





WDD ARCHITECTS ARCHITECTS - INTERIOR DESIGNERS - PLANNERS 5050 NORTHSHORE LANE NORTH LITTLE ROCK, ARKANSAS 72118 PH. # 501-376-6681

ECI - ENGINEERING CONSULTANTS, INC. STRUCTURAL ENGINEERING 401 WEST CAPITOL AVENUE, SUITE 305 LITTLE ROCK, AR 72201 PH. # 501-376-3752



# BRINKLEY PUBLIC SCHOOLS BRINKLEY HIGH SCHOOL

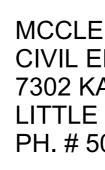
200 TIGER DRIVE, BRINKLEY, AR 72021 WDD PROJECT: 23-069

PACKAGE NO. 2 - SITE, BUILDING & SITE CONCRETE, STEEL, PEMB

DPSAFT PROJECT 2324-4801-001

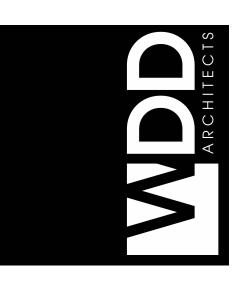
NOVEMBER 29, 2024

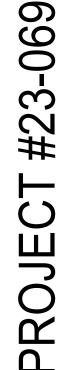
INSIGHT ENGINEERING MECHANICAL, ELECTRICAL, PLUMBING, & FIRE PROTECTION ENGINEERING 322 S STATE STREET, STE 201 LITTLE ROCK, ARKANSAS 72201 PH. # 501-237-3077



MCCLELLAND CONSULTING ENGINEERS, INC. CIVIL ENGINEERS, LANDSCAPE ARCHITECTS 7302 KANIS RD. LITTLE ROCK, AR 72204 PH. # 501-371-0272

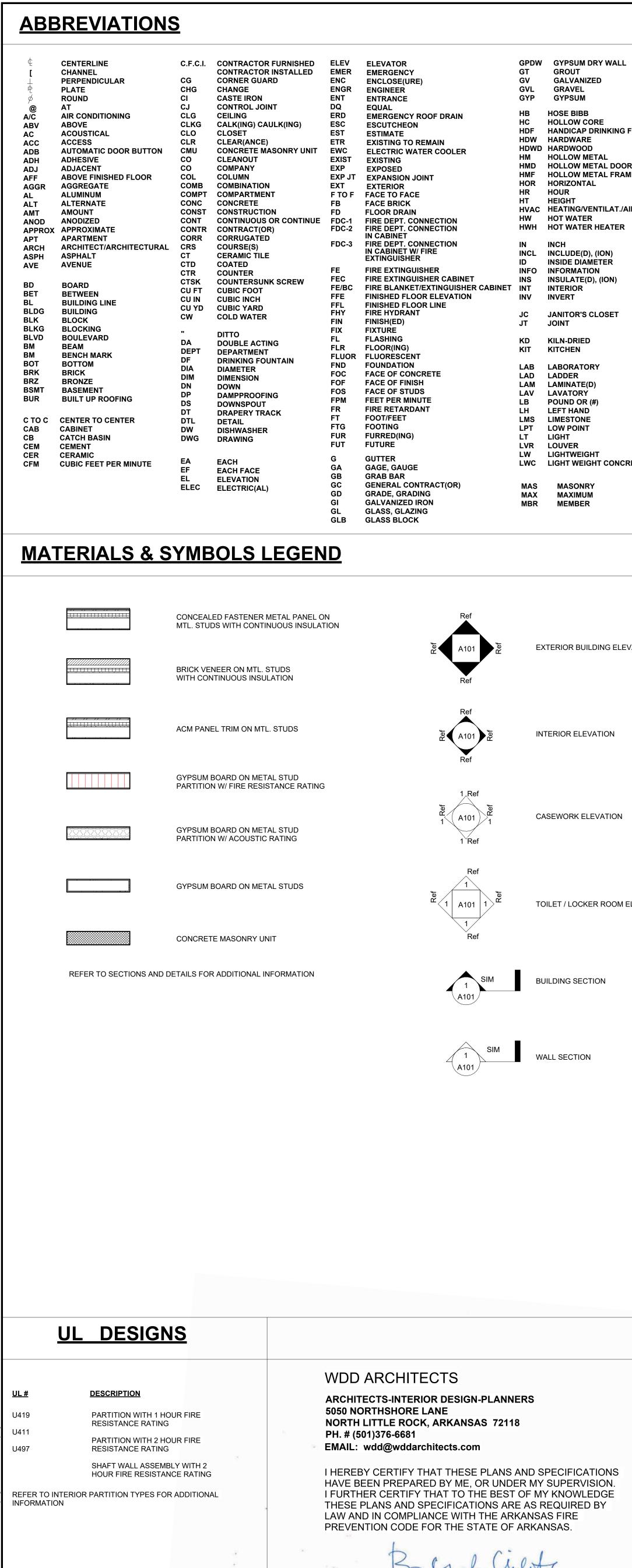
MCKAY-LANE CONSULTING, LTD FOODSERVICE CONSULTANTS FORT SMITH, AR PH: #479-629-4572





