMED BAR TENSION DEVELOPMENT LENGTH (Ld)						
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS						
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	17	25	15	22	13	20
#4	22	33	19	29	17	26
#5	28	42	24	36	22	32
#6	33	50	29	43	26	39
#7	48	72	42	63	38	56
#8	55	83	48	72	43	64
#9	62	93	54	81	48	72
#10	70	105	61	91	54	81
#11	78	116	67	101	60	90

DEFORMED BAR TENSION LAP SPLICE - CLASS B						
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS						
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	22	33	19	28	17	25
#4	29	43	25	37	23	34
#5	36	54	31	47	28	42
#6	43	65	37	56	34	50
#7	63	94	54	81	49	73
#8	72	107	62	93	56	83
#9	81	121	70	105	63	94
#10	91	136	79	118	71	106
#11	101	151	87	131	78	117

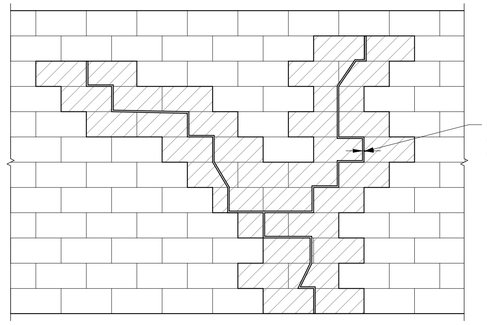
DEFORMED TENSION BAR NOTES:

1. FOR HORIZONTAL REINFORCEMENT WITH 12 INCH OR MORE FRESH CONCRETE CAST BELOW IT, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.3x THE VALUES GIVEN.
2. FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE, TENSION DEVELOPMENT LENGTH/TENSION LAP LENGTH SHALL BE 1.3x THE VALUES GIVEN.
3. FOR EPOXY-COATED BARS:
   A. WHERE CONCRETE COVER IS LESS THAN 3x BAR DIAMETER, OR CLEAR SPACING IS LESS THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.5x THE VALUES GIVEN.
   B. WHERE CONCRETE COVER IS EQUAL TO OR GREATER THAN 3x BAR DIAMETER AND CLEAR SPACING IS GREATER THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.2x THE VALUES GIVEN.
4. CASE I APPLIES WHEN EITHER OF THE FOLLOWING SETS OF CONDITIONS ARE MET:
   A. ALL THREE OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN DB AND
      b. CLEAR COVER IS NOT LESS THAN DB AND
      c. STIRRUPS OR TIES ARE PROVIDED THROUGHOUT THE DEVELOPMENT LENGTH AND THE QUANTITY IS NOT LESS THAN THE CODE MINIMUM.
   B. OR BOTH OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN 2DB AND
      b. CLEAR COVER IS NOT LESS THAN DB.

   CASE II APPLIES TO ALL OTHER CONDITIONS NOT DESCRIBED IN CASE I

DEFORMED BAR COMPRESSION DEVELOPMENT LENGTH (Ldc)			
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS			
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE
#3	9	8	8
#4	11	10	9
#5	14	12	12
#6	17	15	14
#7	20	17	16
#8	22	19	18
#9	25	22	21
#10	28	25	23
#11	31	27	26

DEFORMED BAR COMPRESSION LAP SPLICE			
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS			
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE
#3	12	12	12
#4	15	15	15
#5	19	19	19
#6	23	23	23
#7	27	27	27
#8	30	30	30
#9	34	34	34
#10	39	39	39
#11	43	43	43

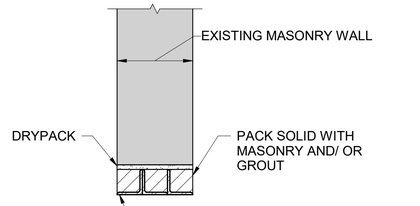


NOTES:

1. ▨ DENOTES BRICK TO BE REPLACED. WHERE CRACK IS THRU WALL REPLACE ALL WYTHES OF BRICK ON EACH SIDE OF CRACK TO 1ST MORTAR JOINT. REPLACE EXISTING HEADERS WITH NEW HEADERS. REPLACE LOOSE AND CRACKED BRICKS. WHERE CRACK IS ONLY IN OUTER WYTHE, REPLACE ONLY OUTER WYTHE.
2. WHERE CRACK IS OPEN AND 1/4" OR LESS AND IS PRESENT ONLY IN OUTER WYTHE AND ONLY IN JOINTS, RAKE AND REPOINT JOINTS ONLY.

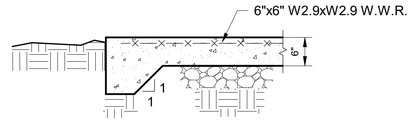
1 S5.5 TYPICAL REPAIR IN BRICK MASONRY

N.T.S.



2 S5.5 TYPICAL ANGLE LINTEL IN EXISTING MASONRY WALL

N.T.S.



NOTES:

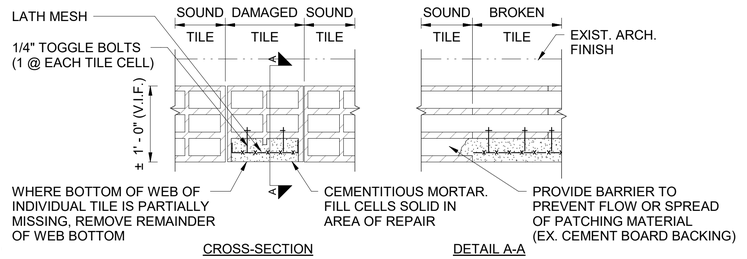
1. FOR SIZE AND LOCATION SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONCRETE FOR PADS SHALL BE NORMAL WEIGHT WITH f'c = 4000 PSI
3. THREADED RODS TO BE 3/8" Ø A-36 STEEL IN EXPANSION INSERTS @ 18" O.C. HY-200 ADHESIVE OR APPROVED EQUAL.

3 S5.5 TYPICAL EQUIPMENT PAD ON GRADE (EXTERIOR)

N.T.S.

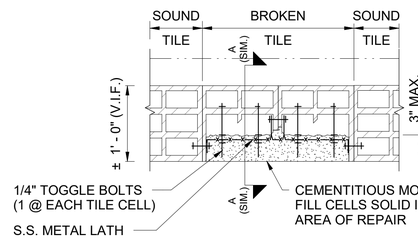
NOTES:

1. APPLICABLE TO SUBSTRATE MATERIAL CONDITIONS ENCOUNTERED DURING ARCHITECTURAL EXTERIOR/INTERIOR FINISH REPAIRS.
2. WIDTH AND LENGTH CAN BE IN ANY DIRECTION.
3. TROWEL-ON OVERHEAD CEMENTITIOUS MORTAR (BONDING AGENT) OPTIONS:
   A. JAHN M100
   B. SIKAREPAIR 223 (SIKA ARMATEC 100 EPOCEM)
4. FOLLOW MANUFACTURER PREPERATION REQUIREMENTS
5. SUBMIT MANUFACTURER'S SPECIFICATIONS, INSTALLATION PROCEDURES, AND MATERIAL SAFETY DATA SHEETS FOR ONE OF THE APPROVED PRODUCTS.

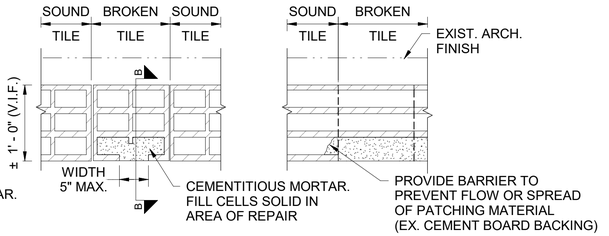


CROSS-SECTION DETAIL A-A

DETAIL 1:TYPICAL TERRACOTTA REPAIR



DETAIL 2: LARGE REPAIR AREA

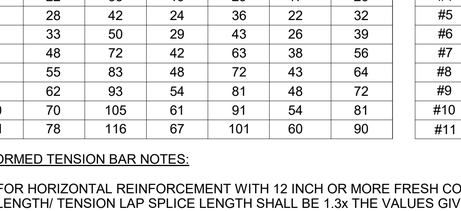


CROSS-SECTION DETAIL B-B

DETAIL 3: NARROW TERRACOTTA REPAIR

6 S5.5 TERRA COTTA WALL REPAIR DETAIL

N.T.S.



AT SLAB ON GRADE

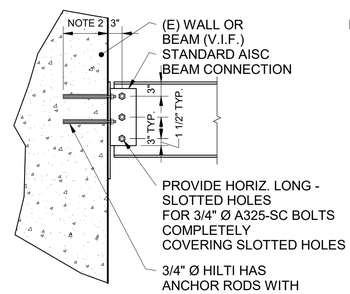
EQUIPMENT PAD TEMPERATURE AND SHRINKAGE REINFORCING	
PAD THICKNESS	REINFORCING
4"-5"	#3 @ 12" O.C. EACH WAY
6"-9"	#4 @ 12" O.C. EACH WAY
10"-12"	#5 @ 12" O.C. EACH WAY

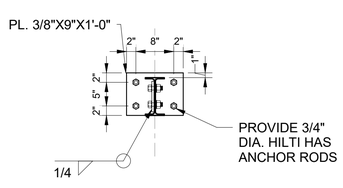
NOTES:

1. FOR SIZE AND LOCATION SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. CONCRETE FOR PADS SHALL BE NORMAL WEIGHT WITH f'c = 4,000 PSI.

4 S5.5 TYPICAL EQUIPMENT PAD

N.T.S.





NEW STEEL BEAM ANCHORED TO CONCRETE WALL AT FLOOR SUPPORT

NOTES:

1. VERIFY ANCHORAGE SUBSTRATE MATERIAL AND INDICATE ON SHOP DRAWINGS.
2. MINIMUM EMBEDMENT FOR ADHESIVE ANCHORS SHALL BE AS FOLLOWS" 6" FOR CONCRETE, 8" FOR BRICK MASONRY.
3. ANCHORAGE DETAIL BASED UPON HILTI HIT-HY 200 FOR EMBEDMENT IN CONCRETE AND HILTI-HY 270 FOR EMBEDMENT IN MASONRY.
4. CONTRACTOR TO PERFORM NON-DESTRUCTIVE EVALUATION TO LOCATE WALL/BEAM REBAR PRIOR TO STEEL INSTALLATION. DO NOT DAMAGE EXISTING REINFORCING STEEL.
5. FIREPROOF STEEL AS REQUIRED. SEE SPECIFICATIONS (FIREPROOFING NOT SHOWN FOR CLARITY).

5 S5.5 END PLATE CONNECTION

N.T.S.

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14677
10/27/2023
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	DATE: 10.27.2023			225 OF 286

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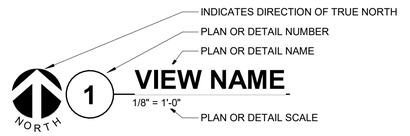
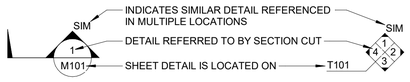
VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
——— NEW
– – – – – – – – – EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
— — — NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
——— EXISTING
– – – – – – – – – EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
— — — EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

PLUMBING SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
CW	COLD WATER - POTABLE
D	DRAIN
HW	HOT WATER - POTABLE
HWC	HOT WATER CIRCULATING - POTABLE
SAN	SANITARY DRAINAGE
STS	STORM DRAINAGE (SECONDARY)
TWC	THERMAL WATER COLD
TWH	THERMAL WATER HOT
V	VENT
	PIPE CONTINUATION
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
FD	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
	THROTTLING VALVE
	BALANCING VALVE (NUMBER INDICATES GPM)
	AUTOMATIC BALANCING VALVE
	MIXING VALVE
	CONTROL VALVE (THREE-WAY)
	CONTROL VALVE (TWO-WAY)
	CHECK VALVE
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	BACKFLOW PREVENTER
	VACUUM BREAKER
D	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB

PLUMBING ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
CB	CATCH BASIN
CI	CAST IRON
CO	CLEANOUT
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
E	EXISTING
EE	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FM	FLOW METER
FS	FLOOR SINK
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
NIC	NOT IN CONTRACT
NT	NEUTRALIZATION TANK
OS	OIL SEPARATOR
RD	ROOF DRAIN
SCCR	SHORT CIRCUIT CURRENT RATING
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TYP	TYPICAL
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
UB	UTILITY BOX
UON	UNLESS OTHERWISE NOTES
YCO	YARD CLEANOUT

PLUMBING GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN.
3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
4. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
5. INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY ALL ELEVATIONS BEFORE BEGINNING WORK.
6. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES.
7. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH ROOM WITH FIXTURES. ANGLE STOPS SHALL NOT BE CONSIDERED SHUTOFF VALVES.
8. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
9. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

PLUMBING ROUGH-IN SCHEDULE

NOTES: (APPLIES TO ALL PLUMBING FIXTURES LISTED BELOW)
1) SIZES SHOWN ARE MINIMUMS. LARGER SIZES SHOWN ON THE DRAWING SHALL DICTATE THE ROUGH-IN SIZE.
2) SANITARY RISERS UP IN WALL TO FIXTURES SHALL BE A MINUMUM OF 2".
3) DOMESTIC WATER BRANCH PIPING OUTSIDE OF THE WALL/CHASE SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE. ONLY THE FINAL RISE-DROP SHALL BE SMALLER.
4) FINAL SANITARY SIZE SHALL MATCH P-TRAP SIZE (REFER TO MATERIAL LIST).

TAG NAME	DESCRIPTION	COLD WATER	HOT WATER	SANITARY	VENT
FS-1	FLOOR SINK			4"	2"
FS-2	FLOOR SINK			3"	1 1/2"

PLUMBING MATERIAL LIST

TAG NAME	DESCRIPTION	MANUFACTURER AND MODEL
BFP-1	BACK FLOW PREVENTER - REDUCED PRESSURE ZONE, STAINLESS STEEL CONSTRUCTION, SIZE SAME AS PIPE 3", NON-CORROSIVE INTERNAL PARTS, STAINLESS STEEL SPRINGS, DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN SPRING-LOADED CHECK VALVES, GATE STYLE SHUT-OFF VALVES ON INLET AND OUTLET OF UNIT, AIR GAP DRAIN FITTING, TEST PORTS WITH SHUT-OFF VALVES, RATED FOR 175 PSI AT 33°F TO 140°F, 15 PSI (MAXIMUM) PRESSURE DROP AT 10 FPS, FACTORY TESTED, ALL PARTS TO BE SERVICEABLE WITHOUT REMOVING UNIT FROM LINE, APPROVED BY USC FCCC & HR, AWWA C511-92, ASSE 1013, IAPMO AND SBCCI LISTED. MOUNT WITHIN 60" OF FINISHED FLOOR. ROUTE DRAIN PIPE FROM AIR GAP FITTING TO FLOOR DRAIN. PROVIDE AND INSTALL BRONZE OR EPOXY COATED STRAINER UPSTREAM OF EACH UNIT AND ADDITIONAL VALVE UPSTREAM OF EACH STRAINER. FLOW PRESSURE DROP CURVES SHALL BE SUBMITTED.	WATTS (957), APOLLO (RPLF4A), WILKINS (375AST), MIFAB (BEECO BARRACUDA 40 FRP SS)
FS-1	FLOOR SINK - CAST IRON BODY, NICKEL BRONZE RIM AND GRATE, 12" SQUARE, 4" BOTTOM OUTLET, 6" DEEP RECEPTOR WITH ALUMINUM DOME STRAINER, ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP.	ZURN (Z1901), SMITH (3151), WADE (9140), JOSAM (49340A), WATTS (FS-740), SIOUX CHIEF (861-2xXFNWC), SUN (FS2000), MIFAB (FS1730)
FS-2	FLOOR SINK - CAST IRON BODY, NICKEL BRONZE RIM AND GRATE, 8" SQUARE, 3" BOTTOM OUTLET, 6" DEEP RECEPTOR WITH STAINLESS STEEL ALUMINUM DOME STRAINER, ACID RESISTANT COATED INTERIOR, SEEPAGE FLANGE WITH CLAMP.	ZURN (Z1910), SMITH (3101), WADE (W-9110), JOSAM (49300), WATTS (FS-710), SIOUX CHIEF (861-2xXFNWC), SUN (FS2300), MIFAB (FS1520)
HB-1	HOSE BIBB - FOR INDOOR USE, SURFACE MOUNTED, BRASS CONSTRUCTION WITH STANDARD FINISH, VACUUM BREAKER, 3/4" MALE HOSE THREAD, 3/4" FPT INLET TOP AND BOTTOM, INCLUDE BRASS PLUG FOR CLOSING OFF UNUSED SIDE, ASSE 1052 LISTED AND APPROVED. MOUNT AT 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON DRAWINGS.	PRIER (P-166NP.75), WOODFORD (V26)

PIPE INSULATION SCHEDULE (PLUMBING)

GENERAL NOTES:
1. REFER TO THE SPECIFICATIONS FOR TYPE DESCRIPTIONS AND JACKETING REQUIREMENTS.
2. TYPE A INSULATION IS NOT ALLOWED IN NON-AIR CONDITIONED SPACES, SUCH AS MECHANICAL ROOMS, EXTERIOR, ATTICS, ETC.
3. TYPE B INSULATION GREATER THAN 1" THICK SHALL BE INSTALLED USING MULTIPLE LAYERS OF 3/4" OR 1" WITH STAGGERED SEAMS.
4. TYPE E IS NOT ALLOWED IN RETURN AIR PLENUMS, UNLESS LISTED AND LABELED AS 25/50 RATED PER ASTM E84/UL723
5. TYPE G 4" SHALL BE INSTALLED IN TWO (2) 2" LAYERS WITH STAGGERED SEAMS.
6. PROVIDE RIGID INSERT AT HANGERS, EITHER PRE-MANUFACTURED COUPLINGS (REFER TO PIPE HANGER AND SUPPORTS SPECIFICATIONS) OR TYPE C, D, OR E INSULATION. SEE SPEC. FOR MORE DETAILS.
7. DIRECT BUIRED PIPING SHALL ONLY USE TYPE C OR TYPE E. REDUCTION IN THICKNESS FOR DIRECT BURED PIPING IS ALLOWED PER ASHRAE / IECC AS APPLICABLE.

SYMBOL	PIPE SYSTEM	INSULATION TYPE	INSULATION THICKNESS PER NOMINAL PIPE OR TUBE SIZE					NOTES
			< 1"	1" TO < 1.5"	1.5" TO < 4"	4" TO < 8"	≥ 8"	
22 PLUMBING - WATER								
CW	COLD WATER - POTABLE	A (GlsFbr), B (Elasto), E (Plyiso), F (Phenol)	A , B	A , B	A , B	-	-	

PLUMBING SHEET INDEX

IMEG Consultants Corp. No. 4308 — CERTIFICATE OF AUTHORIZATION — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 P0.0	LIBBEY BATHHOUSE PLUMBING COVERSHEET	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318915
	TECH. REVIEW: SGB		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 226 OF 286
	DATE: 10.27.2023			

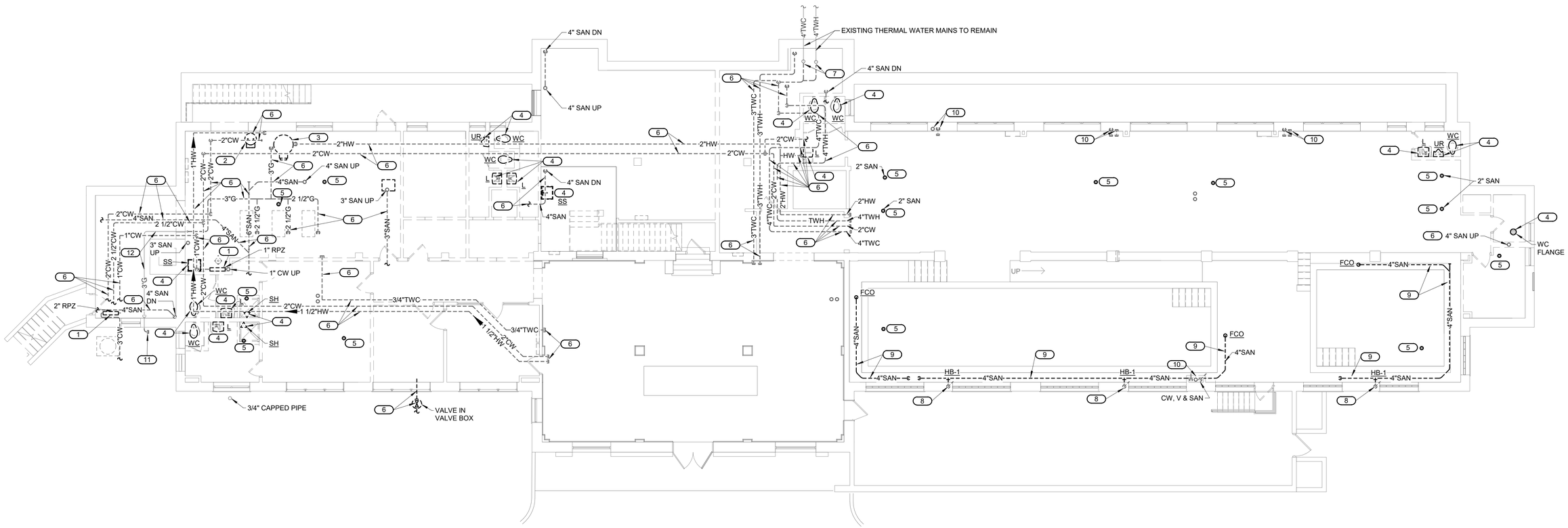
10/27/2023 11:50:44 AM

SHEET NOTES:

1. DEMO ALL EXISTING PLUMBING EQUIPMENT, FIXTURES, PIPING AND SUPPORTS UNLESS NOTED OTHERWISE.
2. CUT OFF PIPING PENETRATING FLOOR SLAB BELOW FLOOR SURFACE, CAP PIPING AND GROUT OPENINGS FLUSH WITH FLOOR.
3. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE RPZ BACKFLOW PREVENTER AND ASSOCIATED PIPE.
2. DISCONNECT AND REMOVE EXISTING ELECTRIC WATER HEATER AND ASSOCIATED PIPING.
3. DISCONNECT AND REMOVE EXISTING GAS FIRED WATER HEATER AND ASSOCIATED FLUE AND PIPING.
4. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED SANITARY WASTE, VENT, COLD AND HOT WATER PIPING. CUT WASTE PIPING BELOW FLOOR, PLUG AND GROUT OPENING FLUSH WITH FLOOR.
5. DISCONNECT AND REMOVE EXISTING FLOOR DRAIN, PLUG DRAIN AND GROUT OPENING FLUSH WITH FLOOR.
6. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.
7. DEMO ALL EXISTING THERMAL WATER COLD (TWC) AND THERMAL WATER HOT (TWH) PIPING DOWNSTREAM OF EXISTING MAIN ISOLATION VALVES.
8. DISCONNECT AND REMOVE EXISTING HOSE BIBB AND ACCESSIBLE 3/4" CW.
9. DISCONNECT AND REMOVE 4" SANITARY WASTE BELOW POOL DECK.
10. DEMO ACCESSIBLE PORTIONS OF PIPING ROUGH-INS.
11. EXISTING GAS PIPING TO REMAIN.



1 / PX1.1 LOWER LEVEL DEMOLITION PLAN - PLUMBING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 PX1.1	TITLE OF SHEET LIBBEY BATHHOUSE LOWER LEVEL DEMOLITION PLAN - PLUMBING REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 227 OF 286

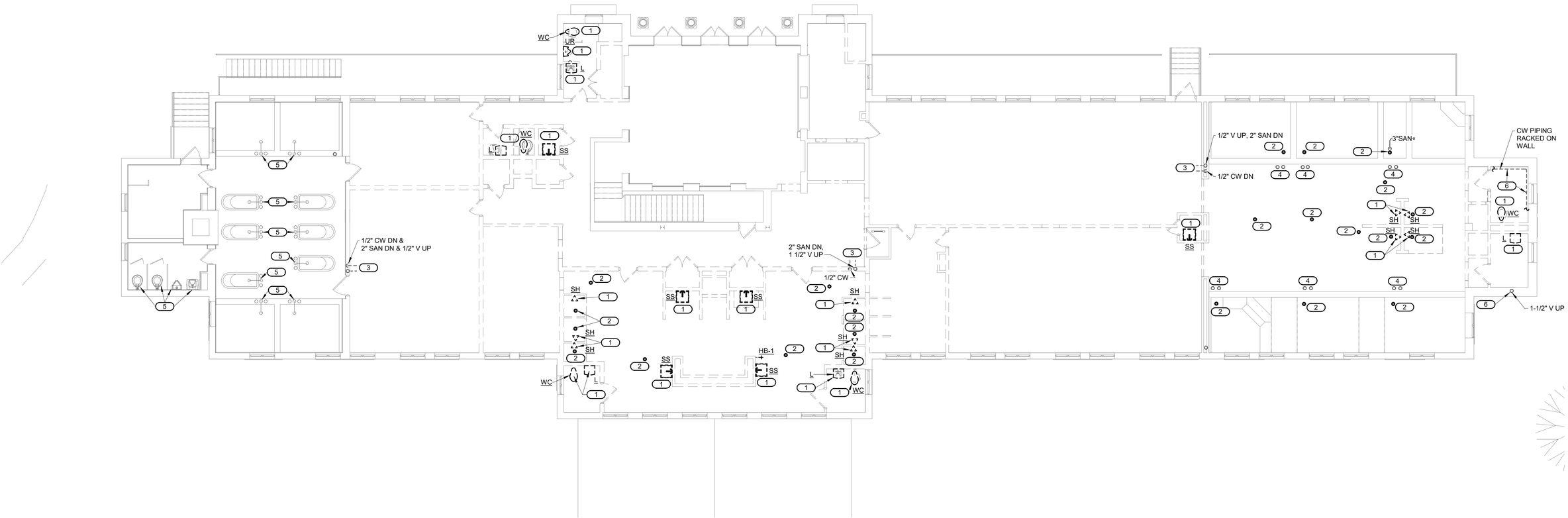
10/27/2023 11:00:49 AM

SHEET NOTES:

1. DEMO ALL EXISTING PLUMBING EQUIPMENT, FIXTURES, PIPING AND SUPPORTS UNLESS NOTED OTHERWISE.
2. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE AND ASSOCIATED SANITARY WASTE, VENT, COLD AND HOT WATER PIPING. PATCH FLOOR PENETRATIONS TO MATCH EXISTING FLOOR.
2. DISCONNECT AND REMOVE EXISTING FLOOR DRAIN AND GROUT OPENING FLUSH WITH FLOOR.
3. DISCONNECT AND REMOVE COLD WATER, SANITARY AND VENT PIPING FROM REMOVED DRINKING FOUNTAINS.
4. DISCONNECT AND REMOVE EXISTING HOT AND COLD WATER ROUGH-INS FROM REMOVED POOL FILLER MIXING VALVES. PATCH FLOOR TO MATCH EXISTING.
5. EXISTING TO REMAIN.
6. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED SUPPORTS.



1 PX1.2 UPPER LEVEL DEMOLITION PLAN - PLUMBING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 26909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 PX1.2	TITLE OF SHEET LIBBEY BATHHOUSE UPPER LEVEL DEMOLITION PLAN - PLUMBING REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 228 OF 286

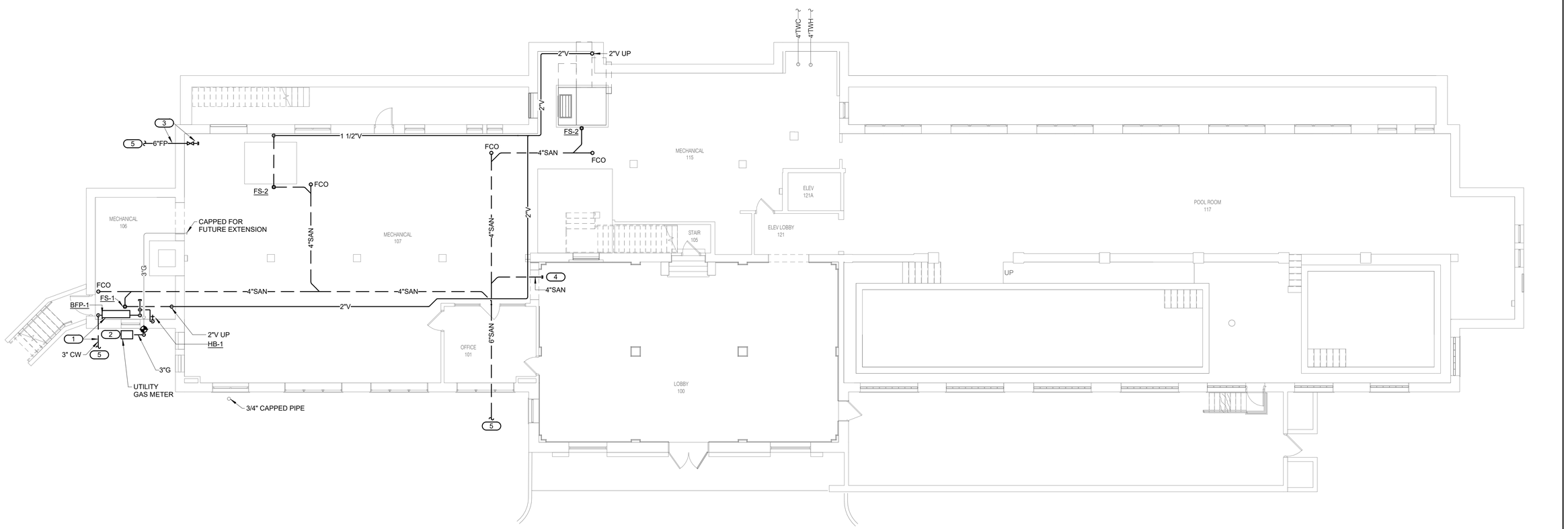
10/27/2023 11:50:51 AM

SHEET NOTES:

1. ROUTING OF PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. NEW 3" WATER SERVICE WITH WATER METER AND 3" RPZ BACKFLOW PREVENTER. PROVIDE 3/4" HOSE BIBB HB-1 ON DISCHARGE OF BACKFLOW PREVENTER. CAP COLD WATER MAIN FOR FUTURE EXTENSION.
2. CONNECT EXISTING 3" GAS BUILDING MAIN TO NEW UTILITY PROVIDED GAS METER AND SERVICE.
3. NEW 6" FIRE WATER SERVICE. VALVE AND CAP FOR FUTURE EXTENSION.
4. CAP PIPING FOR FUTURE EXTENSION IN 2' X 2' BLOCKED OUT SECTION OF FLOOR.
5. EXTENSION OF PIPING UNDER CIVIL WORK.



1 / P1.1 LOWER LEVEL PLAN - PLUMBING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 IN KANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 P1.1	TITLE OF SHEET LIBBEY BATHHOUSE LOWER LEVEL PLAN - PLUMBING REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 229 OF 286

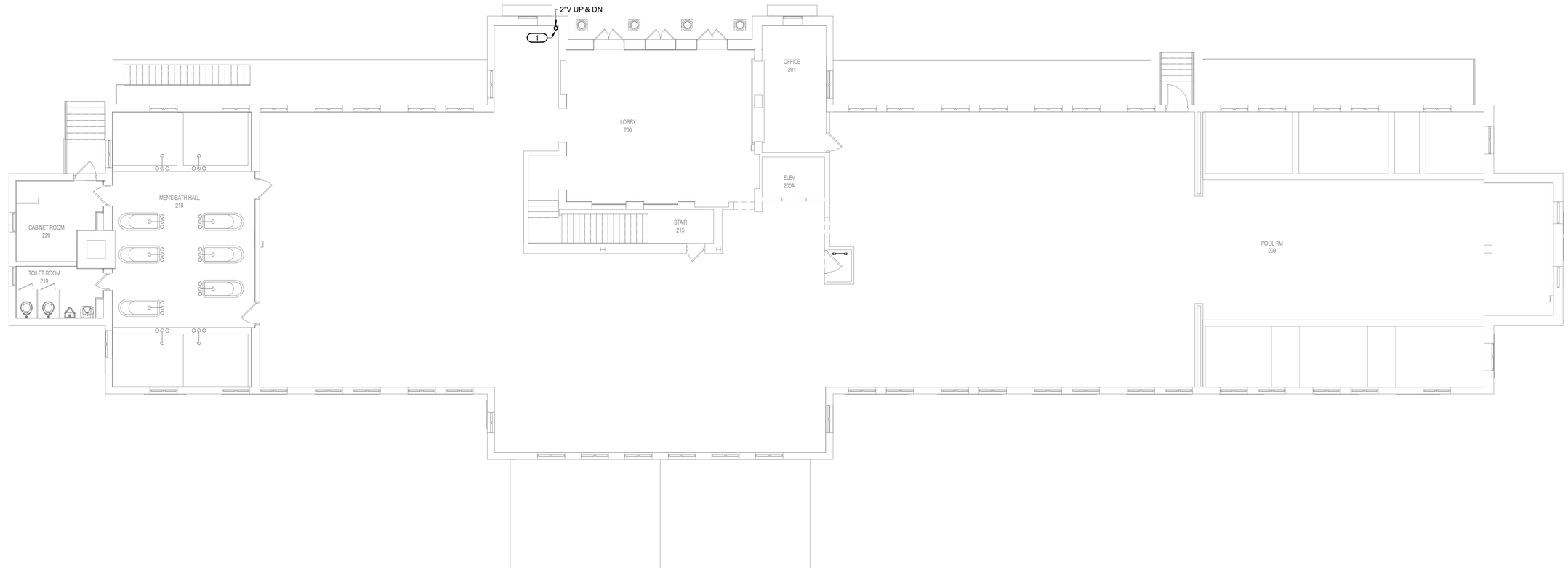
10/27/2023 11:00:45 AM

SHEET NOTES:

1. ROUTING OF PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.

KEYNOTES: (#)

1. ROUTE 2" VENT PIPE UP THROUGH ATTIC LEVEL AND UP THROUGH ROOF. CONTRACTOR TO FIELD COORDINATE FINAL ROOF PENETRATION LOCATION AND ROUTING REQUIREMENTS.



1 / P1.2 UPPER LEVEL PLAN - PLUMBING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 26909 — DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 P1.2	LIBBEY BATHHOUSE UPPER LEVEL PLAN - PLUMBING	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: SGB			SHEET 230 OF 286
	DATE: 10.27.2023			

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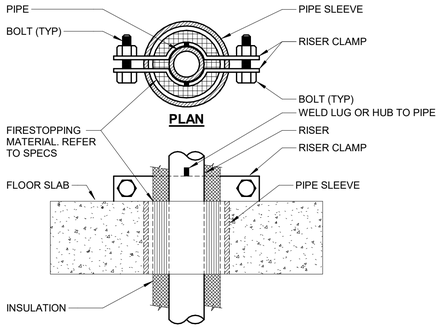
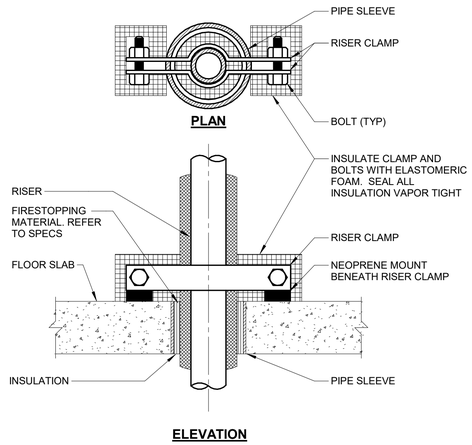
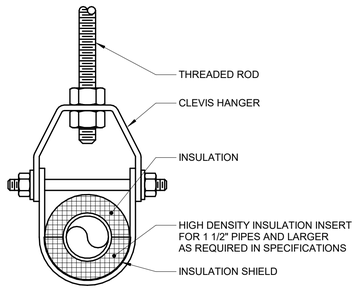


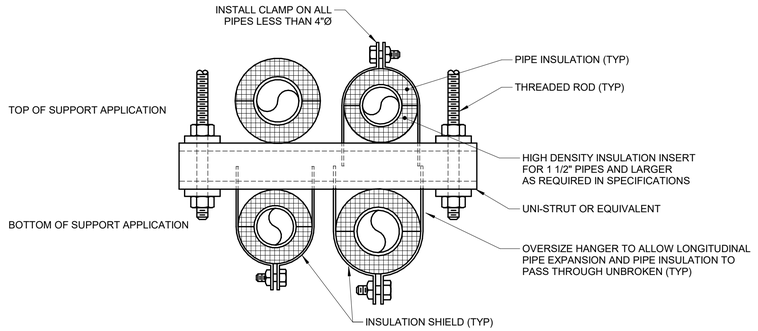
INSULATED HOT PIPE RISER SUPPORT



INSULATED COLD PIPE RISER SUPPORT



INSULATED COLD PIPE HANGER



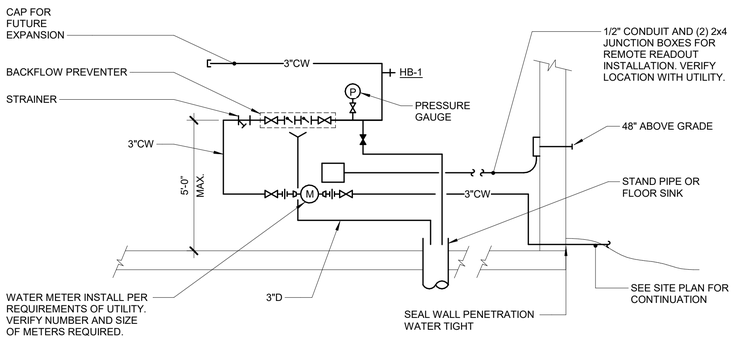
TRAPEZE HANGER

NOTES:

1. REFER TO SPECIFICATION SECTIONS (SECTION 22 05 29-PLUMBING, SECTION 23 05 29-HVAC) & (SECTION 22 07 19-PLUMBING, SECTION 23 07 19-HVAC).

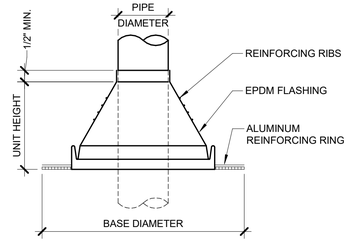
1 PIPE - HANGERS AND SUPPORTS

NO SCALE



3 DOMESTIC WATER ENTRANCE SINGLE METER

NO SCALE

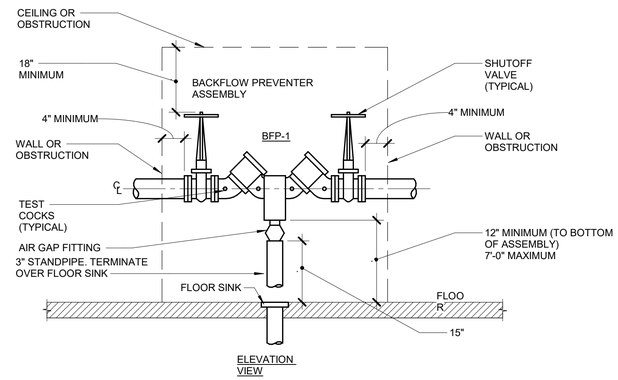


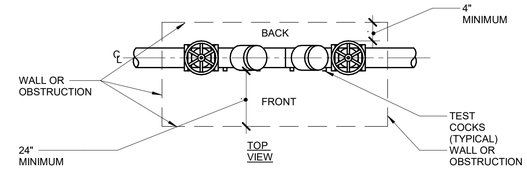
NOTES:

1. UNIT SHALL BE INSTALLED IN FLAT AREA ON ROOF.
2. UNIT TO BE COMPATIBLE WITH BUILDING ROOF.

4 VENT PIPE FLASHING THROUGH METAL ROOF

NO SCALE





NOTES:

1. REFER TO MATERIAL LIST FOR ASSEMBLY TYPE, SIZE, AND CONFIGURATION.

2 BACKFLOW PREVENTER DETAIL

NO SCALE

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

LICENSED PROFESSIONAL ENGINEER — No. 26909 — DAVID W. BODENSCHATZ

10.27.2023

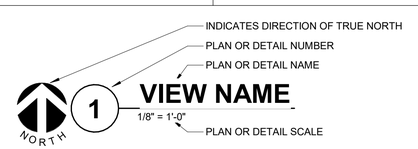
A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 P5.0	TITLE OF SHEET LIBBEY BATHHOUSE PLUMBING DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 231 OF 286

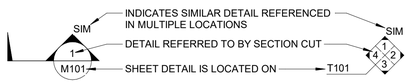
10/27/2023 11:50:47 AM

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

MECHANICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
C	COMMON
CFSD	CONTROL/FIRE/SMOKE DAMPER
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
EA	EXHAUST/RELIEF AIR
FD	FIRE DAMPER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FSD	FIRE/SMOKE DAMPER
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
PS	PRESSURE SWITCH
RA	RETURN AIR
SA	SUPPLY AIR
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TYP	TYPICAL
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTES

MECHANICAL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
DPP	DRAIN - PIPING
HG	REFRIGERANT HOT GAS
LIQ	REFRIGERANT LIQUID
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM
SUC	REFRIGERANT SUCTION
PC	PUMPED CONDENSATE
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
FD	PIPE SERVING FIXTURE ON FLOOR ABOVE (EXAMPLE: FD = FLOOR DRAIN)
	PITCH PIPE IN DIRECTION
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
	SHUTOFF VALVE NORMALLY CLOSED
	CONTROL VALVE (TWO-WAY)
	SOLENOID VALVE
	CHECK VALVE
	SAFETY/RELIEF VALVE
	"WYE" - STRAINER
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	ANGLE VALVE
	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
	DIRECTION OF AIR FLOW
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
R	RISE IN DIRECTION OF AIR FLOW
D	DROP IN DIRECTION OF AIR FLOW
	DUCT CAP
	DUCT DOWN
	DUCT UP
	SUPPLY/OUTSIDE AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST/RELIEF AIR DUCT SECTION
	4-WAY DIFFUSER WITH BLANKOFF IN ONE DIRECTION
SD-1 6/115	AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM

TEMPERATURE CONTROLS ABBREVIATION KEY

ABBR:	DESCRIPTION:
EA	EXHAUST/RELIEF AIR
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
TYP	TYPICAL
RA	RETURN AIR
SA	SUPPLY AIR
UON	UNLESS OTHERWISE NOTES

CONTROL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
	TERMINAL AIR BOX
	TERMINAL AIR BOX W/ REHEAT
T	THERMOSTAT
	OPPOSED BLADE DAMPER
	PARALLEL BLADE DAMPER
XX-Y	AIRFLOW MEASUREMENT SYMBOL XX - AHU SYMBOL Y - SEQUENTIAL NUMBER
	FAN
MTR	MOTOR
R	CONTACTOR
	NORMALL CLOSED CONTACT
	NORMALLY OPEN CONTACT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
F	FLOW SWITCH
FS	FLOW SENSOR
P	PRESSURE SWITCH
	MONITOR SWITCH
T	PROBE TEMPERATURE SENSOR
H	HUMIDISTAT SENSOR
	HUMIDISTAT / SENSOR
H	HUMIDITY SENSOR (DUCT MOUNTED)
DSD	DUCT SMOKE DETECTOR

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER ACCESS.
5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.
13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS, PIPING, DUCTWORK, ETC.
14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.
15. MAINTAIN MINIMUM 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL PANELS, MOTOR STARTERS, SWITCHES, AND DISCONNECTS.
16. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
17. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

VENTILATION GENERAL NOTES:

1. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO A TERMINAL AIR BOX (TAB) SHALL MATCH THE INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6FEET IN LENGTH, IN WHICH CASE THE BRANCH DUCT SHALL BE SIZED AT A PRESSURE DROP OF 0.07"W.C. PER 100' OF DUCTWORK.
2. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO AN AIR TERMINAL SHALL MATCH THE INLET SIZE.
3. ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.
4. PROVIDE ACCESS DOORS AT ALL DUCT MOUNTED EQUIPMENT.

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE CONTRACTING OFFICER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.
6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.
7. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
8. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.
9. DISCONNECT AND REMOVE MECHANICAL DEVICES AND EQUIPMENT SERVING EQUIPMENT THAT HAS BEEN REMOVED.

TEMPERATURE CONTROL GENERAL NOTES:

1. REFER TO EQUIPMENT SCHEDULES TO CROSS REFERENCE WHICH CONTROL DIAGRAMS APPLY TO WHICH ITEMS OF EQUIPMENT. REFER TO TERMINAL AIR BOX (TAB) SCHEDULES FOR TEMP SENSOR REQUIREMENTS FOR EACH TAB.
2. EACH D.I., D.O., A.I. AND A.O. POINT SHOWN FOR ALL CONTROL DIAGRAMS SHALL BE DISCRETE FROM ALL OTHER POINTS EXCEPT AS SPECIFICALLY NOTED.
3. ALL WIRING, CONTROL COMPONENTS, DEVICES AND PROGRAMMING SHOWN ON THESE CONTROL DRAWINGS SHALL BE PROVIDED BY THE TCC UNLESS SPECIFICALLY NOTED OTHERWISE.
4. TEMPERATURE CONTROL CABLING, CONDUIT, BOXES, IDENTIFICATION: REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST OF REQUIREMENTS. THE FOLLOWING SCHEDULE IS PROVIDED AS A CONVENIENCE. REFER TO SECTION 23 09 00 FOR ADDITIONAL DETAILED REQUIREMENTS.
   A. CABLE/WIRE JACKET COLOR: BLUE
   B. CONDUIT BOX COLOR ABOVE FINISHED CEILINGS AND UNFINISHED SPACES WITHOUT CEILINGS: BLUE
   C. CONDUIT BOX COLOR IN SPACES WITH EXPOSED FINISHED STRUCTURE: MILL FINISH TO BE FIELD PAINTED; COLOR TO BE SELECTED BY CONTRACTING OFFICER
   D. CABLE/WIRE INSTALLATION: IN CONDUIT WHEN CONCEALED IN WALLS AND OTHER ASSEMBLIES. PLENUM-RATED CABLE SHALL BE USED ABOVE FINISHED ACCESSIBLE CEILINGS, INDEPENDENTLY SUPPORTED FROM OTHER SYSTEM CABLING/WIRE EVERY 4 FT WITH BRIDAL RINGS AND CABLE SADDLES. ALL CABLING SHALL BE IN CONDUIT IN SPACES WITH EXPOSED FINISHED STRUCTURE.
5. ALL ACTUATORS SHALL BE OF THE ELECTRICAL TYPE FOR THIS PROJECT UNLESS AN ACTUATOR IS SPECIFICALLY INDICATED ON THE DRAWINGS OR SPECIFICATIONS TO BE PNEUMATIC.
6. ALL MODULATING DAMPER AND VALVE ACTUATORS SHOWN WITH POSITION FEEDBACK SHALL HAVE THE VALVE POSITION DISPLAYED ON GRAPHICAL SCREEN ADJACENT TO THE DAMPER/VALVE COMMAND SIGNAL. DISPLAYED VALVE POSITION SHALL BE FROM THE FEEDBACK DEVICE/CIRCUIT (OUTPUT SIGNAL FROM THE FMCS TO THE ACTUATOR IS NOT ACCEPTABLE)
7. MODULATING SIGNALS SHALL BE DISPLAYED AS % OPEN (SIGNALS DISPLAYED AS % CLOSED ARE NOT ACCEPTABLE).
8. ALL CONTROL COMPONENTS SUCH AS RELAYS, SWITCHES, DDC CONTROLLERS, ETC. SHALL BE MOUNTED IN STEEL ENCLOSURES WITH STEEL MOUNTING BACKPLATES.
9. EACH CONTROL PANEL SHALL HAVE A LAMINATED COPY OF THE APPLICABLE SEQUENCE OF OPERATION AND CONTROL DIAGRAM INDICATING THE POINTS, COMPONENTS AND OPERATION OF EQUIPMENT ASSOCIATED WITH EACH PANEL.
10. TCC SHALL EXTEND CONTROL SIGNAL FROM ADDRESSABLE RELAY DEVICE SERVING EACH AIR HANDLING UNIT. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS. TCC SHALL EXTEND AND TERMINATE WIRING AS REQUIRED FOR EQUIPMENT SHUTDOWN.
11. CONTROL DIAGRAMS ARE SCHEMATIC IN NATURE AND DO NOT SHOW ALL REQUIRED CONTROL DEVICES AND COMPONENTS. REFER TO FLOOR PLANS, FLOW DIAGRAMS AND DETAILS FOR ADDITIONAL CONTROL DEVICES, COMPONENTS AND REQUIREMENTS NOT SHOWN ON THESE CONTROL DRAWINGS.
12. TCC SHALL PROVIDE ALL CONTROL COMPONENTS AND ACCESSORIES AS REQUIRED FOR EQUIPMENT TO BE CONTROLLED AS DESCRIBED IN THE SEQUENCE OF OPERATION REGARDLESS OF WHETHER ALL CONTROL COMPONENTS OR POINTS ARE SHOWN IN THE ASSOCIATED CONTROL DIAGRAM.