SCHOOLS BRINKLEY HIGH SCHOOL PUBLIC BRINKLEY

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SIGNATURE

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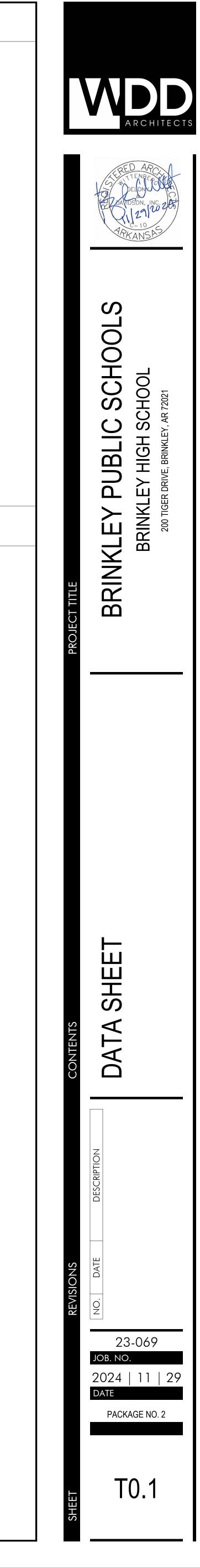
VALL	МС	MEDICINE CABINET	R	RISER	SUS	SUSPENDED
	МСВ	METAL CASING/CORNER BEAD	RA	RETURN AIR	SYS	SYSTEM
	MECH	MECHANIC(AL)	RAD	RADIUS	515	STOTEM
	MED	MEDIUM	RB	RUBBER BASE	т	TREAD
	MET	METAL	RBT	RUBBER TILE	T&G	TONGUE AND GROOVE
	MFR	MANUFACTURE(ER)	RD	ROOF DRAIN	тс	TOP OF CURB
	МН	MANHOLE	RE	REFER TO	TEL	TELEPHONE
	MIN	MINIMUM	RECP	RECEPTACLE	ТНК	THICK(NESS)
(ING FOUNTAIN	MIR	MIRROR	REF	REFERENCE	THR	THRESHOLD
	MISC	MISCELLANEOUS	REFL	REFLECTIVE	ТΙ	TOP OF INLET
	MLDG	MOLDING, MOULDING	REG	REGISTER	TKBD	TACKBOARD
	MO	MASONRY OPENING	REINF	REINFORCING	TPTN	TOILET PARTITION
DOOR	MRB	MARBLE	REM	REMOVE	TSL	TOP OF SLAB
FRAME	MRD	METAL ROOF DECKING	REQD	REQUIRED	TST	TOP OF WALL
	MTFR	METAL FURRING	RES	RESILIENT	ΤV	<b>TELEVISION WALL BRACKET</b>
	МТ	METAL THRESHOLD	RET	RETURN	TYP	TYPICAL
	MTL	MATERIAL	REV	REVISION(S), REVISED	ΤZ	TERRAZZO
AT./AIR CONDIT.	MULL	MULLION	RFG	ROOFING		
	MTH	MARBLE THRESHOLD	RFH	ROOF HATCH	UL	UNDERWRITERS LAB
TER	NAT	NATURAL	RM	ROOM		UNFINISHED
	NC	NON COMBUSTIBLE	RO	ROUGH OPENING	UON	UNLESS OTHERWISE NOTED
	NIC	NOT IN CONTRACT	ROW	RIGHT OF WAY	UR	URINAL
)	NOM	NOMINAL			••••	······
र	NL	NOLIMIT	•			
	NTS	NOT TO SCALE	S	SOUTH	VB	
N)			S4S	SURFACE FOUR SIDES	VB VB	VAPOR BARRIER VINYL BASE
	0 TO 0	OUT TO OUT	SC			
	OA	OVERALL	SCH	SCHEDULE	VCT	VINYL COMPOSITION TILE
	OC	ON CENTER	SCN	SCREEN		VERTICAL
ET	OD	OUTSIDE DIAMETER	SD	STORM DRAIN	VIN	VINYL
	ОН	OPPOSITE HAND	SEC	SECTION	VNR	
	O.F.C.I.	OWNER FURNISHED		SAFETY GLASS	VT	VINYL TILE
		CONTRACTOR INSTALLED	SH	SHELF, SHELVING	14/	WEOT
	OPG	OPENING	SHT	SHEET	W	WEST
	OPP	OPPOSITE		SHEATHING	W	WIDTH, WIDE
	PFN	PREFINISHED	SIM	SIMILAR	W/	WITH
	PG	PLATE GLASS	SNT	SEALANT	W/O	WITHOUT
	PLT	PLATE		SPECIFICATION(S)	WC	WATER CLOSET
	PLI	PROPERTY LINE	SPK	SPEAKER	WD	WOOD
			SQ	SQUARE	WF	
		PLASTIC LAMINATE PREFABRICATED		SQUARE FOOT	WG	WIRED GLASS
	PROP		SSK	SERVICE SINK	WH	WEEPHOLE
		PROPERTY POUNDS PER SQUARE FOOT	SST	STAINLESS STEEL	WHB	WHEEL BUMPER
	PSF		ST	STREET	WM	WIRE MESH
	PSI	POUNDS PER SQUARE INCH PRESERVATIVE TREATED	STA	STATION	WO	WITHOUT
	PT		STD	STANDARD	WP	WATERPROOFING
ONCRETE	PWD	PLYWOOD	STG	SEATING	WPT	WORKING POINT
	OT		STL	STEEL	WSCT	
	QT		STO	STORAGE	WTW	WALL TO WALL
	QTB		STR	STRUCTURAL	WWF	WELDED WIRE FABRIC
	QTF	QUARRY TILE FLOOR				
	QTY	QUANTITY				

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# **PROJECT LOCATION**





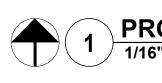
ROOM NO.	NAME	POR Code	TARGET AREA	MEASURE AREA
			,	
100 101	EVENTS LOBBY STUDENT DINING	E/M/H-BS-5 Corridors/Circulation E/M/H-SD-1 Student Dining	2,730 SF	1,963 2,924
102	STAGE	H-PA-3 Stage Area	600 SF	785
103	GIRLS	E/M/H-BS-1 Large Group Restrooms		260
104 105	BOYS MUSIC	E/M/H-BS-1 Large Group Restrooms M/H-MU-1 Instrumental Room	1,400 SF	260 1,404
105	STOR	H-MU-2 Instrument Storage	225 SF	230
100	M. LIB	M-MU-2 Music Storage	100 SF	100
108	DATA	E/M/H-BS-4 Telecommunications Room	64 SF	75
108	OFF	H-MU-6 Instrumental Office		117
109 109	JAN FAMILY	E/M/H-BS-2 Custodial Closet	50 SF	50 64
109	NURSE	H-AD-19 Family Restroom E/M/H-AD-15 Health Center	250 SF	380
111	R.R.	E/M/H-AD-20 Health Center Restroom	45 SF	103
112	COUN	H-AD-14 Guidance Reception and Display Area		150
113	COUN	E/M/H-AD-11 Guidance Counselor's Office	120 SF	120
114	COUN	E/M/H-AD-11 Guidance Counselor's Office	120 SF	122
115 116	OFF OFF	H-AD-17 Itinerant Personnel Office H-AD-17 Itinerant Personnel Office		122 127
110	PRINC	E/M/H-AD-3 Principal's Office	150 SF	127
118	WORK ROOM	H-AD-6 Mail/Work/Copy Room	100 01	679
119	ELEC	E/M/H-BS-3 Electrical Closet	50 SF	110
120	TLT	H-AD-10 Restroom		80
121	SRO	H-AD-17 Itinerant Personnel Office		109
122	CONF	H-AD-5 Conference Room		246
123 124	SEC RECEPTION	H-AD-2 Secretarial Area H-AD-1 Reception Area		122 447
124	VEST	E/M/H-BS-5 Corridors/Circulation		343
120	LOBBY	E/M/H-BS-5 Corridors/Circulation		1,612
127	MEDIA CENTER	M/H-MC-1 Reading Room/Circulation	1,556 SF	1,556
128	MS CLASSROOM	M-AC-1b MS Classroom Grades 7-8	850 SF	859
129	MS CLASSROOM	M-AC-1b MS Classroom Grades 7-8	850 SF	856
130 131	MS CLASSROOM CORRIDOR	M-AC-1b MS Classroom Grades 7-8 E/M/H-BS-5 Corridors/Circulation	850 SF	867 2,522
131	OT/PT	E/M/H-BS-5 Corridors/Circulation E/M/H-SE-7 OT/PT	350 SF	2,522
132	RESOURCE	E/M/H-SE-4 Special Education/Resource	450 SF	450
134	CONF	E/M/H-SE-2 Workroom/Conference	150 SF	219
135	STOR	H-SE-6 Storage		119
136	SPECIAL ED	E/M/H-SE-1 Self Contained Classroom	850 SF	850
137		E/M/H-SE-3 Restroom/Shower	100 SF	118
138 139	PROJECT LAB ELEC	H-AC-8 Project Lab/Classroom E/M/H-BS-3 Electrical Closet	1,100 SF 50 SF	1,112 79
139	DATA	E/M/H-BS-3 Electrical Closet E/M/H-BS-4 Telecommunications Room	50 SF 64 SF	38
141	EARTH SCIENCE	H-AC-2 Science Clrm/Lab-Gen/Physics	1,440 SF	1,429
142	HS CLASSROOM	H-AC-1 HS Classroom	850 SF	850
143	HS CLASSROOM	H-AC-1 HS Classroom	850 SF	851
144 145	SPEECH	E/M/H-SE-5 Speech Therapy	475 SF	480
145 146	WORK RM	H-AC-6 Teacher Prep Area/Workroom E-AC-7 Individual Restroom		243 48
140	BOYS	E/M/H-BS-1 Large Group Restrooms		194
148	GIRLS	E/M/H-BS-1 Large Group Restrooms		187
149	ART	H-VA-1 Art Room	1,200 SF	1,200
150	STOR / KILN	M/H-VA-3 Art Material Storage H-AC-1 HS Classroom	100 SF 850 SF	146
151 152	HS CLASSROOM HS CLASSROOM	H-AC-1 HS Classroom H-AC-1 HS Classroom	850 SF 850 SF	851 851
152	CORRIDOR	E/M/H-BS-5 Corridors/Circulation	630 SF	1,364
154	CAREER	CE-BM-11 Classroom	850 SF	851
155	WOOD SHOP	CE-FCS-9 Facilities Management, Maintenance,	1,200 SF	1,201
450		& Services Lab		
156 157		H-AC-4 Science Clrm/Lab-Bio/Life Sci M-CE-1 Career Education	1,440 SF 1,300 SF	1,440
157	AGRI SHOP HANDWASH	E/M/H-BS-1 Large Group Restrooms	1,300 SF	1,361 105
176	JANITOR	E/M/H-BS-2 Custodial Closet	50 SF	35
200	GYMNASIUM	H-PE-1 PE Area	6,000 SF	10,070
201	KITCHEN	E/M/H-FS-2a Preparation Area	207 SF	688
202	CONCESSIONS	H-PA-10 Lobby/Concessions/Gallery		209
203	ELEC	E/M/H-BS-6 Mech/Elect Space/Decks		147
204 207	MECH BOYS LOCKERS	E/M/H-BS-6 Mech/Elect Space/Decks H-PE-3 Student Locker Room	400 SF	176 287
207	CORRIDOR	E/M/H-BS-5 Corridors/Circulation		1,087
210	GIRLS LOCKERS	H-PE-3 Student Locker Room	400 SF	382
212	DRESSING	H-PE-6 PE/Athletic Office		143
213		H-PE-7 Staff Shower		91
214 218	GIRLS LOCKERS	H-PE-7 Staff Shower	150 SF	338
218 219	RESTROOM CORRIDOR	H-PE-4 Student Restroom/Shower E/M/H-BS-5 Corridors/Circulation	150 SF	221 114
219	SERVING	E/M/H-FS-2b Serving Area	196 SF	203
221	OFFICE	H-FS-3 Dietician Office		80
222	DISHWASH	E/M/H-FS-2e Ware Washing	52 SF	166
224		H-PE-6 PE/Athletic Office		140
225	TLT BOXS LOCKERS	H-PE-7 Staff Shower	400.05	98
226 227	BOYS LOCKERS RESTROOM	H-PE-3 Student Locker Room H-PE-4 Student Restroom/Shower	400 SF 150 SF	256 185
227	DRY STOR	E/M/H-FS-2c Dry Food Storage	64 SF	83
228	LAUNDRY	H-PE-10 Training Room		191
228	COOLER	E/M/H-FS-2d Cooler/Freezer	58 SF	71
229	STORAGE	H-PE-3 Student Locker Room	400 SF	290
229	FREEZER	E/M/H-FS-2d Cooler/Freezer	58 SF	71
230	STORAGE STAFF TLT	H-PE-3 Student Locker Room	400 SF	210 65
231 233	ELEC.	H-FS-4 Restroom E/M/H-BS-6 Mech/Elect Space/Decks		137
233	DATA	E/M/H-BS-4 Telecommunications Room	64 SF	54
235	GIRLS RR	H-PE-4 Student Restroom/Shower	150 SF	211
236	BOYS RR	H-PE-4 Student Restroom/Shower	150 SF	282
238	FIRE RISER	E/M/H-BS-6 Mech/Elect Space/Decks		65
000	TOOL STORAGE	M-CE-3 Career Education Storage		95
239 240	TOOL STORAGE	M-CE-3 Career Education Storage		95