PIPING GENERAL NOTES:

1. PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN.

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — KANSAS

LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 M0.0	TITLE OF SHEET LIBBEY BATHHOUSE MECHANICAL COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 232 OF 286

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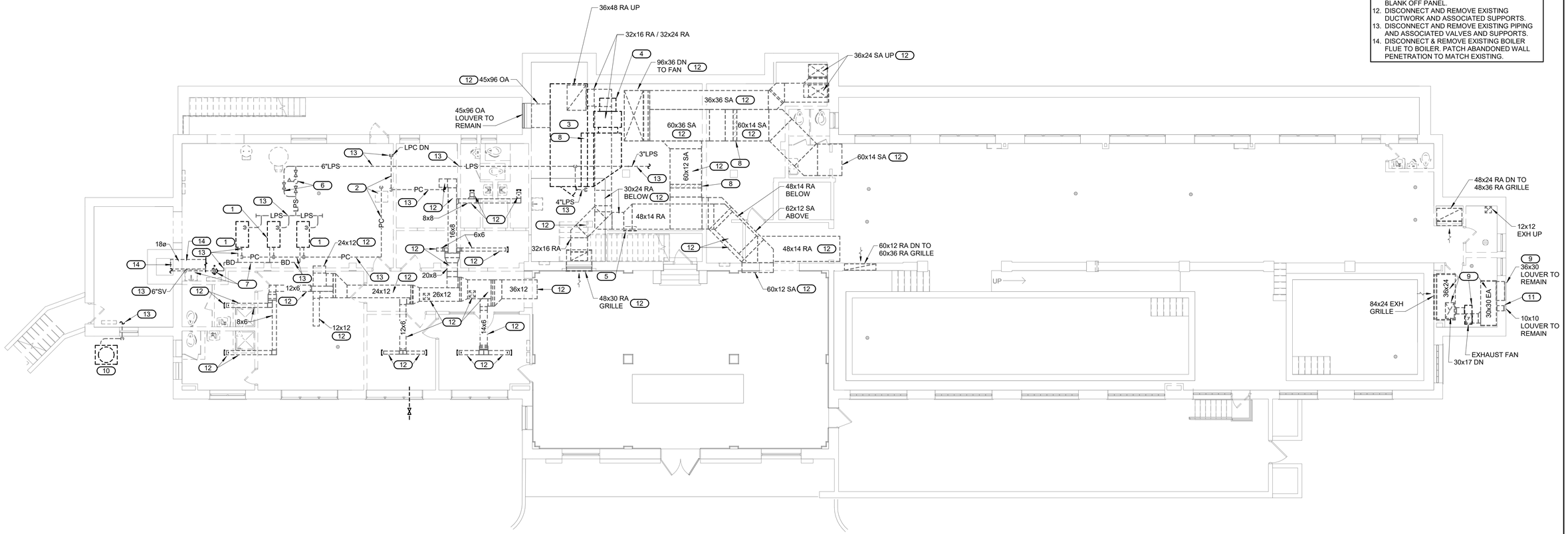
SHEET NOTES:

1. DEMO ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING AND SUPPORTS UNLESS NOTED OTHERWISE.
2. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
3. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING STEAM BOILERS AND ASSOCIATED BOILER FLUE, PIPING AND CONTROLS.
2. DISCONNECT AND REMOVE EXISTING CONDENSATE PUMP AND ASSOCIATED LPC AND PC PIPING.
3. DISCONNECT AND REMOVE EXISTING FIELD BUILT AIR HANDLING UNIT AND ASSOCIATED HEATING COILS, FILTERS, DAMPERS, DUCTWORK, PIPING AND CONTROLS.
4. DISCONNECT AND REMOVE EXISTING AIR HANDLING UNIT FAN AND ASSOCIATED DUCTWORK AND CONTROLS.
5. DISCONNECT AND REMOVE EXISTING TEMPERATURE CONTROL PANEL AND ASSOCIATED CONDUIT AND WIRING.
6. DISCONNECT AND REMOVE EXISTING STEAM PRV STATION.
7. DISCONNECT AND REMOVE EXISTING BLOWDOWN SEPARATOR AND ASSOCIATED STEAM VENT AND BLOWDOWN PIPING.
8. DISCONNECT AND REMOVE EXISTING STEAM COIL AND ASSOCIATED LPS AND LPC PIPING.
9. DISCONNECT AND REMOVE EXISTING EXHAUST FAN AND ASSOCIATED DUCTWORK AND CONTROLS. BLANK OFF BACKSIDE OF EXISTING LOUVER WITH INSULATED SHEET METAL SANDWICH PANEL.
10. DISCONNECT AND REMOVE EXISTING CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING UP TO FAN COIL UNIT IN ATTIC.
11. DISCONNECT AND REMOVE EXISTING 10"x10" GRILLE AND DUCT IN WALL. BLANK OFF BEHIND LOUVER WITH INSULATED SHEET METAL BLANK OFF PANEL.
12. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ASSOCIATED SUPPORTS.
13. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED VALVES AND SUPPORTS.
14. DISCONNECT & REMOVE EXISTING BOILER FLUE TO BOILER. PATCH ABANDONED WALL PENETRATION TO MATCH EXISTING.



1 / MX1.1 LOWER LEVEL DEMOLITION PLAN - MECHANICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 26909 DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 MX1.1	LIBBEY BATHHOUSE LOWER LEVEL DEMOLITION PLAN - MECHANICAL	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: SGB			SHEET 233 OF 286
	DATE: 10.27.2023			

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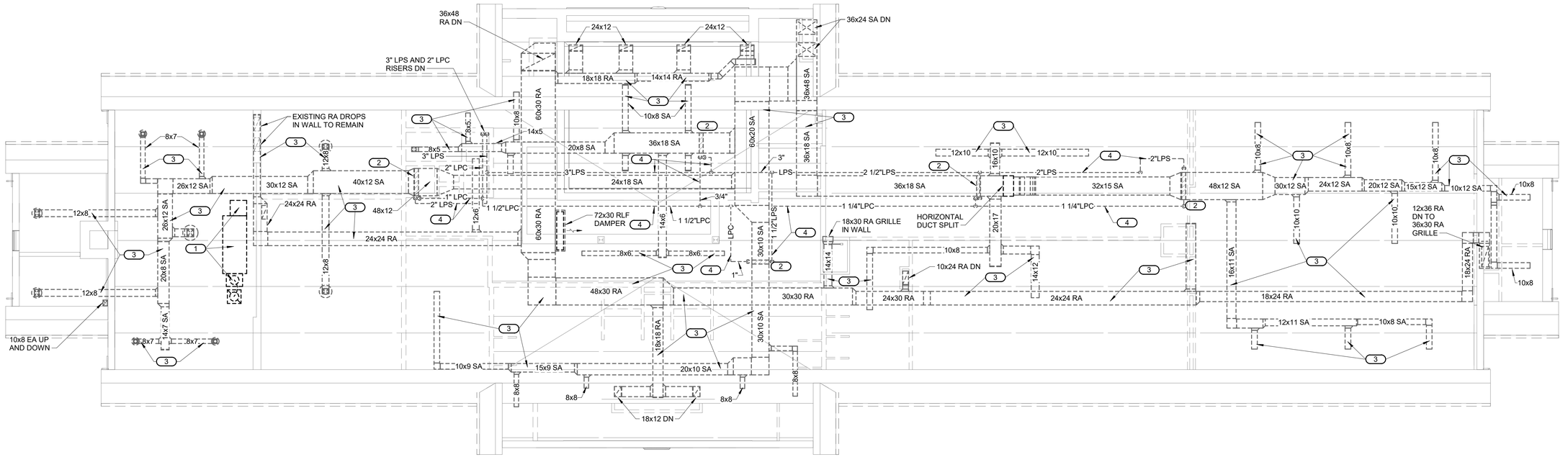
SHEET NOTES:

1. DEMO ALL EXISTING MECHANICAL EQUIPMENT, DUCTWORK, PIPING AND SUPPORTS UNLESS NOTED OTHERWISE.
2. ALL DARK AND DASHED EQUIPMENT, DUCTWORK, PIPING AND ASSOCIATED SUPPORTS ARE TO BE REMOVED IN ITS ENTIRETY AND EXISTING PENETRATIONS PATCHED. PIPING SHOWN LIGHTLY IS TO REMAIN.
3. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING DX FAN COIL UNIT AND ALL ASSOCIATED DUCTWORK, REFRIGERANT PIPING TO CONDENSING UNIT, CONTROLS AND SUPPORTS.
2. DISCONNECT AND REMOVE EXISTING STEAM HEATING COIL AND ASSOCIATED LPS AND LPC PIPING.
3. DISCONNECT AND REMOVE EXISTING DUCTWORK AND ASSOCIATED DIFFUSERS AND SUPPORTS.
4. DISCONNECT AND REMOVE EXISTING PIPING AND ASSOCIATED VALVES AND SUPPORTS.



1 / MX1.3 ATTIC DEMOLITION PLAN - MECHANICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 26909 DAVID W. BODEN-CHIEF

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 MX1.3	LIBBEY BATHHOUSE ATTIC DEMOLITION PLAN - MECHANICAL	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: SGB			SHEET 234 OF 286
	DATE: 10.27.2023			

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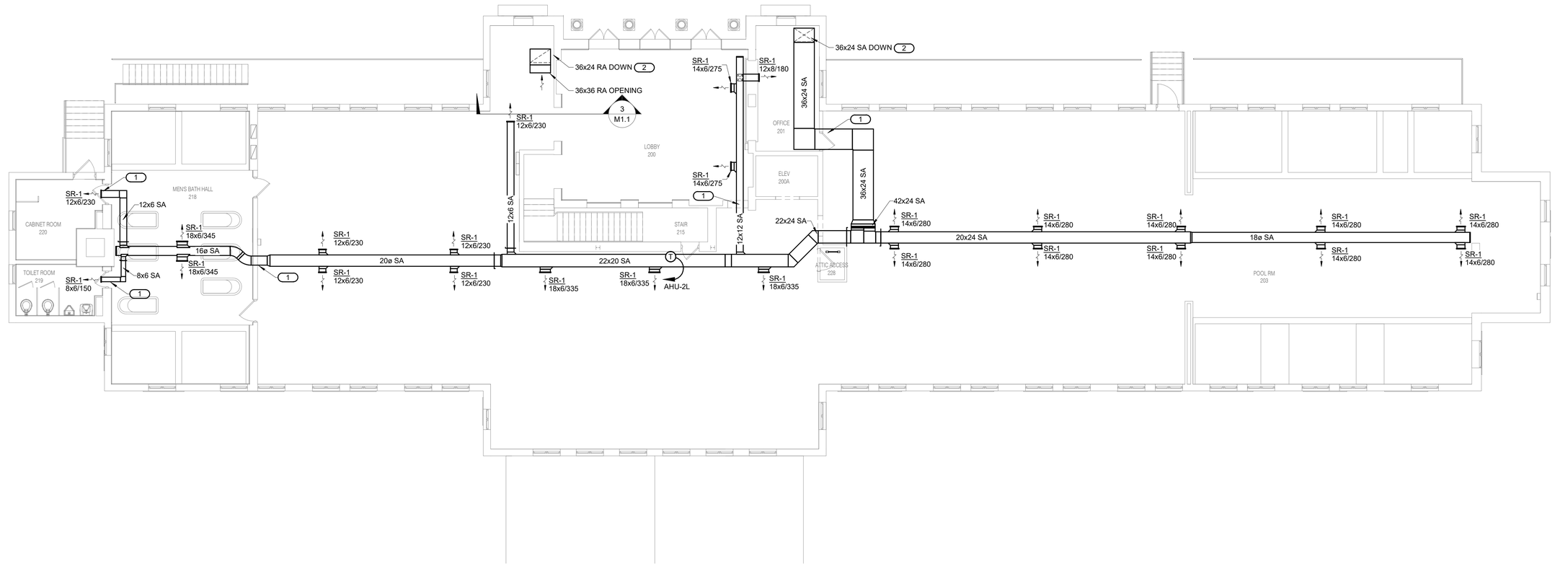
SHEET NOTES:

1. ROUTING OF TERMINAL EQUIPMENT, DUCTWORK AND PIPING SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES AND HISTORIC NATURE OF BUILDING TO CONFORM WITH THE SECRETARY OF THE INTERIOR'S REHABILITATION REQUIREMENTS AND PRESERVATION BRIEFS RELATED TO MEP DESIGN AND INSTALLATION.
2. DUCTWORK SHALL BE ROUTED BELOW EXISTING CEILINGS AND ASSOCIATED CEILING TRIM/ CROWN MOULDING. DUCTWORK SHALL NOT BE ATTACHED TO ANY SKYLIGHT FRAMING/TRIM OR ANY DECORATIVE CEILING ELEMENTS.

KEYNOTES:

1. COORDINATE EXACT ROUTING AND ELEVATION OF DUCTWORK THROUGH EXISTING WALLS WITH CONTRACTING OFFICER BEFORE CUTTING HOLES AND FABRICATION OF DUCTWORK.
2. EXISTING DUCTWORK RISERS DOWN THROUGH EXISTING OPENING. PATCH OVERSIZED AND ABANDONED OPENINGS.
3. DROP DUCTWORK DOWN TO PASS THROUGH EXISTING OPENING AS HIGH AS POSSIBLE. DO NOT PENETRATE WALL.



1 / M1.2 UPPER LEVEL PLAN - MECHANICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

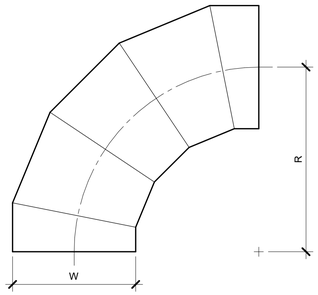
CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER

10.27.2023

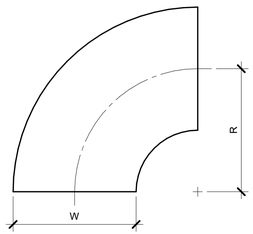
A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	SGB	02 M1.2	LIBBEY BATHHOUSE UPPER LEVEL PLAN - MECHANICAL	128 / 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: SGB			SHEET 235 OF 286
	DATE: 10.27.2023			

10/27/2023 11:50:38 AM



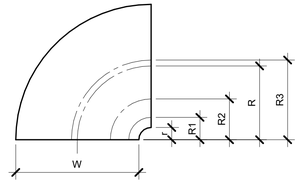
OVAL / ROUND
RADIUS ELBOW
SMOOTH OR 5 GORE (MINIMUM)

R/W = 1.5 (MINIMUM)



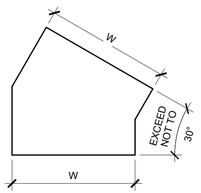
RECTANGULAR
RADIUS ELBOW
TYPE RE1

R/W = 1.0 (MINIMUM)
R/W < 1.0 SHALL BE TYPE RE3



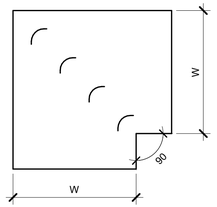
RECTANGULAR
RADIUS ELBOW WITH VANES
TYPE RE3

REFER TO SMACNA HVAC SYSTEMS DUCT DESIGN MANUAL, FOURTH EDITION, SECTION 5.14 "SPLITTER VANES" AND SMACNA HVAC DUCT CONSTRUCTION STANDARDS, THIRD EDITION, FIGURES 4-2 AND 4-9 AND CHARTS 4-1 AND 4-1M. ELBOW SHALL HAVE THREE SPLITTER VANES AND r/W = 0.10 (R/W = 0.60) UNLESS NOTED OTHERWISE.

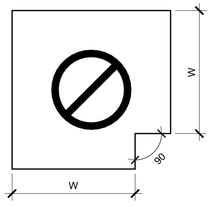


RECTANGULAR
MITERED ELBOW
TYPE RE6

USE ONLY AS PART OF OFFSETS AND TRANSITIONS PER FIGURE 4-7 TYPE 2 OR AS SHOWN ON DRAWINGS. OFFSETS ABOVE 30° SHALL BE TYPE RE1.

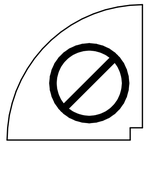


RECTANGULAR
MITERED ELBOW
WITH VANES
TYPE RE2



RECTANGULAR / OVAL / ROUND
MITERED ELBOW
WITHOUT VANES
TYPE RE4

NOT ALLOWED



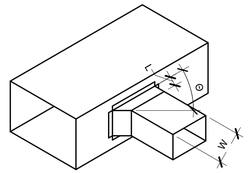
RECTANGULAR
RADIUS ELBOW WITH
SQUARE THROAT

NOT ALLOWED

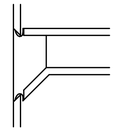
NOTES:

1. BEAD, CROSSBREAK, AND REINFORCE FLAT SURFACES AS IN STRAIGHT DUCT.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. DEFAULT ELBOW SHALL BE TYPE "RE1".
4. ELBOW TYPES SHALL BE INSTALLED AS SHOWN AND NOT BE SUBSTITUTED WITHOUT PERMISSION. EXCEPTION: RE1 OR RE3 MAY BE SUBSTITUTED FOR RE2.

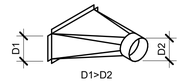
1 DUCT - ELBOW CONSTRUCTION
NO SCALE



45 DEGREE
ENTRY Θ 45°
(L = 4" OR W/4; WHICHEVER IS LARGER)



DUCT CONNECTION



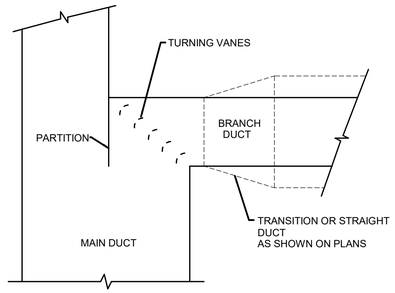
D1>D2

45 DEGREE LEAD IN

NOTES:

1. DO NOT USE CONNECTIONS WITH SCOOPS.
2. FIT ALL CONNECTIONS TO AVOID VISIBLE OPENINGS AND SECURE THEM SUITABLY FOR THE PRESSURE CLASS.
3. ADDITIONAL MECHANICAL FASTENERS ARE REQUIRED FOR 4"W.G. AND OVER.
4. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2 DUCT - BRANCH CONNECTIONS
NO SCALE



TYPICAL DETAIL OF BRANCH CONNECTION FROM MAIN SUPPLY DUCT
4
NO SCALE

FULL SIZE CONDENSATE DRAIN, CONNECT TO DRAIN PAN AS RECOMMENDED BY MANUFACTURER.

EXAMPLE:

H= FAN INLET PRESSURE (INCHES W.C.)

RA EXTERNAL = 0.64"

UPSTREAM OF FAN INTERNAL = 0.11

FILTERS (DIRTY) = 0.9

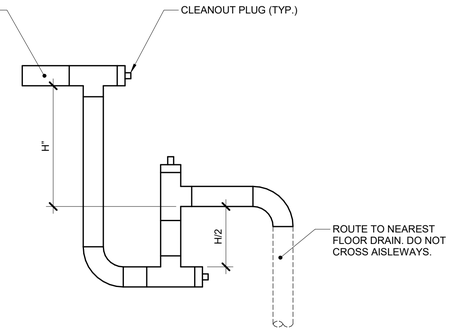
TOTAL = 1.65

H = 1.65" + 1" = 2.65"

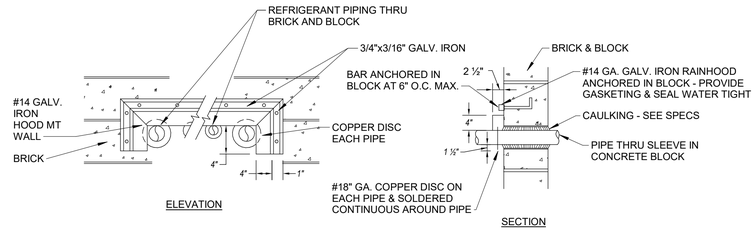
H = 3"

H/2 = 1.5"

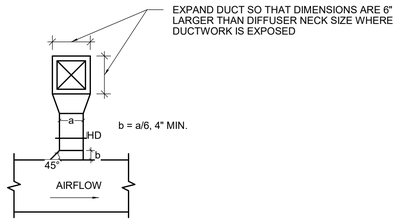
H/2 = 2"



3 CONDENSATE TRAP - DRAW THROUGH COIL
NO SCALE



5 DETAIL OF RAINHOOD FOR REFRIGERANT PIPING
NO SCALE



TYPICAL DETAIL OF BRANCH TAKE OFF AND RECT. NECK DIFFUSER CONN.
6
NO SCALE

IMEG Consultants Corp. No. 4306 ARKANSAS
CERTIFICATE OF AUTHORIZATION

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ
STATE OF ARKANSAS

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: WMM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 02 M5.0	TITLE OF SHEET LIBBEY BATHHOUSE MECHANICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 236 OF 286

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AIR HANDLING SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SPECIFICATION. 23 05 13
3.PROVIDE WITH TRANE UC600 OR EQUAL DIGITAL CONTROLLER W/LOW LIMIT SWITCH, CONDENSATE OVERFLOW SWITCH, DIRTY FILTER SWITCH, FAN STATUS SWITCH, DISCHARGE AIR SENSOR, OUTSIDE AIR TEMPERATURE SENSOR & DUCT STATIC PRESSURE SENSOR OPTIONS.
4.LOOSE DUCT HEATER SHALL BE PROVIDED BY UNIT MANUFACTURER. COIL SHALL HAVE SCR CONTROL.
5.FURNISH UNITS WITH MOTORIZED, 2 POSITION OUTSIDE AIR DAMPERS.

		SUPPLY FAN (NOTE 1)										ELECTRICAL									HEATING COIL - ELECTRIC							
																	DISCONNECT(S)		CONTROLLER STARTER(S)									
TAG NAME	AREA SERVED	NO. OF FANS	CFM TOTAL	MIN. CFM	EXT. S.P.	TYPE	RPM (NOTE D)	BHP (NOTE E)	MHP (NOTE E)	MINIMUM OUTSIDE AIR CFM	MOTORIZED OA DAMPER	NO. OF POWER CONNECTIONS	AHU VOLTAGE	AHU PHASES	AHU MCA	AHU MOCP	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	TYPE (NOTE C)	SCCR	EAT °F	LAT °F	KW	VOLTAGE	PHASES	MCA	MOCP
AHU-1L	MECHANICAL 107	1	6500	6500	0.8	DD AF PLENUM FAN	2000	5.3	7.5	650	YES	2	208	3	35.5	60.0	MFR	NF	MFR	VFD	5000	57.5	90.0	67	208	3	186	250
AHU-2L	MECHANICAL 115	1	7000	7000	0.8	DD AF PLENUM FAN	2125	6.3	7.5	700	YES	2	208	3	35.5	60.0	MFR	NF	MFR	VFD	5000	57.5	95.0	83	208	3	230	300

AIR HANDLING SCHEDULE - CONT.

	COOLING COIL									PRE-FILTER				MAX. DIMENSIONS			WEIGHT	VIBRATION ISOLATION				
												PRESSURE DROP										
TAG NAME	EAT DB °F	EAT WB °F	LAT DB °F	LAT WB °F	TOTAL MBH	MAX. A.P.D. IN. W.G.	SAT SUC °F	REFRIGERANT	CFM	TYPE	FACE VELOCITY	DIRTY	CLEAN	LENGTH	WIDTH	HEIGHT	OPERATING	TYPE	DEFL.	MANUFACTURER	MODEL	NOTES
AHU-1L	82.0	67.2	54.8	54.1	263	1.0	45.0	R410a	6500	2" MERV 8	500	0.3	0.7	101"	71"	46"	1400	M3	0.750	TRANE	UCCAH14B0G0R	1,2,3,4,5
AHU-2L	82.0	67.2	53.1	52.3	316	1.1	41.0	R410a	6500	2" MERV 8	500	0.3	0.7	101"	71"	46"	1400	M3	0.750	TRANE	UCCAH14B0G0R	1,2,3,4,5

CONDENSING UNIT SCHEDULE

NOTES:
1.MANUFACTURER LISTED IS BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR ALTERNATE MANUFACTURERS.
2.REFER TO SPECIFICATION SECTION 23 62 13 FOR ADDITIONAL REQUIREMENTS.

												ELECTRICAL									MAX. DIMENSIONS			WEIGHT	VIBRATION ISOLATION				
																		DISCONNECT		CONTROLLER/ STARTER										
TAG NAME	AREA SERVED	NOMINAL DESIGN TONS	REFRIGERANT	SATURATED SUCTION °F	AMBIENT TEMP °F	MIN. AMBIENT TEMP. °F	NUMBER OF COMPRESSORS	NUMBER OF STAGES	NUMBER OF CIRCUITS	NUMBER OF FANS	MIN. EER	NO. OF POWER CONNECTIONS	VOLTAGE	PHASES	FLA	MCA	MOCP	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR	LENGTH	WIDTH	HEIGHT	OPERATING	TYPE	DEFL.	MANUFACTURER	MODEL (NOTE 1)	NOTES
ACCU-1L	AHU-1L	25	R410a	45.0	105.0	50.0	2	2	1	2	11.7	1	208	3	101.0	101	125	MFR	NF	MFR	5 kA	94	46	51	915	M2	0.25	TRANE	TTA30043CAA	1,2
ACCU-2L	AHU-2L	30	R410a	41.0	105.0	40.0	2	2	1	3	11.4	1	208	3	141.0	141	175	MFR	NF	MFR	5 kA	89	61	75	1940	M2	0.25	TRANE	RAUJC30	1,2

AIR TERMINAL SCHEDULE

NOTES:
1.REFER TO DRAWINGS FOR NECK SIZE. ALL BRANCH DUCTWORK TO AIR TERMINALS SHALL BE NECK SIZE UNLESS NOTED OTHERWISE.

TAG NAME	FACE SIZE (IN.) (NOTE 2)	TYPE	BORDER (NOTE 1)	MATERIAL	FINISH	VOLUME DAMPER REQUIRED	MANUFACTURER	MODEL	NOTES
SR-1	INLET + 2	DOUBLE DEFLECTION	1 1/4"	ALUMINUM	WHITE	YES	TITUS	300FL	1

SCHEDULE GENERAL NOTES:

A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR.
MC = FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
MFR/EC = FURNISHED LOOSE BY MANUFACTURER INSTALLED BY ELECTRICAL CONTRACTOR.
ATC = AUTOMATIC TEMPERATURE CONTROL CONTRACTOR

B. DISCONNECT TYPE:
CB = CIRCUIT BREAKER
F = FUSED
NF = NON-FUSED

C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
WYE = WYE-DELTA
SS = SOLID STATE (SOFT START)
MS = MANUAL STARTER
VFD = VARIABLE FREQUENCY DRIVE
VFD/B = VARIABLE FREQUENCY DRIVE WITH BYPASS
YD = WYE - DELTA

D. FAN RPM SHALL NOT EXCEED 110% OF SCHEDULED VALUE, WITH THE SCHEDULED WHEEL TYPE. SUBSTITUTION OF BI OR BIA FANS FOR FC IS ACCEPTABLE IF EFFICIENCY IS NOT LOWER.

E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.

F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.

G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER
GC = BY GENERAL CONTRACTOR
SAC = SOUND ATTENUATOR CURB

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4308
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 20909
DAVID W. BODENSCHATZ

10.27.2023

A/E FIRMS

ARCH:
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SUITE 300
KANSAS CITY, MO
T: 816.842.8437

DESIGNED:
CADD:
TECH. REVIEW:
DATE: 10.27.2023

SUB SHEET NO.
02
ME6.0

TITLE OF SHEET
LIBBEY BATHHOUSE
MECHANICAL SCHEDULES

REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.
128
182951

PMIS/PKG NO.
318915

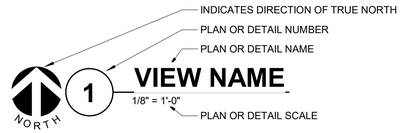
SHEET
237 OF 286

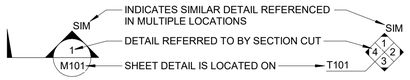
10/27/2023 11:00:40 AM

VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

ELECTRICAL GENERAL NOTES:

1. REFER TO DRAWINGS EP6.1 AND EP6.2 FOR ELECTRICAL SCHEDULES. PERMANENT NAMEPLATE SHALL MATCH FINAL EQUIPMENT NOMENCLATURE, NOT ELECTRICAL EQUIPMENT TAG NAME, REFER TO SPECIFICATIONS.
2. "NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT.
3. "SE" INDICATES LUMINAIRE IS SWITCHED/CONTROLLED DURING NORMAL OPERATION AND OPERATES FROM EMERGENCY CIRCUIT UPON LOSS OF POWER.
4. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT OR SUPPLIED WITH AN EMERGENCY BATTERY PACK.
5. { B#} PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF RAISE/LOWER AND SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS. COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER.
6. VACANCY/OCCUPANCY SENSOR LAYOUT: SENSORS ARE SHOWN ON THE PLANS FOR DESIGN INTENT AND MAY NOT REPRESENT EVERY DEVICE. PROVIDE MANUFACTURER SPECIFIC FLOOR PLAN LAYOUTS SHOWING LOCATION, ORIENTATION, AND COVERAGE AREA OF EACH CONTROL DEVICE, SENSOR, AND CONTROLLER/INTERFACE. AREAS REQUIRING MULTIPLE SENSOR DEVICES FOR APPROPRIATE COVERAGE, SUBMIT SPECIFIC MANUFACTURER-APPROVED SENSOR LAYOUT AS AN OVERLAY DIRECTLY ON THE PROJECT DRAWINGS, EITHER IN PRINT OR APPROVED ELECTRONIC FORM.

LUMINAIRE KEY:

LUMINAIRE — F1 = FIXTURE TAG
1 = CIRCUIT NUMBER
a = SWITCH DESIGNATION
NL = SUBSCRIPT (IF APPLICABLE)
Z = ZONE DESIGNATION

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1 / 1 / a / NL

DEVICE KEY:

DEVICE — A = MOUNTING (IF APPLICABLE)
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL MOUNTING SUBSCRIPT KEY:

A	MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH
C	MOUNT AT CEILING
H	MOUNT ORIENTED HORIZONTALLY
L	MOUNT IN CASEWORK
M	MOUNT IN MODULAR FURNITURE
R	MOUNT IN SURFACE RACEWAY
EWC	ELECTRIC WATER COOLER

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
GB	GB	26 05 26	GROUND BUS
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
C#	SC-IO-W	27 15 00	TECHNOLOGY INFORMATION OUTLET. INCLUDE CAT 6 CABLE IN 3/4" CONDUIT TO DATA EQUIPMENT BOARD IN MECHANICAL 106. C# DENOTES CABLE AND JACK QUANTITY.
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	MX-#/MS-# /CB-#/CS-#	26 24 19	MANUAL SWITCH / STARTER / COMBINATION STARTER/ CIRCUIT BREAKER. REFER TO DISC/STA SCHEDULE
	TR-#/DTR-#	26 22 00	TRANSFORMER. REFER TO TRANSFORMER SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - SURFACE MOUNTED. REFER TO DISC/STA SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - FLUSH MOUNTED. REFER TO DISC/STA SCHEDULE
	DS-#/FDS-#/DSS-#	26 28 16	DISCONNECT. REFER TO DISC/STA SCHEDULE
M M			SECURITY MOTION DETECTOR WITH WIRING IN CONDUIT.
D			SECURITY DOOR CONTACT WITH WIRING IN CONDUIT. COORDINATE ROUGH-IN WITH DOOR CONTRACTOR.

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
			WALL SCONCE LUMINAIRE
			DOWNLIGHT LUMINAIRE
	REFER TO LUMINAIRE SCHEDULE		INDUSTRIAL LUMINAIRE
			SINGLE FACE EXIT SIGN
			DOUBLE FACE EXIT SIGN
			WALL/CEILING EMERGENCY EXIT SIGN
			EMERGENCY UNIT

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
			DUPLEX RECEPTACLE, 125V
			DUPLEX GFI RECEPTACLE, 125V
			QUAD RECEPTACLE, 125V
S_3	SW-3W	26 09 33	SWITCH - THREE WAY
S_4	SW-4W	26 09 33	SWITCH - FOUR WAY
S_O	SW-OC-P-O	26 09 33	SWITCH - OCCUPANCY SENSOR WALL SWITCH
OC D	SW-OC-D	26 09 33	OCCUPANCY SENSOR - DUAL TECHNOLOGY
OC D	SW-OC-D-W	26 09 33	OCCUPANCY SENSOR - DUAL TECHNOLOGY - WALL MOUNTED
PC	SW-LS-PC	26 09 33	PHOTOCELL

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
W	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE, 125V
	REC-SIM-520R	26 27 26	SIMPLEX RECEPTACLE, 125V

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
COMMON AND SEQUENCE OF OPERATION SUBSCRIPTS			SUBSCRIPTS: TYPE / PROGRAMMING WG = WIRE GUARD IS REQUIRED W = WEATHERPROOF A = ATRIUM CA = CLEAN AGENT SYSTEM CR = COMPUTER ROOM E = ELEVATOR RECALL D = HVAC CONTROL DH = DOOR HOLD RELEASE DIPS = DUAL INTERLOCK PREACTION SYS FD = FIRE DOOR RELEASE MP = MEDICAL PROCEDURE S = SLEEPING / PATIENT ROOM SW = STAIRWELL # = 15, 30, 75, 110, 177 CANDELA RATING CD = CANDELA RATING SELECTED BY NICET DESIGNER
	FACP-#	28 31 00	FIRE ALARM CONTROL PANEL
	FAA-#	28 31 00	FIRE ALARM ANNUNCIATOR
	VCC-#	28 31 00	DIGITIZED VOICE COMMAND CENTER
	GAP-#	28 31 00	GRAPHICAL ANNUNCIATOR PANEL, FIRE ALARM
	NAC-#	28 31 00	NOTIFICATION APPLIANCE CIRCUIT PANEL
	AMP-#	28 31 00	AMPLIFIER RACK, FIRE ALARM
	ECCU-#	28 31 00	EMERGENCY COMMUNICATION CONTROL UNIT
	LOC-#	28 31 00	LOCAL OPERATING CONSOLE
	SCP-#	28 31 00	FIREFIGHTER'S SMOKE CONTROL PANEL
	FATC-#	28 31 00	FIRE ALARM TERMINAL CABINET
S# T S#	FA-120	28 31 00	FIRE ALARM SMOKE DETECTOR, CEILING OR WALL MOUNT BLANK - PHOTOELECTRIC AT = ATTIC (LOCATED IN) BR = BEAM RECEIVER BT = BEAM TRANSMITTER CO = COMBINATION SMOKE / CARBON MONOXIDE COH = COMBINATION SMOKE / CARBON MONOXIDE / HEAT COS = COMBINATION SMOKE / CARBON MONOXIDE / STROBE H = COMBINATION SMOKE / HEAT DETECTOR ION = IONIZATION TYPE ID = IN DUCT DETECTOR SA = STAND ALONE WITH SOUNDER SB = SOUNDER BASE SV = STAND ALONE WITH SOUNDER AND 177 CANDELA STROBE
F	FA-130	28 31 00	FIRE ALARM MANUAL PULL STATION
	FA-200	28 31 00	FIRE ALARM VISUAL ALARM DEVICE, CEILING OR WALL MOUNT # = CANDELA RATING. CD = CANDELA RATING SELECTED BY FIRE ALARM CONTRACTOR
F# F#	FA-210	28 31 00	AUDIO HORN/CHIME ALARM DEVICE, CEILING OR WALL MOUNTED M = MINI-HORN
	FA-211	28 31 00	COMBINATION AUDIO HORN/CHIME AND VISUAL ALARM DEVICE, CEILING OR WALL MOUNTED # = CANDELA RATING. CD = CANDELA RATING SELECTED BY NICET DESIGNER

CONDUIT INSTALLATION SCHEDULE

THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.

INSTALLATION TYPE	RMC	IMC	EMT	RTRC	PVC COATED RMC	PVC	PVC CONCRETE ENCASED	HDPE	ASR
FEEDERS: SWITCHBOARDS, DISTRIBUTION PANELS, PANELBOARDS, MOTOR CONTROL CENTERS, ETC.		X	X						
BRANCH CIRCUITS: LIGHTING, RECEPTACLES, CONTROLS, ETC.		X	X						
MECHANICAL EQUIPMENT FEEDERS: PUMPS, CHILLERS, AIR HANDLING UNITS, ETC.		X	X						
FLOOR MOUNTED EQUIPMENT FEEDERS: PUMPS, ETC. (INCLUDE NO MORE THAN 6 FEET OF LFMC TO PUMP)		X	X						
CONTROLS (LIGHTING, POWER, BUILDING AUTOMATION, ETC.)		X	X						
WET AND DAMP LOCATIONS: (CONDUIT, BOXES, FITTINGS, INSTALLED AND EQUIPPED TO PREVENT WATER ENTRY)	X			X					
INTERIOR LOCATIONS: CONCEALED			X						
INTERIOR LOCATIONS: EXPOSED		X	X						
INTERIOR LOCATIONS: EXISTING WALLS AND EXPOSED INSTALLATION (FINISHED SPACES)			X						X
UNDERGROUND / SLABS ON GRADE (IN OR UNDER SLABS ON GRADE)									
WITHIN 5' FROM THE PERIMETER OF THE BUILDING	X					X			
WITHIN 5' FROM THE PERIMETER OF THE BUILDING WHEN PASSING THROUGH THE PERIMETER OF THE BUILDING FOUNDATION:	X			X			X		
UNDERGROUND SITE CONDUITS:									
WITHIN 5' FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X			X		
5' OR GREATER FROM THE PERIMETER OF A BUILDING FOUNDATION	X			X		X			
UNDER ROADS, DRIVES, AND VEHICLE TRAVELED WAYS. WHEN HDPE DIRECTIONAL BORING IS ALLOWED: PROVIDE PRESSURIZED GROUT					X	X		X	

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — ASHLEE DOWNHAM — No. 17885

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 E0.0	TITLE OF SHEET LIBBEY BATHHOUSE ELECTRICAL COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 238 OF 286

10/27/2023 11:50:22 AM

ELECTRICAL INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ABBAS STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. SURFACE MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
4. SURFACE MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED.
5. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
6. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
7. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
8. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
9. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
10. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
12. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE CONTRACTING OFFICER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
13. REFER TO OTHER REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
14. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY WORK.
15. THE CONTRACTING OFFICER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL EQUIPMENT DESIGNATED BY OWNER TO BE RETAINED IS TO BE REMOVED IN GOOD CONDITION, LABELED, BOXED AND DELIVERED TO OWNER.
16. MINIMUM CONDUIT SIZE SHALL BE 3/4" NOMINAL, UNLESS NOTED OTHERWISE.
17. PROTECT ALL EXISTING SITE UTILITIES REQUIRED TO REMAIN IN OPERATION AND AS REQUIRED FOR JOB SITE SAFETY. ANY DEVIATIONS FOUND SHALL BE MADE KNOWN TO THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF DRAWINGS AND SITE CONDITIONS.
18. COORDINATE ALL WORK WITH OTHER TRADES, OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
19. CONTRACTOR SHALL RELABEL AND UPDATE SCHEDULES IN ALL REPLACED AND EXISTING TO REMAIN PANELBOARDS AND DISTRIBUTION PANELS AT THE COMPLETION OF THE PROJECT.
20. AFTER COMPLETION OF NEW WORK, REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
21. CONTRACTOR SHALL ENSURE THAT ALL PENETRATIONS IN FLOORS, WALLS AND CEILINGS THAT ARE ABANDONED OR LEFT UNUSED BECAUSE OF DEMOLITION, ARE FILLED WITH RATED MATERIAL TO MEET THE DESIGNATED CODE REQUIREMENTS. FIRE-STOPPING REQUIRED AT ALL FIREWALL CONDUIT AND/OR CABLE PENETRATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
22. ALL GFI DUPLEX RECEPTACLES SHALL BE CONNECTED DOWNSTREAM ON ALL SHARED BRANCH CIRCUITS HAVING GENERAL DUPLEX RECEPTACLES.
23. ALL EMPTY CONDUITS INDICATED SHALL BE FURNISHED AND INSTALLED WITH PULLWIRES AND INSULATED BUSHINGS.
24. VERIFY ALL OUTLETS, J-BOXES, PULLBOXES AND LIGHTING LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK AND REFLECTED CEILING PLANS, INCLUDING OWNER FURNISHED EQUIPMENT AND/OR FURNITURE, PRIOR TO ROUGH-IN.
25. ALL OUTLET BOXES SHALL BE PROVIDED AS FLUSH MOUNTING HAVING CONDUIT CONCEALED IN CONSTRUCTION AS REQUIRED, UNLESS NOTED OTHERWISE. ALL BOXES UTILIZED SHALL BE COMPATIBLE WITH ALL WALL CONSTRUCTION. PROVISION SHALL BE MADE FOR "SHALLOW-TYPE" AND "STANDARD" OUTLET BOXES AS REQUIRED FOR FLUSH INSTALLATION.
26. ALL CONDUIT SHALL BE CONCEALED IN CONSTRUCTION IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE ROUTED AT BUILDING STRUCTURE ABOVE AT CEILING, THEN DROP TO EACH FIXTURE OR DEVICE LOCATION INDICATED AS DIRECTED BY ARCHITECT.
27. FOR PURPOSES OF VOLTAGE DROP, PROVIDE #10 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUN BEYOND 70 FT FROM SOURCE PANEL AND #8 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUNS BEYOND 120FT FROM SOURCE PANEL.
28. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS OF ALL HVAC, HVAC CONTROL, PLUMBING, FIRE ALARM, FIRE PROTECTION, I.T., SECURITY, COMMUNICATIONS AND OWNER FURNISHED EQUIPMENT PER EQUIPMENT MANUFACTURER INSTRUCTIONS AND COORDINATE WITH ASSOCIATED EQUIPMENT CONTRACTORS. PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.
29. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN LIGHTLY AND NOTED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND DASHED TO BE REMOVED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
30. ALL EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND SOLID IS NEW WORK TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
31. IN EXISTING RENOVATED FINISHED AREAS WHERE NEW CONDUIT AND WIRING ARE NOT ABLE TO BE INSTALLED CONCEALED IN CONSTRUCTION, FURNISH AND INSTALL SURFACE MOUNTED RACEWAY AS MANUFACTURERED BY LEGRAND/WIREMOLD, OR APPROVED EQUIVALENT. RACEWAY SIZE AND USAGE SHALL BE KEPT TO A MINIMUM. THE ROUTING FOR ALL SURFACE MOUNTED CONDUIT SHALL BE APPROVED IN ADVANCE OF INSTALLATION BY ARCHITECT. VERIFY EXISTING CONDITIONS AND COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
32. PROVIDE NEW BREAKERS IN EXISTING PANELBOARDS, IF REQUIRED. MATCH RATINGS AND MATE WITH EXISTING SIZE, IF REQUIRED.

ELECTRICAL LIGHTING DEMOLITION NOTES:

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED.
2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
5. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL.
6. MATCH EXISTING PAINTED SURFACES. WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE. PROVIDE CUSTOM BACK PLATE WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION OF WATER AND CAULK WHERE NECESSARY.
7. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
8. FOR REASONS OF CLARITY ALL EXISTING CONDUIT, WIRING, EQUIPMENT, ETC. IS NOT SHOWN. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
9. CONDUIT AND CABLE ROUTING SHALL NOT BLOCK SERVICE TO EXISTING OR NEW EQUIPMENT. CONTRACTOR SHALL ROUTE CONDUIT AND CABLE AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS.
10. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS INDICATED ARE TAKEN FROM AS-BUILT DRAWINGS AND CURSORY SITE SURVEY. VERIFY EXISTING CONDITIONS.

TYPICAL NEW CONSTRUCTION:

1. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.
2. COORDINATE LUMINAIRE IN MECHANICAL ROOMS WITH DUCTWORK, PIPING AND ANY MECHANICAL EQUIPMENT. PROVIDE LUMINAIRE WITH CHAINS OR HANGAR KIT WHERE REQUIRED. BOTTOM OF FIXTURE TO ALIGN WITH BOTTOM OF NEAREST BEAM/TRUSS. COORDINATE MOUNTING PRIOR TO ORDERING LUMINAIRES.

TYPICAL REMODEL:

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF UNLESS NOTED OTHERWISE.
2. COORDINATE HOURS OF ACCESS WITH CONTRACTING OFFICER.
3. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN SAME LOCATION OR NEW LOCATION.
4. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE.
5. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF' CONFIGURATION.
6. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, ARCHITECTURAL, STRUCTURAL AND CEILING MOUNTED DEVICES.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. ALL EXISTING WIRING SHALL BE REMOVED.
2. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
3. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR AND ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH ALL WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS ASSOCIATED WITH AREAS OF ALL WORK.

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 E0.1	LIBBEY BATHHOUSE ELECTRICALCOVERSHEET	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	CADD: WMM			PMIS/PKG NO. 318915
	TECH. REVIEW: PIP		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 239 OF 286
	DATE: 10.27.2023			

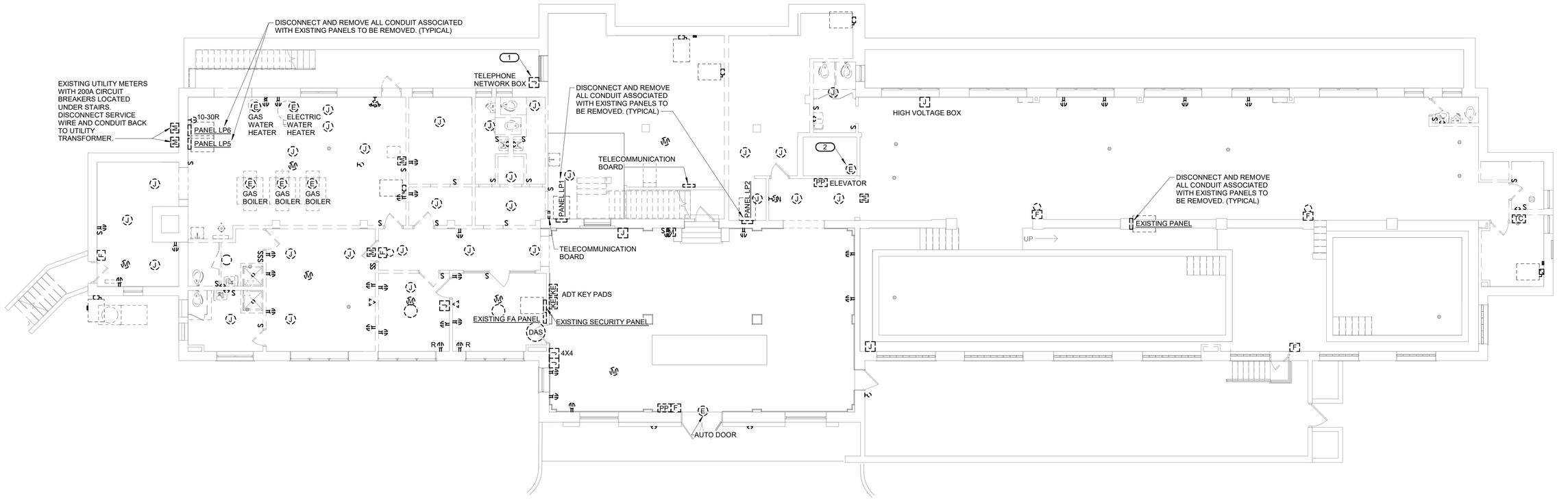
10/27/2023 11:50:22 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. DEMOLITION SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT SHOWN ON PLANS.
4. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. COORDINATE REMOVAL OF EXISTING FIBER EQUIPMENT WITH AT&T. AT&T WILL REMOVE THEIR EQUIPMENT PRIOR TO DEMOLITION.
2. EXISTING ELEVATOR CONNECTION AND ALL EXISTING ELEVATOR EQUIPMENT SHALL BE DISCONNECTED AND REMOVED.



1 / EX1.1 LOWER LEVEL DEMOLITION PLAN - ELECTRICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EX1.1	TITLE OF SHEET LIBBEY BATHHOUSE LOWER LEVEL DEMOLITION PLAN - ELECTRICAL REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 240 OF 286

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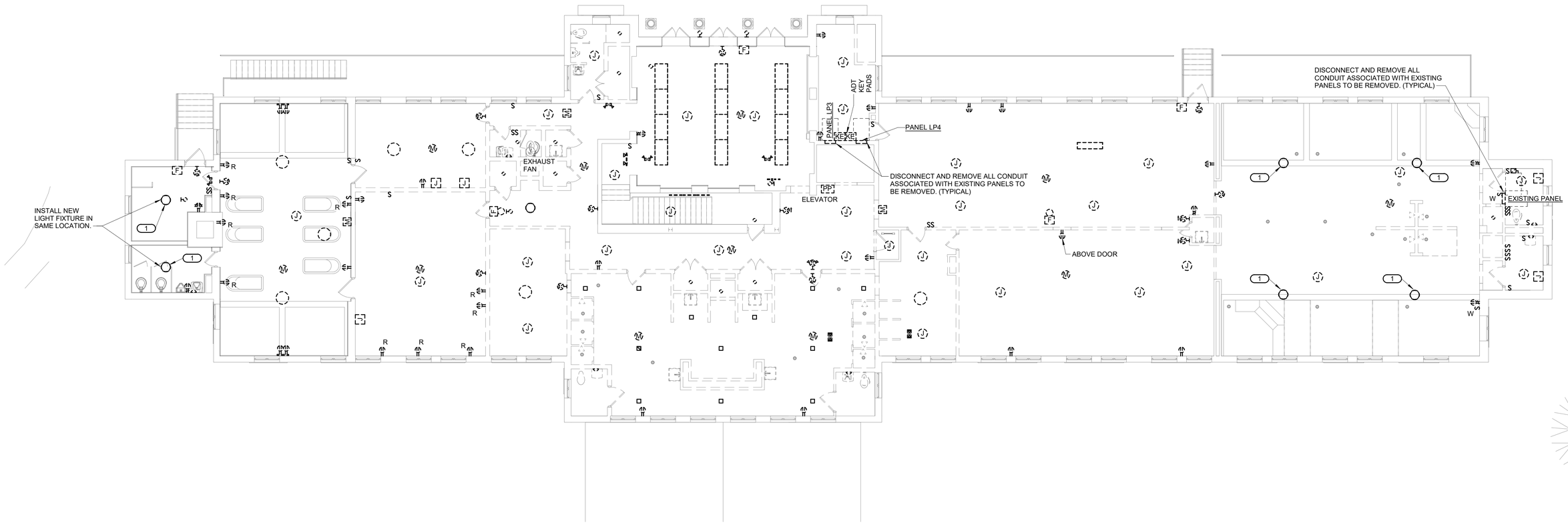
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. DEMOLITION SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. DISCONNECT AND REMOVE POWER, LIGHTING AND FIRE ALARM DEVICES AND LIGHTING FIXTURES SHOWN AS DEMOLISHED AND ALL ASSOCIATED WIRE AND CONDUIT, JUNCTION BOXES AND CABLES. ALL EXISTING CONDUIT TO BE REMOVED IS NOT SHOWN ON PLANS.
4. HAZARDOUS MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS - REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR ABATEMENT, REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. LIGHT FIXTURE SHALL BE DISCONNECTED, REMOVED, SALVAGED, AND STORED FOR FUTURE RESTORATION. STORED LIGHT FIXTURE SHALL BE TURNED OVER TO OWNER.