RESTROOM H-PE-4 221 SF

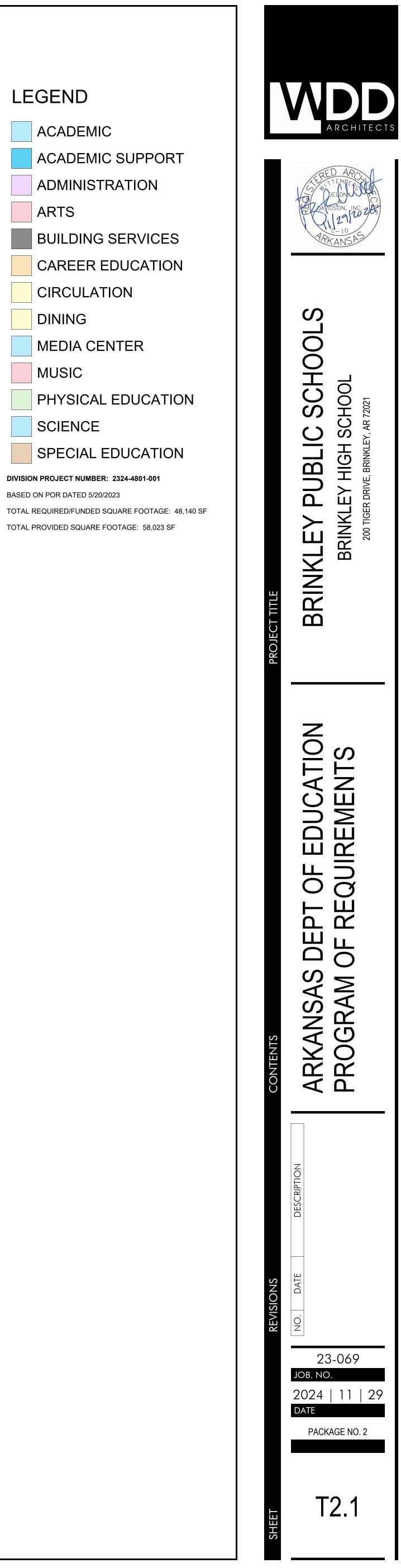
GIRLS LOCKERS H-PE-7 338 SF TLT H-PE-7 91 SF

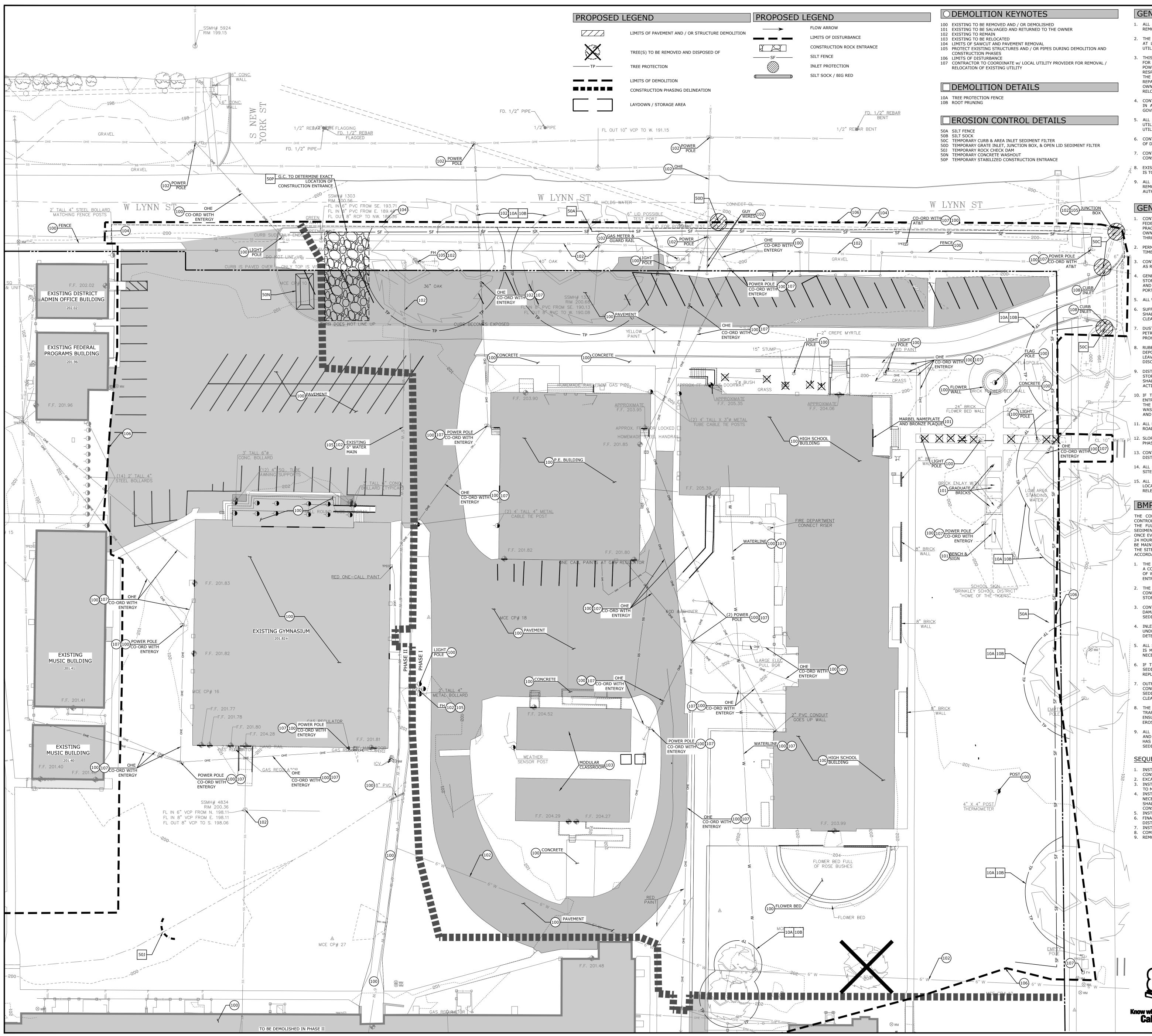
TLT H-PE-7 98 SF

BOYS LOCKERS H-PE-3 256 SF RESTROOM H-PE-4 185 SF









# GENERAL DEMOLITION NOTES

- 1. ALL AREAS WITHIN THE LIMITS OF DISTURBANCE TO BE DEMOLISHED AND REMOVED UNLESS OTHERWISE NOTED ON THIS PLAN.
- 2. THE CONTRACTOR IS REQUIRED TO NOTIFY THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO EXCAVATING IN ORDER THAT UNDERGROUND UTILITIES IN THE AREA CAN BE LOCATED.
- 3. THIS PLAN SHOULD BE USED IN CONJUNCTION WITH THE TOPOGRAPHICAL SURVEY FOR REFERENCE. THE LOCATION OF KNOWN SUBSURFACE STRUCTURES, PIPES, POWER, GAS, PHONE, ETC. ARE SHOWN ON THE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING INFORMATION AND SATISFYING HIMSELF TO AS TO THE LOCATION OF THE AFOREMENTIONED ITEMS, SHOWN AND NOT SHOWN. ALL REPAIRS OR RELOCATIONS NECESSARY SHALL BE MADE AS REQUIRED BY THE OWNER OF THE UTILITY OR STRUCTURE. THE COST OF SUCH REPAIRS OR RELOCATIONS NECESSARY SHALL BE BORNE BY THE CONTRACTOR.
- CONTRACTOR SHALL DISPOSE OF ALL MATERIALS RESULTING FROM DEMOLITION IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS THAT GOVERN SUCH OPERATIONS.
- 5. ALL ABANDONED SERVICE LINES SHALL BE DISCONNECTED AND CAPPED PER UTILITY COMPANIES REQUIREMENTS. COORDINATE ALL DISCONNECTIONS WITH UTILITY COMPANIES.
- 6. CONTRACTOR IS TO BRING TO THE ATTENTION OF THE CIVIL ENGINEER ANY AREA OF DEMOLITION IN QUESTION BEFORE PROCEEDING WITH WORK.
- CONTRACTOR TO REVIEW AND COORDINATE DEMOLITION LIMITS WITH PROPOSED CONSTRUCTION PLANS.
- 8. EXISTING CLEAN TOPSOIL TO BE STOCKPILED FOR FUTURE USE ON THIS SITE AND IS TO BE COORDINATED BY THE GENERAL CONTRACTOR.
- ALL EXISTING WATER, GAS AND / OR ELECTRICAL METERS AS NOTED TO BE REMOVED WITHIN THE PROJECT AREA ARE TO BE RETURNED TO THE APPROPRIATE AUTHORITY.

# GENERAL EROSION CONTROL NOTES

- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AND CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY PERMITTING AGENCY AND OWNER OR AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
   PERMIT FOR ANY CONSTRUCTION ACTIVITY MUST BE MAINTAINED ON SITE AT ALL
- CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR
- AS REQUIRED BY THE GENERAL PERMIT.
  4. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- 5. ALL WASH WATER SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
- SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
   DURDICH, TRACH, CARRAGE, LITTER, OR OTHER SUCH MATERIALS, SHALL BE
- 8. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- 9. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- 10. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- 11. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- 12. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- CONTRACTOR SHALL DESIGNATE / IDENTIFY AREAS INSIDE THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
- 14. ALL BMP'S SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED BY A MINIMUM OF 80% GRASS COVERAGE.
- 15. ALL DEWATERING ACTIVITIES SHALL CONFORM TO ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS. DISCHARGED WATER MUST BE PROPERLY TREATED BEFORE RELEASING FROM THE SITE.