1 / EX1.2 UPPER LEVEL DEMOLITION PLAN - ELECTRICAL

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER Ashlee Downham No. 17885

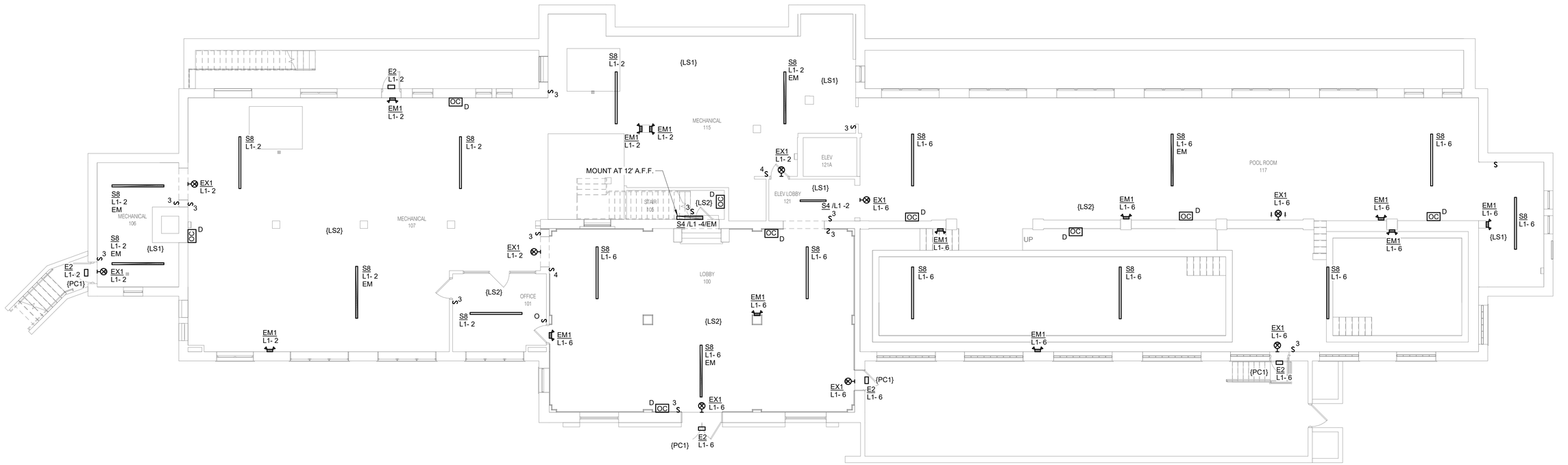
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 EX1.2	LIBBEY BATHHOUSE UPPER LEVEL DEMOLITION PLAN - ELECTRICAL	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: PIP			SHEET 241 OF 286
	DATE: 10.27.2023			

10/27/2023 11:50:34 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. SURFACE MOUNT SWITCHES FOR EASY INSTALLATION AND FUTURE REMOVAL.
4. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
5. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL L1, UNLESS NOTED OTHERWISE.



1 / EL1.1 LOWER LEVEL PLAN - LIGHTING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4306 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EL1.1	TITLE OF SHEET LIBBEY BATHHOUSE LOWER LEVEL PLAN - LIGHTING REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 242 OF 286

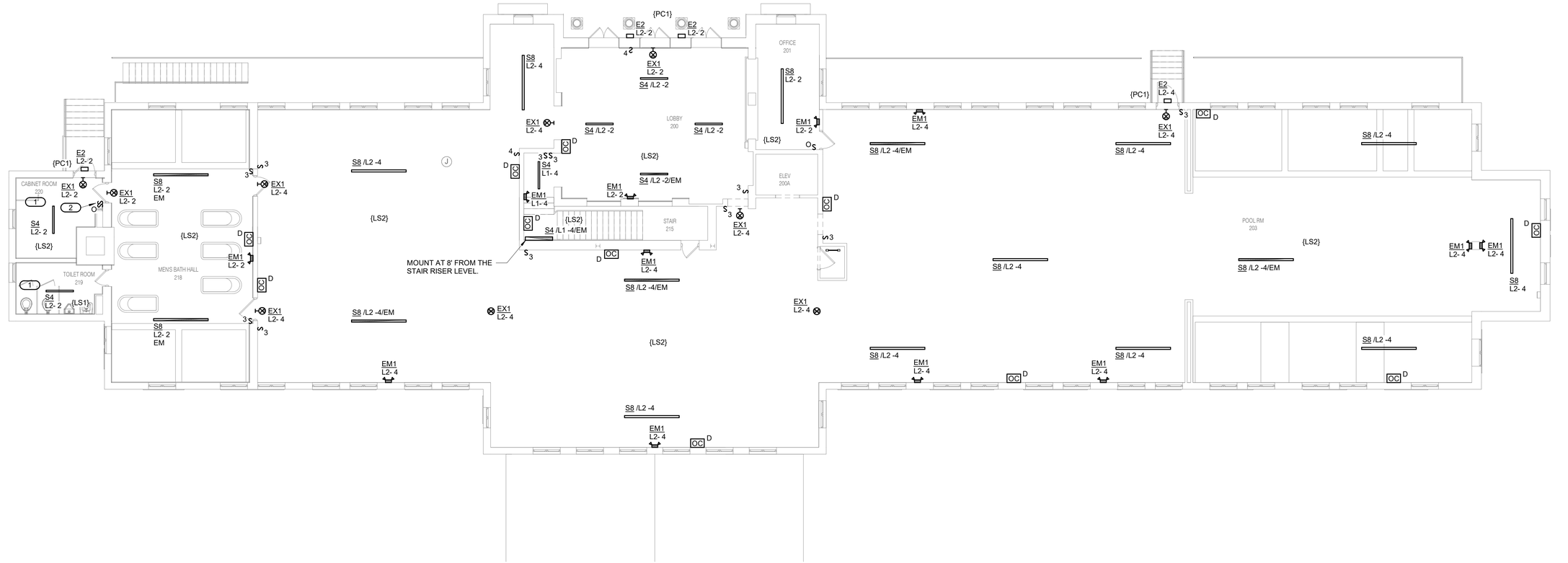
10/27/2023 11:50:36 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. SURFACE MOUNT SWITCHES FOR EASY INSTALLATION AND FUTURE REMOVAL.
4. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
5. ALL LIGHTING CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL L2, UNLESS NOTED OTHERWISE.

KEYNOTES: (#)

1. INSTALL NEW FIXTURES AND DEVICES IN SAME LOCATION AS EXISTING FIXTURE AND DEVICES THAT ARE TO BE REMOVED. (TYPICAL THIS ROOM.)
2. LIGHT SWITCH CONTROLLING TOILET ROOM LOCATED IN CABINET ROOM TO PRESERVE HISTORIC NATURE OF ROOM.



1 / EL1.2 UPPER LEVEL PLAN - LIGHTING

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EL1.2	TITLE OF SHEET LIBBEY BATHHOUSE UPPER LEVEL PLAN - LIGHTING REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 243 OF 286

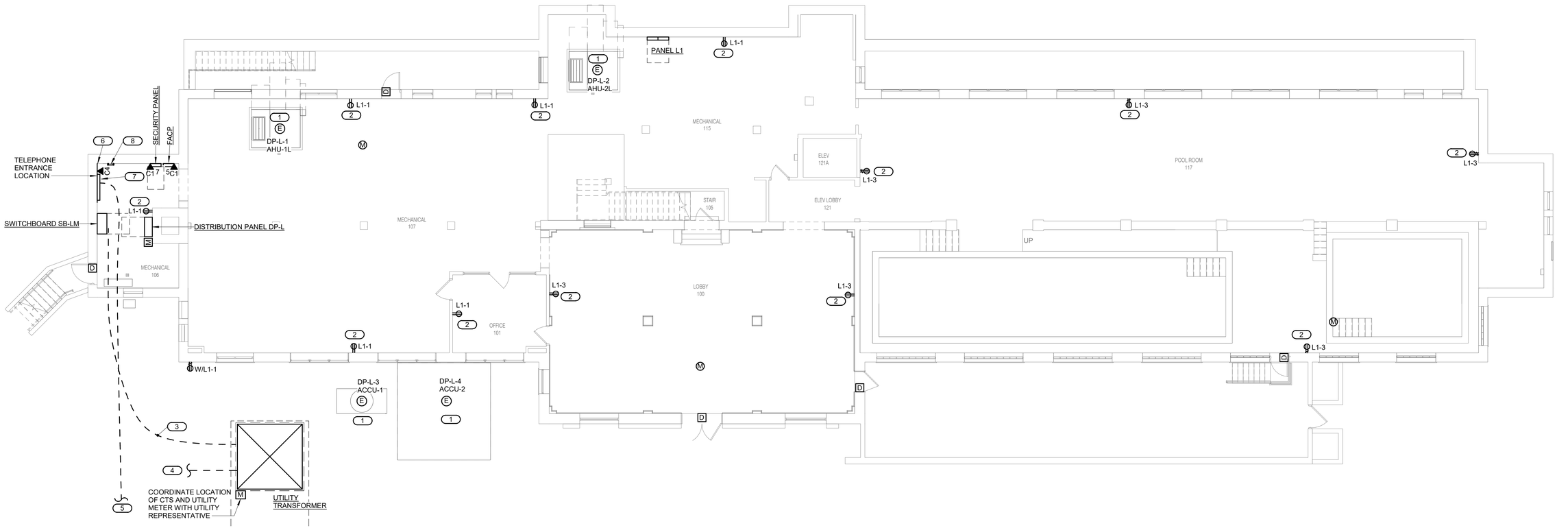
10/27/2023 11:05:27 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
4. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL L1, UNLESS NOTED OTHERWISE.
5. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. CONNECT TO NEW EQUIPMENT AND DISCONNECT AS REQUIRED.
2. SURFACE MOUNT DEVICE(S) FOR EASY INSTALLATION AND FUTURE REMOVAL.
3. PROPOSED MAIN SERVICE CONDUIT ROUTING. SEE RISER DIAGRAM FOR MORE INFORMATION.
4. PROPOSED ELECTRICAL SERVICE CONDUIT ROUTING. SEE RISER DIAGRAM FOR MORE INFORMATION. COORDINATE EXACT ROUTING WITH CIVIL ENGINEER AND UTILITY REPRESENTATIVE.
5. PROPOSED 4" TELECOMMUNICATION CONDUIT ROUTING TO PROPERTY LINE. COORDINATE EXACT ROUTING WITH CIVIL ENGINEER AND AT&T REPRESENTATIVE.
6. 3/4" FIRE RETARDANT PLYWOOD, INSTALL AT 3'-6" AFF TO 7'-6" AFF.
7. AT&T NEW TELEPHONE EQUIPMENT. COORDINATE INSTALLATION WITH AT&T REPRESENTATIVE.
8. TELECOMMUNICATIONS GROUND BUSBAR (TGB), MOUNT AT 7'-0" AFF.



1 EP1.1 LOWER LEVEL PLAN - POWER

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17685 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 EP1.1	LIBBEY BATHHOUSE LOWER LEVEL PLAN - POWER	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: PIP			SHEET 244 OF 286
	DATE: 10.27.2023			

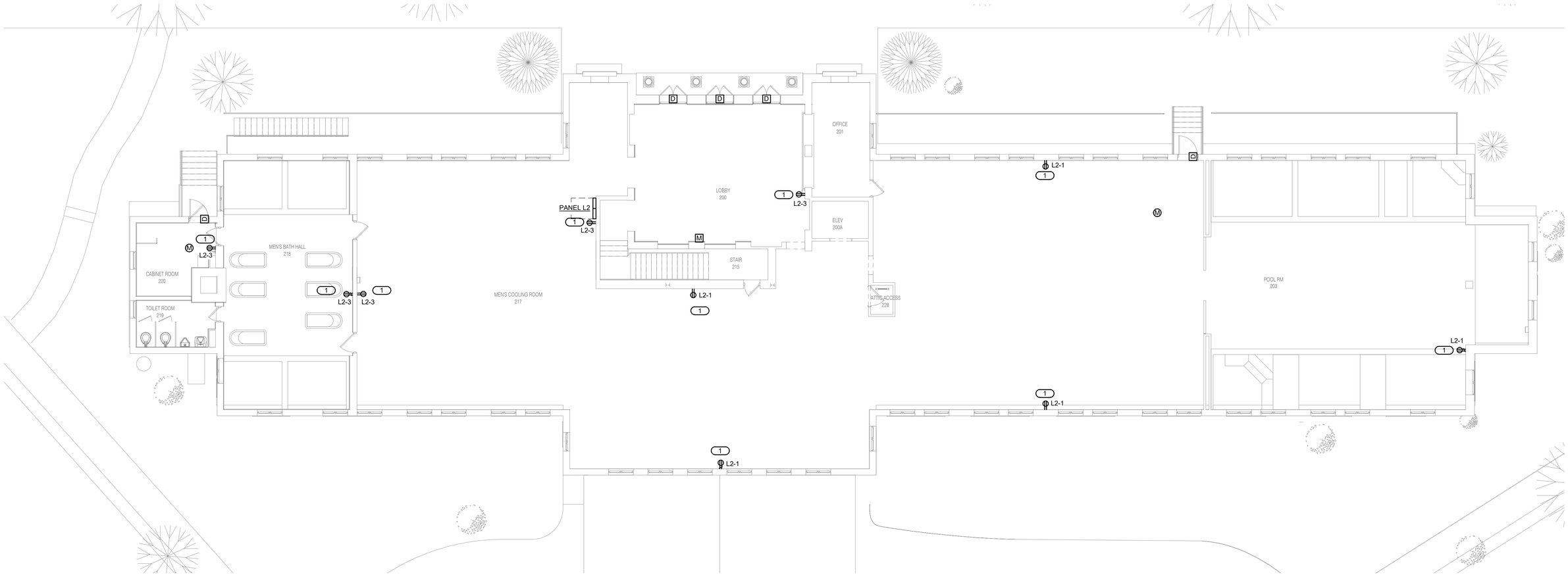
10/27/2023 11:50:28 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
4. ALL POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL L2, UNLESS NOTED OTHERWISE.
5. ALL POWER, SECURITY AND LOW-VOLTAGE WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. SURFACE MOUNT DEVICE(S) FOR EASY INSTALLATION AND FUTURE REMOVAL.



1 / EP1.2 UPPER LEVEL PLAN - POWER

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EP1.2	TITLE OF SHEET LIBBEY BATHHOUSE UPPER LEVEL PLAN - POWER REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 245 OF 286

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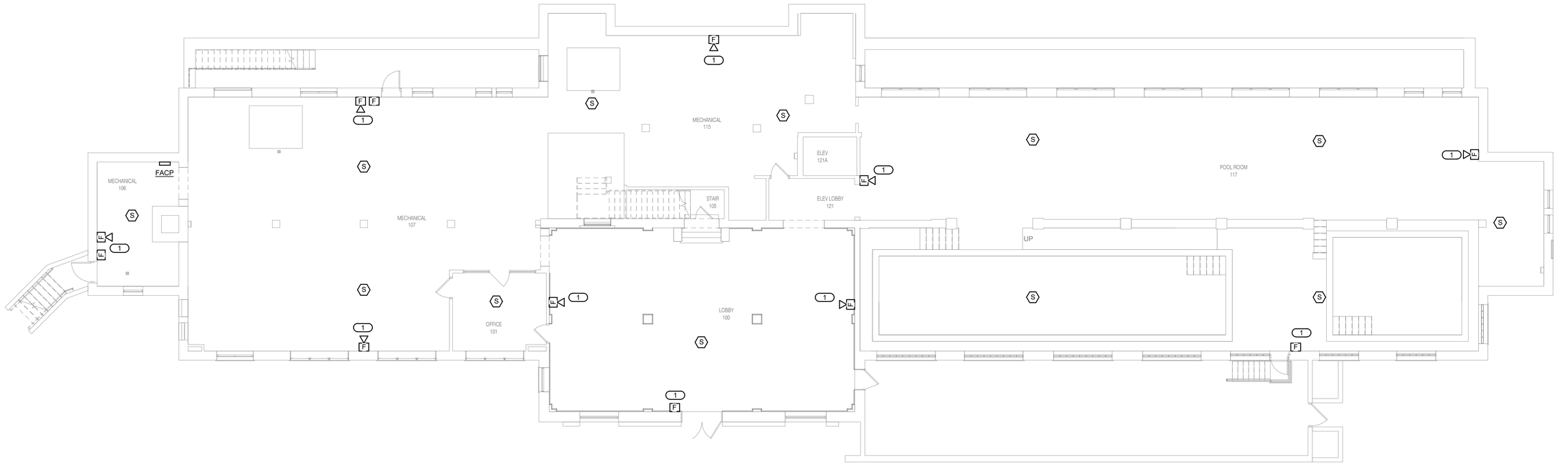
SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
4. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. SURFACE MOUNT DEVICE(S) FOR EASY INSTALLATION AND FUTURE REMOVAL.



1 / EF1.1 LOWER LEVEL PLAN - FIRE ALARM

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17685 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 EF1.1	LIBBEY BATHHOUSE LOWER LEVEL PLAN - FIRE ALARM	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: PIP			SHEET 246 OF 286
	DATE: 10.27.2023			

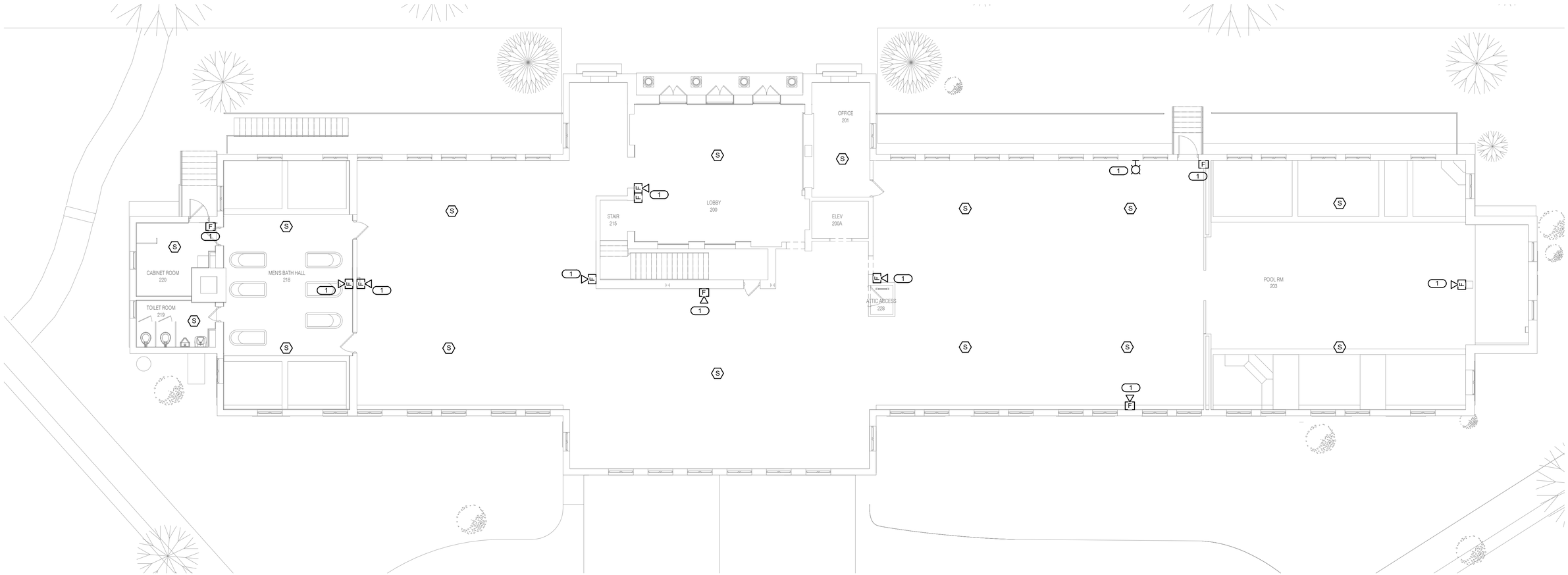
10/27/2023 11:50:24 AM

SHEET NOTES:

1. REFER TO SHEET E0.0 AND E0.1 FOR GENERAL NOTES AND SYMBOLS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.
4. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT.

KEYNOTES: (#)

1. SURFACE MOUNT DEVICE(S) FOR EASY INSTALLATION AND FUTURE REMOVAL.



1 / EF1.2 UPPER LEVEL PLAN - FIRE ALARM

1/8" = 1'-0"

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 17885 — ASHLEE DOWNHAM

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8457	DESIGNED: ZMB CADD: WMM TECH. REVIEW: PIP DATE: 10.27.2023	SUB SHEET NO. 02 EF1.2	TITLE OF SHEET LIBBEY BATHHOUSE UPPER LEVEL PLAN - FIRE ALARM REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 247 OF 286

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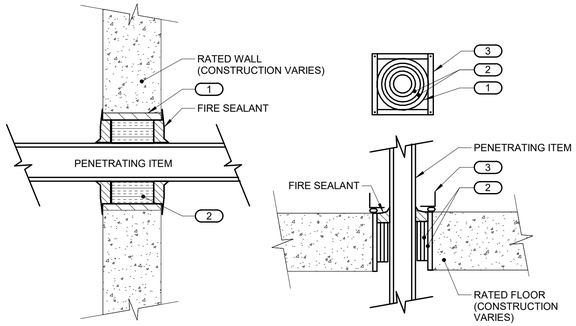


1 FIRE BARRIER PENETRATION

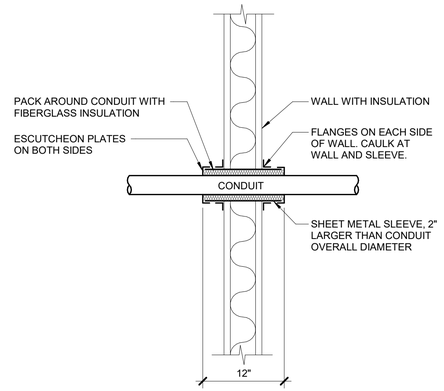
NO SCALE

NOTES:

1. THIS GENERAL DETAIL APPLIES TO ALL ITEMS PENETRATING FIRE RATED WALLS OR FLOORS. THE INTENT IS TO MAINTAIN THE FIRE RATING AND TO ALLOW LONGITUDINAL MOVEMENT. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.

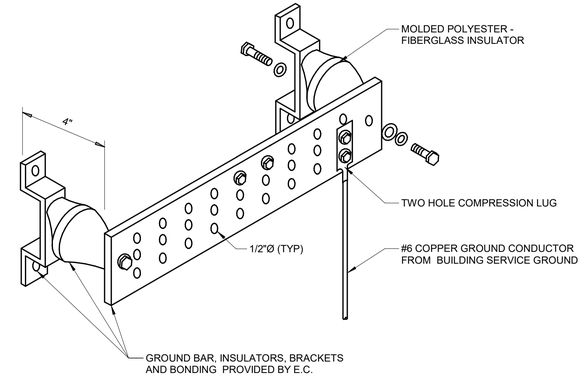
KEYNOTES: (#)

1. SCHEDULE 5 PIPE SLEEVE EMBEDDED IN WALL OR FLOOR, OR SMOOTH CORE DRILL. EACH CONTRACTOR FURNISHES SLEEVE TO G.C., COORDINATES SLEEVE LOCATIONS AND DEBURS SLEEVE. G.C. BUILDS SLEEVE INTO WALL OR FLOOR ALLOWING NO GAP AROUND SLEEVE. IF SLEEVE IS NOT PROVIDED WHEN WALL OR FLOOR IS BUILT, CONTRACTOR SHALL INSTALL SLEEVE. SLEEVE SIZE SHALL ALLOW ANNULAR SPACE REQUIRED BY THE SELECTED FIRE STOP SYSTEM.
2. INSTALL BACKING MATERIAL, SUCH AS MINERAL WOOL SAFING, AS REQUIRED FOR FIRE STOP SYSTEM. INSTALL IN ACCORDANCE WITH FIRE STOP SYSTEM APPLICATION LISTING. SECURE TO WALL OR FLOOR TO ALLOW LONGITUDINAL MOVEMENT OF PENETRATING ITEM WITHOUT MOVEMENT OF FIRE BARRIER.
3. WATER-TIGHT WELDED 1"x1" 20 GAUGE MINIMUM GALVANIZED SHEET METAL ANGLE FRAME, BY CONTRACTOR IN EQUIPMENT ROOMS FOR WATER STOP. PLACE A BEAD OF WATERPROOF SEALANT BETWEEN FLOOR AND BOTTOM OF ANGLE FRAME. SECURE TO FLOOR WITH MASONRY ANCHORS IN CORNERS AND ON 12" MAXIMUM CENTERS. MULTIPLE PENETRATING ITEMS MAY BE ENCLOSED IN ONE FRAME.



2 CONDUIT WALL PENETRATION

NO SCALE

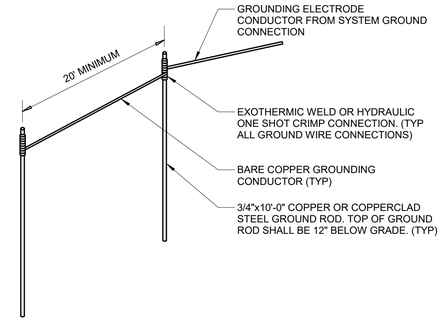


3 GROUND BAR (GB) AND INTERSYSTEM BONDING TERMINAL (IBT) DETAIL

NO SCALE

NOTES:

1. MOUNT BAR AT +6'-6" A.F.F.
2. STANDOFF INSULATORS MUST BE PROVIDED WHEN ZONING THE BAR.



4 GROUND GRID DETAIL

NO SCALE

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4306
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 17685
ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 E5.0	LIBBEY BATHHOUSE ELECTRICAL DETAILS	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM			PMIS/PKG NO. 318915
	TECH. REVIEW: PIP		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 248 OF 286
	DATE: 10.27.2023			

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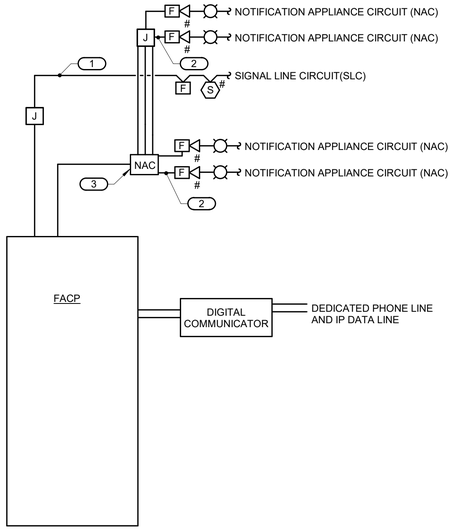
SYSTEM INPUTS / SEQUENCE OF OPERATION		PANEL/ANNUNCIATOR ALARM INDICATION	PANEL/ANNUNCIATOR SUPERVISORY INDICATION	PANEL/ANNUNCIATOR TROUBLE INDICATION	AUDIBLE ALARMS SEQUENCE	VISUAL ALARMS SEQUENCE
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL LOW BATTERY			X			
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL BATTERY OR CHARGER FAILURE				X		
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL ABNORMAL SWITCH OR CONTROL POSITION.			X			
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL GROUND FAULT, OPEN CIRCUIT, SHORT CIRCUIT				X		
FIRE ALARM PANEL, TRANSPONDER, NAC PANEL AC POWER LOSS OR IRREGULARITY				X		
NOTIFICATION APPLIANCE CIRCUIT OR SLC LOOP GROUND FAULT, OPEN CIRCUIT, SHORT CIRCUIT				X		
INITIATING DEVICE FAILURE OR COMMUNICATION ERROR				X		
FIRE ALARM PANEL MANUAL FIRE DRILL			X		X	X
MANUAL PULL STATION	FT F	X			X	X
SMOKE DETECTOR	S #/_ S #/_	X			X	X

NOTES:

1. ALL SYSTEM EVENTS SHALL BE LOGGED AND DISPLAYED ON THE ANNUNCIATOR INTERFACE, IF APPLICABLE. SEE SPECIFICATIONS FOR MORE INFORMATION AND DESCRIPTIONS OF SEQUENCES OF OPERATION.
2. TOTAL EVACUATION OF OCCUPANTS IS THE STANDARD OPERATING PROCEDURE FOR THIS FACILITY IN THE EVENT OF AN ALARM. ALL NOTIFICATION APPLIANCE CIRCUITS MUST BE INSTALLED AND PROTECTED IN ACCORDANCE WITH THE CIRCUIT SURVIVABILITY REQUIREMENTS DESCRIBED IN NFPA 72. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

1 FIRE ALARM OPERATION MATRIX

NO SCALE



NOTES:

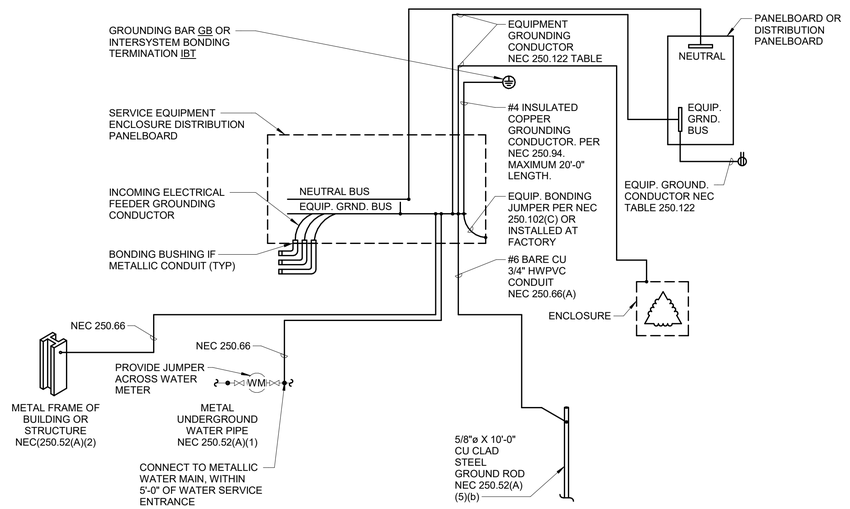
1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF FIRE ALARM CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. THE COMPLETE FIRE ALARM SYSTEM SHALL MEET ALL APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR SHALL COORDINATE ALL WIRE SIZES, TYPES AND REQUIREMENTS WITH THE VENDOR PRIOR TO BID. REFER TO SPECIFICATIONS TO DETERMINE CIRCUIT STYLES AND IF CONDUIT IS REQUIRED OR PLENUM RATED CABLE IS ACCEPTABLE.
4. ALL +120VAC WIRING REQUIRED FOR OPERATION OF THE SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
5. ALL NECESSARY RELAYS MAY NOT BE SHOWN ON THIS PLAN, BUT WHERE REQUIRED FOR PROPER OPERATION OF THE SYSTEM THEY SHALL BE PROVIDED BY THE CONTRACTOR.
6. PARTIAL EVACUATION OR RELOCATION OF OCCUPANTS IS THE STANDARD OPERATING PROCEDURE FOR THIS FACILITY IN THE EVENT OF AN ALARM. THEREFORE, ALL NOTIFICATION APPLIANCE CIRCUITS MUST BE INSTALLED AND PROTECTED IN ACCORDANCE WITH THE CIRCUIT SURVIVABILITY REQUIREMENTS DESCRIBED IN NFPA 72. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
7. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
8. FIRE ALARM SYSTEM NEEDS TO GO OUT TO NATIONAL PARK SERVICES DISPATCH CENTER UTILIZING BOSCH 6600 RECEIVER.

KEYNOTES: (#)

1. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH INITIATION LOOP AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
2. REFER TO SPECIFICATION FOR REQUIREMENTS OF EACH NOTIFICATION APPLIANCE CIRCUIT AND WIRING STYLE. REFER TO FLOOR PLANS FOR DEVICES AND THEIR LOCATIONS.
3. PROVIDE NOTIFICATION APPLIANCE EXTENDER PANELS AS REQUIRED. DETERMINATION OF NEED TO BE MADE BY FIRE ALARM VENDOR. REFER TO SPECIFICATIONS FOR REQUIREMENTS AND ACCEPTABLE MOUNTING LOCATIONS.

2 FIRE ALARM RISER

NO SCALE

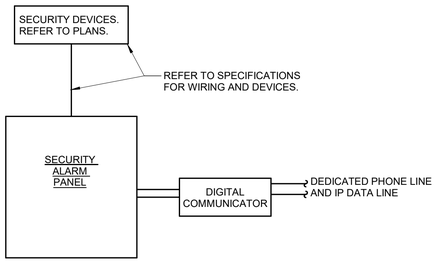


NOTES:

1. 1. REFER TO SPECIFICATION SECTION 26 05 26 GROUNDING AND BONDING.
2. LABEL ALL GROUND CONNECTIONS AT EQUIPMENT.

3 ELECTRICAL SYSTEM GROUNDING DETAIL

NO SCALE

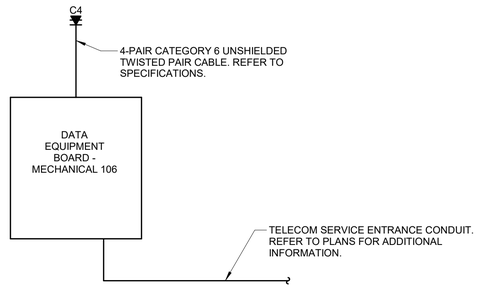


NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF SECURITY ALARM CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. CONTRACTOR SHALL COORDINATE ALL WIRE SIZES, TYPES AND REQUIREMENTS WITH THE VENDOR PRIOR TO BID. REFER TO SPECIFICATIONS TO DETERMINE CIRCUIT STYLES AND IF CONDUIT IS REQUIRED OR PLENUM RATED CABLE IS ACCEPTABLE.
3. ALL +120VAC WIRING REQUIRED FOR OPERATION OF THE SYSTEM AS DESCRIBED IN THE CONSTRUCTION DOCUMENTS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
4. ALL WIRING SHALL BE INSTALLED IN CONDUIT.
5. SECURITY ALARM SYSTEM NEEDS TO GO OUT TO NATIONAL PARK SERVICES DISPATCH CENTER UTILIZING BOSCH 6600 RECEIVER.

4 SECURITY ALARM RISER

NO SCALE



NOTES:

1. THE RISER DIAGRAM IS INTENDED TO CONVEY THE TYPES OF COMMUNICATION CONNECTIONS AND SPECIFICALLY DOES NOT INDICATE QUANTITIES, NUMBER OF CIRCUITS REQUIRED OR DISTANCES.
2. ALL WIRING SHALL BE INSTALLED IN CONDUIT.

5 DATA AND COMMUNICATION RISER DIAGRAM

NO SCALE

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER ASHLEE DOWNHAM No. 17885

10.27.2023

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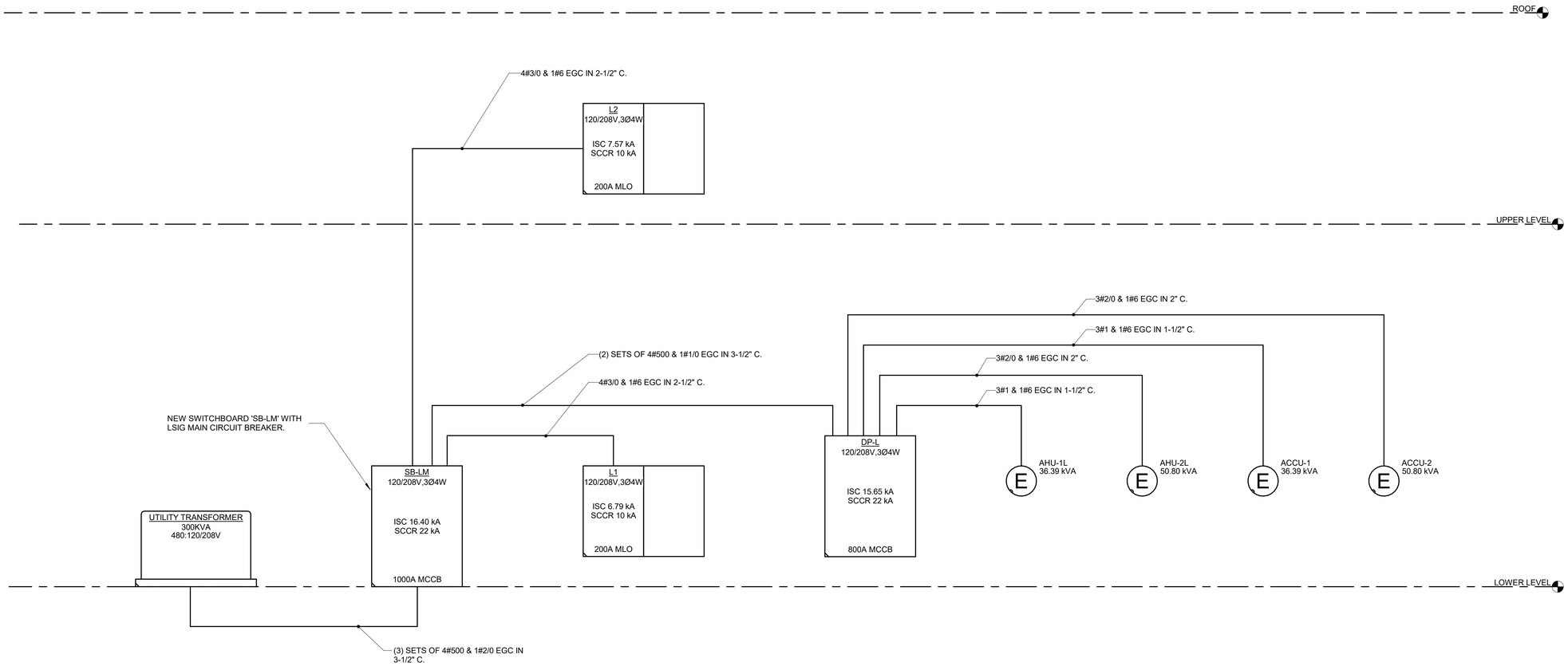
10/27/2023 11:50:29 AM



1 ELECTRICAL RISER DIAGRAM

NO SCALE

CERTIFICATE OF AUTHORIZATION
IMEG Consultants Corp. No. 4306
ARKANSAS

STATE OF ARKANSAS
LICENSED PROFESSIONAL ENGINEER
No. 17885
ASHLEE DOWNHAM

10.27.2023

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10/27/2023 11:50:29 AM

PANEL L1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 200 A/3P @ SB-LM
LOCATION: MECHANICAL 115

SOLID NEUTRAL GROUND BUS

MAIN: 200 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC: 6.79 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: MECHANICAL RM 106,107	20 A	1	10	10	10	1.26	0.63		10	10	10	1	20 A	LTS: LOWER LEVEL	2	
	3	REC: POOL RM 117, LOBBY	20 A	1	10	10	10			1.08	12	12	12	1	20 A	LTS: STAIRS LIGHTING	4	
	5	FIRE ALARM PNL: MECH 106	20 A	1	12	12	12			0.2	10	10	10	1	20 A	LTS: POOL RM & LOBBY	6	
	7	SECURITY PNL: MECH 106	20 A	1	12	12	12	0.2	0		--	--	--	1	20 A	SPARE	8	--
--	9	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	10	--
--	11	SPARE	20 A	1	--	--	--			0	--	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	14	--
--	15	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--			0	--	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	22	--
--	23	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	32	--
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--	35	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	42	--
--	43	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	44	--
--	45	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	46	--
--	47	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	48	--
--	49	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	50	--
--	51	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	52	--
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--	65	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	66	--
--	67	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	68	--
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--	71	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	72	--
--	73	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	74	--
--	75	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	76	--
--	77	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	78	--
--	79	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	80	--
--	81	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	82	--
--	83	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	84	--
		Total Load:						2.09 kVA	1.12 kVA	0.96 kVA								
		Total Amps:						17.60	9.50	7.99								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	1.422 kVA	100.00%	1.422 kVA
Power	0.4 kVA	100.00%	0.4 kVA
Receptacles	2.34 kVA	100.00%	2.34 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	4.16 kVA
TOTAL ESTIMATED DEMAND LOAD:	4.162 kVA
TOTAL CONNECTED AMPS:	11.55 A
TOTAL ESTIMATED DEMAND AMPS:	11.6 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL L2

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: 200 A/3P @ SB-LM
LOCATION: MEN'S COOLING ROOM 217

SOLID NEUTRAL GROUND BUS

MAIN: 200 A MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC: 7.57 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	WIRE SIZE N	WIRE SIZE G	A	B	C	WIRE SIZE G	WIRE SIZE N	WIRE SIZE H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: UPPER LEVEL	20 A	1	12	12	12	0.9	0.47		12	12	12	1	20 A	LTS: UPPER LEVEL	2	
	3	REC: UPPER LEVEL	20 A	1	12	12	12		0.9	1	10	10	10	1	20 A	LTS: POOL RM 203	4	
--	5	SPARE	20 A	1	--	--	--			0	--	--	--	1	20 A	SPARE	6	--
--	7	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	8	--
--	9	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	10	--
--	11	SPARE	20 A	1	--	--	--			0	--	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	14	--
--	15	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	40	--
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--	43	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	44	--
--	45	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	46	--
--	47	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	48	--
--	49	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	50	--
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--	53	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	54	--
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--	65	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	66	--
--	67	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	68	--
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--	81	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	82	--
--	83	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	84	--
		Total Load:						1.37 kVA	1.90 kVA	0.00 kVA								
		Total Amps:						13.20	17.58	0.00								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	1.471 kVA	100.00%	1.471 kVA
Receptacles	1.8 kVA	100.00%	1.8 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	3.27 kVA
TOTAL ESTIMATED DEMAND LOAD:	3.271 kVA
TOTAL CONNECTED AMPS:	9.08 A
TOTAL ESTIMATED DEMAND AMPS:	9.1 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

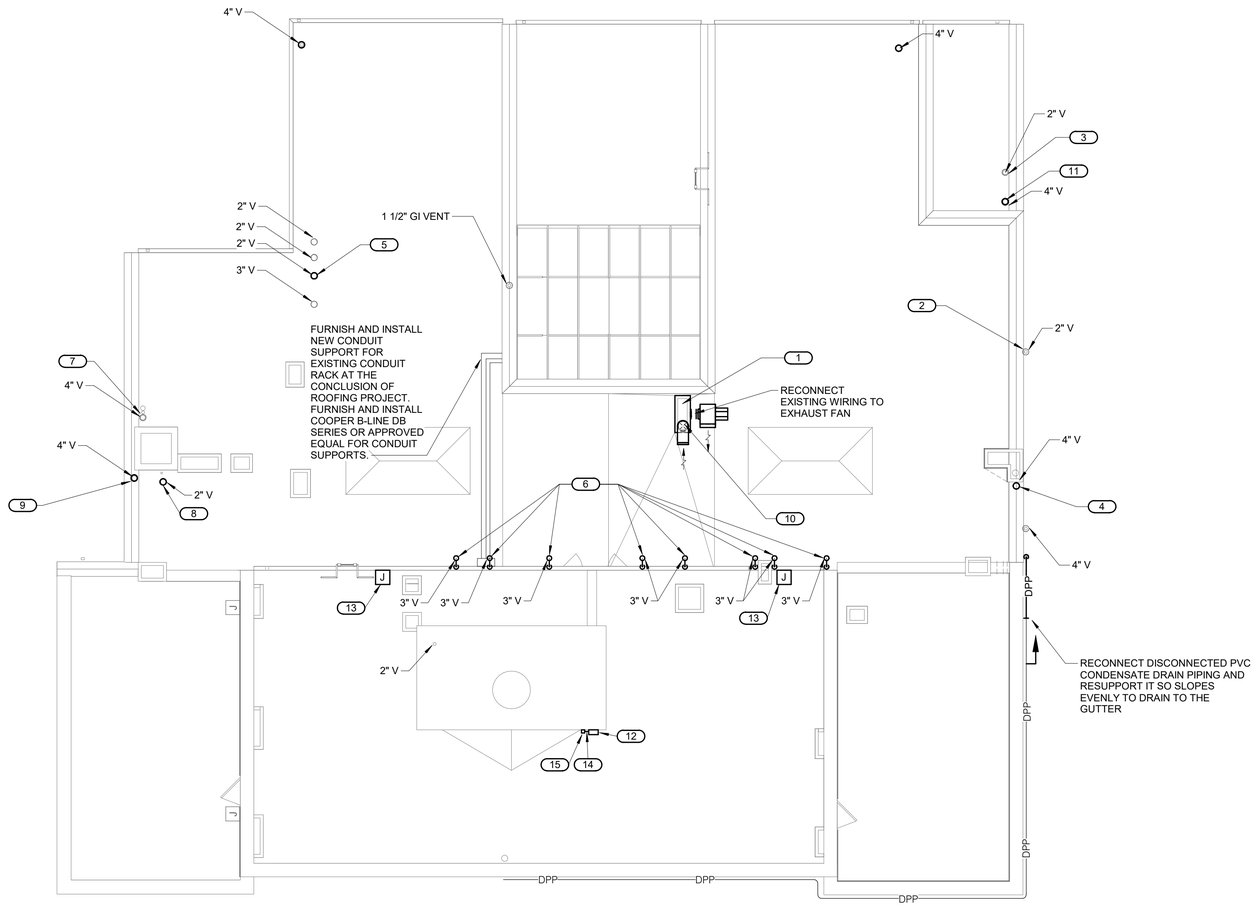
CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4306 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	ZMB	02 EP6.2	LIBBEY BATHHOUSE ELECTRICAL SCHEDULES	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: WMM		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	PMIS/PKG NO. 318915
	TECH. REVIEW: PIP			SHEET 251 OF 286
	DATE: 10.27.2023			

10/27/2023 11:50:31 AM



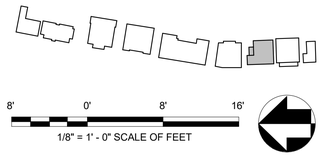
SHEET NOTES:

1. REPLACE ANY PIPING PENETRATIONS DEEMED TO BE IN VIOLATION OF LOCAL CODE. ENSURE NEW PIPING ARRANGEMENTS MEET ALL LOCAL CODE REQUIREMENTS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.

KEYNOTES: (#)

1. REINSTALL UTILITY SET EXHAUST FAN AFTER ROOFING REPLACEMENT WORK HAS FINISHED. SET UNIT ON SPRING ISOLATORS BOLTED TO EQUIPMENT RAILS 12" HIGHER THAN THE ADJACENT ROOF SURFACE INSTALLED AS PART OF THE ROOF REPLACEMENT. RECONNECT TO EXISTING EXHAUST DUCT RISER WITH FLEXIBLE CONNECTION. PATCH ANY ABANDONED PENETRATIONS.
2. REATTACH TOP OF 2" VENT TO WALL.
3. EXTEND 2" VENT DISCHARGE HEIGHT TO AT LEAST 6" ABOVE PARAPET CAP.
4. RECONNECT 4" VENT PIPING AFTER PARAPET CAPS ARE REPLACED.
5. EXTEND 2" VENT DISCHARGE HEIGHT TO AT LEAST 6" ABOVE ROOF FACE.
6. EXTEND EXISTING 3" VENT RISERS TO BE AT LEAST 3 FEET ABOVE THE TOP OF ADJACENT WINDOW OPENINGS. INSTALL NEW ELBOWS SO THAT VENT DISCHARGE IS AT LEAST 12" AWAY FROM THE ADJACENT WALL.
7. EXTEND 4" VENT DISCHARGE HEIGHT TO AT LEAST 6" ABOVE ROOF FACE.
8. RELOCATE 2" VENT TO AT LEAST 12" FROM VERTICAL FACE OF THE CHIMNEY.
9. REINSTALL UPPER SECTION OF 4" VENT PIPING.
10. EXTEND EXHAUST PLENUM AS REQUIRED FOR REINSTALLATION OF FAN ON NEW EQUIPMENT RAILS.
11. RELOCATE 4" VENT SO THAT IT IS AT LEAST 12" AWAY FROM THE EASTERN WALL OF 2ND FLOOR. EXTEND VENT SO THAT DISCHARGE HEIGHT IS AT LEAST 6" ABOVE THE WESTERN PARAPET WALL.
12. RE-INSTALL EXISTING LIGHT FIXTURE ON TO EXISTING BRICK WALL. ORIENTATE FIXTURE TO FACE FLAG POLE.
13. RE-INSTALL EXISTING JUNCTION BOX SURFACE MOUNTED 18-INCHES ABOVE FINISHED FLOOR. EXTEND AND CONNECT WIRE AND CONDUIT AS NECESSARY.
14. INTERCEPT EXISTING CABLE SERVING LIGHT FIXTURE AND INTERCEPT CABLE IN CEILING ON FLOOR BELOW. EXTEND AND CONNECT NEW CABLE TO NEW LOCATION OF EXISTING LIGHT FIXTURE AS NECESSARY.
15. FURNISH AND INSTALL NEW WEATHERPROOF PENETRATION.

1 / ME1.1 BUCKSTAFF ROOF PLAN - MECHANICAL/ELECTRICAL
1/8" = 1'-0"



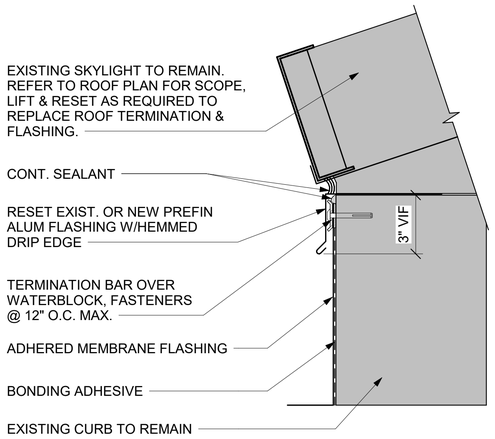
IMEG Consultants Corp. No. 4308 ARKANSAS

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODEN-CHIEF

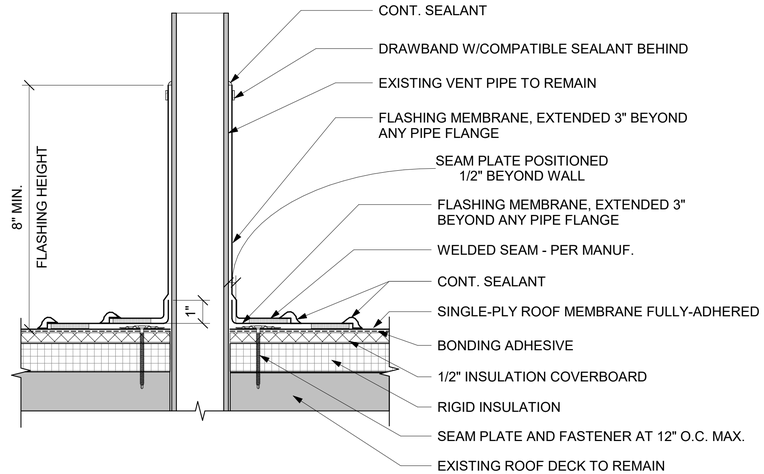
10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: BDN/PIP CADD: BDN/MWM TECH. REVIEW: SGB/PIP DATE: 10.27.2023	SUB SHEET NO. 03 ME1.1	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF PLAN - MECHANICAL/ELECTRICAL REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 252 OF 286

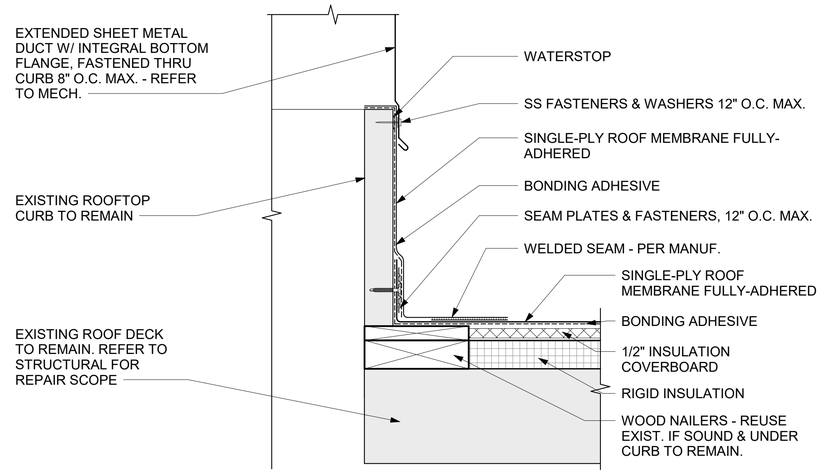
10/27/2023 1:08:52 PM



5 A5.4 — MEMBRANE TERMINATION AT SKYLIGHT CURB
3" = 1'-0" REFERRED FROM: A1.1

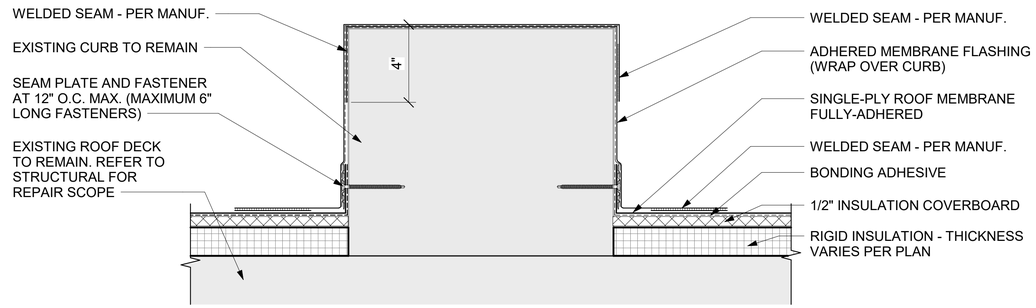


4 A5.4 — VENT PIPE FLASHING DETAIL
3" = 1'-0" REFERRED FROM: A1.1

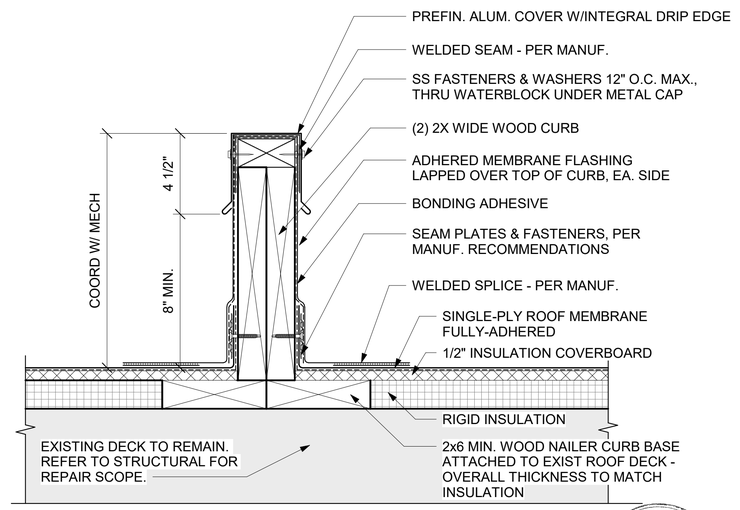


NOTES:
1. ATTACH NAILER TO DECK WITH SUITABLE FASTENERS.

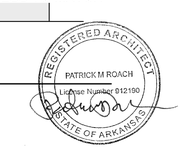
3 A5.4 — FLASHING AT EXIST. DUCT CURB
3" = 1'-0" REFERRED FROM:



2 A5.4 — EXISTING ROOF DIVIDER SECTION DETAIL
3" = 1'-0" REFERRED FROM: A1.1



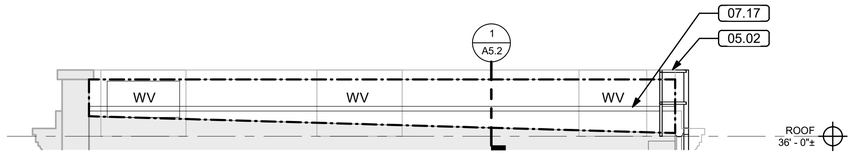
1 A5.4 — EQUIPMENT SUPPORT CURB DETAIL
3" = 1'-0" REFERRED FROM: A1.1



6" 3" 0" 6"
3" = 1' - 0" SCALE OF FEET

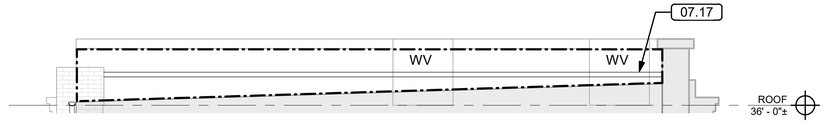
A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 03 A5.4	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 253 OF 286

11/2/2023 6:25:56 PM



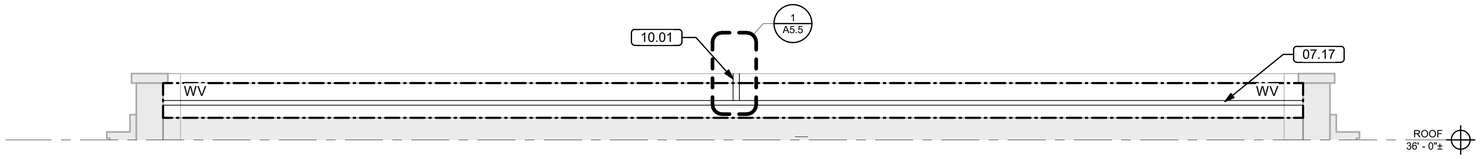
5 A2.1 UPPER ROOF - NORTH INSIDE PARAPET ELEVATION

1/4" = 1'-0" REFERRED FROM: A1.1



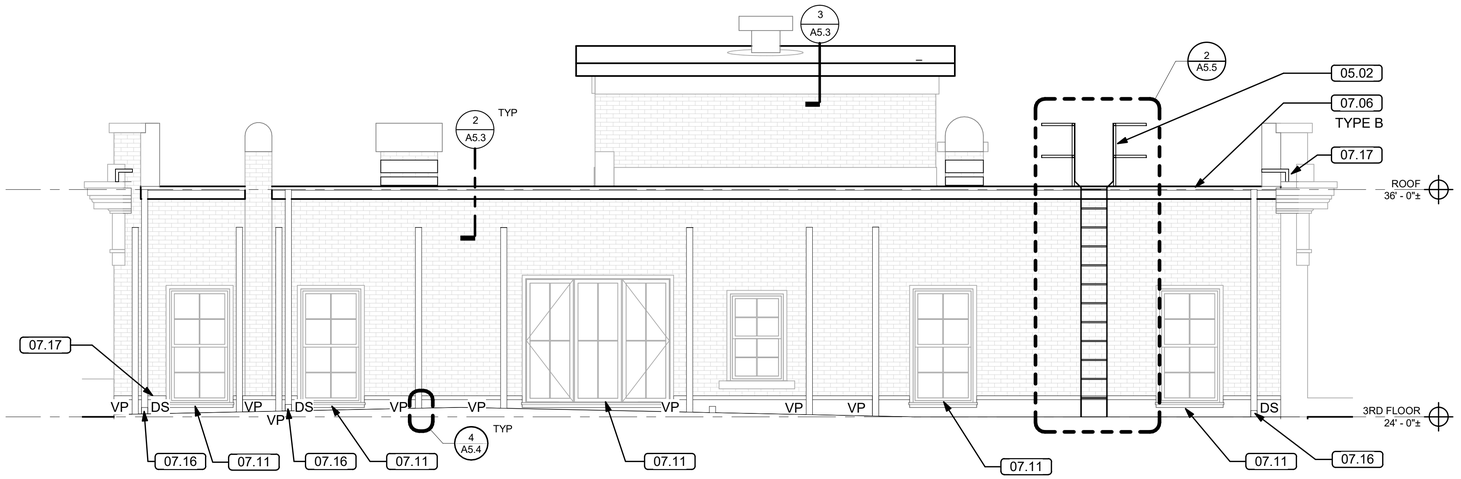
4 A2.1 UPPER ROOF - SOUTH INSIDE PARAPET ELEVATION

1/4" = 1'-0" REFERRED FROM: A1.1



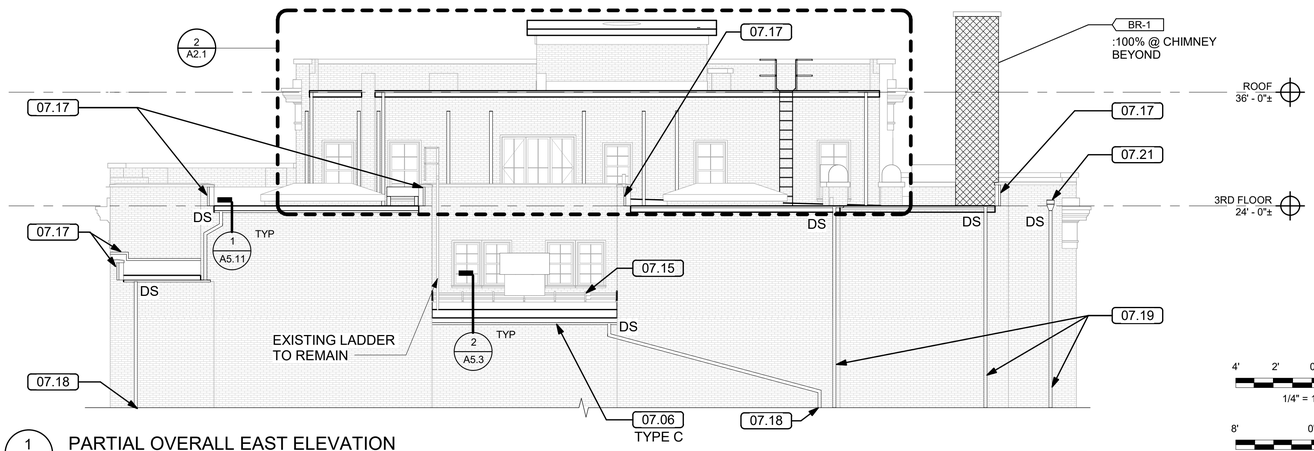
3 A2.1 UPPER ROOF - WEST INSIDE PARAPET ELEVATION

1/4" = 1'-0" REFERRED FROM: A1.1



2 A2.1 ENLARGED THIRD FLOOR EAST ELEVATION

1/4" = 1'-0" REFERRED FROM: A1.1



1 A2.1 PARTIAL OVERALL EAST ELEVATION

1/8" = 1'-0" REFERRED FROM: A1.1

4' 2' 0 4' 8'

1/4" = 1' - 0" SCALE OF FEET

8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

GENERAL NOTES

KEYNOTES

05.02	METAL LADDER
07.06	GUTTER AND DOWNSPOUTS
07.11	DETERMINE THICKNESS OF INSULATION FOR THIS ROOF AREA BASED ON EXISTING WINDOW SILL HEIGHTS. TOP OF ROOFING ASSEMBLY TO BE 5" MIN. BELOW EXTERIOR SILL HEIGHT@ LEADING EDGE - REFER TO DETAILS.
07.15	REPLACE SEALANT ALONG TOP OF EXISTING WALL BASE COUNTERFLASHING AND WINDOW SILL FLASHING AROUND PERIMETER OF SKYLIGHT
07.16	DOWNSPOUT OUTLET ONTO METAL SPLASH PAN
07.17	TERMINATE ROOFING WITH TERMINATION BAR AND SEALANT FASTENED THROUGH MORTAR JOINTS
07.18	DOWNSPOUT OUTLET TO GRADE
07.19	DOWNSPOUT TO CONCRETE SPLASH PAD
07.21	PREFIN ALUM CONDUCTOR BOX TO MATCH EXISTING PROFILE.
10.01	FLAGPOLE AND MOUNTING BRACKET - REFER TO DETAIL 1/A5.5 & STRUCTURAL

LEGEND

DS	PROVIDE NEW DOWNSPOUT - PROVIDE WALL STRAPS IN SAME MATERIAL AND FINISH, SPACED VERT. 10'-0" O.C. MAX., FASTENER THRU MORTAR JOINTS
WV	EXISTING THRU WALL VENTILATION UNIT TO REMAIN
	PROVIDE NEW STUCCO FACE AT PARAPET WALLS
	BR-1: REPOINT BRICK MASONRY WITH MORTAR TO MATCH EXISTING PROFILE, COLOR, & TYPE

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012150
STATE OF ARKANSAS

A/E FIRMS: ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 03 A2.1	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ELEVATIONS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 254 OF 286

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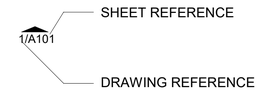
ABBREVIATIONS

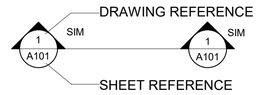
A/C	AIR CONDITIONING
ABA	ARCHITECTURAL BARRIERS ACT
ABT	ABOUT
ACCESS	ACCESSIBLE
ACM	ASBESTOS CONTAINING MATERIAL
ACOUS	ACOUSTIC
ACP	ACOUSTICAL CEILING PANEL
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINIUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL, URE)
ASPH	ASPHALT(IC)
ASSOC	ASSOCIATED
AUTO	AUTOMATIC
AWP	ACOUSTICAL WALL PANEL
BD	BOARD
BIT	BITUMINOUS, BITUMEN
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BS	BOTH SIDES
BTWN	BETWEEN
CAB	CABINET
CEM	CEMENT
CJ	CONTROL JOINT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CO	CONTRACTING OFFICER
COL	COLUMN
COM	COMMUNICATIONS
CONC	CONCRETE
COND	CONDITION
CONFIG	CONFIGURATION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET(ED)
CT	CERAMIC TILE
CTR	CENTER
D	DEEP
DEG	DEGREE
DF	DRINKING FOUNTAIN
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DN	DOWN
DR	DOOR
DTL	DETAIL
DWG(S)	DRAWING(S)
E	EAST
E-P	EPOXY PAINT
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION (TOPO)
ELEC	ELECTRICAL
ELEV	ELEVATION (ARCH),ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOS(E,URE)
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE(D)
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED, EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FAS	FASTEN(ER)
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FACE
FGL	FIBERGLASS
FHC	FIRE HOSE CABINET
FIN(S)	FINISH(ES)
FIXT	FIXTURE
FL	FLOOR(ING)
FLAM	FLAMMABLE
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOS	FACE OF STUDS
FP	FIREPROOF(ING)
FR	FRAME(D,ING)
FT	FEET
FTG	FOOTING
FUR	FURR(ED,ING)
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACT(OR)
GL	GLASS, GLAZING
GOVT	GOVERNMENT
GT	GROUT
GWB	GYPSUM WALLBOARD
H	HIGH
HC	HOLLOW CORE
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCH(ES)
INCAN	INCANDESCENT
INCL	INCLUDE(D,ING)
INSUL	INSULATION, INSULATED
INT	INTERIOR
JAN	JANITOR
JT(S)	JOINT(S)
N	NORTH
KIT	KITCHEN
LAM	LAMINATE(D)
LAV	LAVATORY
LBL	LABEL
LF	LINEAR FOOT
LH	LEFT HAND
LL	LIVE LOAD
LP	LOW POINT
LTG	LIGHTING
LTL	LINTEL
MAS	MASONRY
MATL	MATERIAL(S)
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
JC	JANITOR CLOSET
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPS	NATIONAL PARK SERVICE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
PAR	PARALLEL
PART	PARTITION
PC	PRECAST
PERF	PERFORATE(D)
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLWD	PLYWOOD
PNL	PANEL(ED)
PR	PAIR
PREP	PREPARE (SURFACE)
PROV	PROVIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PTD	PAINT(ED)
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS, RISER
RB	RUBBER BASE
REF	REFERENCE
REINF	REINFORCED
REQ / REQS	REQUIREMENT(S)
REQD / REQ'D	REQUIRED
RES	RESILIENT
RET	RETAINING
REV	REVISION(S) / REVISE(D)
RFG	ROOFING
RH	RIGHT HAND
RL	RAIN LEADER
RM	ROOM
RO	ROUGH OPENING
S	SOUTH, SEAL
SC	SOLID CORE
SCHED	SCHEDULE
SCP	SCUPPER
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SLL	SOUND / LIGHT LOCK
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAINLESS
STD	STANDARD
STL	STEEL
STN	STAIN
STO	STORAGE
STRUC	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TECH	TECHNOLOGY
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TOP OF CURB
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSPARENT
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VU	VENTILATION UNIT
VWC	VINYL WALLCOVERING
W	WIDE, WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WALL HUNG
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
#	NUMBER
&	AND
+	EXIST (OR APPROX) DIM - VIF
@	AT
C	CENTER LINE
L	ANGLE

SYMBOLS

EXTERIOR ELEVATION



BLDG SECTION CUT



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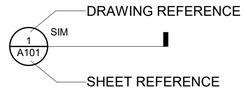

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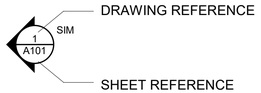

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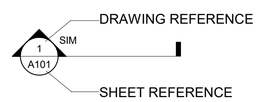
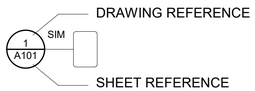
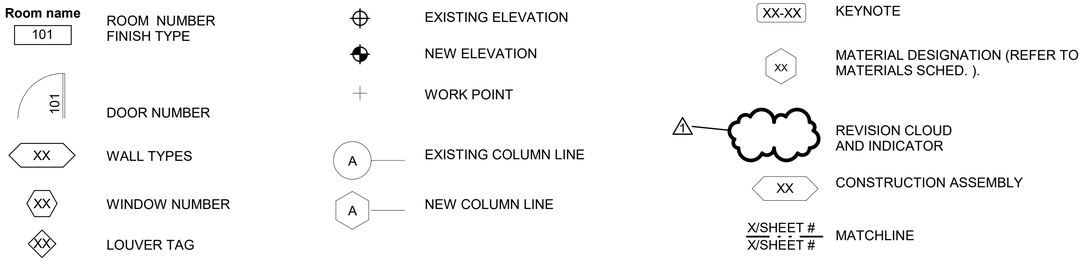


DETAIL / PLAN



SYMBOLS



CODE SUMMARY

APPLICABLE CODES AND STANDARDS

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE - CHAPTER 12
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
NFPA 70 NEC - NATIONAL ELECTRICAL CODE
NFPA 72 - NATIONAL FIRE ALARM CODE
NFP90A - INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS
NFPA 13 - INSTALLATION OF STANDPIPES, PRIVATE HYDRANTS AND HOSE SYSTEMS
ASHRAE 90.1 - ENERGY STANDARD FOR BUILDINGS
2021 ICC/ANSI 117.1 STANDARDS
ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS (ABAAS)

ACTUAL BUILDING AREA

BASEMENT: 4,100 GSF
FIRST FLOOR: 8,500 GSF
SECOND FLOOR: 7,500 GSF
THIRD FLOOR: 2,100 GSF

TOTAL: 22,200 GSF

TYPE OF CONSTRUCTION

TYPE II-B, UNSPRINKLED
REINFORCED CONCRETE STRUCTURE (FLOORS, ROOF, BEAMS, COLUMNS)
EXTERIOR MASONRY WALL INFILL AND MASONRY FINISH

OCCUPANCY CLASSIFICATION

USE GROUP A-3 INDOOR SWIMMING POOLS (WITHOUT SPECTATOR SEATING) / GROUP B BUSINESS
- BASEMENT: B (MECHANICAL AND SUPPORT SPACES)
- FIRST FLOOR: A3 (INDOOR SWIMMING POOLS (WITHOUT SPECTATOR SEATING))
- SECOND FLOOR: A3 (INDOOR SWIMMING POOLS (WITHOUT SPECTATOR SEATING))
- THIRD FLOOR: B (OFFICE)

SUMMARY OF WORK

THE BUCKSTAFF BATHHOUSE PROJECT INCLUDES ROOF REPLACEMENT AND MINOR MASONRY REPAIRS TO UPPER EXTERIOR CLADDING AND COPING. THE TOTAL ROOF AREA IS 8,500 GSF, WITH THE TOTAL ROOF REPLACEMENT AREA BEING 7,600 GSF.

ALTERATIONS

HISTORIC BUILDING, IEBC CHAPTER 12

IEBC SECTION 1202: REPAIRS
IEBC 1202.1 GENERAL: REPAIRS TO ANY PORTION OF A HISTORIC BUILDING OR STRUCTURE SHALL BE PERMITTED WITH ORIGINAL OR LIKE MATERIALS AND ORIGINAL METHODS OF CONSTRUCTION, SUBJECT TO THE PROVISIONS OF THIS CHAPTER. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

IEBC 1202.2 REPLACEMENT: REPLACEMENT OF EXISTING OR MISSING FEATURES USING ORIGINAL MATERIALS SHALL BE PERMITTED. PARTIAL REPLACEMENT FOR REPAIRS THAT MATCH THE ORIGINAL IN CONFIGURATION, HEIGHT AND SIZE SHALL BE PERMITTED.

GENERAL PROJECT NOTES

1. WORK INVOLVES RESTORATION WORK OF A HISTORIC BUILDING. TREAT THE BUILDING RESPECTFULLY. CAREFULLY RESPECT EXISTING CONSTRUCTION AND TREAT ALL EXISTING MATERIALS AS IRRECPLACEABLE. DO NOT ALTER, REMOVE OR DISFIGURE ANY EXISTING MATERIALS, ELEMENTS OR FINISHED UNLESS INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS, OR DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE (COR).
2. CONTRACTOR SHALL USE ALL REASONABLE AND CUSTOMARY CARE TO VERIFY ALL EXISTING CONDITIONS IN FIELD. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY OF INCONSISTENCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION OR DEMOLITION. INFORMATION CONTAINIED ON THESE DRAWINGS WITH REGARD TO EXISTING CONDITIONS OF CONSTRUCTION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR IN EXECUTING THE WORK. THE INFORMATION ON THE DRAWINGS IS BASED ON LIMITED ACCESS TO THE EXISTING BUILDING EXTERIOR.
3. ALL DIMENSIONS ARE BASED ON LIMITED FIELD VERIFICATION - CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
4. MATERIALS IDENTIFIED ON THE DRAWINGS ARE TO BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

A/E FIRMS
ARCH:
QUINN EVANS
219 1/2 N. MAIN STREET
ANN ARBOR, MI
T: 734.663.5888

DESIGNED: GK
CADD: GK
TECH. REVIEW: KG
DATE: 10.27.2023

SUB SHEET NO. 03 A0.1

TITLE OF SHEET
HOSP BUCKSTAFF + FORDYCE ROOFS
SYMBOLS, ABBREVIATIONS, AND CODE SUMMARY
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 255 OF 286

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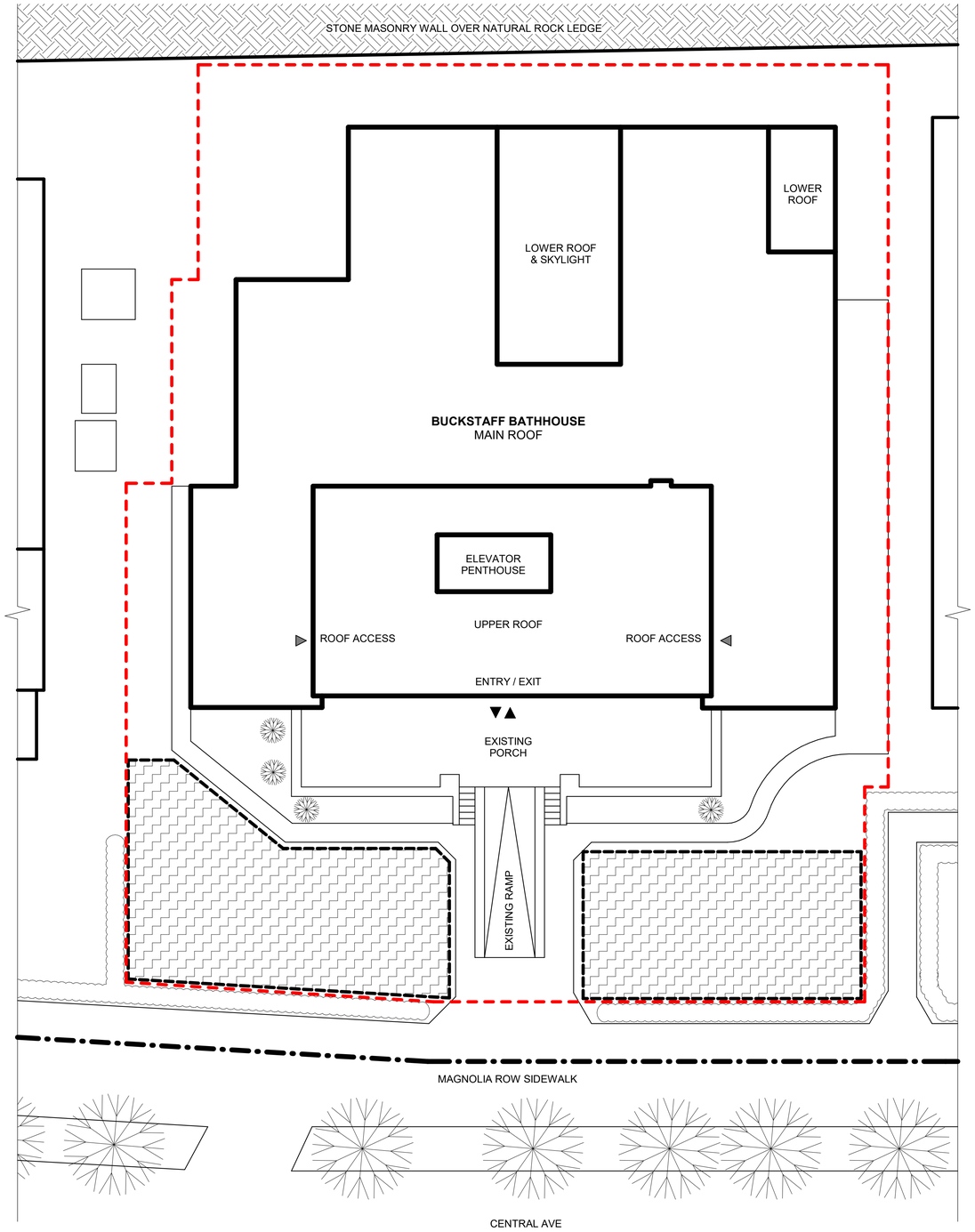
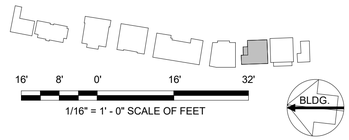


1 AS1.1 BUCKSTAFF SITE PLAN

3/32" = 1'-0"

BATHHOUSE ROW BUILDING KEY



SITE PLAN GENERAL NOTES

1. DO NOT REMOVE, ALTER OR DISFIGURE ANY EXISTING MATERIALS, ELEMENTS OR FINISHES UNLESS INDICATED ON THE DRAWINGS OR SPECIFICATIONS. IF ANY WORK IMPACTS EXISTING MATERIALS OR FINISHES TO REMAIN, NOTIFY ARCHITECT IN WRITING AT LEAST (10) DAYS IN ADVANCE OF START OF THE WORK, AND OBTAIN WRITTEN RESPONSE PRIOR TO PROCEEDING WITH THE WORK.
2. THIS DRAWING IS PROVIDED AS AN OVERVIEW OF SITE STAGING REQUIREMENTS, TO ASSIST THE CONTRACTOR IN UNDERSTANDING SITE ACCESS AND CONSTRAINTS AND WITH PREPARATION OF THE WORK PLAN FOR CONSTRUCTION OF THE PROJECT. THE INFORMATION ON THIS DRAWING DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR THE SAFETY AND SECURITY OF THE JOB SITE, MEANS AND METHODS OF CONSTRUCTION, SCHEDULING AND SEQUENCING OF THE WORK, PROTECTION OF THE GENERAL PUBLIC, OR PREPARATION OF A COMPREHENSIVE WORK PLAN FOR THE PROJECT.
3. THE CONTRACTOR SHALL ARRANGE AT THEIR EXPENSE FOR ANY STAGING AND STORAGE FOR EQUIPMENT AND MATERIAL.
4. CONTRACTOR MUST PROVIDE AND SUBMIT FOR APPROVAL THE FOLLOWING; LOCATION OF CONTRACTORS STAGING AND LAYOUT AREA AND TEMPORARY FACILITIES AND OR SERVICES.
5. ALL CONSTRUCTION AREAS MUST BE CLEANED UP AND ALL DEBRIS REMOVED FROM SITE EACH END OF WORK DAY.
6. CONTRACTOR TO PROVIDE PARK ARCHAEOLOGIST 48 HOURS NOTICE PRIOR TO ANY GROUND DISTURBANCE ACTIVITY TO ALLOW ARCHAEOLOGIST ABILITY TO MONITOR WORK. CONTRACTOR TO STOP WORK AND NOTIFY COR IF ANY POTENTIAL ARTIFACTS ARE UNCOVERED DURING GROUND DISTURBING ACTIVITY.
7. ADDITIONAL TEMPORARY, REQUIRED CONSTRUCTION ACCESS ALONG PATHS AND WALKWAYS SURROUNDING THE BUILDING AND WITHIN BUILDING INTERIOR TO BE COORDINATED WITH THE PARK PRIOR TO USE.

SITE PLAN LEGEND

- CONTRACTOR STAGING AREA
- PROPERTY LINE
- ACCESSIBLE BUILDING EGRESS
- ROOF ACCESS POINT
- EXISTING TREES OR HEDGES TO REMAIN
- EXISTING HEDGES TO REMAIN
- APPROXIMATE CONSTRUCTION AND ACCESS LIMITS

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012150
STATE OF ARKANSAS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	03 AS1.1	HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF SITE AND STAGING PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG			SHEET 256 OF 286
	DATE: 10.27.2023			

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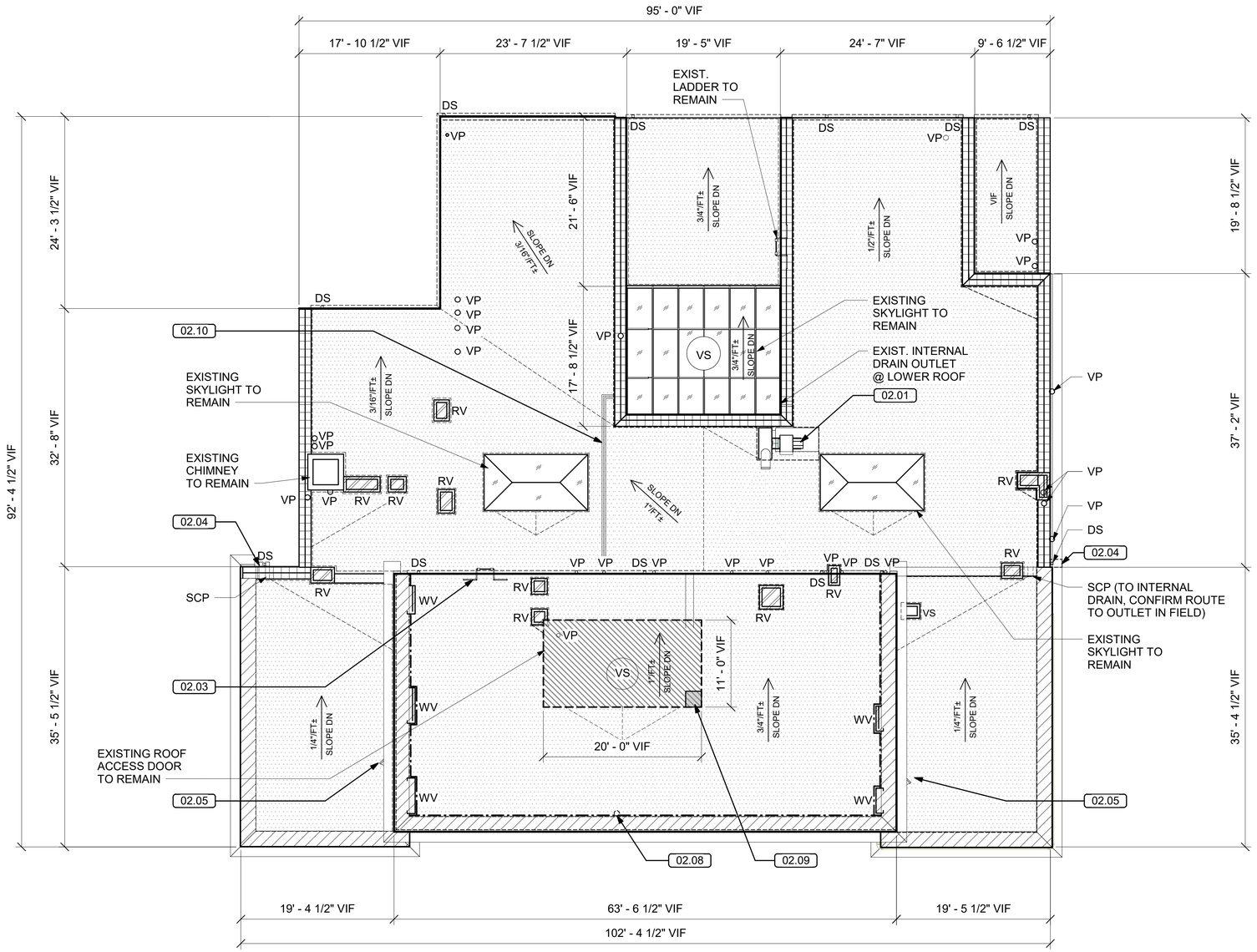
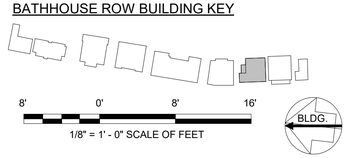


1 AX1.1 BUCKSTAFF ROOF DEMOLITION PLAN

1/8" = 1'-0"

BATHHOUSE ROW BUILDING KEY



GENERAL DEMOLITION NOTES

1. FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. IF DIMENSIONAL DISCREPANCIES OR UNSOUND CONDITIONS ARE OBSERVED, INFORM THE CONTRACTING OFFICER IN WRITING (10) DAYS PRIOR TO STARTING WORK AND OBTAIN WRITTEN RESPONSE PRIOR TO PROCEEDING.
2. REMOVE ALL EXISTING SEALANTS, MASTICS, AND FASTENERS ASSOCIATED WITH ELEMENTS AND SYSTEMS BEING REMOVED, UON.
3. LEAD MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS. REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR REMOVAL AND DISPOSAL.

KEYNOTES

02.01 EXISTING DUCT RISER & UTILITY FAN - REFER TO MECHANICAL FOR SCOPE
02.03 REMOVE EXISTING LADDER
02.04 REMOVE EXISTING COLLECTOR BOX
02.05 EXISTING WOOD ROOF ACCESS DOOR, FRAME AND TRIM TO REMAIN. REMOVE STORM DOOR AND ASSOCIATED HINGES.
02.08 REMOVE EXISTING FLAGPOLE AND MOUNTING BRACKETS
02.09 EXISTING LIGHT - REFER TO ELECTRICAL FOR RELOCATION TO ALLOW ROOFING REMOVAL.
02.10 EXISTING CONDUIT - REFER TO ELECTRICAL FOR SCOPE

LEGEND

- REMOVE EXISTING MEMBRANE ROOFING, INCLUDING UNDERLAYMENT, INSULATION, AND ALL ASSOCIATED FLASHING AND SEALANTS DOWN TO EXISTING ROOF DECK TO REMAIN.
- REMOVE METAL ROOFING, UNDERLAYMENT AND FLASHINGS DOWN TO EXISTING ROOF DECK TO REMAIN; FORMED SHEET METAL OVERHANG ASSEMBLY TO REMAIN
- EXISTING STONE PARAPET CAPS TO REMAIN
- REMOVE, SALVAGE, AND STORE FOR REINSTALLATION ALL EXISTING TERRA COTTA PARAPET COPING CAP UNITS, UON.
- REMOVE EXISTING STUCCO ON FACE OF WALL
- RV REMOVE AND SALVAGE CURVED METAL VENT HOODS AND BASE FRAMES TO BE REFURBISHED - TO ALLOW ACCESS TO BRICK MASONRY WITHIN
- WV EXISTING THRU WALL VENTILATION UNIT TO REMAIN - TEMPORARILY REMOVE ENCLOSURES AS NEEDED TO PERFORM STUCCO WALL FINISH REPLACEMENT
- VS EXISTING ROOF VENT STACK TO REMAIN
- VP EXISTING VENT PIPE TO REMAIN, UON - REFER TO MECHANICAL
- SCP EXISTING SCUPPER OPENING TO REMAIN
- DS EXISTING DOWNSPOUT & GUTTER TO BE REMOVED, UON

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.3888	GK	03	HOSP BUCKSTAFF + FORDYCE ROOFS	128 / 182951
	CADD: GK	AX1.1	BUCKSTAFF ROOF DEMOLITION PLAN	PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 257 OF 286
	DATE: 10.27.2023			

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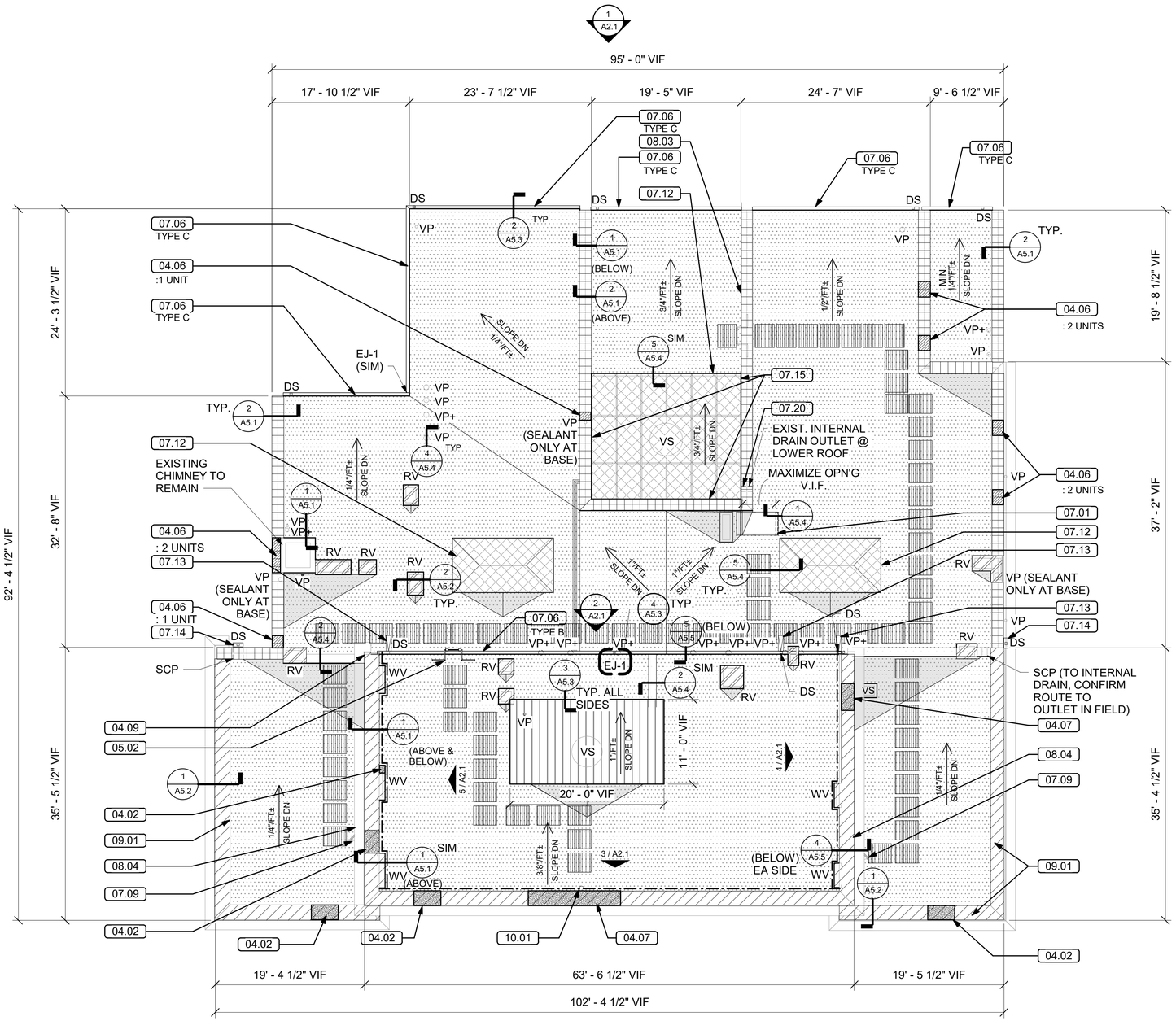
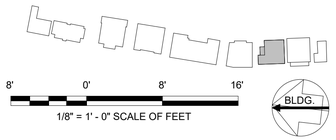


1 A1.1 BUCKSTAFF ROOF PLAN
1/8" = 1'-0"

BATHHOUSE ROW BUILDING KEY



GENERAL NOTES

1. GUTTER TYPE INDICATING SIZE DESIGNATIONS ADDITIONALLY REFERENCED IN SPECIFICATIONS.
2. INSULATION TO BE 1-1/2" THICK RIGID BOARD UNDER COVERBOARD, TYPICAL. TAPER DOWN TO ROOF EDGES AND SCUPPERS, TAPER UP AT CANTS. SLOPE ARROWS INDICATE INTENT FOR TOP OF ROOFING ASSEMBLY AND RELATE TO VISIBLE EXISTING CONDITIONS. STRUCTURAL ROOF DECKS ARE PRESUMED TO SLOPE - CONTRACTOR TO VERIFY IN FIELD.
3. SEAL AROUND ALL PENETRATIONS THRU THE ROOF DECK PRIOR TO INSTALLATION OF NEW ROOFING ASSEMBLY.