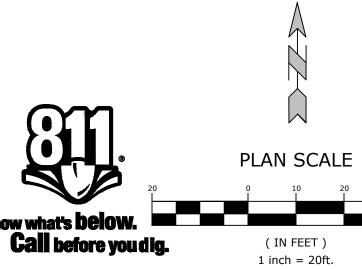
# BMP MAINTENANCE

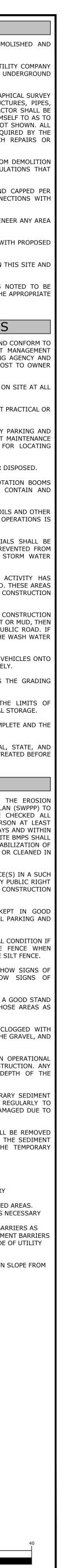
THE CONTRACTOR SHALL IMPLEMENT ALL MEASURES SHOWN ON THE EROSION CONTROL PLAN AND IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) TO THE FULLEST EXTENT PRACTICAL. THE CONTRACTOR SHALL HAVE CHECKED ALL SEDIMENT AND EROSION CONTROL MEASURES BY A QUALIFIED PERSON AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS OR EVERY FOURTEEN (14) DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT EXCEEDING 0.25". ALL SITE BMPS SHALL BE MAINTAINED IN A FULLY FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION OF THE SITE HAS OCCURRED. ALL SITE BMPS SHALL BE REPAIRED AND / OR CLEANED IN ACCORDANCE WITH THE FOLLOWING:

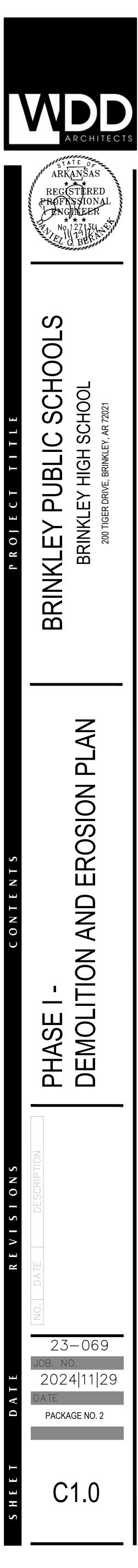
- .. THE CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE(S) IN A SUCH A CONDITION THAT WILL PREVENT MUD BEING TRACKED INTO ANY PUBLIC RIGHT OF WAY(S). THIS MAY REQUIRE PERIODIC TOP DRESSING OF ALL CONSTRUCTION ENTRANCE(S) AS NECESSARY.
- 2. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION. THIS MAY REQUIRE PERIODIC TOP DRESSING OF ALL PARKING AND STORAGE AREA(S) AS NECESSARY.
- 3. CONTRACTOR SHALL REPAIR ALL SILT FENCING TO THEIR ORIGINAL CONDITION IF DAMAGED; SEDIMENT SHALL BE REMOVED FROM ALONG THE FENCE WHEN SEDIMENT REACHES NO MORE THAN ONE-HALF THE HEIGHT OF THE SILT FENCE.
- INLET BMPS SHALL BE REPAIRED AND/OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING. CONTRACTOR SHALL REPLACE IF THEY SHOW SIGNS OF DETERIORATION.
- 5. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. CONTRACTOR SHALL FERTILIZE AND RESEED THOSE AREAS AS NECESSARY.
- IF THE GRAVEL FOUND IN ANY SEDIMENT FILTER(S) BECOME CLOGGED WITH SEDIMENT, CONTRACTOR SHALL PULL THE GRAVEL AWAY, CLEAN THE GRAVEL, AND REPLACE IN THE SEDIMENT FILTER(S).
- OUTFALL STRUCTURES IN SEDIMENT BASINS SHALL BE KEPT IN OPERATIONAL CONDITIONS AT ALL TIMES AND DURING ALL PHASES OF CONSTRUCTION. ANY SEDIMENT FOUND IN THE BASIN SHALL NOT EXCEED THE DEPTH OF THE CLEAN-OUT LEVEL (SITE SPECIFIC).
- THE EMBANKMENT OF THE SEDIMENT BASIN(S) AND/OR TEMPORARY SEDIMENT TRAPS AND THEIR OUTFALL STRUCTURES SHALL BE CHECKED REGULARLY TO ENSURE THEY ARE STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED DUE TO EROSION OR CONSTRUCTION (SITE SPECIFIC).
- 9. ALL SEDIMENT FOUND IN THE TEMPORARY SEDIMENT TRAP SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS REACHED NO MORE THAN ONE-HALF THE DEPTH OF THE TEMPORARY SEDIMENT TRAP (SITE SPECIFIC).