KEYNOTES

04.02 STONE REPAIR WITH PATCHING COMPOUND FOR AREAS WITH SHALLOW SPALLS OR SMALL BREAKS - APPROXIMATELY 10% OF UNITS INDICATED, PRIOR TO REFINISHING CAPS
04.06 REPLACE DAMAGED TERRA COTTA COPING WITH UNITS TO MATCH EXISTING
04.07 PARTIAL STONE REPLACEMENT (DUTCHMAN REPAIR) FOR AREAS WITH DEEP DETERIORATION - APPROXIMATELY 10% OF UNITS INDICATED, PRIOR TO REFINISHING CAPS
04.09 REPOINT OPEN MORTAR JOINTS AT CORNER WHERE REMOVED FOR PRECONSTRUCTION TESTING, TO MATCH EXISTING.
05.02 METAL LADDER
07.01 12" TALL EQUIPMENT SUPPORT CURBS ORIENTED AS SHOWN. COORDINATE WITH MECHANICAL FOR RESETTING & RECONNECTING UTILITY FAN.
07.06 GUTTER AND DOWNSPOUTS
07.09 DETERMINE THICKNESS OF INSULATION FOR THIS ROOF AREA BASED ON EXISTING DOOR SILL HEIGHT. TOP OF SILL TO REMAIN 1-INCH MIN. ABOVE TOP OF ROOFING ASSEMBLY.
07.12 DETERMINE THICKNESS OF INSULATION FOR THIS ROOF AREA BASED ON EXISTING SKYLIGHT CURB. TOP OF ROOFING ASSEMBLY TO BE 10" MIN BELOW LEADING EDGE OF TOP OF SKYLIGHT FRAME - REFER TO DETAIL.
07.13 METAL SPLASH PAN - REINSTALL SALVAGED FOLLOWING ROOF REPLACEMENT.
07.14 COLLECTOR BOX
07.15 REPLACE SEALANT ALONG TOP OF EXISTING WALL BASE COUNTERFLASHING AND WINDOW SILL FLASHING AROUND PERIMETER OF SKYLIGHT
07.20 EXTEND EXIST INTERNAL SHEET METAL DRAIN PIPE @ LOWER ROOF TO 8" MIN BEYOND FACE OF EXTERIOR MASONRY WALL, PROVIDE SHORT MEMBRANE FLASHING BOOT OVER OPENING IN WALL & SEAL AROUND ALL EDGES - VERIFY SHEET METAL TYPE IN FIELD TO MATCH EXIST.
08.03 FIX THIRD FLOOR WINDOW CLOSED
08.04 FILL REMOVED STORM DOOR HINGE FASTENER HOLES WITH WOOD FILLER
09.01 PREP AND RECOAT BACK SIDE OF PARAPET WALL
10.01 FLAGPOLE AND MOUNTING BRACKET - REFER TO DETAIL 1/A5.5 & STRUCTURAL

LEGEND

- SINGLE PLY MEMBRANE ROOFING AND FLASHING OVER COVERBOARD AND INSULATION ON EXISTING REPAIRED AND PREPPED DECKING. REFER TO STRUCTURAL FOR ROOF DECK REPAIRS
- PREP & RECOAT ALL OUTWARD FACES OF STONE PARAPET CAPS. PROVIDE T-CAP JOINT BETWEEN UNITS AT UPPER ROOF & REPLACE SEALANT FILLED JOINTS IN-KIND BETWEEN UNITS AT LOWER SIDE ROOFS
- SINGLE PLY MEMBRANE ROOFING OVER COVERBOARD ON EXISTING DECKING
- DETERGENT CLEAN EXISTING SKYLIGHT, MAINTAIN OR REPLACE BASE CURB DRIP EDGE FLASHING TO COVER TERMINATION OF NEW MEMBRANE ROOFING; LIFT AND RESET UNIT AS REQUIRED TO PERFORM REROOFING (MAIN ROOF ONLY)
- 1/2"/FT SLOPE CRICKET OR CANT, TAPERED ABOVE BASE INSULATION
- INTEGRATED MEMBRANE WALKWAY PAD
- STUCCO FACE AT PARAPET WALLS
- VP REPLACE FLASHING AND SEALANT AT ALL VENT PIPES, UON. SEE FLASHING DETAIL 4/A5.4
- VP+ EXTEND PIPE PENETRATIONS AT EXISTING VENT PIPES, REFER TO PLUMBING. REPLACE FLASHING AND SEALANT AT ROOF PENETRATION. SEE FLASHING DETAIL 4/A5.4
- RV RESET LOOSE LAID OR DISPLACED TOP COURSES OF BRICK MASONRY ATOP ROOF VENTS, SET IN FULL MORTAR BEDS AND POINTED JOINTS. REFURBISH AND REINSTALL CURVED METAL VENT HOODS AND BASE FRAMES - REFER TO DETAIL 2/A5.2
- REINSTALL SALVAGED AND STORED EXISTING TERRA COTTA PARAPET COPING CAPS IN ORIGINAL LOCATIONS, UON. SET IN FULL MORTAR BEDS AND JOINTS.
- WV EXISTING THRU WALL VENTILATION UNIT TO REMAIN / BE REINSTALLED IN SAME LOCATION AS EXISTING FOLLOWING STUCCO WALL FINISH REPLACEMENT
- DS 4" RECTANGULAR DOWNSPOUT
- EJ-# EXPANSION JOINT & CAP BETWEEN SECTIONS OF GUTTER, @ CENTER POINT OF UPPER ROOF EDGE
- SCP EXISTING SCUPPER OPENING TO REMAIN - REFER TO DETAIL 1/A5.3
- VS EXISTING VENT STACK TO REMAIN - REFER TO DETAIL 4/A5.4

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 512100
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888	GK	03 A1.1	HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF PLAN	128 / 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 258 OF 286
	DATE: 10.27.2023			

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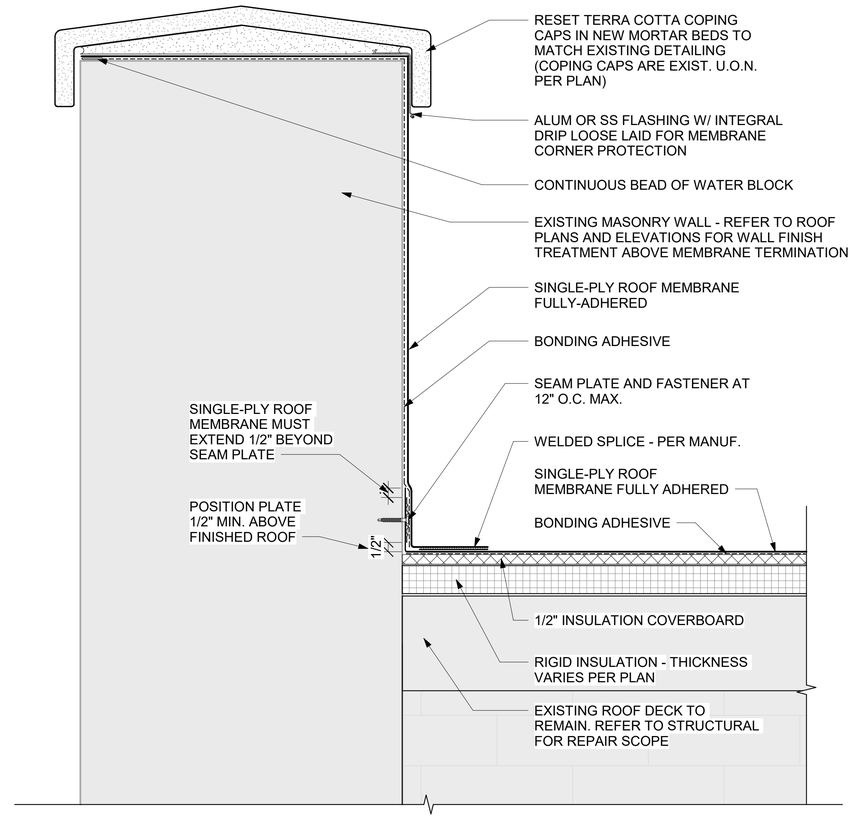
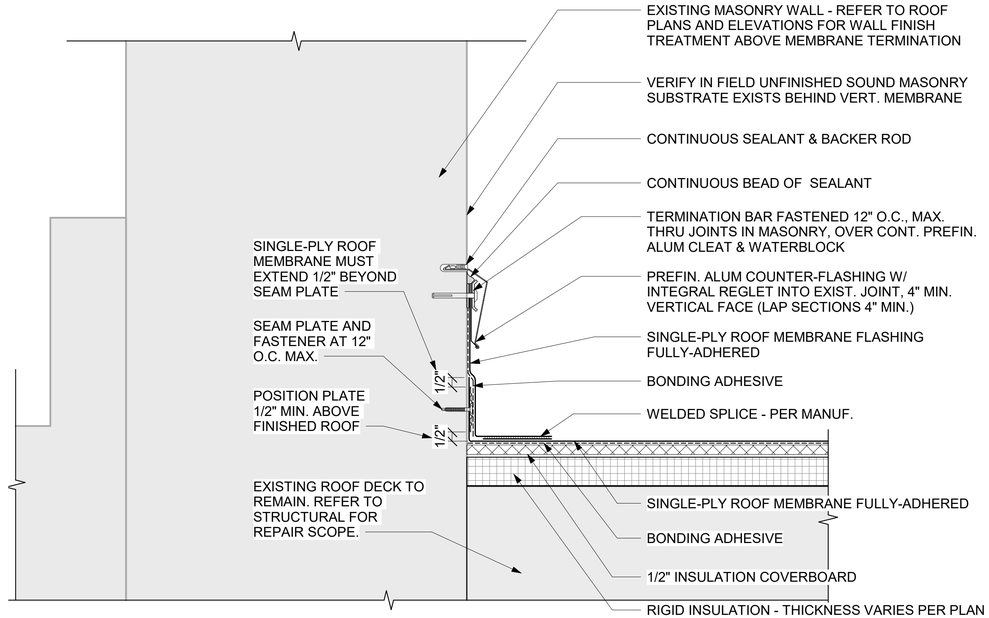


2 A5.1 PARAPET SECTION DETAIL - TERRA COTTA CAP & ROOFING TERMINATION

3" = 1'-0" REFERRED FROM: A1.1



1 A5.1 BASE TERMINATION @ MASONRY WALL

3" = 1'-0" REFERRED FROM: A1.1

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

6" 3" 0" 6"

3" = 1' - 0" SCALE OF FEET

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	03 A5.1	HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF DETAILS	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 259 OF 286
	DATE: 10.27.2023			

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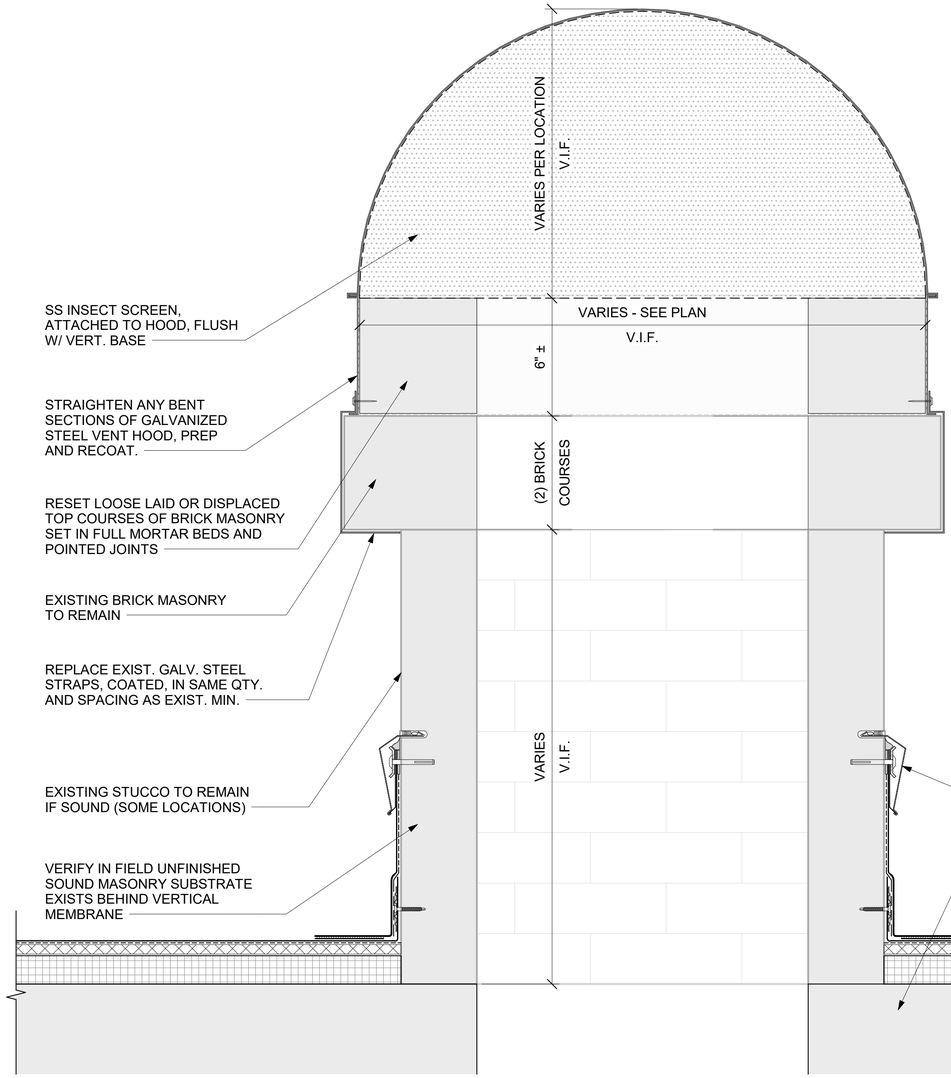
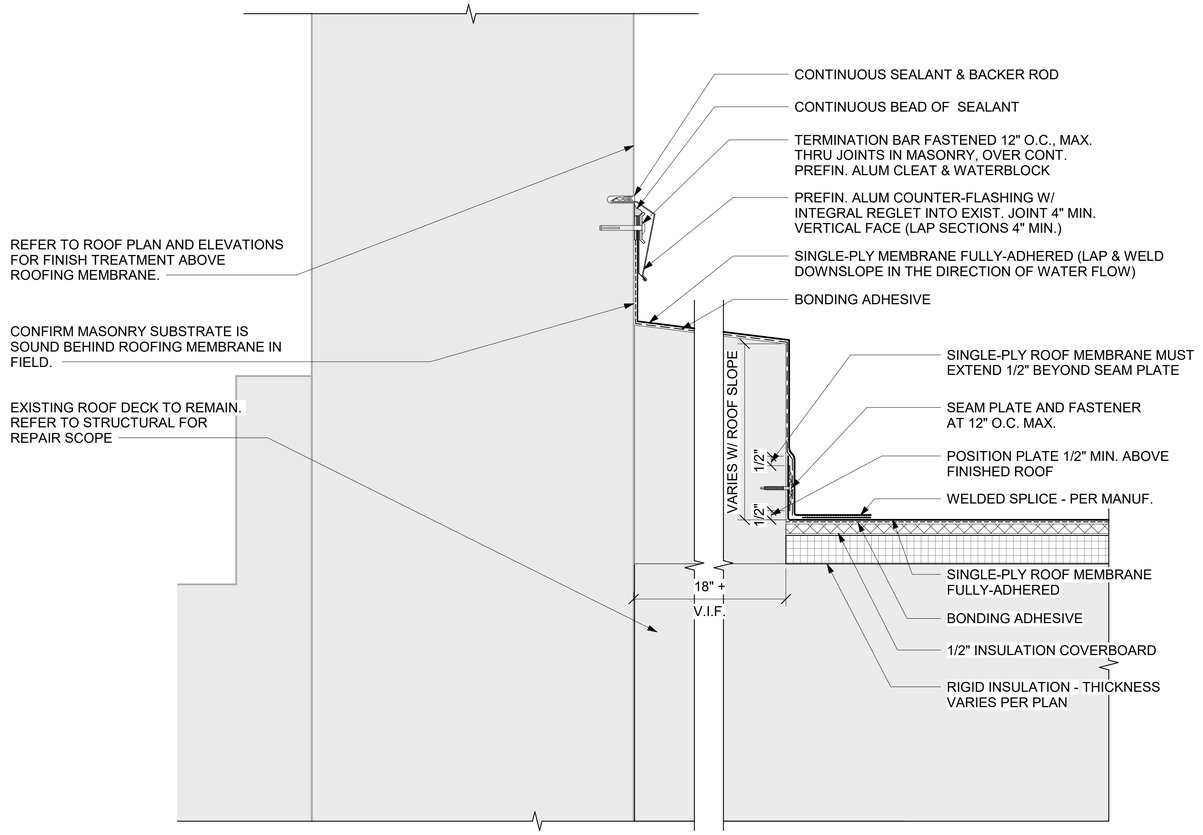


2 A5.2 — CURVED ROOF VENT HOOD SECTION DETAIL

3" = 1'-0" REFERRED FROM: A1.1



1 A5.2 — BASE TERMINATION AT ROOF PARAPET W/ CURB

3" = 1'-0" REFERRED FROM: A1.1

6" 3" 0" 6"

3" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT — PATRICK M ROACH — License Number 012190 — STATE OF ARKANSAS

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 03 A5.2	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 260 OF 286

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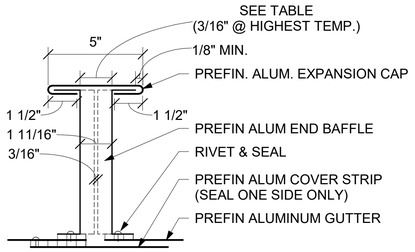
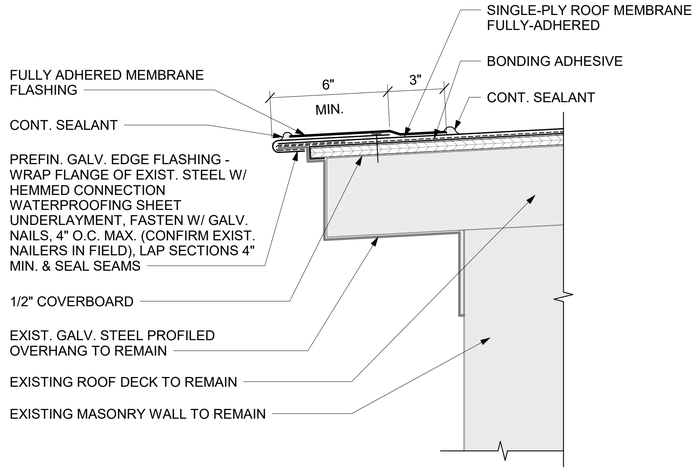


NOTE:
JOINT SHOWN FULLY OPEN AT LOWEST TEMPERATURE, REFER TO TABLE FOR EXPANSION GAP SIZE REQUIRED AT INSTALLATION TEMPERATURE.

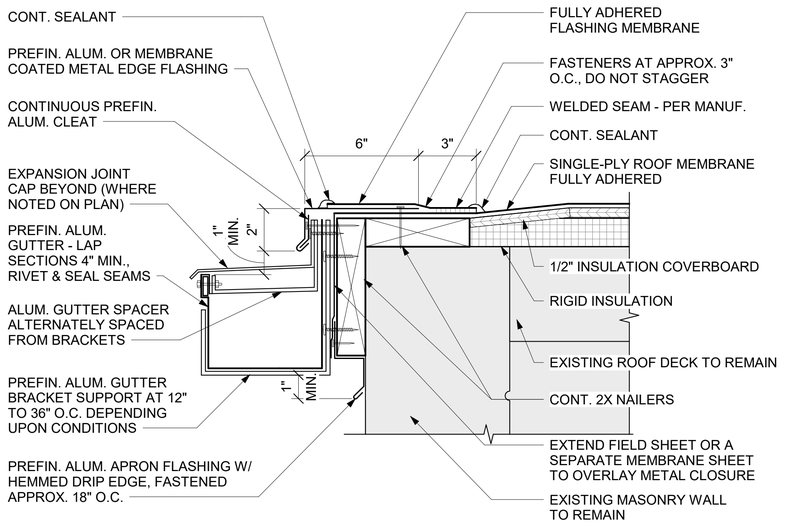
4 A5.3 GUTTER EXPANSION JOINT - EJ-1

Temp. °F, (C)	Copper or Stainless Steel				Aluminum			
	10 ft.	(3 m)	50 ft. (15 m)		10 ft.	(3 m)	50 ft. (15 m)	
E@170 (77)	1/16"	2 mm	3/16"	5 mm	1/16"	2 mm	3/16"	5 mm
120 (49)	1/8"	3 mm	1/2"	13 mm	3/16"	5 mm	5/8"	16 mm
100 (38)	3/16"	5 mm	5/8"	16 mm	3/16"	5 mm	13/16"	21 mm
75 (24)	3/16"	5 mm	3/4"	19 mm	1/4"	6 mm	1 1/16"	27 mm
35 (1.7)	1/4"	6 mm	15/16"	24 mm	5/16"	8 mm	1 3/8"	35 mm
0 (−17)	1/4"	6 mm	1 1/8"	29 mm	3/8"	10 mm	1 11/16"	43 mm



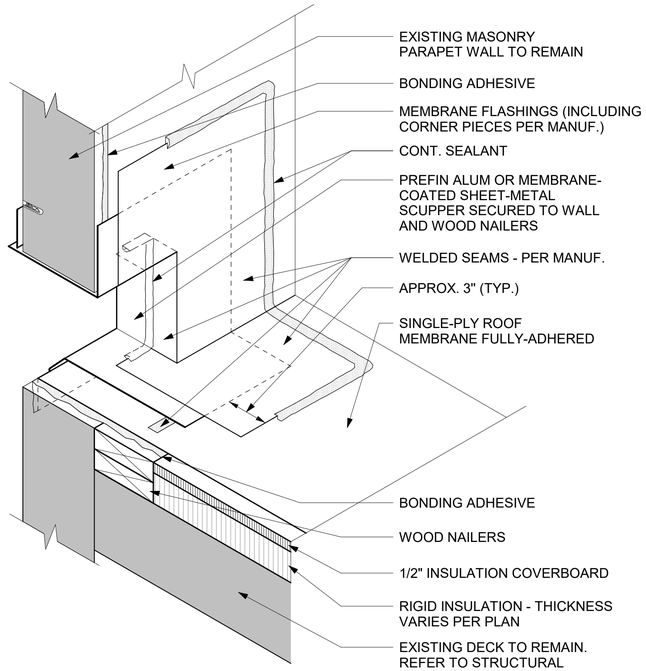
NOTE:
1. CONTRACTOR TO CONFIRM OVERHANG FRAMING & CONDITION OF EXISTING ROOF DECK IN FIELD.

3 A5.3 PENTHOUSE ROOF EDGE DETAIL
3" = 1'-0" REFERRED FROM: A1.1



NOTES:
1. GUTTER BRACKETS TO BE AT LEAST ONE GAUGE HEAVIER THAN GUTTER STOCK.
2. ATTACH WOOD NAILER TO WALL/DECK WITH SUITABLE FASTENERS.
3. GUTTER SIZE VARIES PER LOCATION, REFER TO SPECIFICATION FOR SIZES BY TYPE, AS DESIGNATED ON PLAN.

2 A5.3 EDGE & GUTTER DETAIL
3" = 1'-0" REFERRED FROM: A1.1



NOTES:
1. CONDUCTOR HEAD TO BE 1 INCH MINIMUM BELOW BOTTOM OF THROUGH-WALL SCUPPER.
2. MAINTAIN EXIST. THRU WALL OPENING DIMENSIONS, UON.

1 A5.3 THROUGH-WALL SCUPPER DETAIL - LAYERED AXON SECTION
3" = 1'-0" REFERRED FROM:

6" 3" 0" 6"
3" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012100
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	03 A5.3	HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF DETAILS	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	SHEET 261 OF 286
	DATE: 10.27.2023			

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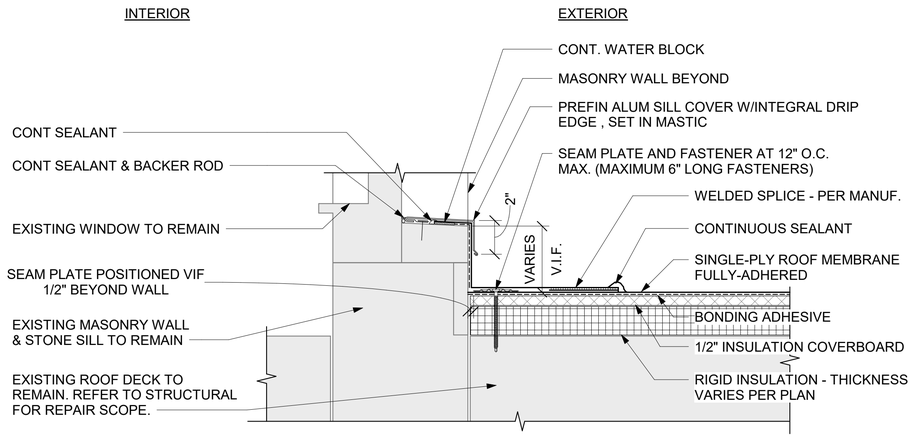
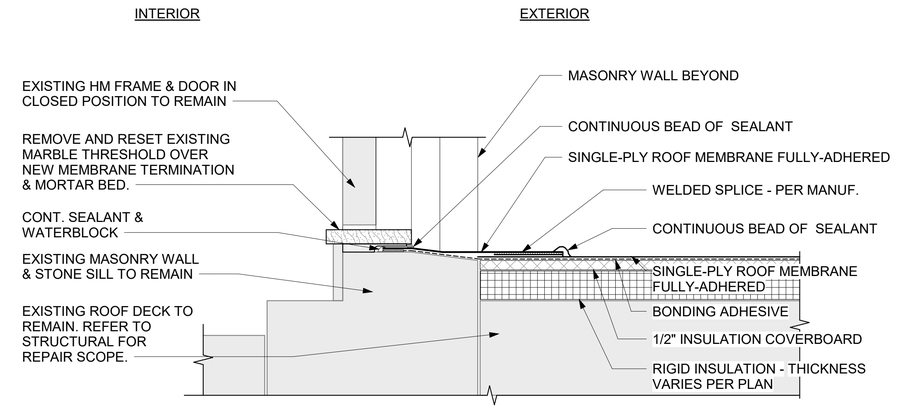


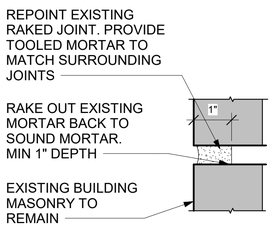
5 A5.5 ROOF TERMINATION @ LOW WINDOW SILL

3" = 1'-0" REFERRED FROM: A1.1



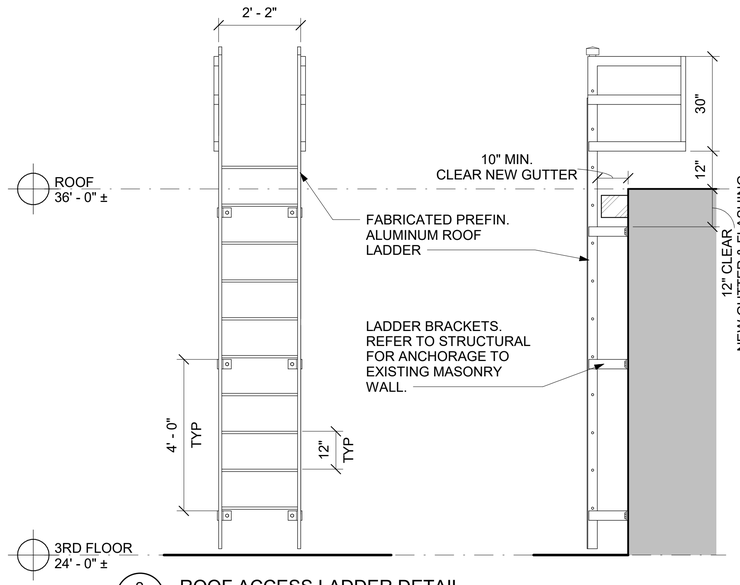
4 A5.5 ROOF TERMINATION @ DOOR SILL

3" = 1'-0" REFERRED FROM: A1.1



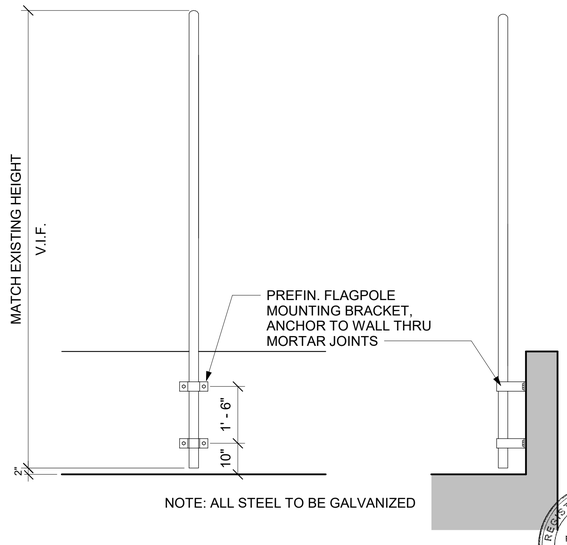
3 A5.5 REPOINTING DETAIL, TYP.

6" = 1'-0"



2 A5.5 ROOF ACCESS LADDER DETAIL

1/2" = 1'-0" REFERRED FROM: A2.1



1 A5.5 FLAG POLE DETAIL

1/2" = 1'-0" REFERRED FROM: A2.1

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012190
STATE OF ARKANSAS

2' 1' 0 2' 4'
1/2" = 1' - 0" SCALE OF FEET

3" 2" 1" 0" 3"
6" = 1' - 0" SCALE OF FEET

6" 3" 0" 6"
3" = 1' - 0" SCALE OF FEET

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 03 A5.5	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS BUCKSTAFF ROOF & EXTERIOR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 262 OF 286

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GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 INTERNATIONAL EXISTING BUILDING CODE AND 2021 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THESE GOVERNING CODES.
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS DOCUMENTATION, EXCLUDING ORIGINAL DESIGN DRAWINGS, PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
   - B. ACI COLLECTION, LATEST EDITION
   - C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
2. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.)
4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
5. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
6. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
   - A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3"
   - B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     - a. 1-1/2" (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
   - C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     - a. SLABS, JOISTS, AND WALLS:
       - 3/4" (#11 BAR AND SMALLER)
7. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
8. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, LADDERS, FLAGPOLES, INSERT AND EMBED ITEMS.
9. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS

1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY CONTRACTING OFFICER PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSUMPTIONS AND CONDITIONS OF THE MPII. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.
2. INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND CONTRACTING OFFICER WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.
   - A. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPII AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.
3. EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE CONTRACTING OFFICER.
4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF CONCRETE, AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.
5. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY, GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.
6. SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACTING OFFICER. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPII. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACTING OFFICER PRIOR TO USE.

SPECIAL INSPECTIONS (IBC)

1. REFERENCE NPS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR FULL LIST OF REQUIREMENTS.
2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

STRUCTURAL SYSTEM DESCRIPTION

NO ORIGINAL STRUCTURAL DRAWINGS HAVE BEEN FOUND. FOLLOWING WHAT HAS BEEN DOCUMENTED IN 1973 HISTORIC STRUCTURES REPORT BY CROMWELL, NEYLAND, TRUEMPER, MILLETT & GATCHELL, INC., AND VERY LIMITED SITE OBSERVATIONS PERFORMED BY SILMAN IN FEBRUARY & JULY 2023, THE STRUCTURAL DESCRIPTION IS AS FOLLOWS:
THE GRAVITY SYSTEM OF THE BUILDING IS GENERALLY COMPRISED OF REINFORCED CONCRETE SLABS AND BEAMS SUPPORTED BY MASONRY BEARING WALLS AND BASEMENT SLAB ON GRADE. STRUCTURAL WALLS ARE ASSUMED TO BEAR ON REINFORCED CONCRETE WALL FOOTINGS. BUCKSTAFF BATHHOUSE WAS CONSTRUCTED CIRCA 1920. MOST BUILDINGS CONSTRUCTED IN THIS REGION AND ERA WERE NOT DESIGNED WITH AN EXPLICITLY DEFINED LATERAL FORCE RESISTING SYSTEM. AN ACCEPTABLE STRUCTURAL SYSTEM TO RESIST LATERAL FORCES WAS STEEL OR CONCRETE FRAMED BUILDINGS DESIGNED TO SUPPORT GRAVITY LOADS SURROUNDED BY WELL-PROPORTIONED MASONRY OR CONCRETE WALLS.
THE SCOPE OF WORK WITHIN THESE DOCUMENTS DOES NOT ALTER THE EXISTING STRUCTURAL BEHAVIORS OR LOAD PATHS. THEREFORE, PER 2021 INTERNATIONAL EXISTING BUILDING CODE SECTION 706.2 AND 1205, REPAIRS CAN BE INSTALLED TO BRING THE BUILDING BACK TO THE ORIGINAL CAPACITY AT THE TIME OF CONSTRUCTION. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.

TEMPORARY SHORING

1. DETERMINATION OF THE FULL SCOPE AND EXTENT OF ALL TEMPORARY SHORING WORK AND SEQUENCING REQUIRED TO SAFELY EXECUTE THE STRUCTURAL WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S ENGINEER.
2. THE DESIGN OF TEMPORARY SHORING BY THE CONTRACTOR'S ENGINEER SHALL ABIDE BY THE REQUIREMENTS IN THE GENERAL NOTES.
3. THE DESIGN OF TEMPORARY SHORING, AND DETERMINATION OF THE EXTENT OF TEMPORARY SHORING, ARE NOT THE RESPONSIBILITY OF SILMAN.

DESIGN PARAMETER TABLE

GOVERNING CODES:		2021 INTERNATIONAL BUILDING CODE & 2021 INTERNATIONAL EXISTING BUILDING CODE
RISK CATEGORY:		III (ASSUMED BASED ON THE BUILDING'S CURRENT ASSEMBLY OCCUPANCY CLASSIFICATION)
SNOW LOAD:		
10	Pg	GROUND SNOW LOAD
8	Pf	FLAT-ROOF SNOW LOAD
1.0	Ce	SNOW EXPOSURE FACTOR
1.1	Is	SNOW LOAD IMPORTANCE FACTOR
1.1	Ct	THERMAL FACTOR (ASSUMED FOR MAIN BUILDING)
11	Pm	MINIMUM SNOW LOAD FOR LOW-SLOPE ROOFS
WIND LOAD:		
111	Vult	ULTIMATE DESIGN WIND SPEED
86	Vasd	NOMINAL DESIGN WIND SPEED
1.0	I	WIND IMPORTANCE FACTOR
C		WIND EXPOSURE CATEGORY
0.18	GCPi	INTERNAL PRESSURE COEFFICIENT
SEISMIC DESIGN:		
1.25	I	SEISMIC IMPORTANCE FACTOR
0.237	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.111	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
C		SITE CLASS
0.206	S(ds)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIODS
0.111	S(d1)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND PERIODS
B		SEISMIC DESIGN CATEGORY
SEE STRUCTURAL DESCRIPTION ON S0.1. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.		BASIC SEISMIC FORCE RESISTING SYSTEM

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14817 10/27/2023

A/E FIRMS
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460

DESIGNED: KH
CADD: CM
TECH. REVIEW: NH
DATE: 10.27.2023

SUB SHEET NO. 03 S0.1

TITLE OF SHEET
HOSP BUCKSTAFF + FORDYCE ROOFS
GENERAL STRUCTURAL NOTES & DESIGN TABLES
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915

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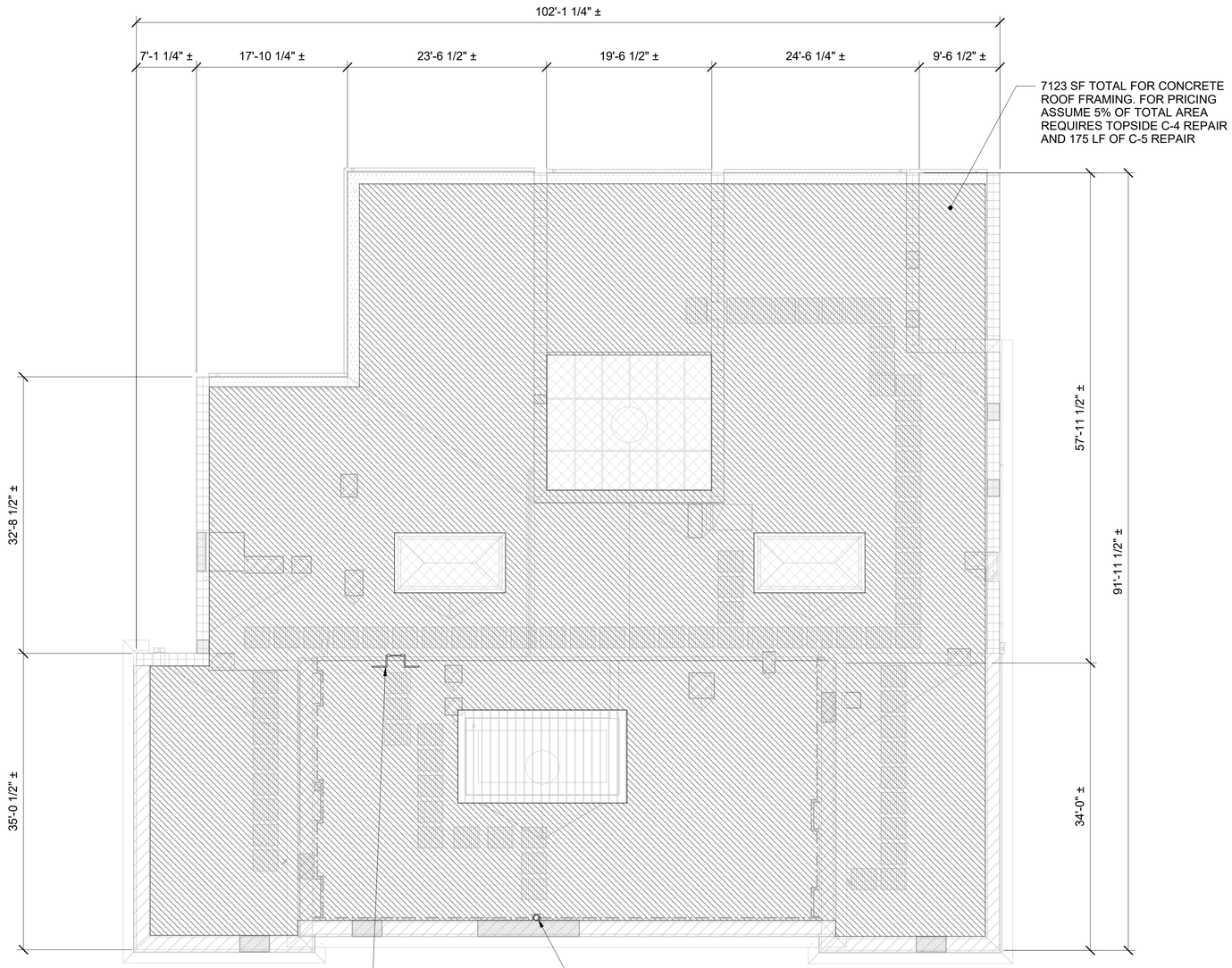

1 / S1.1 ROOF REPAIR PLAN

1/8" = 1'-0" SCALE Ⓐ

GENERAL SHEET NOTES

1. QUANTITY DENOTES SQUARE FOOTAGE (SF) OR LINEAR FOOTAGE (LF) OF REPAIR UPON REPAIR TYPE. SEE REPAIR QUANTITIES ON S5.1 FOR TOTAL REPAIR AMOUNTS.
2. CONTRACTOR SHALL VERUFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. ROOF FRAMING REPAIRS INDICATED ON PLAN ARE INTENDED TO BE TOPSIDE REPAIRS.
5. CONTRACTOR TO VERIFY FIELD CONDITIONS AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR TO REVIEW TO OCCUR PRIOR TO REPAIR WORK.
6. VERIFY ALL DIMENSIONS IN FIELD. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
7. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

MASTER KEYNOTE LIST FOR REPAIRS	
KEY VALUE	REPAIR DESCRIPTION
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 1, 2, & 3 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE 4 & 5 ON S5.2 BASED ON CRACK SIZE.

SCALE Ⓐ 8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 CHRISTOPHER D. HOPPER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	03 S1.1	HOSP BUCKSTAFF + FORDYCE ROOFS ROOF REPAIR PLAN	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			264 OF 286

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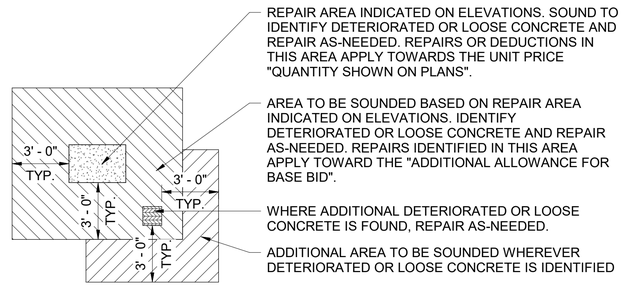
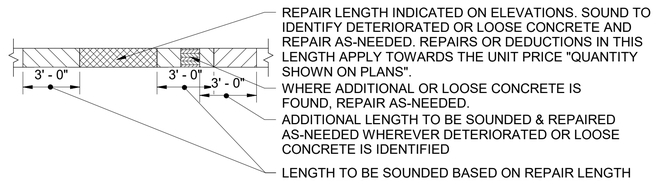
NOTES - CONCRETE REPAIRS:

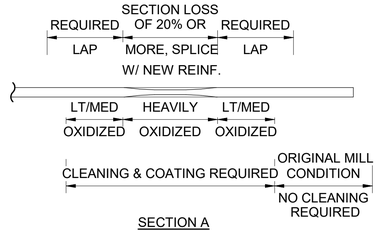
1. TYPICAL DETAILS
   A. THE DETAILS SHOWN ON THIS SHEET ARE REFERENCED ON PLANS AND ELEVATIONS FOR SPECIFIC CONCRETE REPAIRS AND ARE BASED ON LIMITED FIELD INVESTIGATION. CONTRACTOR TO PROVIDE A UNIT PRICE FOR REPAIR WORK BASED ON UNITS AS IDENTIFIED IN KEYNOTE TABLE.
   B. REFER TO SPECIFICATION SECTION 03 0130 "MAINTENANCE OF CONCRETE" FOR ADDITIONAL REQUIREMENTS.
2. PROCEDURE
   A. THE FOLLOWING SEQUENCE DESCRIBES THE EXPECTED PROCEDURE AT CONCRETE AND CONCRETE-ENCASED MEMBERS:
      a. SOUND MEMBER TO IDENTIFY ANY LOOSE OR DETERIORATED CONCRETE. SOUNDING SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE EXTENTS OF LENGTHS OR AREAS INDICATED ON ELEVATIONS. WHERE ADDITIONAL LOOSE OR DETERIORATED MATERIAL IS FOUND, SOUND AN ADDITIONAL 3 FEET IN ALL DIRECTIONS BEYOND THE LENGTH OR AREA OF ADDITIONAL DETERIORATION. SEE DETAIL TO RIGHT.
      b. REMOVE ANY LOOSE OR DETERIORATED CONCRETE MATERIAL PER THE SPECIFICATIONS.
      c. ALL OXIDIZED AND CORRODED BARS SHALL BE EXPOSED AND CLEANED WITH WIRE BRUSHING, SANDBLASTING, OR OTHER APPROVED METHODS PER THE SPECIFICATIONS. AFTER CLEANING CORRODED BARS SHALL BE REVIEWED FOR STRUCTURAL ADEQUACY BY THE CONTRACTOR, USING THE INFORMATION BELOW IN THE SECTION "CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES." CONTRACTOR IS TO NOTIFY CONTRACTING OFFICER IF ASSESSMENT REQUIRES ADDITIONAL SUPPORT FROM CONTRACTING OFFICER.
      d. PROVIDE ADDITIONAL REINFORCEMENT IF REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER PER THE DETAILS AND SPECIFICATIONS (SEE NOTE 5.E BELOW).
      e. PREPARE CONCRETE SURFACES TO BE RESTORED PER THE DETAILS, SPECIFICATIONS, AND MANUFACTURER'S PRINTED INSTRUCTIONS.
      f. PLACE NEW REPAIR MORTAR AS NOTED IN THE DETAILS, AND SPECIFICATIONS. COORDINATE FINISH REQUIREMENTS WITH THE CONTRACTING OFFICER.
3. INSPECTIONS & QUALITY CONTROL
   A. REFER TO THE SPECIFICATIONS FOR INSPECTIONS AND QUALITY CONTROL REQUIREMENTS.
4. CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES
   A. PREPARE SURFACES TO BE RESTORED IN COMPLIANCE WITH PRODUCT MANUFACTURER'S PRINTED INSTRUCTIONS AND AS SPECIFIED. CLEAN AREAS TO BE RESTORED WITH WIRE BRUSH AND COMPRESSED AIR OR WATER TO REMOVE ALL LOOSE MATERIALS, INCLUDING OIL, DIRT, DUST, OR OTHER FOREIGN MATERIAL FROM SURFACES TO BE REPAIRED.
   B. REMOVE LOOSE AND DETERIORATED CONCRETE BY MECHANICAL MEANS DOWN TO SOUND CONCRETE SUBSTRATE. DO NOT CUT EXISTING REINFORCING. DETAIL THE EDGE OF THE PATCH TO A 1/2" MINIMUM DEPTH TO PREVENT FURTHER EDGING. CHIP CONCRETE SUBSTRATE TO OBTAIN A FRACTURED AGGREGATE SURFACE WITH A MINIMUM SURFACE PROFILE OF 1/8" DEPTH. SEE TYPICAL REPAIR DETAILS ON S5.2 FOR ADDITIONAL CONCRETE PREP PER CONDITION.
   C. ALL OXIDIZED AND CORRODED BARS SHALL BE UNDERCUT A MINIMUM OF 3/4" OR 1/4" LARGER THAN THE LARGEST SIZE AGGREGATE IN THE PATCHING CONCRETE, WHICHEVER IS GREATER. EXPOSED BARS WHICH ARE NOT OXIDIZED OR CORRODED DO NOT HAVE TO BE UNDERCUT IF LESS THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED AND THE BOND BETWEEN THE BAR AND CONCRETE IS INTACT. IF THE BOND IS BROKEN OR MORE THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED, THEN THE BAR SHALL BE UNDERCUT AS DESCRIBED IN SECTION C.
   D. CLEAN REINFORCING STEEL OF OXIDATION USING A WIRE BRUSH. THE REINFORCING BARS SHALL BE CLEANED TO BRIGHT METAL. APPLY ANTI-CORROSION PRIMER AND BONDING BRIDGE. COAT THE REINFORCEMENT OR OTHER STEEL TO REMAIN WITH CORROSION INHIBITOR.
   E. IF REDUCED SECTION OF REINFORCEMENT IS LESS THAN 80% OF ORIGINAL AREA, PROVIDE ADDITIONAL REINFORCING STEEL OF 1.5 x AREA LOST OR GREATER OR REPLACE WITH NEW.
   F. REINFORCING SHALL BE ADDED ACCORDING TO NOTES BELOW AND SECTIONS A AND B.
      1. SPLICE LENGTH SHOWN SHALL EXTEND ON BOTH ENDS OF HEAVILY OXIDIZED SECTION FROM THE POINT WHERE THE EXISTING BAR IS BEING SPLICED.
      2. IF LAP SPLICE OF ADDITIONAL STEEL EXTENDS BEYOND THE REPAIR AREA PERIMETER, CUT A NOTCH IN THE EXISTING CONCRETE TO PROVIDE A 3/4" CLEAR SPACE BEHIND AND ON EACH SIDE OF THE ADDED STEEL.
      3. BOTTOM BAR SPLICE NEED NOT EXTEND BEYOND THE FACE OF SUPPORT OF THE BEAM OR GIRDER.
      4. IF ADDED STEEL ENCOUNTERS END OF MEMBER, PROVIDE HOOK OR MECHANICAL ANCHOR TO DEVELOP THE STEEL TENSION CAPACITY. DRILL & GROUT AS REQ'D.
      5. IF OBSTRUCTION PREVENTS FULL SPLICE LENGTH, USE MECHANICAL TENSION SPLICE COUPLER. CUT AND CONNECT TO EXIST REINF.
   G. SATURATE THE SURFACE OF THE PREPARED CONCRETE WITH WATER FOR A MAXIMUM OF TWO HOURS PRIOR TO THE PLACEMENT OF THE NEW CONCRETE. NO STANDING WATER AT THE TIME OF PATCH INSTALLATION.
   H. JUST PRIOR TO NEW CONCRETE PLACEMENT, APPLY A SCRUB COAT OF A THIN CEMENT SLURRY WITH A STIFF BRUSH. SLURRY MUST BE SCRUBBED INTO SUBSTRATE, FILLING ALL PORES AND VOIDS.
   I. APPLY REPAIR MORTAR PER MANUFACTURER'S REQUIREMENTS. AT AREAS WHERE THE DEPTH OF REPAIR TO SOUND CONCRETE EXCEEDS THE MAXIMUM THICKNESS OF A SINGLE LIFT AS INDICATED BY THE MORTAR MANUFACTURER, APPLY THE PATCHING MORTAR IN MULTIPLE LIFTS WITH THICKNESS NOT EXCEEDING THE MAXIMUM. ALLOW SUFFICIENT CURING TIME AND SCORE MORTAR SURFACE BETWEEN LIFTS.
   J. PLACE CONCRETE TO REPAIR PATCH/MORTAR MINIMUM 3/4" COVER OVER REINFORCING BARS FOR INTERIOR CONDITIONS AND 1-1/2" FOR EXTERIOR CONDITIONS.
   K. STRIKE OFF SURFACES AS NECESSARY AND ALLOW CONCRETE REPAIR PATCH/MORTAR TO SET. COORDINATE WITH CONTRACTING OFFICER FOR FINAL FINISH APPEARANCE, CURE BY COVERING EXPOSED SURFACES WITH WET BURLAP.



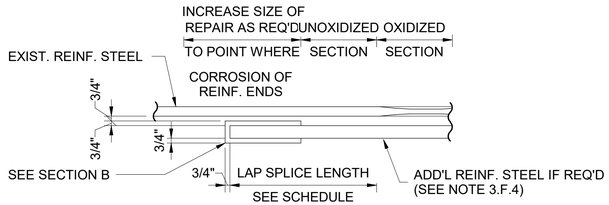
REPAIRS (BASED ON AREA)



REPAIRS (BASED ON LENGTH)



SECTION A



SECTION B

SLAB BAR REPAIR SPLICE SCHEDULE			
EXISTING BAR SIZE	BOT BARS	TOP BARS	REMARKS
#3	12"	16"	
#4	16"	22"	
#5	20"	27"	
#6	25"	35"	
#7	34"	48"	
#8	45"	63"	

REINFORCEMENT REPAIR

MASTER KEYNOTE LIST FOR REPAIRS	
KEY VALUE	REPAIR DESCRIPTION
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 1, 2, & 3 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE 4 & 5 ON S5.2 BASED ON CRACK SIZE.

NOTES:

1. QUANTITY DENOTES SQUARE FOOTAGE (SF) OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. ROOF FRAMING REPAIRS INDICATED ON PLAN ARE INTENDED TO BE TOPSIDE REPAIRS.

REPAIR QUANTITY SUMMARY				
KEYNOTE	DETAIL / SHEET	REFRENCE SPEC.	UNIT OF MEASURE	TOTAL FOR BID
C-4	S5.2	03-0130	SQUARE FEET	355
C-5	S5.2	03-0130	LINEAR FEET	175

PRICING NOTES

1. THE CONTRACTOR SHALL PROIVDE SAFE ACCESS AND LIGHTING FOR THE OWNER'S REPRESENTATIVE, CONTRACTING OFFICER, AND INSPECTORS TO OBSERVE ALL REPAIRS UPON REQUEST AND AS REQUIRED PER THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS. WHERE ACCESS IS VIA LIFT, THE CONTRACTOR SHALL PROVIDE A CERTIFIED LIFT OPERATOR UPON REQUEST.
2. QUANTITY SHOWN ON PLANS - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
3. ADDITIONAL ALLOWANCE - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
4. QUANTITIES SHOWN ON PLANS AND ADDITIONAL ALLOWANCES ARE APPROXIMATE. ACTUAL REPAIR QUANTITIES SHALL BE TRACKED BY THE OWNER'S REPRESENTATIVE AND/OR THE GENERAL CONTRACTOR TO DETERMINE ADDITIONS OR DEDUCTIONS FROM THE BASE BID. REFER TO THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS FOR REQUIREMENTS TO IDENTIFY ACTUAL REPAIR QUANTITIES.
5. PROVIDE UNIT PRICING FOR EACH KEYNOTE REPAIR TYPE INDICATED IN THE TABLE ABOVE.
6. PROVIDE UNIT PRICING FOR ADDITIONAL MATERIALS AND LABOR TO ACCOUNT FOR CHANGES IN WEIGHT OR VOLUME OF MATERIALS FROM THE ASSUMPTIONS IN THE BASE BID. REFER TO THE "STEEL REPAIR NOTES" AND "CONCRETE REPAIR NOTES" AND REPAIR DETAILS FOR ADDITIONAL INFO. BOTH THE "QUANTITY SHOWN ON PLANS WILL BE ADJUSTED FROM THE SCHEDULED MATERIALS (SHOWN ON "PRICING DETAILS") TO ACTUAL MATERIALS (SHOWN ON "CONSTRUCTION DETAILS") TO ACCOUNT FOR CHANGES IN THE WEIGHT OR VOLUME OF THE REPAIR MATERIAL ONLY.
   A. FABRICATED STRUCTURAL STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR CHANNELS, ANGLES, AND PLATES TO BE USED FOR REINFORCEMENT OF EXISTING STEEL, SHOP FABRICATED, DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   B. CONCRETE REINFORCING STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR REINFORCING BARS USED FOR REPAIRS, CUT, BENT (AS NEEDED), DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   C. CONCRETE REPAIR VOLUME - PROVIDE A UNIT PRICE FOR EACH CUBIC FOOT OF CONCRETE REPAIR OR PATCHING PREPARED, FURNISHED AND INSTALLED. PRICE SHALL INCLUDE LABOR FOR CHIPPING CONCRETE, PLUS LABOR AND MATERIAL FOR INSTALLING REPAIR MORTAR OR SHOTCRETE.

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	03 S5.1	HOSP BUCKSTAFF + FORDYCE ROOFS TYPICAL CONCRETE REPAIR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 / 182951 PMIS/PKG NO. 318915 265 OF 286

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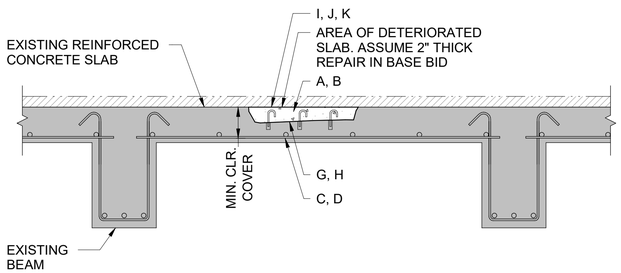
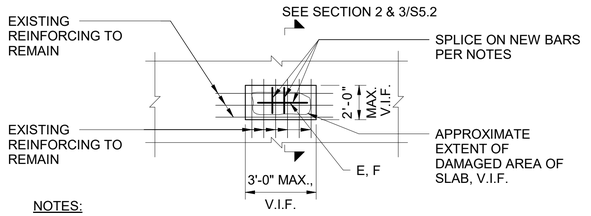




NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. REFER TO DETAILS 2 & 3 ON S5.2. FOR ADDITIONAL REPAIR DIRECTIVES.
3. REPAIR MAY BE USED ON TOP OR BOTTOM SURFACE OF SLAB AND WALLS. SEE NOTES FOR CONCRETE PATCHING MATERIALS FOR HORIZONTAL AND VERTICAL APPLICATIONS.

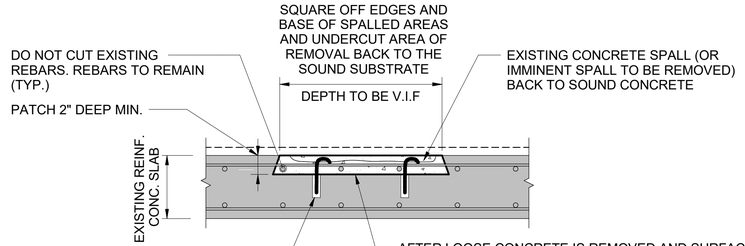
PLAN

1 S5.2 TYPICAL DETAIL - BAR REINFORCED SLAB REPAIR (KEYNOTE C-4)

NO SCALE

REPAIR PROCEDURE:

1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. REMOVE RUST, SCALE, OIL AND ANY OTHER FOREIGN MATERIALS FROM STEEL REINFORCING BARS.
3. COAT EXISTING CONCRETE AND STEEL WITH ANTI-CORROSION AGENTS AS SPECIFIED BY MANUFACTURER.
4. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



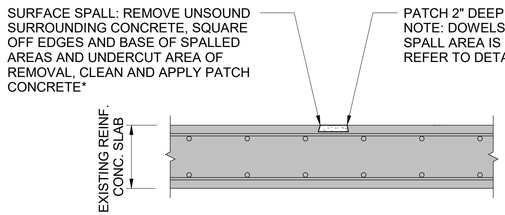
*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

2 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR EXPOSED BUT INTACT (KEYNOTE C-4)

NO SCALE

REPAIR PROCEDURE:

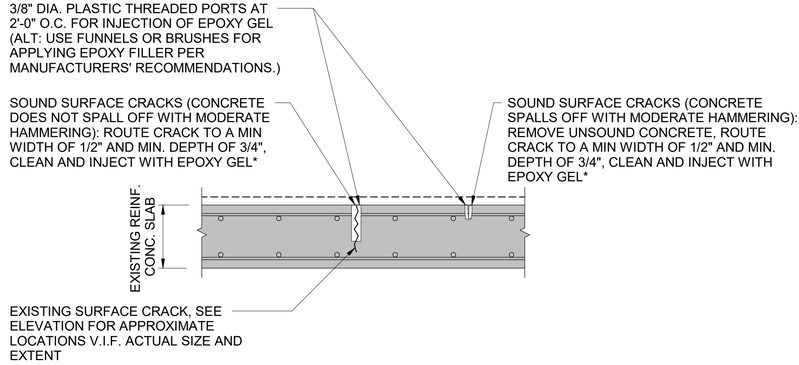
1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

3 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR NOT EXPOSED (KEYNOTE C-4)

NO SCALE

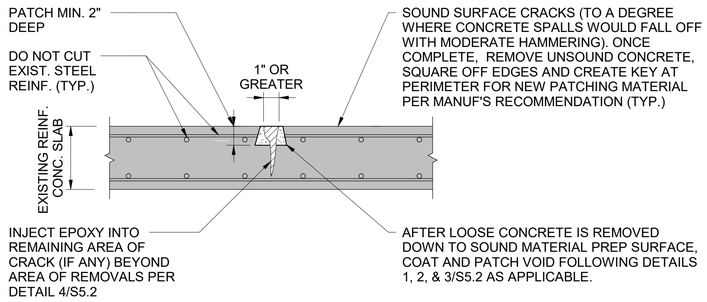


NOTE: FOR CRACKS SMALLER THAN 1/8" IN WIDTH/THICKNESS, NO REPAIR NECESSARY. FOR CRACKS LARGER THAN 1" IN WIDTH/THICKNESS, SEE DETAIL 5/S5.2

*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

4 S5.2 TYPICAL DETAIL CONCRETE CRACK REPAIR, SMALL (KEYNOTE C-5)

NO SCALE



*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

5 S5.2 TYPICAL DETAIL CONCRETE CRACK REPAIR, LARGE (KEYNOTE C-5)

NO SCALE

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14872 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	03 S5.2	HOSP BUCKSTAFF + FORDYCE ROOFS TYPICAL CONCRETE REPAIR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 266 OF 286

10/24/2023 1:37:31 PM

DEFORMED BAR TENSION DEVELOPMENT LENGTH (Ld)										
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS										
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE		6000 PSI CONCRETE		8000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	17	25	15	22	13	20	12	18	12	16
#4	22	33	19	29	17	26	16	24	14	21
#5	28	42	24	36	22	32	20	30	17	26
#6	33	50	29	43	26	39	24	35	21	31
#7	48	72	42	63	38	56	34	51	30	45
#8	55	83	48	72	43	64	39	59	34	51
#9	62	93	54	81	48	72	44	66	38	57
#10	70	105	61	91	54	81	50	74	43	64
#11	78	116	67	101	60	90	55	82	48	71

DEFORMED TENSION BAR NOTES:

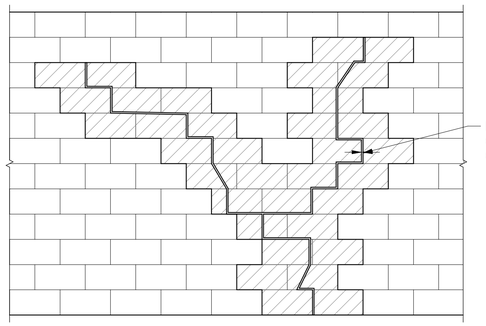
1. FOR HORIZONTAL REINFORCEMENT WITH 12 INCH OR MORE FRESH CONCRETE CAST BELOW IT, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.3x THE VALUES GIVEN.
2. FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE, TENSION DEVELOPMENT LENGTH/TENSION LAP LENGTH SHALL BE 1.3x THE VALUES GIVEN.
3. FOR EPOXY-COATED BARS:
   A. WHERE CONCRETE COVER IS LESS THAN 3x BAR DIAMETER, OR CLEAR SPACING IS LESS THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.5x THE VALUES GIVEN.
   B. WHERE CONCRETE COVER IS EQUAL TO OR GREATER THAN 3x BAR DIAMETER AND CLEAR SPACING IS GREATER THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.2x THE VALUES GIVEN.
4. CASE I APPLIES WHEN EITHER OF THE FOLLOWING SETS OF CONDITIONS ARE MET:
   A. ALL THREE OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN DB AND
      b. CLEAR COVER IS NOT LESS THAN DB AND
      c. STIRRUPS OR TIES ARE PROVIDED THROUGHOUT THE DEVELOPMENT LENGTH AND THE QUANTITY IS NOT LESS THAN THE CODE MINIMUM.
   B. OR BOTH OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN 2DB AND
      b. CLEAR COVER IS NOT LESS THAN DB.

   CASE II APPLIES TO ALL OTHER CONDITIONS NOT DESCRIBED IN CASE I

DEFORMED BAR TENSION LAP SPLICE - CLASS B										
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS										
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE		6000 PSI CONCRETE		8000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	22	33	19	28	17	25	16	23	14	20
#4	29	43	25	37	23	34	21	31	18	27
#5	36	54	31	47	28	42	26	38	22	33
#6	43	65	37	56	34	50	31	46	27	40
#7	63	94	54	81	49	73	45	67	39	58
#8	72	107	62	93	56	83	51	76	44	66
#9	81	121	70	105	63	94	57	86	50	74
#10	91	136	79	118	71	106	64	96	56	84
#11	101	151	87	131	78	117	71	107	62	93

DEFORMED BAR COMPRESSION DEVELOPMENT LENGTH (Ldc)					
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS					
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE	8000 PSI CONCRETE
#3	9	8	8	8	8
#4	11	10	9	9	9
#5	14	12	12	12	12
#6	17	15	14	14	14
#7	20	17	16	16	16
#8	22	19	18	18	18
#9	25	22	21	21	21
#10	28	25	23	23	23
#11	31	27	26	26	26

DEFORMED BAR COMPRESSION LAP SPLICE					
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS					
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE	8000 PSI CONCRETE
#3	12	12	12	12	12
#4	15	15	15	15	15
#5	19	19	19	19	19
#6	23	23	23	23	23
#7	27	27	27	27	27
#8	30	30	30	30	30
#9	34	34	34	34	34
#10	39	39	39	39	39
#11	43	43	43	43	43



NOTES:

1. ▨ DENOTES BRICK TO BE REPLACED. WHERE CRACK IS THRU WALL REPLACE ALL WYTHES OF BRICK ON EACH SIDE OF CRACK TO 1ST MORTAR JOINT. REPLACE EXISTING HEADERS WITH NEW HEADERS. REPLACE LOOSE AND CRACKED BRICKS. WHERE CRACK IS ONLY IN OUTER WYTHE, REPLACE ONLY OUTER WYTHE.
2. WHERE CRACK IS OPEN AND 1/4" OR LESS AND IS PRESENT ONLY IN OUTER WYTHE AND ONLY IN JOINTS, RAKE AND REPOINT JOINTS ONLY.

1 / S5.3 TYPICAL REPAIR IN BRICK MASONRY

N.T.S. SCALE A

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14877 10/27/2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	KH	03 S5.3	HOSP BUCKSTAFF + FORDYCE ROOFS TYPICAL DETAILS	128 182951
ENG: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	CADD: CM			PMIS/PKG NO. 318915
	TECH. REVIEW: NH		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	
	DATE: 10.27.2023			267 OF 286

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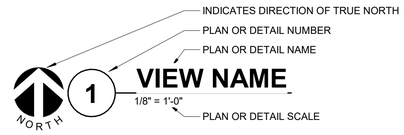
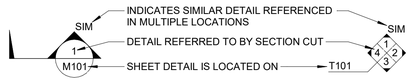
VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

MECHANICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BT	BATHTUB
C	COMMON
CB	CATCH BASIN
CFSD	CONTROL/FIRE/SMOKE DAMPER
CI	CAST IRON
CO	CLEANOUT
CS	CLINICAL SINK
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
E	EXISTING
EA	EXHAUST/RELIEF AIR
ECFSD	EXISTING CONTROL FIRE SMOKE DAMPER
EE	EMERGENCY EYEWASH
EFD	EXISTING FIRE DAMPER
EFSD	EXISTING FIRE SMOKE DAMPER
EP	ELECTRICAL TO PNEUMATIC VALVE
ES	EMERGENCY SHOWER
ESD	EXISTING SMOKE DAMPER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FM	FLOW METER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FS	FLOOR SINK
FSD	FIRE/SMOKE DAMPER
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MA	MIXED AIR
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NT	NEUTRALIZATION TANK
OA	OUTSIDE AIR
OS	OIL SEPARATOR
PS	PRESSURE SWITCH
RA	RETURN AIR
RD	ROOF DRAIN
SA	SUPPLY AIR
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TP	TRAP PRIMER
TYP	TYPICAL
UB	UTILITY BOX
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTED
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
YCO	YARD CLEANOUT

MECHANICAL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
DPP	DRAIN - PIPING
V	VENT
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
	PITCH PIPE IN DIRECTION
	ROUTE TO DRAIN
RD-1 6"	ROOF DRAIN PROPERTIES — SYMBOL SIZE
	DIRECTION OF AIR FLOW
	MANUAL VOLUME DAMPER
R	RISE IN DIRECTION OF AIR FLOW
D	DROP IN DIRECTION OF AIR FLOW
	DUCT CAP
	DUCT DOWN
	DUCT UP
	FAN
MTR	MOTOR

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

PLUMBING SLOPE REQUIREMENTS:

BASED ON PLUMBING CODE: IPC-2018

INTERIOR:
STORM (GRAVITY): 1/8" PER FOOT
CONDENSATE AND INDIRECT DRAINAGE: 1/8" PER FOOT

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE CONTRACTING OFFICER (C.O.) BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
4. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
5. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
6. SEAL ALL ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
7. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
8. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.

PLUMBING GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
3. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
4. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
5. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

VENTILATION GENERAL NOTES:

1. CONTRACTOR MAY REUSE PORTIONS OF EXISTING DUCT PROVIDED SIZES AND PRESSURE CLASSES ARE CORRECT, DUCT IS THOROUGHLY CLEANED AND FREE OF DEFECTS, AND ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS ARE SEALED AS SPECIFIED FOR NEW DUCTWORK.

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE C.O. PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING] [EACH CONTRACTOR SHALL CUT AND PATCH ROOFS, WALLS, AND FLOORS ASSOCIATED WITH THEIR WORK.
6. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE.
7. OBTAIN PERMISSION FROM C.O. BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
8. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.

IMEG Consultants Corp. No. 4308 ARKANSAS — CERTIFICATE OF AUTHORIZATION

LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENHAMER — STATE OF ARKANSAS

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: MWM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 03 M0.0	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS MECHANICAL COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 268 OF 286

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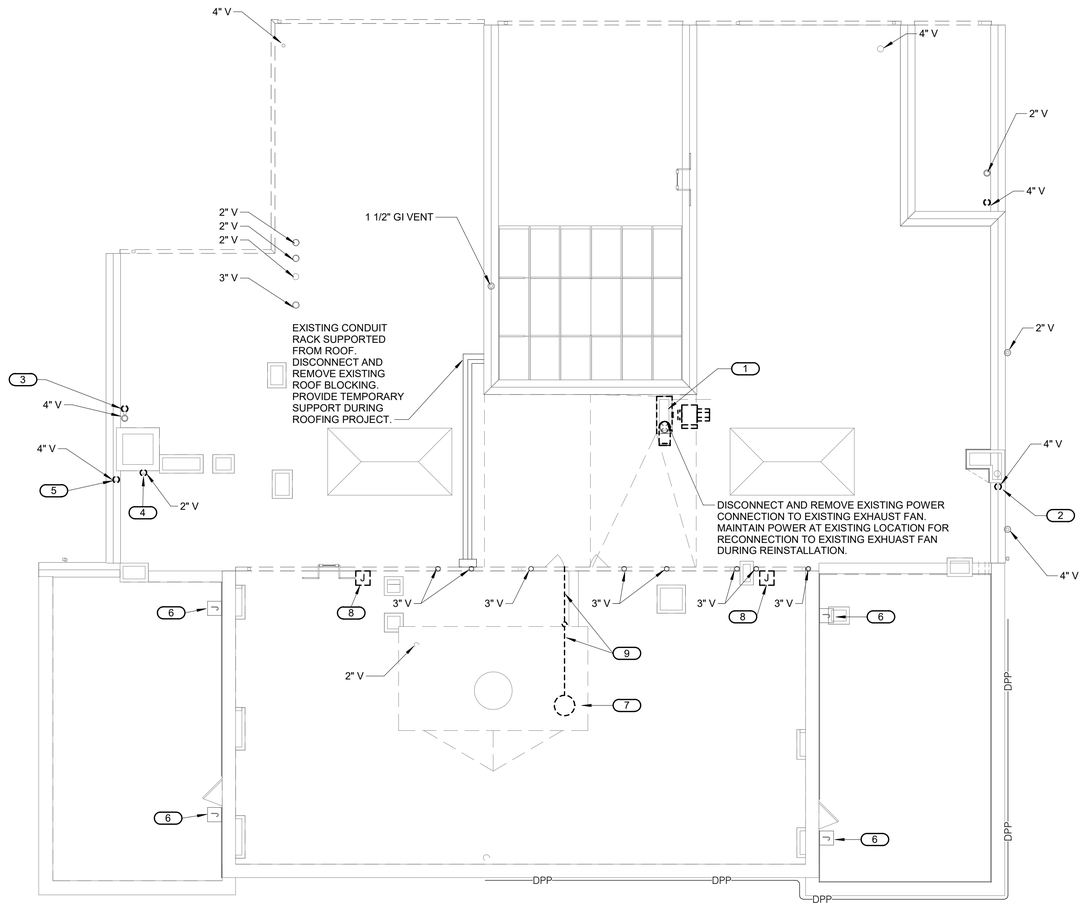
SHEET NOTES:

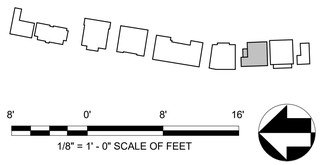
1. DEMOLITION SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
2. DISCONNECT AND REMOVE ALL WIRE, CABLE, CONDUIT, JUNCTION BOXES, EQUIPMENT, DEVICES, AND FIXTURES NOT REQUIRED TO REMAIN. (SHOWN DARK AND DASHED). ALL EXISTING CONDUIT REQUIRED TO BE REMOVED IS NOT SHOWN ON PLANS BUT NEVERTHELESS IS REQUIRED TO BE REMOVED BY CONTRACTOR.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING UTILITY SET EXHAUST FAN, SALVAGE AND CLEAN FOR REINSTALLATION. EXISTING EXHAUST RISER TO REMAIN.
2. REMOVE 4" VENT PENETRATING CLAY TILE CAP FOR REPLACEMENT OF CAP.
3. CUT OFF AND CAP 5" STEEL PIPE BELOW ROOF LEVEL.
4. REMOVE 2" VENT FOR RELOCATION DURING ROOF REPLACEMENT.
5. REMOVE UPPER SECTION OF 4" VENT TO ALLOW FOR REPAIR OF PARAPET CAPS.
6. EXISTING JUNCTION BOX TO REMAIN.
7. TEMPORARY DISCONNECT AND SET LIGHT FIXTURE ASIDE TO ALLOW RE-ROOFING WORK. LIGHT FIXTURE SHALL BE REINSTALLED INTO NEW LOCATION SHOWN ON NEW WORK.
8. TEMPORARY DISCONNECT JUNCTION BOX AND SET ASIDE FOR DEMOLTION AND REINSTALLATION.
9. DISCONNECT ASSOCIATED CABLE SERVING LIGHT FIXTURE ON ROOF BACK INTO CEILING ON FLOOR BELOW.



1 MEX1.1 BUCKSTAFF ROOF DEMOLITION PLAN - MECHANICAL/ELECTRICAL
1/8" = 1'-0"



1/8" = 1' - 0" SCALE OF FEET

10.27.2023

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ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
$	SW-1P	26 09 33	SWITCH - SINGLE POLE
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	CB-#	26 28 16	CIRCUIT BREAKER - SURFACE MOUNTED. REFER TO DISC/STA SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - FLUSH MOUNTED. REFER TO DISC/STA SCHEDULE
	DS-#/FDS-#/DSS-#	26 28 16	DISCONNECT. REFER TO DISC/STA SCHEDULE
			WALL BRACKET LUMINAIRE
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
W	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE, 125V
	REC-SIM-530R	26 27 26	RECEPTACLE, 125V

ELECTRICAL INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ABBAS STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. DEVICES MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
4. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
5. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
6. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO BE INSTALLED.
7. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
8. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
9. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
10. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
11. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
13. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE CONTRACTING OFFICER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
14. REFER TO OTHER REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
15. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY WORK.
16. THE CONTRACTING OFFICER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL EQUIPMENT DESIGNATED BY OWNER TO BE RETAINED IS TO BE REMOVED IN GOOD CONDITION, LABELED, BOXED AND DELIVERED TO OWNER.
17. MINIMUM CONDUIT SIZE SHALL BE 3/4" NOMINAL, UNLESS NOTED OTHERWISE.
18. PROTECT ALL EXISTING SITE UTILITIES REQUIRED TO REMAIN IN OPERATION AND AS REQUIRED FOR JOB SITE SAFETY. ANY DEVIATIONS FOUND SHALL BE MADE KNOWN TO THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF DRAWINGS AND SITE CONDITIONS.
19. COORDINATE ALL WORK WITH OTHER TRADES, OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
20. CONTRACTOR SHALL RELABEL AND UPDATE SCHEDULES IN ALL REPLACED AND EXISTING TO REMAIN PANELBOARDS AND DISTRIBUTION PANELS AT THE COMPLETION OF THE PROJECT.
21. AFTER COMPLETION OF NEW WORK, REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
22. CONTRACTOR SHALL ENSURE THAT ALL PENETRATIONS IN FLOORS, WALLS AND CEILINGS THAT ARE ABANDONED OR LEFT UNUSED BECAUSE OF DEMOLITION, ARE FILLED WITH RATED MATERIAL TO MEET THE DESIGNATED CODE REQUIREMENTS. FIRE-STOPPING REQUIRED AT ALL FIREWALL CONDUIT AND/OR CABLE PENETRATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
23. ALL GFI DUPLEX RECEPTACLES SHALL BE CONNECTED DOWNSTREAM ON ALL SHARED BRANCH CIRCUITS HAVING GENERAL DUPLEX RECEPTACLES.
24. ALL EMPTY CONDUITS INDICATED SHALL BE FURNISHED AND INSTALLED WITH PULLWIRES AND INSULATED BUSHINGS.
25. VERIFY ALL OUTLETS, J-BOXES, PULLBOXES AND LIGHTING LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK AND REFLECTED CEILING PLANS, INCLUDING OWNER FURNISHED EQUIPMENT AND/OR FURNITURE, PRIOR TO ROUGH-IN.
26. ALL OUTLET BOXES SHALL BE PROVIDED AS FLUSH MOUNTING HAVING CONDUIT CONCEALED IN CONSTRUCTION AS REQUIRED, UNLESS NOTED OTHERWISE. ALL BOXES UTILIZED SHALL BE COMPATIBLE WITH ALL WALL CONSTRUCTION. PROVISION SHALL BE MADE FOR "SHALLOW-TYPE" AND "STANDARD" OUTLET BOXES AS REQUIRED FOR FLUSH INSTALLATION.
27. ALL CONDUIT SHALL BE CONCEALED IN CONSTRUCTION IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE ROUTED AT BUILDING STRUCTURE ABOVE AT CEILING, THEN DROP TO EACH FIXTURE OR DEVICE LOCATION INDICATED AS DIRECTED BY ARCHITECT.
28. FOR PURPOSES OF VOLTAGE DROP, PROVIDE #10 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUN BEYOND 70 FT FROM SOURCE PANEL AND #8 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUNS BEYOND 120FT FROM SOURCE PANEL.
29. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS OF ALL HVAC, HVAC CONTROL, PLUMBING, FIRE ALARM, FIRE PROTECTION, I.T., SECURITY, COMMUNICATIONS AND OWNER FURNISHED EQUIPMENT PER EQUIPMENT MANUFACTURER INSTRUCTIONS AND COORDINATE WITH ASSOCIATED EQUIPMENT CONTRACTORS. PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.
30. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN LIGHTLY AND NOTED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND DASHED TO BE REMOVED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
31. ALL EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND SOLID IS NEW WORK TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
32. IN EXISTING RENOVATED FINISHED AREAS WHERE NEW CONDUIT AND WIRING ARE NOT ABLE TO BE INSTALLED CONCEALED IN CONSTRUCTION, FURNISH AND INSTALL SURFACE MOUNTED RACEWAY AS MANUFACTURERED BY LEGRAND/WIREMOLD, OR APPROVED EQUIVALENT. RACEWAY SIZE AND USAGE SHALL BE KEPT TO A MINIMUM. THE ROUTING FOR ALL SURFACE MOUNTED CONDUIT SHALL BE APPROVED IN ADVANCE OF INSTALLATION BY ARCHITECT. VERIFY EXISTING CONDITIONS AND COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
33. PROVIDE NEW BREAKERS IN EXISTING PANELBOARDS, IF REQUIRED. MATCH RATINGS AND MATE WITH EXISTING SIZE, IF REQUIRED.

ELECTRICAL LIGHTING DEMOLITION NOTES:

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED.
2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
5. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL.
6. MATCH EXISTING PAINTED SURFACES. WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE, PROVIDE CUSTOM BACK PLATE WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION OF WATER AND CAULK WHERE NECESSARY.
7. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
8. FOR REASONS OF CLARITY ALL EXISTING CONDUIT, WIRING, EQUIPMENT, ETC. IS NOT SHOWN. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
9. CONDUIT AND CABLE ROUTING SHALL NOT BLOCK SERVICE TO EXISTING OR NEW EQUIPMENT. CONTRACTOR SHALL ROUTE CONDUIT AND CABLE AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS.
10. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS INDICATED ARE TAKEN FROM AS-BUILT DRAWINGS AND CURSORY SITE SURVEY. VERIFY EXISTING CONDITIONS.

TYPICAL NEW CONSTRUCTION:

1. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.
2. COORDINATE LUMINAIRE IN MECHANICAL ROOMS WITH DUCTWORK, PIPING AND ANY MECHANICAL EQUIPMENT. PROVIDE LUMINAIRE WITH CHAINS OR HANGAR KIT WHERE REQUIRED. BOTTOM OF FIXTURE TO ALIGN WITH BOTTOM OF NEAREST BEAM/TRUSS. COORDINATE MOUNTING PRIOR TO ORDERING LUMINAIRES.

TYPICAL REMODEL:

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF UNLESS NOTED OTHERWISE.
2. COORDINATE HOURS OF ACCESS WITH CONTRACTING OFFICER.
3. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN SAME LOCATION OR NEW LOCATION.
4. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE.
5. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF' CONFIGURATION.
6. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, ARCHITECTURAL, STRUCTURAL AND CEILING MOUNTED DEVICES.

ELECTRICAL PHASING NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF PHASES. REFER TO CONSTRUCTION MANAGERS/GENERAL CONTRACTOR'S/ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND PHASING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF THE PHASING CRITERIA.
2. REVIEW PROJECT PHASING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC. WITH AFFECTED ADJACENT AREAS.
3. PROVIDE TEMPORARY LIGHTING, POWER, SYSTEMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL PHASES OF PROJECT.
4. INSTALL TEMPORARY LIGHTING, CIRCUITS, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PHASES OF THE PROJECT
5. PHASE DEMOLITION WORK TO MINIMIZE DOWNTIME.
6. IN ADDITION, REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF BASE BID AND ALTERNATE BID AREAS.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. ALL EXISTING WIRING SHALL BE REMOVED.
2. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
3. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR AND ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH ALL WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS ASSOCIATED WITH AREAS OF ALL WORK.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	PIP CADD: MWM TECH. REVIEW: PIP DATE: 10.27.2023	03 E0.0	HOSP BUCKSTAFF + FORDYCE ROOFS ELECTRICAL GENERAL NOTES, SYMBOLS AND SCHEDULES REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 SHEET 270 OF 286

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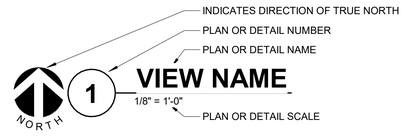
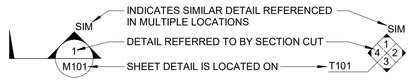
VIEW KEY

NAME — LEVEL NAME
10'-0" — HEIGHT ABOVE PROJECT 0'-0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (WIDE LINE)
- NEW
- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)
- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)
- EXISTING
- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)
- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG'-E — TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG — UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

MECHANICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BT	BATHTUB
C	COMMON
CB	CATCH BASIN
CFSD	CONTROL/FIRE/SMOKE DAMPER
CI	CAST IRON
CO	CLEANOUT
CS	CLINICAL SINK
DB	DIALYSIS BOX
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
E	EXISTING
EA	EXHAUST/RELIEF AIR
ECFSD	EXISTING CONTROL FIRE SMOKE DAMPER
EE	EMERGENCY EYEWASH
EFD	EXISTING FIRE DAMPER
EFSD	EXISTING FIRE SMOKE DAMPER
EP	ELECTRICAL TO PNEUMATIC VALVE
ES	EMERGENCY SHOWER
ESD	EXISTING SMOKE DAMPER
ESE	EMERGENCY SHOWER/EYEWASH
EWC	ELECTRIC WATER COOLER
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER
FM	FLOW METER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FS	FLOOR SINK
FSD	FIRE/SMOKE DAMPER
GD	GARBAGE DISPOSER
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
I.E.	INVERT ELEVATION (FOR REFERENCE ONLY)
LAV	LAVATORY
MA	MIXED AIR
MB	MOP BASIN
MH	MANHOLE
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NT	NEUTRALIZATION TANK
OA	OUTSIDE AIR
OS	OIL SEPARATOR
PS	PRESSURE SWITCH
RA	RETURN AIR
RD	ROOF DRAIN
SA	SUPPLY AIR
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
SH	SHOWER
SK	SINK
SS	SERVICE SINK
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TP	TRAP PRIMER
TYP	TYPICAL
UB	UTILITY BOX
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTED
UR	URINAL
VTR	VENT THROUGH ROOF
WC	WATER CLOSET
WCO	WALL CLEANOUT
WF	WASH FOUNTAIN
WH	WATER HEATER
WMF	WASHING MACHINE FIXTURE
WM	WATER METER
WS	WATER SOFTENER
YCO	YARD CLEANOUT

MECHANICAL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
DPP	DRAIN - PIPING
V	VENT
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
	PITCH PIPE IN DIRECTION
	ROUTE TO DRAIN
RD-1 6"	ROOF DRAIN PROPERTIES (SYMBOL / SIZE)
	DIRECTION OF AIR FLOW
	MANUAL VOLUME DAMPER
R	RISE IN DIRECTION OF AIR FLOW
D	DROP IN DIRECTION OF AIR FLOW
	DUCT CAP
	DUCT DOWN
	DUCT UP
	FAN
MTR	MOTOR

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

PLUMBING SLOPE REQUIREMENTS:

BASED ON PLUMBING CODE: IPC-2018

INTERIOR:
STORM (GRAVITY): 1/8" PER FOOT
CONDENSATE AND INDIRECT DRAINAGE: 1/8" PER FOOT

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE CONTRACTING OFFICER (C.O.) BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
4. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
5. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND FINISH.
6. SEAL ALL ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH EXTERIOR WALLS AND ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR USE.
7. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN ROOMS.
8. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.

PLUMBING GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
3. ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
4. EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL DEMOLITION INFORMATION.
5. P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE. REFER TO SPECIFICATION SECTION 22 05 05 FOR ADDITIONAL INFORMATION.

VENTILATION GENERAL NOTES:

1. CONTRACTOR MAY REUSE PORTIONS OF EXISTING DUCT PROVIDED SIZES AND PRESSURE CLASSES ARE CORRECT, DUCT IS THOROUGHLY CLEANED AND FREE OF DEFECTS, AND ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS ARE SEALED AS SPECIFIED FOR NEW DUCTWORK.

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE C.O. PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING] [EACH CONTRACTOR SHALL CUT AND PATCH ROOFS, WALLS, AND FLOORS ASSOCIATED WITH THEIR WORK.
6. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE.
7. OBTAIN PERMISSION FROM C.O. BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
8. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.

10.27.2023

A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	DESIGNED: SGB CADD: MWM TECH. REVIEW: SGB DATE: 10.27.2023	SUB SHEET NO. 04 M0.0	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS MECHANICAL COVERSHEET REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 271 OF 286

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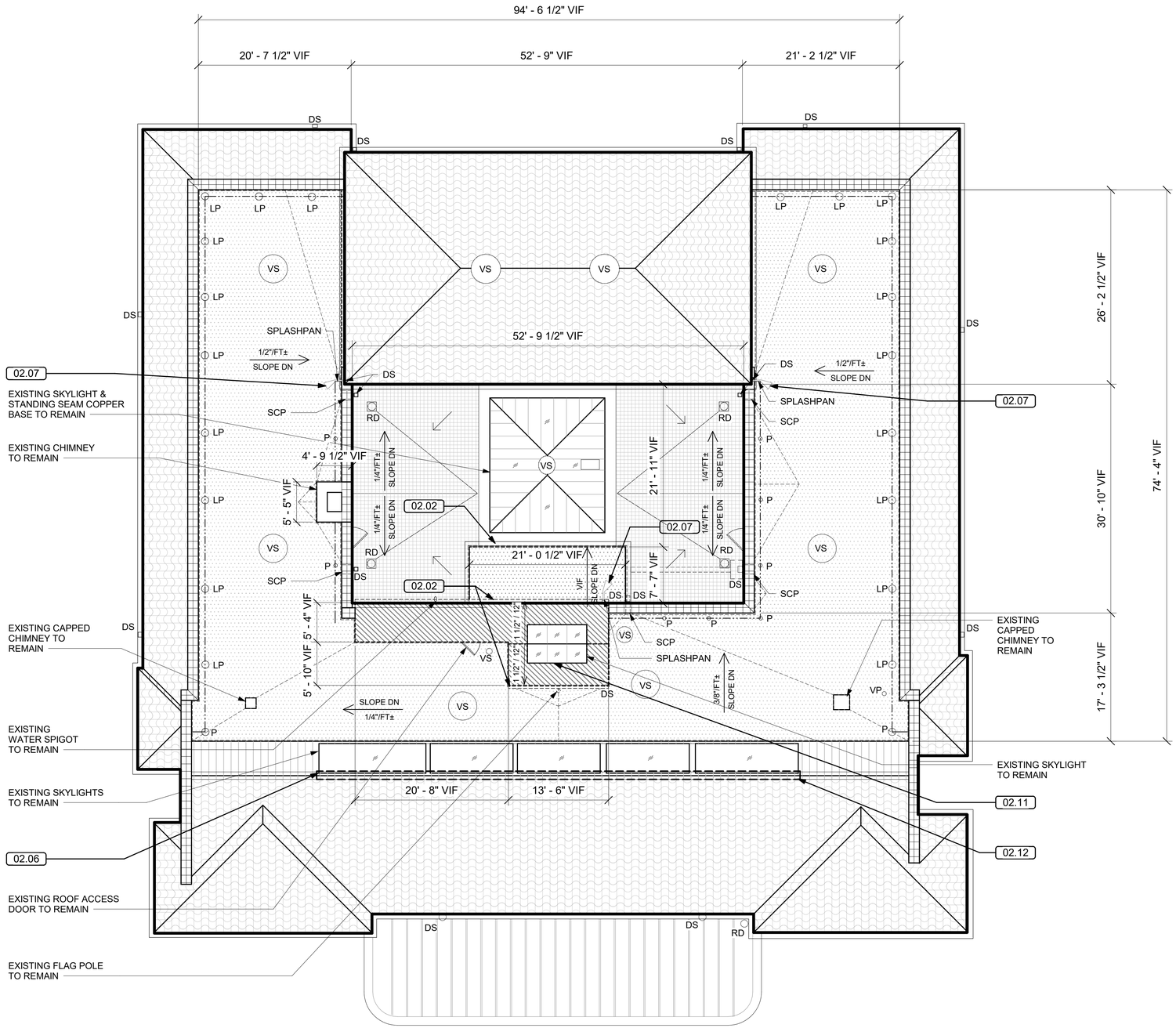


1 AX1.2 FORDYCE ROOF DEMOLITION PLAN

1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. FIELD VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. IF DIMENSIONAL DISCREPANCIES OR UNSOUND CONDITIONS ARE OBSERVED, INFORM THE CONTRACTING OFFICER'S REPRESENTATIVE IN WRITING (10) DAYS PRIOR TO STARTING WORK AND OBTAIN WRITTEN RESPONSE PRIOR TO PROCEEDING.
2. REMOVE COUNTERFLASHING AT INSIDE FACE OF PARAPET, AROUND BASE OF CHIMNEYS, AND PENTHOUSE WALLS, UON.
3. REMOVE ALL EXISTING SEALANTS, MASTICS, AND FASTENERS ASSOCIATED WITH ELEMENTS AND SYSTEMS BEING REMOVED, UON.
4. REMOVE DEBRIS FROM ALL GUTTERS AND DOWNSPOUTS NOT OTHERWISE INDICATED FOR REPLACEMENT.
5. LEAD MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS. REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR REMOVAL AND DISPOSAL.

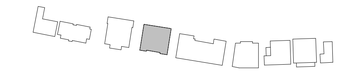
KEYNOTES

02.02	REMOVE EXISTING GUTTER AND ASSOCIATED DOWNSPOUTS
02.06	REMOVE EXISTING COPPER LINER FROM BUILT-IN GUTTER
02.07	PROTECT EXIST. UPPER ROOF DS DURING ROOFING WORK AND REMOVE, SALVAGE, AND STORE SPLASH PAN TO ALLOW REROOFING WORK
02.11	REMOVE DETERIORATED METAL SKIRT FLASHING AROUND BASE OF SKYLIGHT
02.12	REMOVE, SALVAGE, AND STORE CLAY RIDGE TILES FOR REINSTALLATION TO ALLOW GUTTER WORK

LEGEND

- EXISTING CLAY TILE ROOFING TO REMAIN
- EXISTING QUARRY TILE ROOFING TO REMAIN
- EXISTING TERRA COTTA PARAPET CAPS TO REMAIN
- EXISTING COPPER ROOFING TO REMAIN
- REMOVE EXISTING MEMBRANE ROOFING, INCLUDING UNDERLAYMENT, INSULATION, AND ALL ASSOCIATED FLASHING AND SEALANTS DOWN TO EXISTING ROOF DECK TO REMAIN.
- REMOVE METAL ROOFING, UNDERLAYMENT AND FLASHINGS DOWN TO EXISTING ROOF DECK TO REMAIN
- LP — EXISTING LAMP POST AND GUARD RAIL TO REMAIN
- P — EXISTING GUARDRAIL POST AND GUARDRAIL TO REMAIN
- DS — EXISTING GUTTER & DOWNSPOUT TO REMAIN, UON
- RD — EXISTING ROOF DRAIN TO REMAIN, UON
- VS — EXISTING ROOF VENT STACK TO REMAIN
- SCP — EXISTING SCUPPER OPENING TO REMAIN

BATHHOUSE ROW BUILDING KEY



8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

BLDG.

REGISTERED ARCHITECT — PATRICK M ROACH — License Number 012190 — STATE OF ARKANSAS

A/E FIRMS: ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 04 AX1.2	TITLE OF SHEET: HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF DEMOLITION PLAN OPTION 1 REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 272 OF 286

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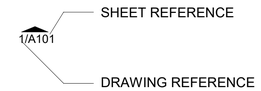
ABBREVIATIONS

A/C	AIR CONDITIONING
ABA	ARCHITECTURAL BARRIERS ACT
ABT	ABOUT
ACCESS	ACCESSIBLE
ACM	ASBESTOS CONTAINING MATERIAL
ACOUS	ACOUSTIC
ACP	ACOUSTICAL CEILING PANEL
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINIUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL, URE)
ASPH	ASPHALT(IC)
ASSOC	ASSOCIATED
AUTO	AUTOMATIC
AWP	ACOUSTICAL WALL PANEL
BD	BOARD
BIT	BITUMINOUS, BITUMEN
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BS	BOTH SIDES
BTWN	BETWEEN
CAB	CABINET
CEM	CEMENT
CJ	CONTROL JOINT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR(ANCE)
CMU	CONCRETE MASONRY UNIT
CO	CONTRACTING OFFICER
COL	COLUMN
COM	COMMUNICATIONS
CONC	CONCRETE
COND	CONDITION
CONFIG	CONFIGURATION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
CPT	CARPET(ED)
CT	CERAMIC TILE
CTR	CENTER
D	DEEP
DEG	DEGREE
DF	DRINKING FOUNTAIN
DIAG	DIAGONAL
DIAM	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DN	DOWN
DR	DOOR
DTL	DETAIL
DWG(S)	DRAWING(S)
E	EAST
E-P	EPOXY PAINT
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION (TOPO)
ELEC	ELECTRICAL
ELEV	ELEVATION (ARCH),ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOS(E,URE)
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE(D)
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED, EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FAS	FASTEN(ER)
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FACE
FGL	FIBERGLASS
FHC	FIRE HOSE CABINET
FIN(S)	FINISH(ES)
FIXT	FIXTURE
FL	FLOOR(ING)
FLAM	FLAMMABLE
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOS	FACE OF STUDS
FP	FIREPROOF(ING)
FR	FRAME(D,ING)
FT	FEET
FTG	FOOTING
FUR	FURR(ED,ING)
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACT(OR)
GL	GLASS, GLAZING
GOVT	GOVERNMENT
GT	GROUT
GWB	GYPSUM WALLBOARD
H	HIGH
HC	HOLLOW CORE
HDR	HEADER
HDWD	HARDWOOD
HDWR	HARDWARE
HGT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
IN	INCH(ES)
INCAN	INCANDESCENT
INCL	INCLUDE(D,ING)
INSUL	INSULATION, INSULATED
INT	INTERIOR
JAN	JANITOR
JT(S)	JOINT(S)
N	NORTH
KIT	KITCHEN
LAM	LAMINATE(D)
LAV	LAVATORY
LBL	LABEL
LF	LINEAR FOOT
LH	LEFT HAND
LL	LIVE LOAD
LP	LOW POINT
LTG	LIGHTING
LTL	LINTEL
MAS	MASONRY
MATL	MATERIAL(S)
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MFR	MANUFACTURE(R)
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
JC	JANITOR CLOSET
NAT	NATURAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NPS	NATIONAL PARK SERVICE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
PAR	PARALLEL
PART	PARTITION
PC	PRECAST
PERF	PERFORATE(D)
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLWD	PLYWOOD
PNL	PANEL(ED)
PR	PAIR
PREP	PREPARE (SURFACE)
PROV	PROVIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PTD	PAINT(ED)
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS, RISER
RB	RUBBER BASE
REF	REFERENCE
REINF	REINFORCED
REQ / REQS	REQUIREMENT(S)
REQD / REQ'D	REQUIRED
RES	RESILIENT
RET	RETAINING
REV	REVISION(S) / REVISE(D)
RFG	ROOFING
RH	RIGHT HAND
RL	RAIN LEADER
RM	ROOM
RO	ROUGH OPENING
S	SOUTH, SEAL
SC	SOLID CORE
SCHED	SCHEDULE
SCP	SCUPPER
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SLL	SOUND / LIGHT LOCK
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
ST	STAINLESS
STD	STANDARD
STL	STEEL
STN	STAIN
STO	STORAGE
STRUC	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL
SYS	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TECH	TECHNOLOGY
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK(NESS)
THRESH	THRESHOLD
TOC	TOP OF CURB
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
TOW	TOP OF WALL
TRANS	TRANSPARENT
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITER'S LABORATORY
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
VAR	VARIES
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VU	VENTILATION UNIT
VWC	VINYL WALLCOVERING
W	WIDE, WEST
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WH	WALL HUNG
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
#	NUMBER
&	AND
+	EXIST (OR APPROX) DIM - VIF
@	AT
C	CENTER LINE
L	ANGLE

SYMBOLS

EXTERIOR ELEVATION



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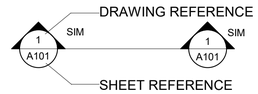

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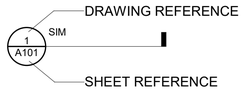

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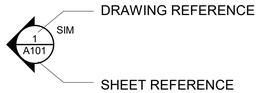

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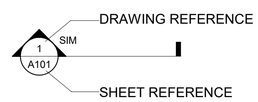
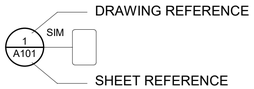
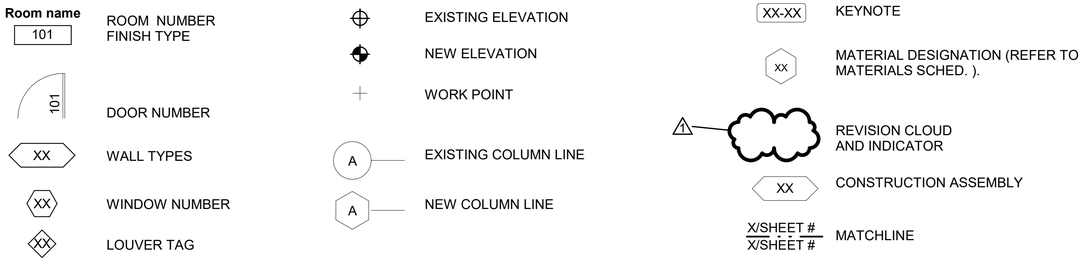


DETAIL / PLAN



SYMBOLS



CODE SUMMARY

APPLICABLE CODES AND STANDARDS

2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE - CHAPTER 12
2021 INTERNATIONAL FIRE CODE
2021 INTERNATIONAL PLUMBING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL ENERGY CONSERVATION CODE
NFPA 70 NEC - NATIONAL ELECTRICAL CODE
NFPA 72 - NATIONAL FIRE ALARM CODE
NFP90A - INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS
NFPA 13 - INSTALLATION OF STANDPIPES, PRIVATE HYDRANTS AND HOSE SYSTEMS
ASHRAE 90.1 - ENERGY STANDARD FOR BUILDINGS
2021 ICC/ANSI 117.1 STANDARDS
ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARDS (ABAAS)

ACTUAL BUILDING AREA

BASEMENT: 10,000 GSF
FIRST FLOOR: 10,000 GSF
SECOND FLOOR: 7,700 GSF
THIRD FLOOR: 7,700 GSF

TOTAL: 35,400 GSF

TYPE OF CONSTRUCTION

TYPE II-B, UNSPRINKLED
REINFORCED CONCRETE STRUCTURE (FLOORS, ROOF, BEAMS, COLUMNS)
EXTERIOR MASONRY WALL INFILL AND MASONRY FINISH

OCCUPANCY CLASSIFICATION

USE GROUP A-3 MUSEUM AND LOBBY / GROUP B BUSINESS
- BASEMENT: B (MECHANICAL AND SUPPORT SPACES)
- FIRST FLOOR: A3 (MUSEUM AND LOBBY)
- SECOND FLOOR: A3 (MUSEUM AND LOBBY)
- THIRD FLOOR: A3 (MUSEUM AND LOBBY)

SUMMARY OF WORK

THE FORDYCE BATHHOUSE PROJECT INCLUDES ROOF REPLACEMENT AND MINOR MASONRY REPAIRS TO UPPER EXTERIOR CLADDING AND COPING. THE TOTAL ROOF AREA IS 10,000 GSF, WITH THE TOTAL ROOF REPLACEMENT AREA BEING 4,200 GSF.

ALTERATIONS

HISTORIC BUILDING, IEBC CHAPTER 12

IEBC SECTION 1202: REPAIRS
IEBC 1202.1 GENERAL: REPAIRS TO ANY PORTION OF A HISTORIC BUILDING OR STRUCTURE SHALL BE PERMITTED WITH ORIGINAL OR LIKE MATERIALS AND ORIGINAL METHODS OF CONSTRUCTION, SUBJECT TO THE PROVISIONS OF THIS CHAPTER. HAZARDOUS MATERIALS, SUCH AS ASBESTOS AND LEAD-BASED PAINT, SHALL NOT BE USED WHERE THE CODE FOR NEW CONSTRUCTION WOULD NOT PERMIT THEIR USE IN BUILDINGS OF SIMILAR OCCUPANCY, PURPOSE AND LOCATION.

IEBC 1202.2 REPLACEMENT: REPLACEMENT OF EXISTING OR MISSING FEATURES USING ORIGINAL MATERIALS SHALL BE PERMITTED. PARTIAL REPLACEMENT FOR REPAIRS THAT MATCH THE ORIGINAL IN CONFIGURATION, HEIGHT AND SIZE SHALL BE PERMITTED.

GENERAL PROJECT NOTES

1. WORK INVOLVES RESTORATION WORK OF A HISTORIC BUILDING. TREAT THE BUILDING RESPECTFULLY. CAREFULLY RESPECT EXISTING CONSTRUCTION AND TREAT ALL EXISTING MATERIALS AS IRRECPLACEABLE. DO NOT ALTER, REMOVE OR DISFIGURE ANY EXISTING MATERIALS, ELEMENTS OR FINISHED UNLESS INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS, OR DIRECTED BY THE CONTRACTING OFFICER'S REPRESENTATIVE (COR).
2. CONTRACTOR SHALL USE ALL REASONABLE AND CUSTOMARY CARE TO VERIFY ALL EXISTING CONDITIONS IN FIELD. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY OF INCONSISTENCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION OR DEMOLITION. INFORMATION CONTAINIED ON THESE DRAWINGS WITH REGARD TO EXISTING CONDITIONS OF CONSTRUCTION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR IN EXECUTING THE WORK. THE INFORMATION ON THE DRAWINGS IS BASED ON LIMITED ACCESS TO THE EXISTING BUILDING EXTERIOR.
3. ALL DIMENSIONS ARE BASED ON LIMITED FIELD VERIFICATION - CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.
4. MATERIALS IDENTIFIED ON THE DRAWINGS ARE TO BE NEW AND PROVIDED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

REGISTERED ARCHITECT
PATRICK M ROACH
License Number B12190
STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	04 A0.1	HOSP BUCKSTAFF + FORDYCE ROOFS SYMBOLS AND ABBREVIATIONS OPTION 1 REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG			SHEET 273 OF 286
	DATE: 10.27.2023			

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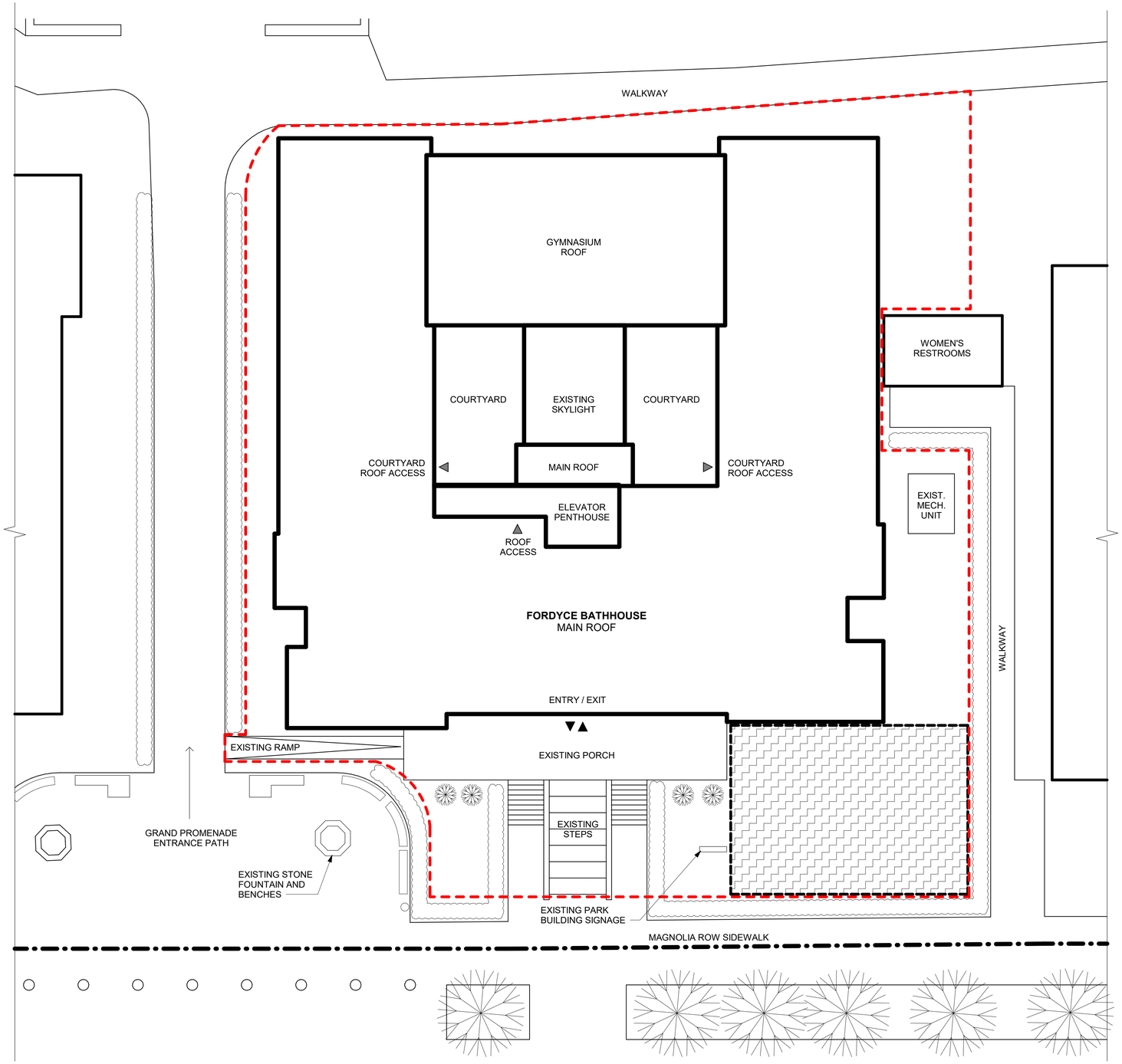

1 AS1.2 FORDYCE SITE PLAN
3/32" = 1'-0"

BATHHOUSE ROW BUILDING KEY

16' 8' 0' 16' 32'
1/16" = 1' - 0" SCALE OF FEET

BLDG.