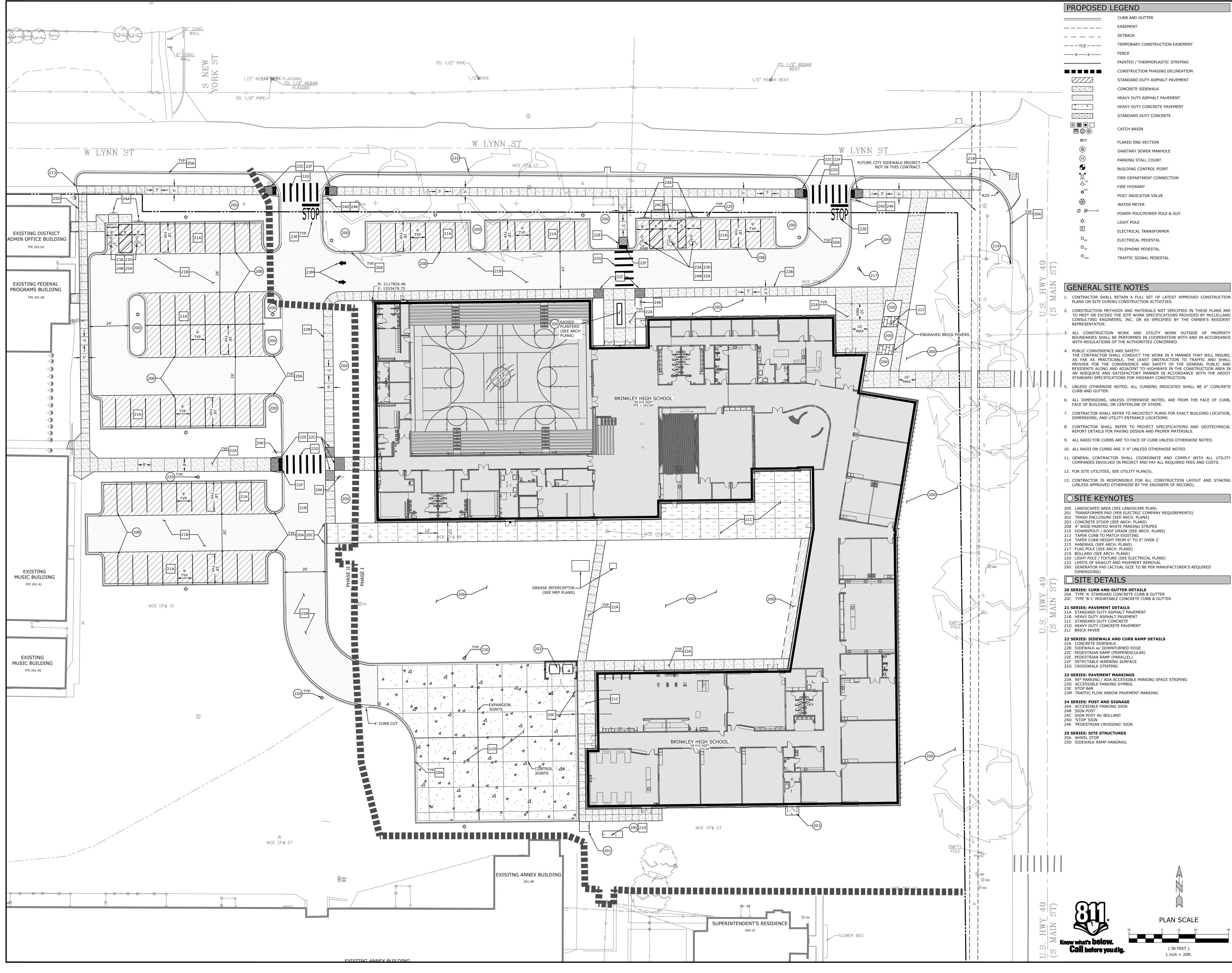
# SEQUENCE OF CONSTRUCTION

- INSTALL PERIMETER EROSION CONTROL MEASURES AND TEMPORARY CONSTRUCTION ENTRANCES/CONCRETE WASHOUT.
   EXCAVATION AND EMBANKMENT TO FORM THE PAVEMENT OR GRADED AREAS.
   INSTALL STORM SEWER (ADJUST EXISTING SEDIMENT BARRIERS AS NECESSARY TO MAINTAIN SEDIMENT CONTROL).
   INSTALL UNDERGROUND UTILITIES (ADJUST EXISTING SEDIMENT BARRIERS AS NECESSARY TO MAINTAIN SEDIMENT CONTROL); ADDITIONAL SEDIMENT BARRIERS SHALL BE UTILIZED AS REQUIRED TO BOUND THE DOWN SLOPE SIDE OF UTILITY
- SHALL BE UTILIZED AS REQUIRED TO BO CONSTRUCTION AND SOIL STOCKPILES.5. INSTALL BUILDING.
- FINAL GRADING (SEDIMENT BARRIERS SHALL BE MAINTAINED DOWN SLOPE FROM DISTURBED SOIL DURING THIS OPERATION).
   INSTALL PAVING.
- COMPLETION OF ONSITE STABILIZATION.
   REMOVE PERIMETER EROSION CONTROL MEASURES.