SITE PLAN GENERAL NOTES

1. DO NOT REMOVE, ALTER OR DISFIGURE ANY EXISTING MATERIALS, ELEMENTS OR FINISHES UNLESS INDICATED ON THE DRAWINGS OR SPECIFICATIONS. IF ANY WORK IMPACTS EXISTING MATERIALS OR FINISHES TO REMAIN, NOTIFY ARCHITECT IN WRITING AT LEAST (10) DAYS IN ADVANCE OF START OF THE WORK, AND OBTAIN WRITTEN RESPONSE PRIOR TO PROCEEDING WITH THE WORK.
2. THIS DRAWING IS PROVIDED AS AN OVERVIEW OF SITE STAGING REQUIREMENTS, TO ASSIST THE CONTRACTOR IN UNDERSTANDING SITE ACCESS AND CONSTRAINTS AND WITH PREPARATION OF THE WORK PLAN FOR CONSTRUCTION OF THE PROJECT. THE INFORMATION ON THIS DRAWING DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR THE SAFETY AND SECURITY OF THE JOB SITE, MEANS AND METHODS OF CONSTRUCTION, SCHEDULING AND SEQUENCING OF THE WORK, PROTECTION OF THE GENERAL PUBLIC, OR PREPARATION OF A COMPREHENSIVE WORK PLAN FOR THE PROJECT.
3. THE CONTRACTOR SHALL ARRANGE AT THEIR EXPENSE FOR ANY STAGING AND STORAGE FOR EQUIPMENT AND MATERIAL.
4. CONTRACTOR MUST PROVIDE AND SUBMIT FOR APPROVAL THE FOLLOWING; LOCATION OF CONTRACTORS STAGING AND LAYOUT AREA AND TEMPORARY FACILITIES AND OR SERVICES.
5. ALL CONSTRUCTION AREAS MUST BE CLEANED UP AND ALL DEBRIS REMOVED FROM SITE EACH END OF WORK DAY.
6. CONTRACTOR TO PROVIDE PARK ARCHAEOLOGIST 48 HOURS NOTICE PRIOR TO ANY GROUND DISTURBANCE ACTIVITY TO ALLOW ARCHAEOLOGIST ABILITY TO MONITOR WORK. CONTRACTOR TO STOP WORK AND NOTIFY COR IF ANY POTENTIAL ARTIFACTS ARE UNCOVERED DURING GROUND DISTURBING ACTIVITY.
7. ADDITIONAL TEMPORARY, REQUIRED CONSTRUCTION ACCESS ALONG PATHS AND WALKWAYS SURROUNDING THE BUILDING AND WITHIN BUILDING INTERIOR TO BE COORDINATED WITH THE PARK PRIOR TO USE.

SITE PLAN LEGEND

- CONTRACTOR STAGING AREA
- PROPERTY LINE
- ACCESSIBLE BUILDING EGRESS
- ROOF ACCESS
- EXISTING TREES OR HEDGES TO REMAIN
- EXISTING HEDGES TO REMAIN
- APPROXIMATE CONSTRUCTION AND ACCESS LIMITS

REGISTERED ARCHITECT
PATRICK M ROACH
License Number 012150
STATE OF ARKANSAS

THIS PAGE WAS PREPARED WITH COLORED LINES AND HATCHES. WHEN PRINTING, USE COLOR.

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ANN ARBOR, MI
T: 734.663.5888

DESIGNED:	GK
CADD:	GK
TECH. REVIEW:	KG
DATE:	10.27.2023

SUB SHEET NO. 04 AS1.2

TITLE OF SHEET
HOSP BUCKSTAFF + FORDYCE ROOFS
FORDYCE SITE AND STAGING PLAN
OPTION 1
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
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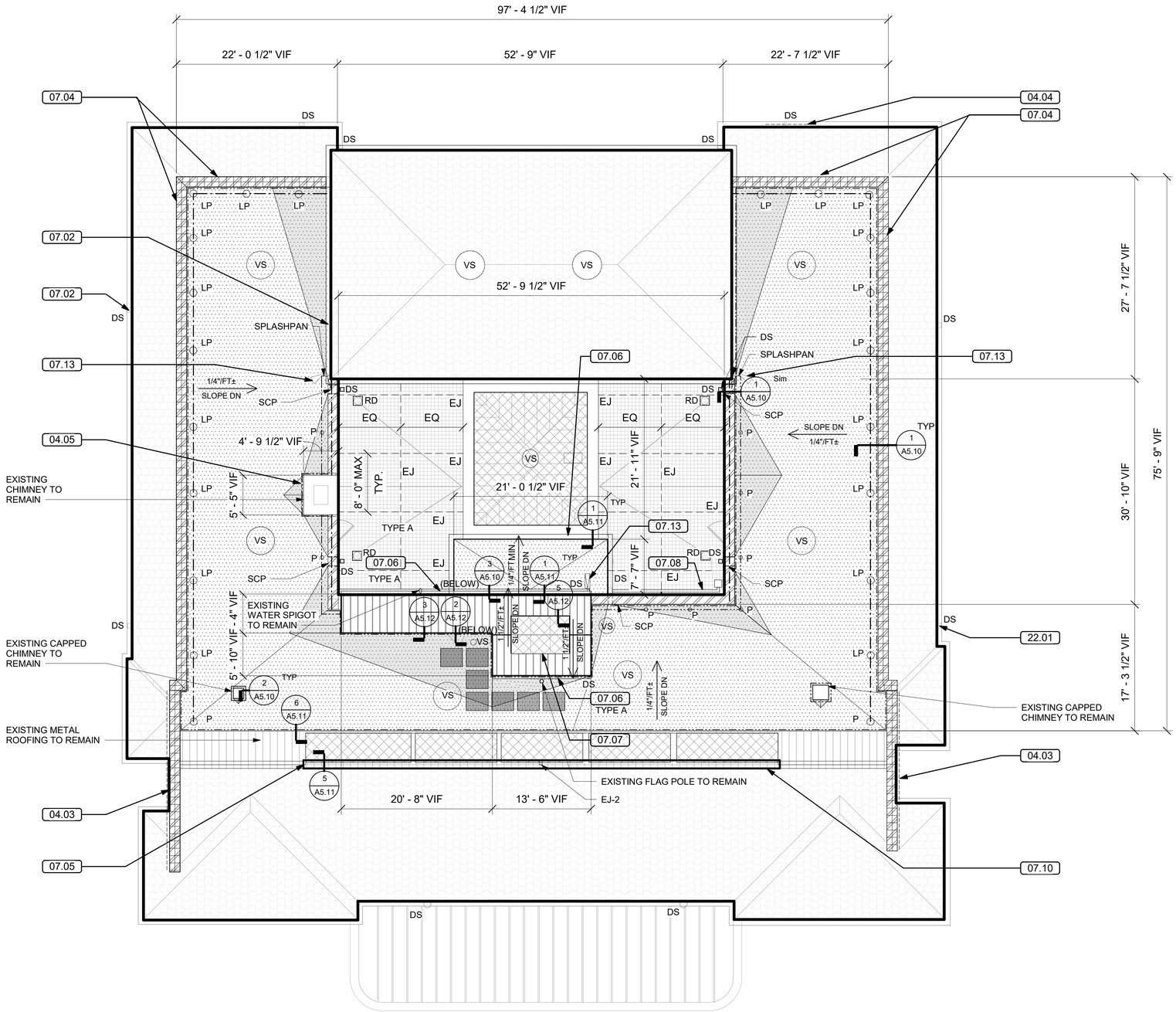
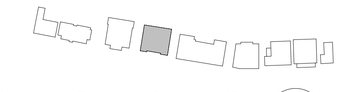


1 A1.2 FORDYCE ROOF PLAN
1/8" = 1'-0"

BATHHOUSE ROW BUILDING KEY



1/8" = 1' - 0" SCALE OF FEET

GENERAL NOTES

1. GUTTER TYPE DESIGNATIONS (INDICATING SIZE) ADDITIONALLY REFERENCED IN SPECIFICATIONS.
2. INSULATION TO BE 1 1/2" THICK RIGID BOARD UNDER COVERBOARD, TYPICAL. TAPER DOWN TO ROOF EDGES AND SCUPPERS, TAPER UP AT CANTS. SLOPE ARROWS INDICATE INTENT FOR TOP OF ROOFING ASSEMBLY AND RELATE TO VISIBLE EXISTING CONDITIONS. STRUCTURAL ROOF DECKS ARE PRESUMED TO SLOPE - CONTRACTOR TO VERIFY IN FIELD.
3. SEAL AROUND ALL PENETRATIONS THRU THE ROOF DECK PRIOR TO INSTALLATION OF NEW ROOFING ASSEMBLY.

KEYNOTES

04.03	REPOINT APPROXIMATELY 150 SF EXTERIOR SIDE OF MASONRY PEDIMENT (DASHED LINE)
04.04	CLEAN BIOLOGICAL GROWTH FROM MASONRY WALL BEHIND DOWNSPOUT, APPROXIMATELY 24 SF (DASHED LINE)
04.05	REPOINT 100% OF CHIMNEY MASONRY
07.02	REPAIR EXISTING GUTTERS AROUND PERIMETER OF TILE ROOFING. RESECURE OPEN LAP SEAMS AT GUTTERS WITH COPPER RIVETS. APPROXIMATELY 10 LOCATIONS.
07.04	REPAIR DAMAGED OR BENT COPPER FLASHING WHERE CLAY TILE OVERHANGS INTERFACE WITH MASONRY WALLS. REMOVE LOOSE MORTAR FROM REGLET JOINT. SECURE THE COPPER FLASHING IN THE REGLET. REPOINT JOINT W/ MORTAR TO MATCH EXISTING. APPROXIMATELY 350 LF; MAINTAINING WEEP HOLE LOCATIONS.
07.05	COPPER LINER ALONG BUILT-IN GUTTER, SLOPE DOWN TO OPEN END(S) TO MATCH EXISTING CONDITIONS
07.06	GUTTER AND DOWNSPOUTS
07.07	CLEAN SEALANT & MASTIC FROM REMOVE RUST, PREP AND PROVIDE PROTECTIVE COATING TO EXISTING METAL SKYLIGHT FRAME TO REMAIN PRIOR TO INSTALLATION OF NEW BASE AND SKIRT FLASHING
07.08	REPLACE COPPER DOWNSPOUT EXTENSION TO DRAIN. APPROXIMATELY 15 LF. MATCH EXIST MATERIAL & PROFILE. REFER TO ELEVATION DETAIL 6/A5.12 FOR ROUTE.
07.10	REINSTALL CLAY RIDGE TILES FOLLOWING GUTTER LINER REPLACEMENT
07.13	METAL SPLASH PAN - REINSTALL SALVAGED FOLLOWING ROOF REPLACEMENT.
22.01	CUT BOTTOM SECTION OF DOWNSPOUT OFF. REPLACE SECTION WITH DOWNSPOUT ADAPTER TO CONNECT DOWNSPOUT TO BOOT

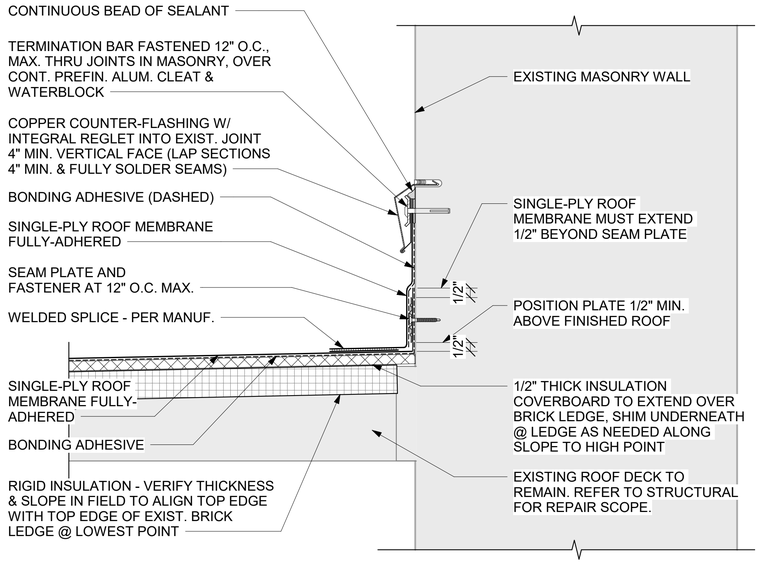
LEGEND

- PROVIDE NEW SINGLE-PLY MEMBRANE ROOFING AND FLASHING OVER NEW COVER BOARD AND INSULATION ON EXISTING REPAIRED AND PREPPED DECKING - REFER TO STRUCTURAL.
- PROVIDE NEW SINGLE-PLY MEMBRANE ROOFING AND METAL FASCIA EDGE OVER NEW COVER BOARD ON EXISTING DECKING.
- EXISTING SKYLIGHT TO REMAIN. REFER TO KEYNOTES AND DETAILS WHERE APPLICABLE.
- EXISTING CLAY TILE ROOFING TO REMAIN
- EXISTING QUARRY TILE ROOFING. RE-GROUT DETERIORATED OR OPEN TILE JOINTS, APPROX 50% OF JOINTS. CLEAN REMAINING EXISTING TILE JOINTS
- PROVIDE 1/2"/FT SLOPE CRICKET OR CANT
- PROVIDE INTEGRATED MEMBRANE WALKWAY PADS
- PROVIDE NEW COUNTERFLASHING OVER ROOF TERMINATION - REFER TO DETAILS.
- LP PROVIDE NEW FLASHING AND SEALANT AT ALL EXISTING LAMP POST BASES - REFER TO DETAIL 1/A5.12, SIM.
- P PROVIDE NEW FLASHING AND SEALANT AT ALL EXISTING GUARDRAIL POST BASES - REFER TO DETAIL 1/A5.12, SIM.
- VS PROVIDE NEW BASE FLASHING AND SEALANT AT ALL EXISTING ROOF VENT STACKS IN AREAS OF ROOF REPLACEMENT - REFER TO DETAIL 1/A5.12, SIM.
- DS EXISTING DOWNSPOUT TO REMAIN, UON.
- RD CLEAN/CLEAR OUT SAW TOOTH WEEP OPENINGS AROUND CLAMP RING OF EXISTING DRAIN BODY
- SCP EXISTING SCUPPER OPENING TO REMAIN - REFER TO DETAIL 4/A5.11
- PATCH REPAIR AND APPLY GLAZING FINISH TO CHIPPED AREAS OF TERRA COTTA PARAPET CAPS. ASSUME 5% OF EACH UNIT; APPROX. 50% OF THE TOTAL UNITS AFFECTED. REPOINT APPROXIMATELY 25% OF SKY FACING JOINTS BETWEEN CAPS WITH MORTAR TO MATCH EXISTING
- EJ RAKE OUT EXIST. MORTAR JOINT & PROVIDE 3/8" MINIMUM BACKER ROD AND SEALANT EXPANSION JOINTS AS INDICATED BETWEEN QUARRY TILE ROOFING

REGISTERED ARCHITECT
PATRICK M ROACH
License Number: B12190
STATE OF ARKANSAS

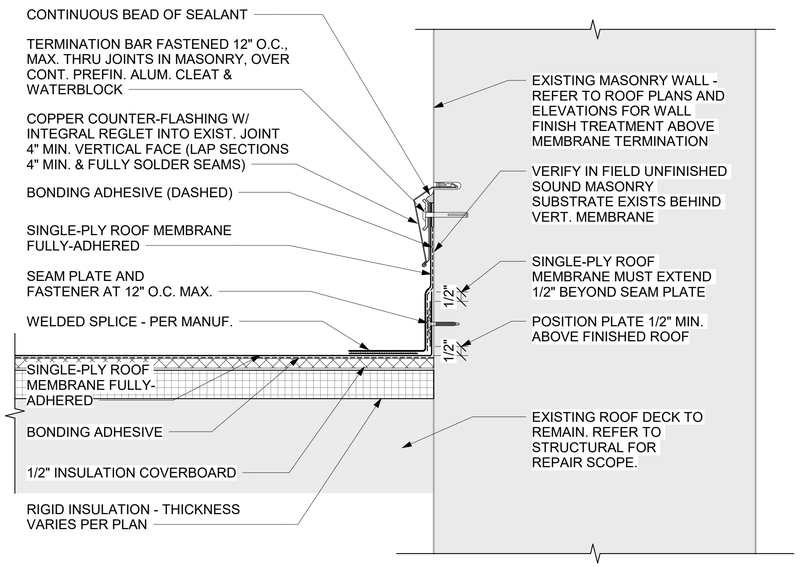
A/E FIRMS ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 04 A1.2	TITLE OF SHEET HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF PLAN OPTION 1 REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 275 OF 286

11/2/2023 6:34:48 PM



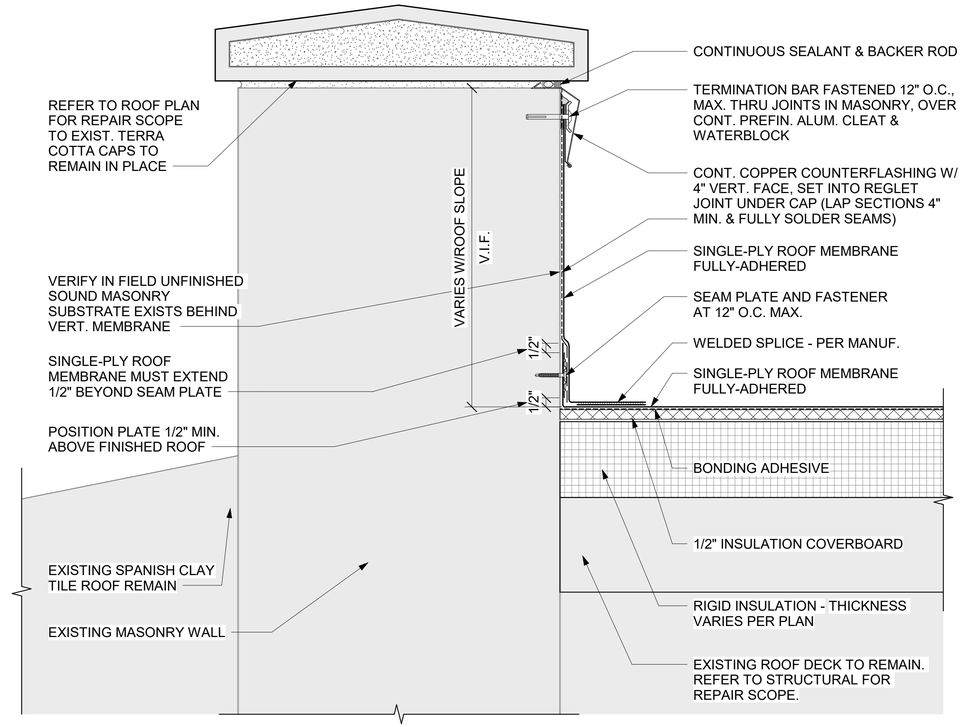
3 A5.10 SMALL ROOF BASE TERMINATION @ MASONRY WALL

3" = 1'-0" REFERRED FROM: A1.2



2 A5.10 BASE TERMINATION @ MASONRY WALL

3" = 1'-0" REFERRED FROM: A1.2



1 A5.10 PARAPET DETAIL - TERRA COTTA CAP & ROOFING TERMINATION

3" = 1'-0" REFERRED FROM: A1.2

6" 3" 0"

3" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT PATRICK M ROACH License Number 012190 STATE OF ARKANSAS

A/E FIRMS: ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	DESIGNED: GK CADD: GK TECH. REVIEW: KG DATE: 10.27.2023	SUB SHEET NO. 04 A5.10	TITLE OF SHEET: HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF DETAILS OPTION 1 REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	DRAWING NO. 128 182951 PMIS/PKG NO. 318915 SHEET 276 OF 286

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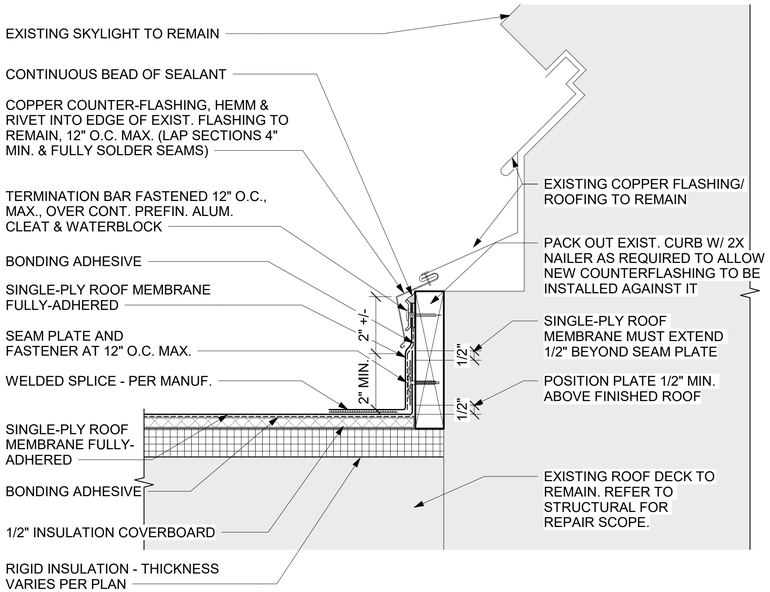
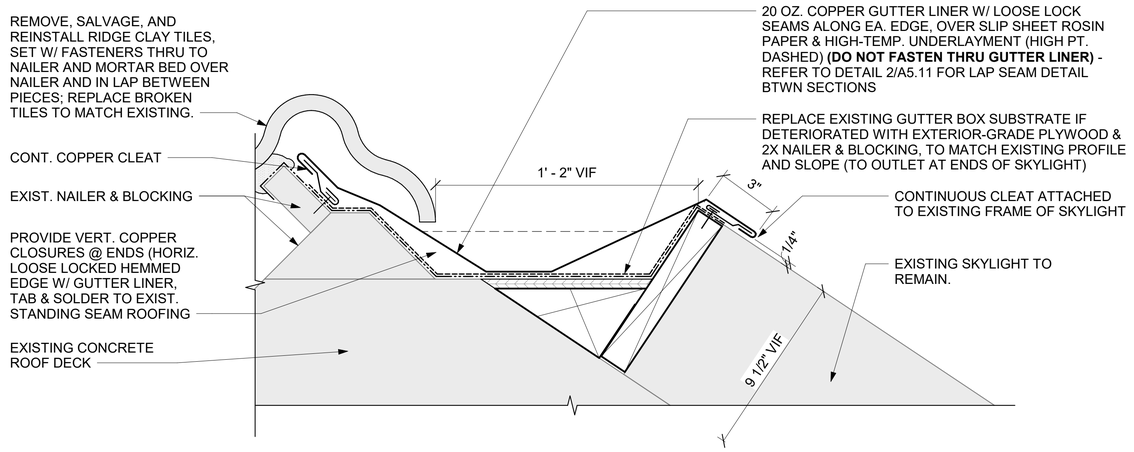


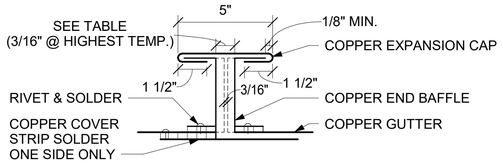
6 A5.11 — BASE TERMINATION & FLASHING TIE-IN @ STANDING SEAM ROOF

3" = 1'-0" REFERRED FROM: A1.2



5 A5.11 — BUILT-IN GUTTER DETAIL OVER SKYLIGHT (SHOWN @ LOW PT.)

3" = 1'-0" REFERRED FROM: A1.2

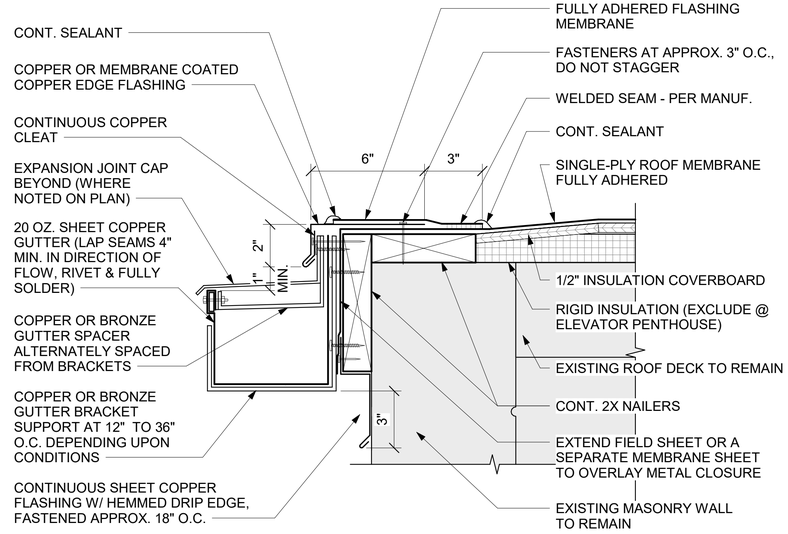


NOTE:
JOINT SHOWN FULLY OPEN AT LOWEST TEMPERATURE, REFER TO TABLE FOR EXPANSION GAP SIZE REQUIRED AT INSTALLATION TEMPERATURE.

3 A5.11 — GUTTER EXPANSION JOINT - EJ-2

3" = 1'-0"

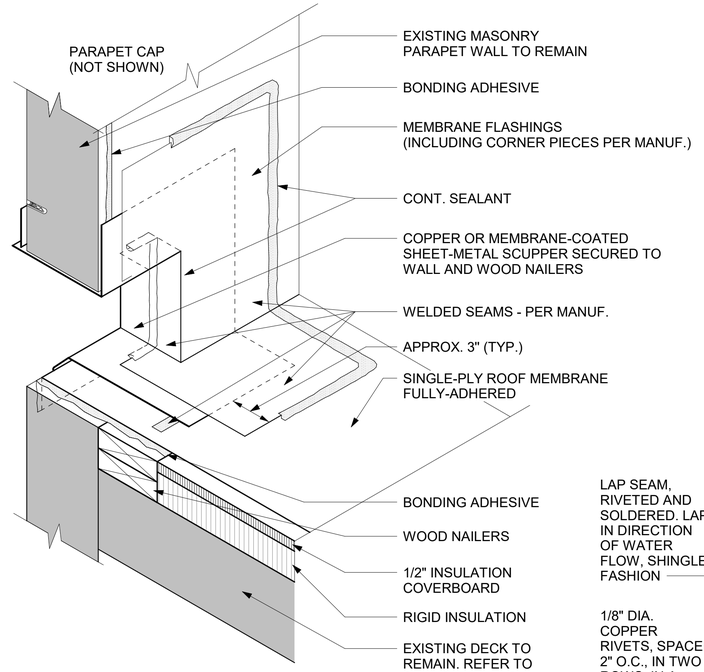
Temp. °F, (C)	Copper or Stainless Steel		Aluminum	
	10 ft. (3 m)	50 ft. (15 m)	10 ft. (3 m)	50 ft. (15 m)
E@170 (77)	1/16" 2 mm	3/16" 5 mm	1/16" 2 mm	3/16" 5 mm
120 (49)	1/8" 3 mm	1/2" 13 mm	3/16" 5 mm	5/8" 16 mm
100 (38)	3/16" 5 mm	5/8" 16 mm	3/16" 5 mm	13/16" 21 mm
75 (24)	3/16" 5 mm	3/4" 19 mm	1/4" 6 mm	1 1/16" 27 mm
35 (1.7)	1/4" 6 mm	15/16" 24 mm	5/16" 8 mm	1 3/8" 35 mm
0 (–17)	1/4" 6 mm	1 1/8" 29 mm	3/8" 10 mm	1 1/16" 43 mm



NOTES:
1. GUTTER BRACKETS TO BE AT LEAST ONE GAUGE HEAVIER THAN GUTTER STOCK.
2. ATTACH WOOD NAILER TO WALL/DECK WITH SUITABLE FASTENERS.
3. GUTTER SIZE VARIES PER LOCATION, REFER TO SPECIFICATION FOR SIZES BY TYPE, AS DESIGNATED ON PLAN.

1 A5.11 — EDGE & GUTTER DETAIL

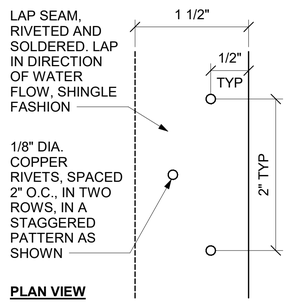
3" = 1'-0" REFERRED FROM: A1.2

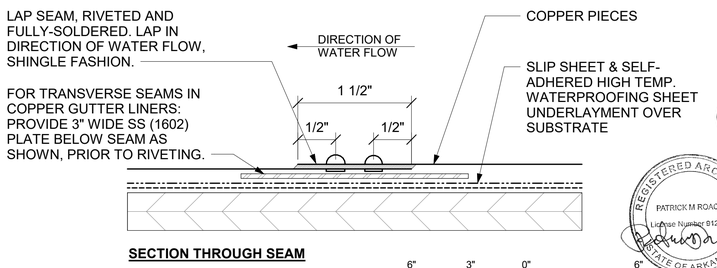


NOTES:
1. CONDUCTOR HEAD TO BE 1 INCH MINIMUM BELOW BOTTOM OF THROUGH-WALL SCUPPER.
2. MAINTAIN EXIST. THRU WALL OPENING DIMENSIONS, UON.

4 A5.11 — THROUGH-WALL SCUPPER CUTAWAY AXON DETAIL

3" = 1'-0" REFERRED FROM:





2 A5.11 — TYP. LAP SEAM DETAIL (INDIVIDUAL PIECES 10 FT LONG MAX.)

12" = 1'-0"

REGISTERED ARCHITECT — PATRICK M ROACH — License Number: B12190 — STATE OF ARKANSAS

A/E FIRMS
ARCH: QUINN EVANS
239 1/2 N. MAIN STREET
ANN ARBOR, MI
T: 734.663.5888

DESIGNED:	GK
CADD:	GK
TECH. REVIEW:	KG
DATE:	10.27.2023

SUB SHEET NO. 04 A5.11

TITLE OF SHEET
HOSP BUCKSTAFF + FORDYCE ROOFS
FORDYCE ROOF DETAILS
OPTION 1
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	277 OF 286

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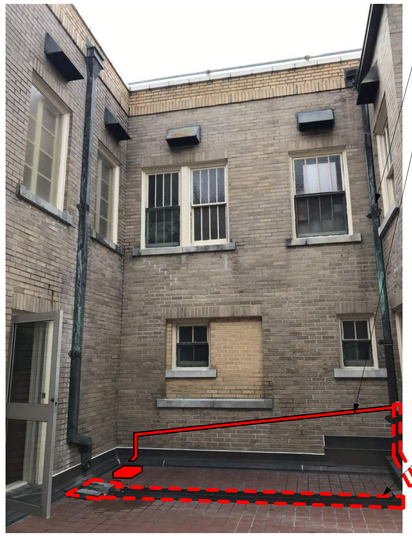
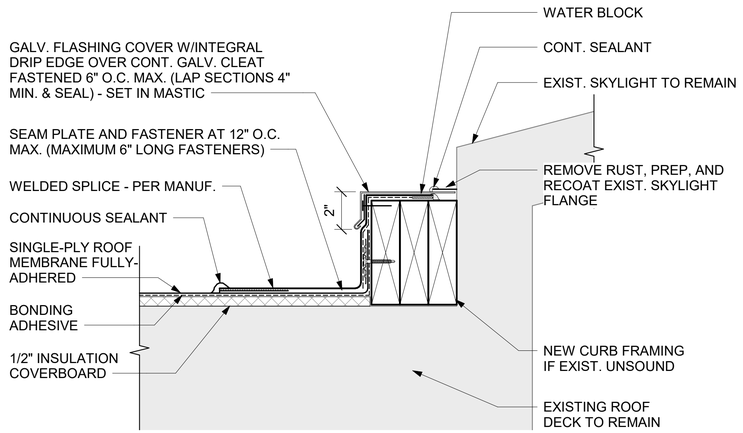
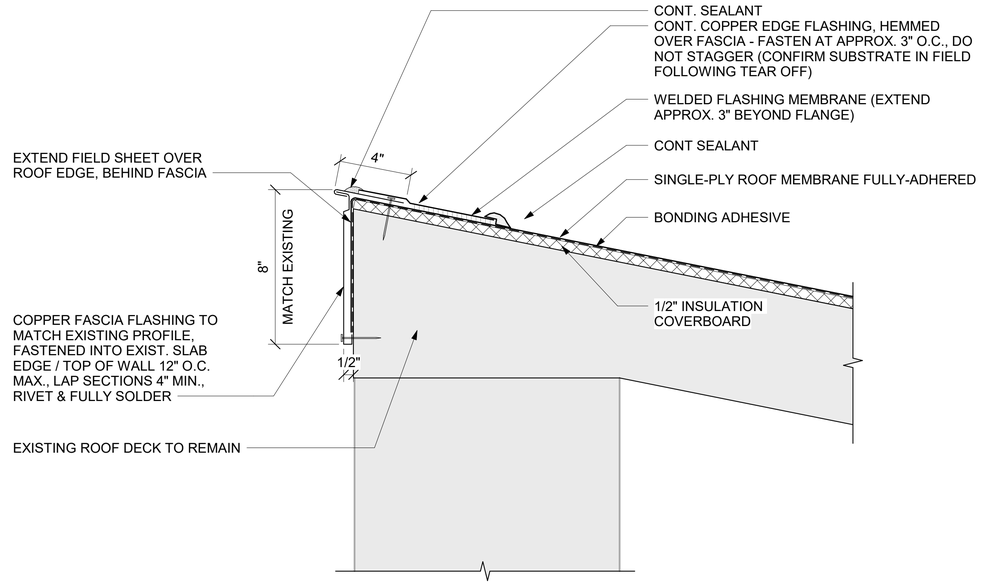


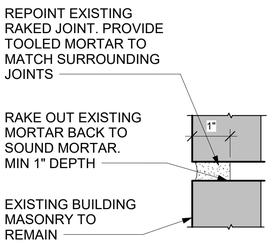
6 A5.12 — COURTYARD DS RE-ROUTE ELEVATION
1" = 10'-0" REFERRED FROM:



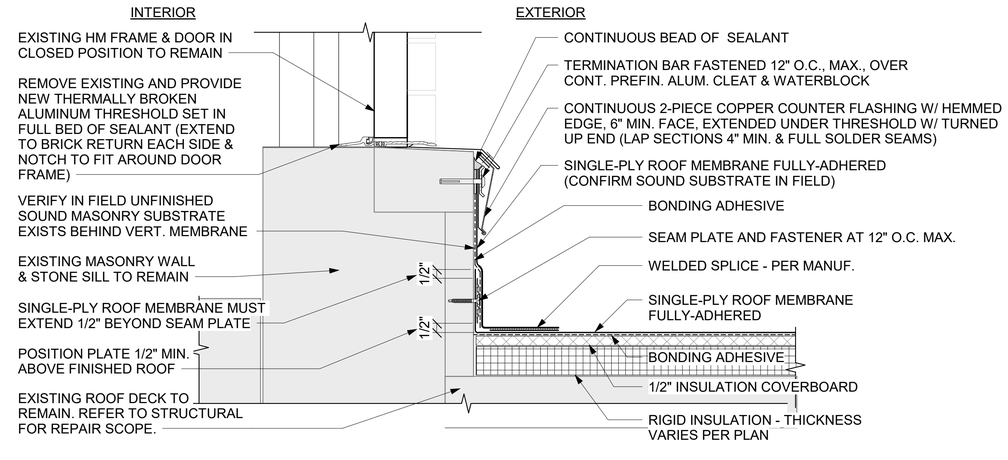
5 A5.12 — BASE FLASHING @ UPPER SKYLIGHT
3" = 1'-0" REFERRED FROM: A1.2



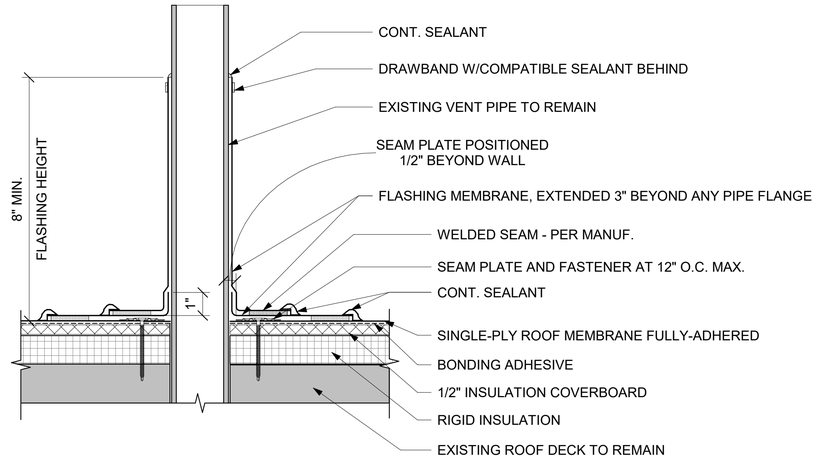
3 A5.12 — METAL FASCIA ROOF EDGE DETAIL
3" = 1'-0" REFERRED FROM: A1.2



4 A5.12 — REPOINTING DETAIL, TYP.
6" = 1'-0"



2 A5.12 — ROOF TERMINATION @ PENTHOUSE DOOR SILL
3" = 1'-0" REFERRED FROM: A1.2



1 A5.12 — VENT PIPE FLASHING DETAIL (POST SIM.)
3" = 1'-0" REFERRED FROM:

3" 2" 1" 0" 3"
6" = 1' - 0" SCALE OF FEET
6" 3" 0"
3" = 1' - 0" SCALE OF FEET

REGISTERED ARCHITECT — PATRICK M ROACH — License Number 812100 — STATE OF ARKANSAS

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	GK	04 A5.12	HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF & EXTERIOR DETAILS OPTION 1 REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
	CADD: GK			PMIS/PKG NO. 318915
	TECH. REVIEW: KG			SHEET 278 OF 286
	DATE: 10.27.2023			

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GENERAL NOTES

1. ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 INTERNATIONAL EXISTING BUILDING CODE AND 2021 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THESE GOVERNING CODES.
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS DOCUMENTATION, EXCLUDING ORIGINAL DESIGN DRAWINGS, PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
   - A. AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
   - B. ACI COLLECTION, LATEST EDITION
   - C. CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
2. ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.)
4. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
5. REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
6. MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
   - A. ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3"
   - B. ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     - a. 1-1/2" (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
   - C. NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
     - a. SLABS, JOISTS, AND WALLS:
       - 3/4" (#11 BAR AND SMALLER)
7. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
8. SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, LADDERS, FLAGPOLES, INSERT AND EMBED ITEMS.
9. REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.

POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS

1. POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY CONTRACTING OFFICER PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSUMPTIONS AND CONDITIONS OF THE MPII. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.
2. INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND CONTRACTING OFFICER WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.
   - A. OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPII AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.
3. EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE CONTRACTING OFFICER.
4. ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF CONCRETE, AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.
5. UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY, GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.
6. SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACTING OFFICER. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPII. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACTING OFFICER PRIOR TO USE.

SPECIAL INSPECTIONS (IBC)

1. REFERENCE NPS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR FULL LIST OF REQUIREMENTS.
2. STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
3. TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

STRUCTURAL SYSTEM DESCRIPTION

NO ORIGINAL STRUCTURAL DRAWINGS HAVE BEEN FOUND. FOLLOWING WHAT HAS BEEN DOCUMENTED IN 1973 HISTORIC STRUCTURES REPORT BY CROMWELL, NEYLAND, TRUEMPER, MILLETT & GATCHELL, INC., AND VERY LIMITED SITE OBSERVATIONS PERFORMED BY SILMAN IN FEBRUARY & JULY 2023, THE STRUCTURAL DESCRIPTION IS AS FOLLOWS:
THE GRAVITY SYSTEM OF THE BUILDING IS GENERALLY COMPRISED OF REINFORCED CONCRETE SLABS AND BEAMS SUPPORTED BY MASONRY BEARING WALLS AND BASEMENT SLAB ON GRADE. STRUCTURAL WALLS ARE ASSUMED TO BEAR ON REINFORCED CONCRETE WALL FOOTINGS. FORDYCE BATHHOUSE WAS CONSTRUCTED IN 1914-1915. MOST BUILDINGS CONSTRUCTED IN THIS REGION AND ERA WERE NOT DESIGNED WITH AN EXPLICITLY DEFINED LATERAL FORCE RESISTING SYSTEM. AN ACCEPTABLE STRUCTURAL SYSTEM TO RESIST LATERAL FORCES WAS STEEL OR CONCRETE FRAMED BUILDINGS DESIGNED TO SUPPORT GRAVITY LOADS SURROUNDED BY WELL-PROPORTIONED MASONRY OR CONCRETE WALLS.
THE SCOPE OF WORK WITHIN THESE DOCUMENTS DOES NOT ALTER THE EXISTING STRUCTURAL BEHAVIORS OR LOAD PATHS. THEREFORE, PER 2021 INTERNATIONAL EXISTING BUILDING CODE SECTION 706.2 AND 1205, REPAIRS CAN BE INSTALLED TO BRING THE BUILDING BACK TO THE ORIGINAL CAPACITY AT THE TIME OF CONSTRUCTION. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.

TEMPORARY SHORING

1. DETERMINATION OF THE FULL SCOPE AND EXTENT OF ALL TEMPORARY SHORING WORK AND SEQUENCING REQUIRED TO SAFELY EXECUTE THE STRUCTURAL WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S ENGINEER.
2. THE DESIGN OF TEMPORARY SHORING BY THE CONTRACTOR'S ENGINEER SHALL ABIDE BY THE REQUIREMENTS IN THE GENERAL NOTES.
3. THE DESIGN OF TEMPORARY SHORING, AND DETERMINATION OF THE EXTENT OF TEMPORARY SHORING, ARE NOT THE RESPONSIBILITY OF SILMAN.

DESIGN PARAMETER TABLE

GOVERNING CODES:		2021 INTERNATIONAL BUILDING CODE & 2021 INTERNATIONAL EXISTING BUILDING CODE
RISK CATEGORY:		III (ASSUMED BASED ON THE BUILDING'S CURRENT ASSEMBLY OCCUPANCY CLASSIFICATION)
SNOW LOAD:		
10	Pg	GROUND SNOW LOAD
8	Pf	FLAT-ROOF SNOW LOAD
1.0	Ce	SNOW EXPOSURE FACTOR
1.1	Is	SNOW LOAD IMPORTANCE FACTOR
1.1	Ct	THERMAL FACTOR (ASSUMED FOR MAIN BUILDING)
11	Pm	MINIMUM SNOW LOAD FOR LOW-SLOPE ROOFS
WIND LOAD:		
111	Vult	ULTIMATE DESIGN WIND SPEED
86	Vasd	NOMINAL DESIGN WIND SPEED
1.0	I	WIND IMPORTANCE FACTOR
C		WIND EXPOSURE CATEGORY
0.18	GCPi	INTERNAL PRESSURE COEFFICIENT
SEISMIC DESIGN:		
1.25	I	SEISMIC IMPORTANCE FACTOR
0.237	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.111	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
C		SITE CLASS
0.206	S(ds)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIODS
0.111	S(d1)	5-% DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND PERIODS
B		SEISMIC DESIGN CATEGORY
SEE STRUCTURAL DESCRIPTION ON S0.1. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.		BASIC SEISMIC FORCE RESISTING SYSTEM

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 NATHANIEL OPPENHEIMER 10/27/2023

A/E FIRMS
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888
ENG.: **SILMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460

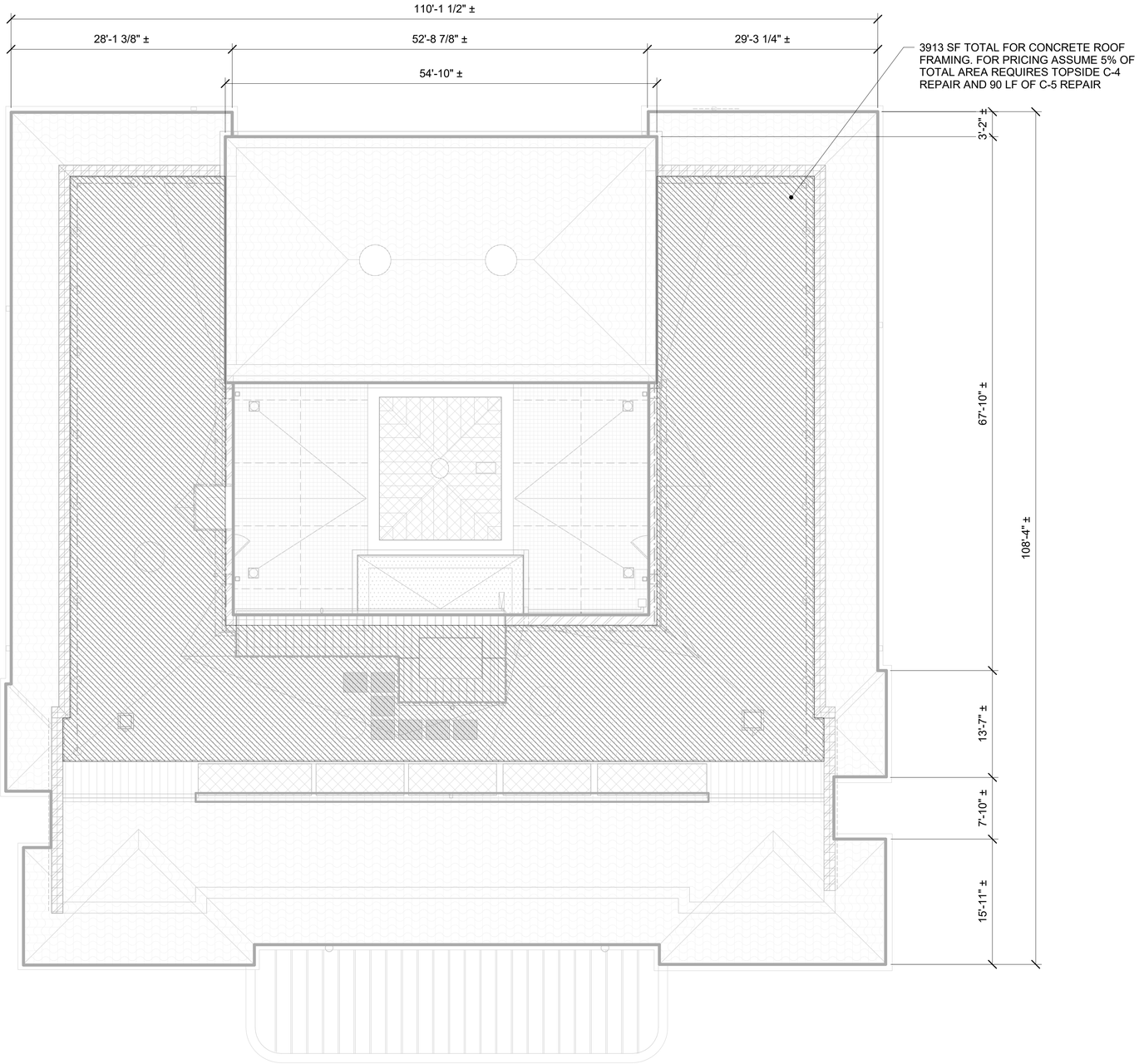
DESIGNED: KH
CADD: CM
TECH. REVIEW: NH
DATE: 10.27.2023

SUB SHEET NO. 04 S0.1

TITLE OF SHEET
HOSP BUCKSTAFF + FORDYCE ROOFS
GENERAL STRUCTURAL NOTES & DESIGN TABLES
REHABILITATE BATHHOUSES
HOT SPRINGS NATIONAL PARK

DRAWING NO. 128 182951
PMIS/PKG NO. 318915
SHEET 279 OF 286

10/24/2023 1:36:24 PM



1 S1.1 ROOF REPAIR PLAN

1/8" = 1'-0" SCALE (A)

SCALE (A) 8' 0' 8' 16'

1/8" = 1' - 0" SCALE OF FEET

GENERAL SHEET NOTES

1. QUANTITY DENOTES SQUARE FOOTAGE (SF) OR LINEAR FOOTAGE (LF) OF REPAIR UPON REPAIR TYPE. SEE REPAIR QUANTITIES ON S5.1 FOR TOTAL REPAIR AMOUNTS.
2. CONTRACTOR SHALL VERUFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. ROOF FRAMING REPAIRS INDICATED ON PLAN ARE INTENDED TO BE TOPSIDE REPAIRS.
5. CONTRACTOR TO VERIFY FIELD CONDITIONS AS ASSUMED PER CONTRACT DOCUMENTS. NOTIFY CONTRACTING OFFICER IMMEDIATELY WITH ANY DISCREPANCIES. CONTRACTOR TO REVIEW TO OCCUR PRIOR TO REPAIR WORK.
6. VERIFY ALL DIMENSIONS IN FIELD. COORDINATE ALL DIMENSIONS WITH ARCHITECT, CIVIL, MEP, AND OTHER PRIME CONTRACTORS.
7. UNIT PRICING SHALL BE PROVIDED FOR EACH REPAIR TYPE AND FINAL QUANTITIES RECONCILED WITH TABLE OF S5.1. COTR SHALL REVIEW GENERAL EXTENTS AND QUANTITIES OF REPAIRS WITH CONTRACTOR IN THE FIELD PRIOR TO REPAIR.

MASTER KEYNOTE LIST FOR REPAIRS	
KEY VALUE	REPAIR DESCRIPTION
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 1, 2, & 3 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.
C-5	CRACK REPAIR, SEE 4 & 5 ON S5.2 BASED ON CRACK SIZE.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 ENG: **SIMAN** 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	04 S1.1	HOSP BUCKSTAFF + FORDYCE ROOFS ROOF REPAIR PLAN REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 SHEET 280 OF 286

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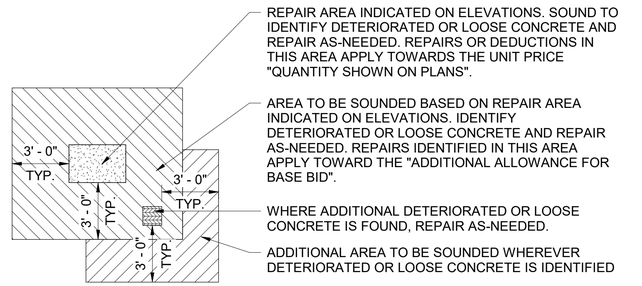
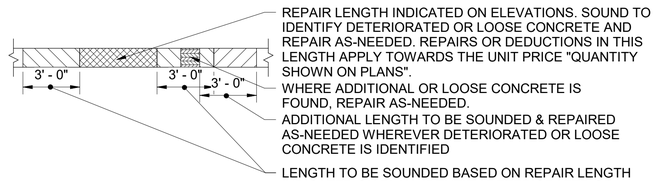
NOTES - CONCRETE REPAIRS:

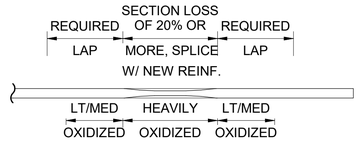
1. TYPICAL DETAILS
   A. THE DETAILS SHOWN ON THIS SHEET ARE REFERENCED ON PLANS AND ELEVATIONS FOR SPECIFIC CONCRETE REPAIRS AND ARE BASED ON LIMITED FIELD INVESTIGATION. CONTRACTOR TO PROVIDE A UNIT PRICE FOR REPAIR WORK BASED ON UNITS AS IDENTIFIED IN KEYNOTE TABLE.
   B. REFER TO SPECIFICATION SECTION 03 0130 "MAINTENANCE OF CONCRETE" FOR ADDITIONAL REQUIREMENTS.
2. PROCEDURE
   A. THE FOLLOWING SEQUENCE DESCRIBES THE EXPECTED PROCEDURE AT CONCRETE AND CONCRETE-ENCASED MEMBERS:
      a. SOUND MEMBER TO IDENTIFY ANY LOOSE OR DETERIORATED CONCRETE. SOUNDING SHALL EXTEND A MINIMUM OF 3 FEET BEYOND THE EXTENTS OF LENGTHS OR AREAS INDICATED ON ELEVATIONS. WHERE ADDITIONAL LOOSE OR DETERIORATED MATERIAL IS FOUND, SOUND AN ADDITIONAL 3 FEET IN ALL DIRECTIONS BEYOND THE LENGTH OR AREA OF ADDITIONAL DETERIORATION. SEE DETAIL TO RIGHT.
      b. REMOVE ANY LOOSE OR DETERIORATED CONCRETE MATERIAL PER THE SPECIFICATIONS.
      c. ALL OXIDIZED AND CORRODED BARS SHALL BE EXPOSED AND CLEANED WITH WIRE BRUSHING, SANDBLASTING, OR OTHER APPROVED METHODS PER THE SPECIFICATIONS. AFTER CLEANING CORRODED BARS SHALL BE REVIEWED FOR STRUCTURAL ADEQUACY BY THE CONTRACTOR, USING THE INFORMATION BELOW IN THE SECTION "CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES." CONTRACTOR IS TO NOTIFY CONTRACTING OFFICER IF ASSESSMENT REQUIRES ADDITIONAL SUPPORT FROM CONTRACTING OFFICER.
      d. PROVIDE ADDITIONAL REINFORCEMENT IF REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER PER THE DETAILS AND SPECIFICATIONS (SEE NOTE 5.E BELOW).
      e. PREPARE CONCRETE SURFACES TO BE RESTORED PER THE DETAILS, SPECIFICATIONS, AND MANUFACTURER'S PRINTED INSTRUCTIONS.
      f. PLACE NEW REPAIR MORTAR AS NOTED IN THE DETAILS, AND SPECIFICATIONS. COORDINATE FINISH REQUIREMENTS WITH THE CONTRACTING OFFICER.
3. INSPECTIONS & QUALITY CONTROL
   A. REFER TO THE SPECIFICATIONS FOR INSPECTIONS AND QUALITY CONTROL REQUIREMENTS.
4. CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES
   A. PREPARE SURFACES TO BE RESTORED IN COMPLIANCE WITH PRODUCT MANUFACTURER'S PRINTED INSTRUCTIONS AND AS SPECIFIED. CLEAN AREAS TO BE RESTORED WITH WIRE BRUSH AND COMPRESSED AIR OR WATER TO REMOVE ALL LOOSE MATERIALS, INCLUDING OIL, DIRT, DUST, OR OTHER FOREIGN MATERIAL FROM SURFACES TO BE REPAIRED.
   B. REMOVE LOOSE AND DETERIORATED CONCRETE BY MECHANICAL MEANS DOWN TO SOUND CONCRETE SUBSTRATE. DO NOT CUT EXISTING REINFORCING. DETAIL THE EDGE OF THE PATCH TO A 1/2" MINIMUM DEPTH TO PREVENT FURTHER EDGING. CHIP CONCRETE SUBSTRATE TO OBTAIN A FRACTURED AGGREGATE SURFACE WITH A MINIMUM SURFACE PROFILE OF 1/8" DEPTH. SEE TYPICAL REPAIR DETAILS ON S5.2 FOR ADDITIONAL CONCRETE PREP PER CONDITION.
   C. ALL OXIDIZED AND CORRODED BARS SHALL BE UNDERCUT A MINIMUM OF 3/4" OR 1/4" LARGER THAN THE LARGEST SIZE AGGREGATE IN THE PATCHING CONCRETE, WHICHEVER IS GREATER. EXPOSED BARS WHICH ARE NOT OXIDIZED OR CORRODED DO NOT HAVE TO BE UNDERCUT IF LESS THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED AND THE BOND BETWEEN THE BAR AND CONCRETE IS INTACT. IF THE BOND IS BROKEN OR MORE THAN 50% OF THE BAR'S CIRCUMFERENCE IS EXPOSED, THEN THE BAR SHALL BE UNDERCUT AS DESCRIBED IN SECTION C.
   D. CLEAN REINFORCING STEEL OF OXIDATION USING A WIRE BRUSH. THE REINFORCING BARS SHALL BE CLEANED TO BRIGHT METAL. APPLY ANTI-CORROSION PRIMER AND BONDING BRIDGE. COAT THE REINFORCEMENT OR OTHER STEEL TO REMAIN WITH CORROSION INHIBITOR.
   E. IF REDUCED SECTION OF REINFORCEMENT IS LESS THAN 80% OF ORIGINAL AREA, PROVIDE ADDITIONAL REINFORCING STEEL OF 1.5 x AREA LOST OR GREATER OR REPLACE WITH NEW.
   F. REINFORCING SHALL BE ADDED ACCORDING TO NOTES BELOW AND SECTIONS A AND B.
      1. SPLICE LENGTH SHOWN SHALL EXTEND ON BOTH ENDS OF HEAVILY OXIDIZED SECTION FROM THE POINT WHERE THE EXISTING BAR IS BEING SPLICED.
      2. IF LAP SPLICE OF ADDITIONAL STEEL EXTENDS BEYOND THE REPAIR AREA PERIMETER, CUT A NOTCH IN THE EXISTING CONCRETE TO PROVIDE A 3/4" CLEAR SPACE BEHIND AND ON EACH SIDE OF THE ADDED STEEL.
      3. BOTTOM BAR SPLICE NEED NOT EXTEND BEYOND THE FACE OF SUPPORT OF THE BEAM OR GIRDER.
      4. IF ADDED STEEL ENCOUNTERS END OF MEMBER, PROVIDE HOOK OR MECHANICAL ANCHOR TO DEVELOP THE STEEL TENSION CAPACITY. DRILL & GROUT AS REQ'D.
      5. IF OBSTRUCTION PREVENTS FULL SPLICE LENGTH, USE MECHANICAL TENSION SPLICE COUPLER. CUT AND CONNECT TO EXIST REINF.
   G. SATURATE THE SURFACE OF THE PREPARED CONCRETE WITH WATER FOR A MAXIMUM OF TWO HOURS PRIOR TO THE PLACEMENT OF THE NEW CONCRETE. NO STANDING WATER AT THE TIME OF PATCH INSTALLATION.
   H. JUST PRIOR TO NEW CONCRETE PLACEMENT, APPLY A SCRUB COAT OF A THIN CEMENT SLURRY WITH A STIFF BRUSH. SLURRY MUST BE SCRUBBED INTO SUBSTRATE, FILLING ALL PORES AND VOIDS.
   I. APPLY REPAIR MORTAR PER MANUFACTURER'S REQUIREMENTS. AT AREAS WHERE THE DEPTH OF REPAIR TO SOUND CONCRETE EXCEEDS THE MAXIMUM THICKNESS OF A SINGLE LIFT AS INDICATED BY THE MORTAR MANUFACTURER, APPLY THE PATCHING MORTAR IN MULTIPLE LIFTS WITH THICKNESS NOT EXCEEDING THE MAXIMUM. ALLOW SUFFICIENT CURING TIME AND SCORE MORTAR SURFACE BETWEEN LIFTS.
   J. PLACE CONCRETE TO REPAIR PATCH/MORTAR MINIMUM 3/4" COVER OVER REINFORCING BARS FOR INTERIOR CONDITIONS AND 1-1/2" FOR EXTERIOR CONDITIONS.
   K. STRIKE OFF SURFACES AS NECESSARY AND ALLOW CONCRETE REPAIR PATCH/MORTAR TO SET. COORDINATE WITH CONTRACTING OFFICER FOR FINAL FINISH APPEARANCE, CURE BY COVERING EXPOSED SURFACES WITH WET BURLAP.



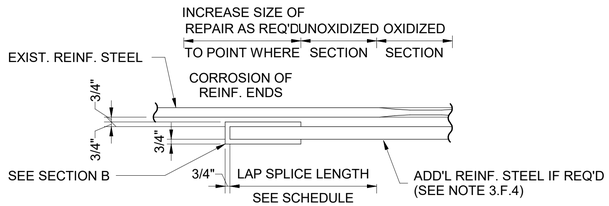
REPAIRS (BASED ON AREA)



REPAIRS (BASED ON LENGTH)



SECTION A



SECTION B

SLAB BAR REPAIR SPLICE SCHEDULE			
EXISTING BAR SIZE	BOT BARS	TOP BARS	REMARKS
#3	12"	16"	
#4	16"	22"	
#5	20"	27"	
#6	25"	35"	
#7	34"	48"	
#8	45"	63"	

REINFORCEMENT REPAIR

MASTER KEYNOTE LIST FOR REPAIRS		
KEY VALUE	REPAIR DESCRIPTION	
C-4	SPALL, DELAMINATION, OR INADEQUATE COVER AT CONCRETE SLAB/WALL. REFER TO DETAILS 1, 2, & 3 ON S5.2 FOR EXPOSURE AND CONDITION OF STEEL REINFORCEMENT.	
C-5	CRACK REPAIR, SEE 4 & 5 ON S5.2 BASED ON CRACK SIZE.	

NOTES:

1. QUANTITY DENOTES SQUARE FOOTAGE (SF) OR LINEAR FOOTAGE (LF) OF REPAIR DEPENDENT UPON REPAIR TYPE.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD AND SHALL EXPOSE REPAIR AREAS DOWN TO SOUND CONCRETE PRIOR TO REPAIR INSTALLATION.
3. CONTRACTOR SHALL COORDINATE REPAIR WORK WITH MEANS AND METHODS AND SEQUENCE OF OTHER RENOVATION WORK/TRADES.
4. ROOF FRAMING REPAIRS INDICATED ON PLAN ARE INTENDED TO BE TOPSIDE REPAIRS.

REPAIR QUANTITY SUMMARY				
KEYNOTE	DETAIL / SHEET	REFRENCE SPEC.	UNIT OF MEASURE	TOTAL FOR BID
C-4	S5.2	03-0130	SQUARE FEET	195
C-5	S5.2	03-0130	LINEAR FEET	90

PRICING NOTES

1. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS AND LIGHTING FOR THE OWNER'S REPRESENTATIVE, CONTRACTING OFFICER, AND INSPECTORS TO OBSERVE ALL REPAIRS UPON REQUEST AND AS REQUIRED PER THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS. WHERE ACCESS IS VIA LIFT, THE CONTRACTOR SHALL PROVIDE A CERTIFIED LIFT OPERATOR UPON REQUEST.
2. QUANTITY SHOWN ON PLANS - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
3. ADDITIONAL ALLOWANCE - REFER TO THE KEYNOTES FOR ADDITIONAL QUANTITY ASSUMPTIONS, WHERE APPLICABLE.
4. QUANTITIES SHOWN ON PLANS AND ADDITIONAL ALLOWANCES ARE APPROXIMATE. ACTUAL REPAIR QUANTITIES SHALL BE TRACKED BY THE OWNER'S REPRESENTATIVE AND/OR THE GENERAL CONTRACTOR TO DETERMINE ADDITIONS OR DEDUCTIONS FROM THE BASE BID. REFER TO THE NOTES, KEYNOTES, DETAILS, AND SPECIFICATIONS FOR REQUIREMENTS TO IDENTIFY ACTUAL REPAIR QUANTITIES.
5. PROVIDE UNIT PRICING FOR EACH KEYNOTE REPAIR TYPE INDICATED IN THE TABLE ABOVE.
6. PROVIDE UNIT PRICING FOR ADDITIONAL MATERIALS AND LABOR TO ACCOUNT FOR CHANGES IN WEIGHT OR VOLUME OF MATERIALS FROM THE ASSUMPTIONS IN THE BASE BID. REFER TO THE "STEEL REPAIR NOTES" AND "CONCRETE REPAIR NOTES" AND REPAIR DETAILS FOR ADDITIONAL INFO. BOTH THE QUANTITY SHOWN ON PLANS WILL BE ADJUSTED FROM THE SCHEDULED MATERIALS (SHOWN ON "PRICING DETAILS") TO ACTUAL MATERIALS (SHOWN ON "CONSTRUCTION DETAILS") TO ACCOUNT FOR CHANGES IN THE WEIGHT OR VOLUME OF THE REPAIR MATERIAL ONLY.
   A. FABRICATED STRUCTURAL STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR CHANNELS, ANGLES, AND PLATES TO BE USED FOR REINFORCEMENT OF EXISTING STEEL, SHOP FABRICATED, DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   B. CONCRETE REINFORCING STEEL TONNAGE, DELIVERED UNIT PRICE - PROVIDE A PER TON UNIT PRICE FOR REINFORCING BARS USED FOR REPAIRS, CUT, BENT (AS NEEDED), DELIVERED TO THE SITE AND PLACED ON THE SCAFFOLD.
   C. CONCRETE REPAIR VOLUME - PROVIDE A UNIT PRICE FOR EACH CUBIC FOOT OF CONCRETE REPAIR OR PATCHING PREPARED, FURNISHED AND INSTALLED. PRICE SHALL INCLUDE LABOR FOR CHIPPING CONCRETE, PLUS LABOR AND MATERIAL FOR INSTALLING REPAIR MORTAR OR SHOTCRETE.

STATE OF ARKANSAS REGISTERED PROFESSIONAL ENGINEER No. 14677 10/27/2023 NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 ENG: SILMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	04 S5.1	HOSP BUCKSTAFF + FORDYCE ROOFS TYPICAL CONCRETE REPAIR DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 SHEET 281 OF 286

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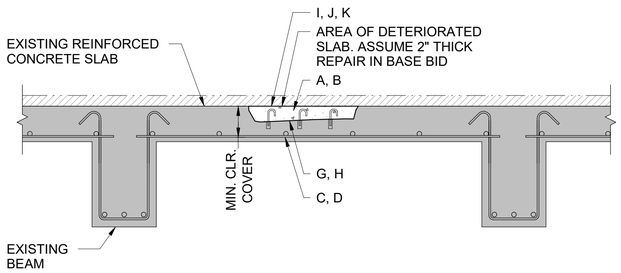
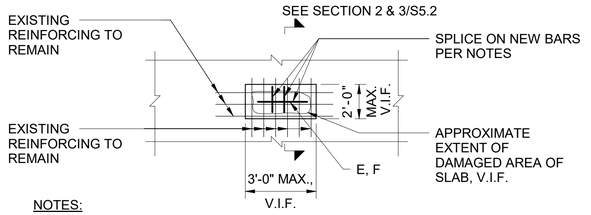




NOTES:

1. ALPHABETICAL KEYNOTES IN REPAIR DETAIL CORRESPOND TO "NOTES - CONCRETE REPAIRS: NOTE #4 ENTITLED CONCRETE REPAIR SEQUENCE & CONSTRUCTION NOTES" ON S5.1.
2. REFER TO DETAILS 2 & 3 ON S5.2 FOR ADDITIONAL REPAIR DIRECTIVES.
3. REPAIR MAY BE USED ON TOP OR BOTTOM SURFACE OF SLAB AND WALLS. SEE NOTES FOR CONCRETE PATCHING MATERIALS FOR HORIZONTAL AND VERTICAL APPLICATIONS.

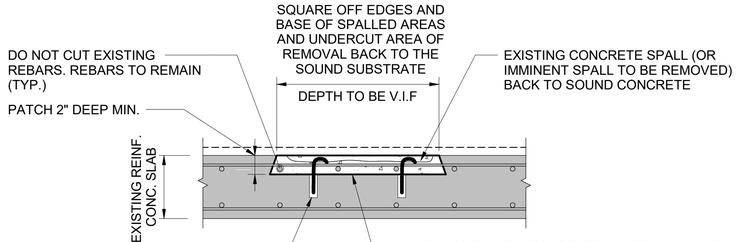
PLAN

1 S5.2 TYPICAL DETAIL - BAR REINFORCED SLAB REPAIR (KEYNOTE C-4)

NO SCALE

REPAIR PROCEDURE:

1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. REMOVE RUST, SCALE, OIL AND ANY OTHER FOREIGN MATERIALS FROM STEEL REINFORCING BARS.
3. COAT EXISTING CONCRETE AND STEEL WITH ANTI-CORROSION AGENTS AS SPECIFIED BY MANUFACTURER.
4. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



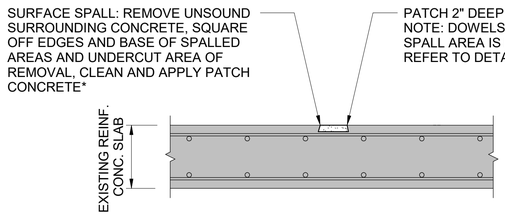
*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

2 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR EXPOSED BUT INTACT (KEYNOTE C-4)

NO SCALE

REPAIR PROCEDURE:

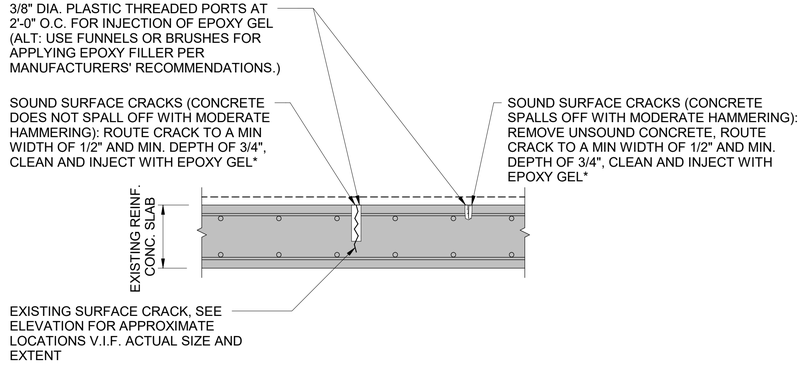
1. REMOVE LOOSE CONCRETE AND FOREIGN MATERIALS, ROUGHEN EXISTING CONCRETE SURFACES THAT ARE TO RECEIVE PATCH CONCRETE.
2. PREPARE AND APPLY PATCH CONCRETE PER MANUFACTURER'S SPECIFICATION. FOLLOW INSTRUCTIONS FOR LIFT LAYERS, ENVIRONMENT CONDITIONS, TOOLS, AND ALL OTHER PROCEDURES.



*SEE SPECIFICATION SECTION 03 01 30 FOR REQUIRED CONCRETE PATCH/REPAIR MORTAR MATERIAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

3 S5.2 TYPICAL DETAIL CONCRETE SPALL PATCH REBAR NOT EXPOSED (KEYNOTE C-4)

NO SCALE

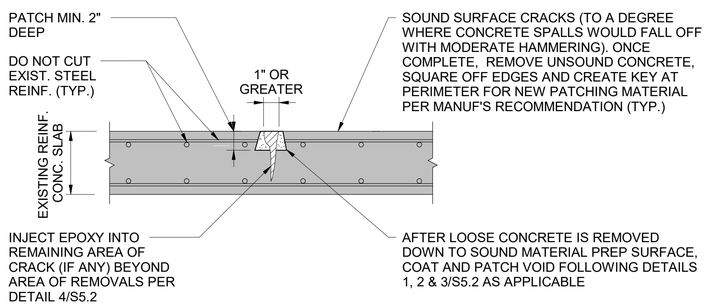


NOTE: FOR CRACKS SMALLER THAN 1/8" IN WIDTH/THICKNESS, NO REPAIR NECESSARY. FOR CRACKS LARGER THAN 1" IN WIDTH/THICKNESS, SEE DETAIL 5/S5.2

*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

4 S5.2 TYPICAL DETAIL CONCRETE CRACK REPAIR, SMALL (KEYNOTE C-5)

NO SCALE



*EPOXY GEL SHALL BE SIKADUR 35 HI-MOD LV OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SPECIFICATIONS OF ALL PRODUCTS TO THE CONTRACTING OFFICER PRIOR TO STAGING THE WORK.

5 S5.2 TYPICAL DETAIL CONCRETE CRACK REPAIR, LARGE (KEYNOTE C-5)

NO SCALE

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DEFORMED BAR TENSION DEVELOPMENT LENGTH (Ld)										
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS										
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE		6000 PSI CONCRETE		8000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	17	25	15	22	13	20	12	18	12	16
#4	22	33	19	29	17	26	16	24	14	21
#5	28	42	24	36	22	32	20	30	17	26
#6	33	50	29	43	26	39	24	35	21	31
#7	48	72	42	63	38	56	34	51	30	45
#8	55	83	48	72	43	64	39	59	34	51
#9	62	93	54	81	48	72	44	66	38	57
#10	70	105	61	91	54	81	50	74	43	64
#11	78	116	67	101	60	90	55	82	48	71

DEFORMED TENSION BAR NOTES:

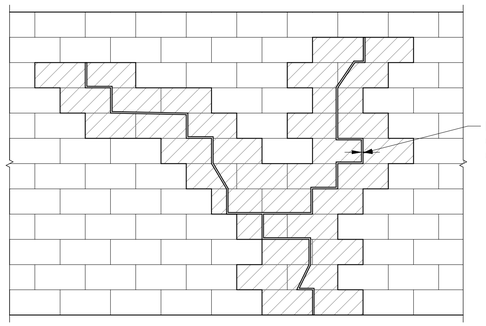
1. FOR HORIZONTAL REINFORCEMENT WITH 12 INCH OR MORE FRESH CONCRETE CAST BELOW IT, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.3x THE VALUES GIVEN.
2. FOR REINFORCEMENT IN LIGHTWEIGHT CONCRETE, TENSION DEVELOPMENT LENGTH/TENSION LAP LENGTH SHALL BE 1.3x THE VALUES GIVEN.
3. FOR EPOXY-COATED BARS:
   A. WHERE CONCRETE COVER IS LESS THAN 3x BAR DIAMETER, OR CLEAR SPACING IS LESS THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.5x THE VALUES GIVEN.
   B. WHERE CONCRETE COVER IS EQUAL TO OR GREATER THAN 3x BAR DIAMETER AND CLEAR SPACING IS GREATER THAN 6x BAR DIAMETER, TENSION DEVELOPMENT LENGTH/ TENSION LAP SPLICE LENGTH SHALL BE 1.2x THE VALUES GIVEN.
4. CASE I APPLIES WHEN EITHER OF THE FOLLOWING SETS OF CONDITIONS ARE MET:
   A. ALL THREE OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN DB AND
      b. CLEAR COVER IS NOT LESS THAN DB AND
      c. STIRRUPS OR TIES ARE PROVIDED THROUGHOUT THE DEVELOPMENT LENGTH AND THE QUANTITY IS NOT LESS THAN THE CODE MINIMUM.
   B. OR BOTH OF THESE:
      a. CLEAR SPACING OF BARS BEING DEVELOPED OR SPLICED IS NOT LESS THAN 2DB AND
      b. CLEAR COVER IS NOT LESS THAN DB.

   CASE II APPLIES TO ALL OTHER CONDITIONS NOT DESCRIBED IN CASE I

DEFORMED BAR TENSION LAP SPLICE - CLASS B										
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS										
BAR SIZE	3000 PSI CONCRETE		4000 PSI CONCRETE		5000 PSI CONCRETE		6000 PSI CONCRETE		8000 PSI CONCRETE	
	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II	CASE I	CASE II
#3	22	33	19	28	17	25	16	23	14	20
#4	29	43	25	37	23	34	21	31	18	27
#5	36	54	31	47	28	42	26	38	22	33
#6	43	65	37	56	34	50	31	46	27	40
#7	63	94	54	81	49	73	45	67	39	58
#8	72	107	62	93	56	83	51	76	44	66
#9	81	121	70	105	63	94	57	86	50	74
#10	91	136	79	118	71	106	64	96	56	84
#11	101	151	87	131	78	117	71	107	62	93

DEFORMED BAR COMPRESSION DEVELOPMENT LENGTH (Ldc)					
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS					
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE	8000 PSI CONCRETE
#3	9	8	8	8	8
#4	11	10	9	9	9
#5	14	12	12	12	12
#6	17	15	14	14	14
#7	20	17	16	16	16
#8	22	19	18	18	18
#9	25	22	21	21	21
#10	28	25	23	23	23
#11	31	27	26	26	26

DEFORMED BAR COMPRESSION LAP SPLICE					
FOR NORMAL WEIGHT STONE CONCRETE & UNCOATED BARS					
BAR SIZE	3000 PSI CONCRETE	4000 PSI CONCRETE	5000 PSI CONCRETE	6000 PSI CONCRETE	8000 PSI CONCRETE
#3	12	12	12	12	12
#4	15	15	15	15	15
#5	19	19	19	19	19
#6	23	23	23	23	23
#7	27	27	27	27	27
#8	30	30	30	30	30
#9	34	34	34	34	34
#10	39	39	39	39	39
#11	43	43	43	43	43



NOTES:

1. ▨ DENOTES BRICK TO BE REPLACED. WHERE CRACK IS THRU WALL REPLACE ALL WYTHES OF BRICK ON EACH SIDE OF CRACK TO 1ST MORTAR JOINT. REPLACE EXISTING HEADERS WITH NEW HEADERS. REPLACE LOOSE AND CRACKED BRICKS. WHERE CRACK IS ONLY IN OUTER WYTHE, REPLACE ONLY OUTER WYTHE.
2. WHERE CRACK IS OPEN AND 1/4" OR LESS AND IS PRESENT ONLY IN OUTER WYTHE AND ONLY IN JOINTS, RAKE AND REPOINT JOINTS ONLY.

1 / S5.3 TYPICAL REPAIR IN BRICK MASONRY

N.T.S. SCALE A

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 14677
10/27/2023
NATHANIEL OPPENHEIMER

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS, 219 1/2 N. MAIN STREET, ANN ARBOR, MI, T: 734.663.5888 ENG: SIMAN, 211 N 4TH AVE, ANN ARBOR, MI, T: 734.800.2460	KH CADD: CM TECH. REVIEW: NH DATE: 10.27.2023	04 S5.3	HOSP BUCKSTAFF + FORDYCE ROOFS TYPICAL DETAILS REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 SHEET 283 OF 286

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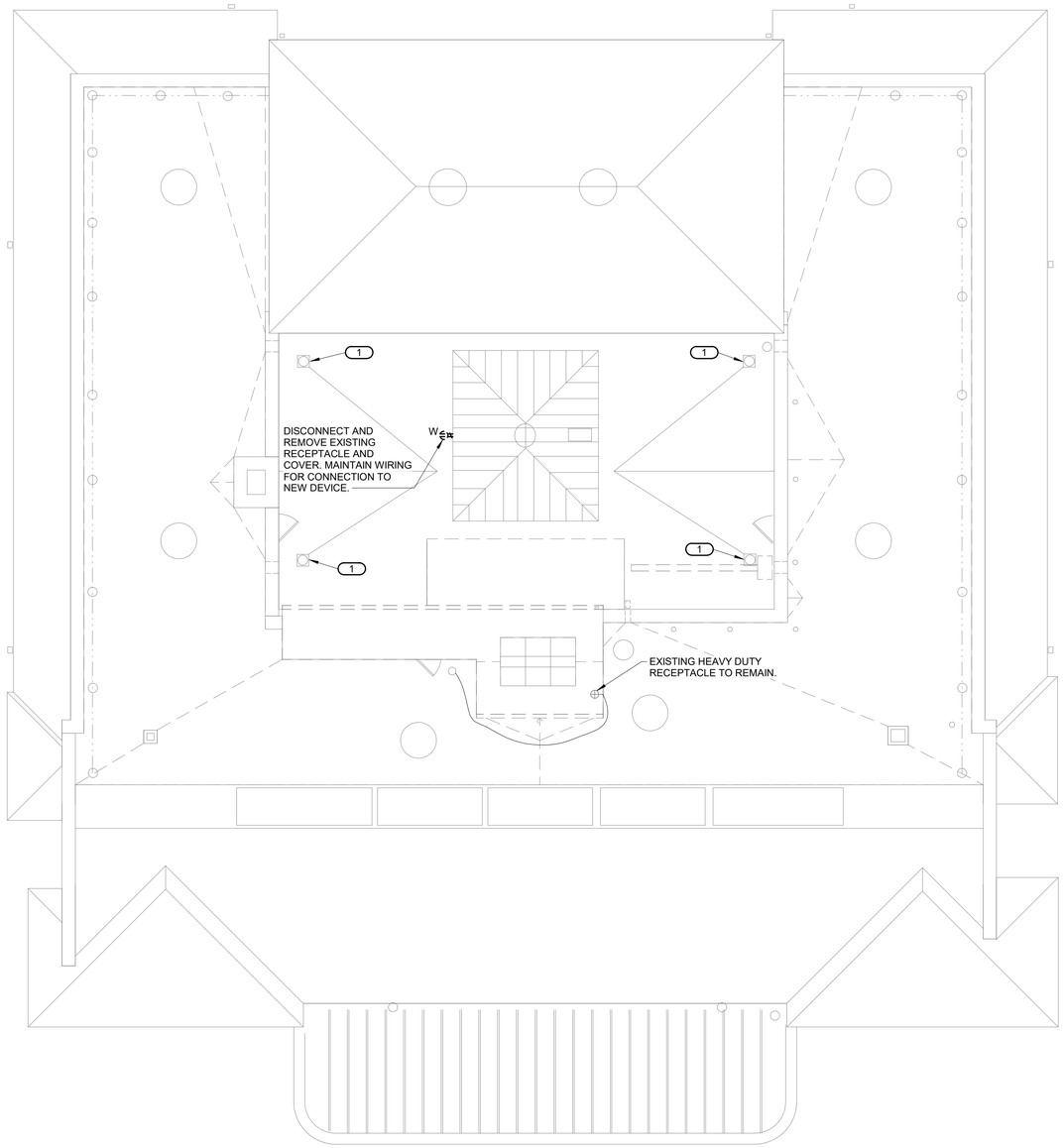

SHEET NOTES:

1. REMOVE ANY ROOF PIPING PENETRATIONS THAT ARE DEEMED TO BE IN VIOLATION OF LOCAL CODE. CUT OFF PENETRATING PIPING AND CAP BELOW ROOF LEVEL.
2. DEMOLITION SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. DISCONNECT AND REMOVE ALL WIRE, CABLE, CONDUIT, JUNCTION BOXES, EQUIPMENT, DEVICES, AND FIXTURES NOT REQUIRED TO REMAIN. (SHOWN DARK AND DASHED). ALL EXISTING CONDUIT REQUIRED TO BE REMOVED IS NOT SHOWN ON PLANS BUT NEVERTHELESS IS REQUIRED TO BE REMOVED BY CONTRACTOR.
4. LEAD MATERIALS ARE PRESENT IN/ON SELECT EXISTING MATERIALS REFER TO HAZARDOUS MATERIAL REPORT FOR LOCATIONS. REFER TO SPECIFICATIONS FOR REMOVAL AND DISPOSAL.

KEYNOTES: (#)

1. DISCONNECT AND REMOVE EXISTING ROOF DRAIN GRATE AND CLEAN DRAIN WEEPHOLES UNDERNEATH FRAME.

1 / MEX1.2 FORDYCE ROOF DEMOLITION PLAN - MECHANICAL/ELECTRICAL
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

CERTIFICATE OF AUTHORIZATION — IMEG Consultants Corp. No. 4308 — ARKANSAS

STATE OF ARKANSAS — LICENSED PROFESSIONAL ENGINEER — No. 20909 — DAVID W. BODEN-CHATT

10.27.2023

A/E FIRMS	ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437
DESIGNED:	BDN/PIP
CADD:	BDN/MWM
TECH. REVIEW:	SGB/PIP
DATE:	10.27.2023
SUB SHEET NO.	04 MEX1.2
TITLE OF SHEET	HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF DEMOLITION PLAN - MECHANICAL/ELECTRICAL OPTION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK
DRAWING NO.	128 / 182951
PMIS/PKG NO.	318915
SHEET	284 OF 286

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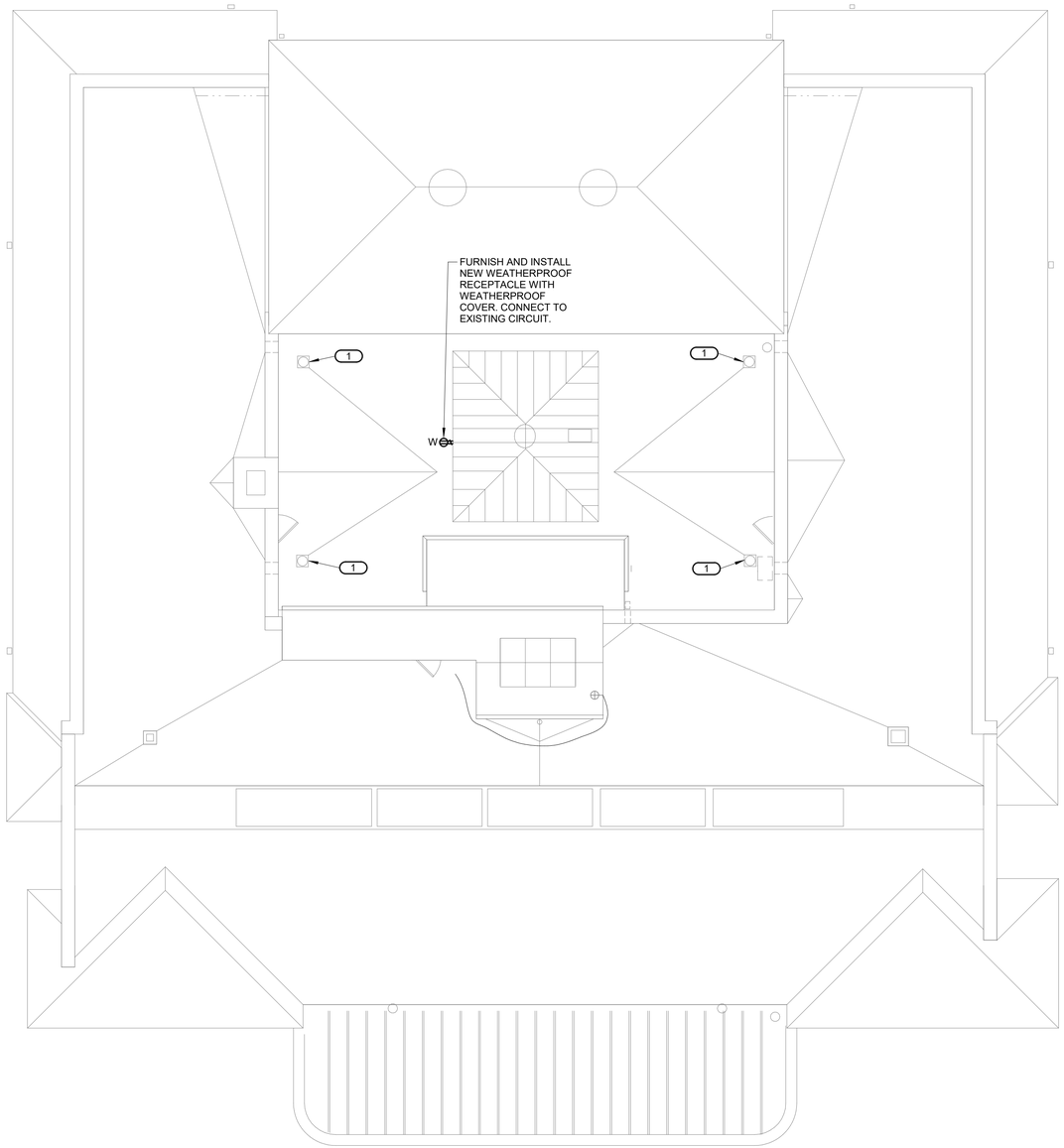
SHEET NOTES:

1. REPLACE ANY PIPING PENETRATIONS DEEMED TO BE IN VIOLATION OF LOCAL CODE. ENSURE NEW PIPING ARRANGEMENTS MEET ALL LOCAL CODE REQUIREMENTS.
2. ROUTING OF WIRE AND CONDUIT AND MOUNTING OF FIXTURES AND DEVICES SHALL BE VERY CAREFULLY COORDINATED WITH EXISTING CONDITIONS, PRESERVATION ZONES, AND HISTORIC NATURE OF BUILDING AND SHALL CONFORM WITH THE NATIONAL PARKS REQUIREMENTS AND GUIDELINES.
3. ALL CONDUIT SHALL BE INSTALLED PARALLEL AND PERPENDICULAR TO BUILDING STRUCTURE.

KEYNOTES: (#)

1. CLEAN AND REINSTALL EXISTING ROOF DRAIN GRATE SECURELY ATTACHED TO FRAME. EXISTING ROOF DRAIN STORM WATER PIPING WAS SCOPED AND PIPING WAS SHOWN TO HAVE HAIRLINE CRACKS. IT IS UNDERSTOOD THAT THERE HAVE BEEN NO REPORTED LEAKS FROM THIS PIPING. HOWEVER, THOUGH NOT IN THIS SCOPE OF WORK, WE RECOMMEND THE EXISTING PIPING BE LINED AS A PRECAUTIONARY MEASURE UNTIL THE PIPING CAN BE REPLACED.



1 / ME1.2 FORDYCE ROOF PLAN - MECHANICAL/ELECTRICAL
1/8" = 1'-0"

8' 0' 8' 16'
1/8" = 1' - 0" SCALE OF FEET

IMEG Consultants Corp. No. 4308 ARKANSAS
LICENSED PROFESSIONAL ENGINEER No. 20909 DAVID W. BODENSCHATZ
10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	BDN/PIP	04 ME1.2	HOSP BUCKSTAFF + FORDYCE ROOFS FORDYCE ROOF PLAN - MECHANICAL/ELECTRICAL OPTION REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951
MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	CADD: BDN/MWM			PMIS/PKG NO. 318915
	TECH. REVIEW: SGB/PIP			SHEET 285 OF 286
	DATE: 10.27.2023			

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ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
$	SW-1P	26 09 33	SWITCH - SINGLE POLE
E E	ECONN	26 05 33	ELECTRICAL CONNECTION
J J	JB	26 05 33	JUNCTION BOX
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	CB-#	26 28 16	CIRCUIT BREAKER - SURFACE MOUNTED. REFER TO DISC/STA SCHEDULE
	CB-#	26 28 16	CIRCUIT BREAKER - FLUSH MOUNTED. REFER TO DISC/STA SCHEDULE
	DS-#/FDS-#/DSS-#	26 28 16	DISCONNECT. REFER TO DISC/STA SCHEDULE
			WALL BRACKET LUMINAIRE
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
W	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE, 125V
	REC-SIM-530R	26 27 26	RECEPTACLE, 125V

ELECTRICAL INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ABBAS STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. DEVICES MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
4. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
5. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING.
6. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO BE INSTALLED.
7. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
8. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
9. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
10. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
11. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
13. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE CONTRACTING OFFICER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE CONTRACTING OFFICER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
14. REFER TO OTHER REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
15. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY WORK.
16. THE CONTRACTING OFFICER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT BEING REMOVED. ALL EQUIPMENT DESIGNATED BY OWNER TO BE RETAINED IS TO BE REMOVED IN GOOD CONDITION, LABELED, BOXED AND DELIVERED TO OWNER.
17. MINIMUM CONDUIT SIZE SHALL BE 3/4" NOMINAL, UNLESS NOTED OTHERWISE.
18. PROTECT ALL EXISTING SITE UTILITIES REQUIRED TO REMAIN IN OPERATION AND AS REQUIRED FOR JOB SITE SAFETY. ANY DEVIATIONS FOUND SHALL BE MADE KNOWN TO THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING. COMMENCEMENT OF WORK INDICATES ACCEPTANCE OF DRAWINGS AND SITE CONDITIONS.
19. COORDINATE ALL WORK WITH OTHER TRADES, OFFSET PANELS, LIGHTS, RECEPTACLES AND CONDUIT AS REQUIRED. APPROVAL MUST BE OBTAINED FROM ARCHITECT PRIOR TO OFFSETTING ANY DEVICE OR EQUIPMENT.
20. CONTRACTOR SHALL RELABEL AND UPDATE SCHEDULES IN ALL REPLACED AND EXISTING TO REMAIN PANELBOARDS AND DISTRIBUTION PANELS AT THE COMPLETION OF THE PROJECT.
21. AFTER COMPLETION OF NEW WORK, REMOVE ALL TEMPORARY EQUIPMENT, CONDUIT, AND WIRING NOT REQUIRED TO REMAIN.
22. CONTRACTOR SHALL ENSURE THAT ALL PENETRATIONS IN FLOORS, WALLS AND CEILINGS THAT ARE ABANDONED OR LEFT UNUSED BECAUSE OF DEMOLITION, ARE FILLED WITH RATED MATERIAL TO MEET THE DESIGNATED CODE REQUIREMENTS. FIRE-STOPPING REQUIRED AT ALL FIREWALL CONDUIT AND/OR CABLE PENETRATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
23. ALL GFI DUPLEX RECEPTACLES SHALL BE CONNECTED DOWNSTREAM ON ALL SHARED BRANCH CIRCUITS HAVING GENERAL DUPLEX RECEPTACLES.
24. ALL EMPTY CONDUITS INDICATED SHALL BE FURNISHED AND INSTALLED WITH PULLWIRES AND INSULATED BUSHINGS.
25. VERIFY ALL OUTLETS, J-BOXES, PULLBOXES AND LIGHTING LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL CASEWORK AND REFLECTED CEILING PLANS, INCLUDING OWNER FURNISHED EQUIPMENT AND/OR FURNITURE, PRIOR TO ROUGH-IN.
26. ALL OUTLET BOXES SHALL BE PROVIDED AS FLUSH MOUNTING HAVING CONDUIT CONCEALED IN CONSTRUCTION AS REQUIRED, UNLESS NOTED OTHERWISE. ALL BOXES UTILIZED SHALL BE COMPATIBLE WITH ALL WALL CONSTRUCTION. PROVISION SHALL BE MADE FOR "SHALLOW-TYPE" AND "STANDARD" OUTLET BOXES AS REQUIRED FOR FLUSH INSTALLATION.
27. ALL CONDUIT SHALL BE CONCEALED IN CONSTRUCTION IN FINISHED AREAS. EXPOSED CONDUIT SHALL BE ROUTED AT BUILDING STRUCTURE ABOVE AT CEILING, THEN DROP TO EACH FIXTURE OR DEVICE LOCATION INDICATED AS DIRECTED BY ARCHITECT.
28. FOR PURPOSES OF VOLTAGE DROP, PROVIDE #10 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUN BEYOND 70 FT FROM SOURCE PANEL AND #8 WIRE FOR 120 VOLT BRANCH CIRCUIT HOMERUNS BEYOND 120FT FROM SOURCE PANEL.
29. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS OF ALL HVAC, HVAC CONTROL, PLUMBING, FIRE ALARM, FIRE PROTECTION, I.T., SECURITY, COMMUNICATIONS AND OWNER FURNISHED EQUIPMENT PER EQUIPMENT MANUFACTURER INSTRUCTIONS AND COORDINATE WITH ASSOCIATED EQUIPMENT CONTRACTORS. PROVIDE ALL NECESSARY DEVICES AND CONNECTIONS AS REQUIRED.
30. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN LIGHTLY AND NOTED ARE EXISTING TO REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. ALL EXISTING EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND DASHED TO BE REMOVED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
31. ALL EQUIPMENT, CONDUIT AND WIRING SHOWN DARK AND SOLID IS NEW WORK TO BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
32. IN EXISTING RENOVATED FINISHED AREAS WHERE NEW CONDUIT AND WIRING ARE NOT ABLE TO BE INSTALLED CONCEALED IN CONSTRUCTION, FURNISH AND INSTALL SURFACE MOUNTED RACEWAY AS MANUFACTURERED BY LEGRAND/WIREMOLD, OR APPROVED EQUIVALENT. RACEWAY SIZE AND USAGE SHALL BE KEPT TO A MINIMUM. THE ROUTING FOR ALL SURFACE MOUNTED CONDUIT SHALL BE APPROVED IN ADVANCE OF INSTALLATION BY ARCHITECT. VERIFY EXISTING CONDITIONS AND COORDINATE WITH ARCHITECT PRIOR TO ROUGH-IN.
33. PROVIDE NEW BREAKERS IN EXISTING PANELBOARDS, IF REQUIRED. MATCH RATINGS AND MATE WITH EXISTING SIZE, IF REQUIRED.

ELECTRICAL LIGHTING DEMOLITION NOTES:

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED.
2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT.
3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD.
5. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL.
6. MATCH EXISTING PAINTED SURFACES. WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE, PROVIDE CUSTOM BACK PLATE WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION OF WATER AND CAULK WHERE NECESSARY.
7. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
8. FOR REASONS OF CLARITY ALL EXISTING CONDUIT, WIRING, EQUIPMENT, ETC. IS NOT SHOWN. CONTRACTOR SHALL REROUTE, RELOCATE, OR REMOVE ANY CONDUIT, FIXTURES, OR OTHER EXISTING ELECTRICAL DEVICES AS REQUIRED FOR NEW WORK AND NOT SHOWN ON DRAWINGS.
9. CONDUIT AND CABLE ROUTING SHALL NOT BLOCK SERVICE TO EXISTING OR NEW EQUIPMENT. CONTRACTOR SHALL ROUTE CONDUIT AND CABLE AS NECESSARY TO AVOID CONFLICTS WITH EXISTING CONDITIONS.
10. ALL EXISTING ELECTRICAL EQUIPMENT, DEVICES AND CIRCUITS INDICATED ARE TAKEN FROM AS-BUILT DRAWINGS AND CURSORY SITE SURVEY. VERIFY EXISTING CONDITIONS.

TYPICAL NEW CONSTRUCTION:

1. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.
2. COORDINATE LUMINAIRE IN MECHANICAL ROOMS WITH DUCTWORK, PIPING AND ANY MECHANICAL EQUIPMENT. PROVIDE LUMINAIRE WITH CHAINS OR HANGAR KIT WHERE REQUIRED. BOTTOM OF FIXTURE TO ALIGN WITH BOTTOM OF NEAREST BEAM/TRUSS. COORDINATE MOUNTING PRIOR TO ORDERING LUMINAIRES.

TYPICAL REMODEL:

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF UNLESS NOTED OTHERWISE.
2. COORDINATE HOURS OF ACCESS WITH CONTRACTING OFFICER.
3. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN SAME LOCATION OR NEW LOCATION.
4. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE.
5. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF' CONFIGURATION.
6. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, ARCHITECTURAL, STRUCTURAL AND CEILING MOUNTED DEVICES.

ELECTRICAL PHASING NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF PHASES. REFER TO CONSTRUCTION MANAGERS/GENERAL CONTRACTOR'S/ARCHITECT'S INSTRUCTIONS FOR MORE DETAILS AND PHASING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF THE PHASING CRITERIA.
2. REVIEW PROJECT PHASING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC. WITH AFFECTED ADJACENT AREAS.
3. PROVIDE TEMPORARY LIGHTING, POWER, SYSTEMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL PHASES OF PROJECT.
4. INSTALL TEMPORARY LIGHTING, CIRCUITS, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PHASES OF THE PROJECT
5. PHASE DEMOLITION WORK TO MINIMIZE DOWNTIME.
6. IN ADDITION, REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF BASE BID AND ALTERNATE BID AREAS.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, LIGHTING, POWER, AND SYSTEMS.

1. ALL EXISTING WIRING SHALL BE REMOVED.
2. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.
3. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK
4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR AND ARCHITECT/ENGINEER PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH ALL WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS ASSOCIATED WITH AREAS OF ALL WORK.

CERTIFICATE OF AUTHORIZATION IMEG Consultants Corp. No. 4308 ARKANSAS

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER No. 17885 ASHLEE DOWNHAM

10.27.2023

A/E FIRMS	DESIGNED:	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: **QUINN EVANS** 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888 MEP/ENG: **IMEG CORP.** 1600 BALTIMORE STREET, SUITE 300 KANSAS CITY, MO T: 816.842.8437	PIP CADD: MWM TECH. REVIEW: PIP DATE: 10.27.2023	04 E0.0	HOSP BUCKSTAFF + FORDYCE ROOFS ELECTRICAL GENERAL NOTES, SYMBOLS AND SCHEDULES REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	128 182951 PMIS/PKG NO. 318915 SHEET 286 OF 286

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