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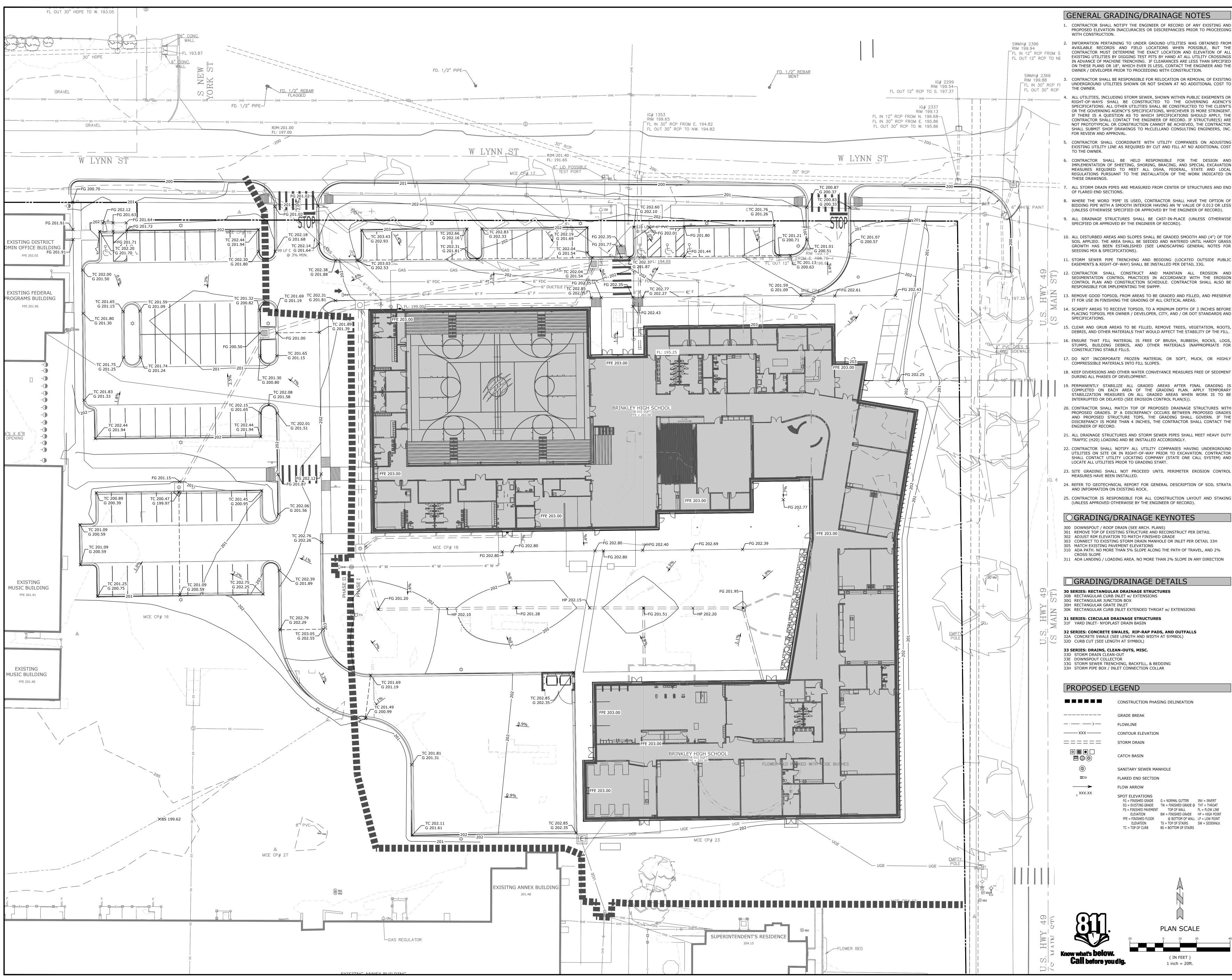


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# GENERAL GRADING/DRAINAGE NOTES

1. CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD OF ANY EXISTING AND PROPOSED ELEVATION INACCURACIES OR DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION. 2. INFORMATION PERTAINING TO UNDER GROUND UTILITIES WAS OBTAINED FROM

- CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS IN ADVANCE OF MACHINE TRENCHING. IF CLEARANCES ARE LESS THAN SPECIFIED ON THESE PLANS OR 18", WHICH EVER IS LESS, CONTACT THE ENGINEER AND THE OWNER / DEVELOPER PRIOR TO PROCEEDING WITH CONSTRUCTION. 3. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OR REMOVAL OF EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN AT NO ADDITIONAL COST TO
- ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT-OF-WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT'S OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD. IF STRUCTURE(S) ARE NOT PROTOTYPICAL OR CONSTRUCTION CANNOT BE ACHIEVED, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO McCLELLAND CONSULTING ENGINEERS, INC. FOR REVIEW AND APPROVAL.
- CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST
- 6. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF SHEETING, SHORING, BRACING, AND SPECIAL EXCAVATION MEASURES REQUIRED TO MEET ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THESE DRAWINGS.
- ALL STORM DRAIN PIPES ARE MEASURED FROM CENTER OF STRUCTURES AND END OF FLARED END SECTIONS.
- WHERE THE WORD 'PIPE' IS USED, CONTRACTOR SHALL HAVE THE OPTION OF BIDDING PIPE WITH A SMOOTH INTERIOR HAVING AN 'N' VALUE OF 0.013 OR LESS (UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER OF RECORD). ALL DRAINAGE STRUCTURES SHALL BE CAST-IN-PLACE (UNLESS OTHERWISE
- SPECIFIED OR APPROVED BY THE ENGINEER OF RECORD). 10. ALL DISTURBED AREAS AND SLOPES SHALL BE GRADED SMOOTH AND (4") OF TOP SOIL APPLIED. THE AREA SHALL BE SEEDED AND WATERED UNTIL HARDY GRASS GROWTH HAS BEEN ESTABLISHED (SEE LANDSCAPING GENERAL NOTES FOR
- SEEDING MIX & SPECIFICATIONS). 11. STORM SEWER PIPE TRENCHING AND BEDDING (LOCATED OUTSIDE PUBLIC EASEMENTS & RIGHT-OF-WAY) SHALL BE INSTALLED PER DETAIL 33G. 12. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL EROSION AND
- SEDIMENTATION CONTROL PRACTICES IN ACCORDANCE WITH THE EROSION CONTROL PLAN AND CONSTRUCTION SCHEDULE. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR IMPLEMENTING THE SWPPP.
- 13. REMOVE GOOD TOPSOIL FROM AREAS TO BE GRADED AND FILLED, AND PRESERVE IT FOR USE IN FINISHING THE GRADING OF ALL CRITICAL AREAS. 14. SCARIFY AREAS TO RECEIVE TOPSOIL TO A MINIMUM DEPTH OF 3 INCHES BEFORE PLACING TOPSOIL PER OWNER / DEVELOPER, CITY, AND / OR DOT STANDARDS AND
- 15. CLEAR AND GRUB AREAS TO BE FILLED, REMOVE TREES, VEGETATION, ROOTS, DEBRIS, AND OTHER MATERIALS THAT WOULD AFFECT THE STABILITY OF THE FILL.
- 16. ENSURE THAT FILL MATERIAL IS FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER MATERIALS INAPPROPRIATE FOR CONSTRUCTING STABLE FILLS.
- 17. DO NOT INCORPORATE FROZEN MATERIAL OR SOFT, MUCK, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL SLOPES.
- 18. KEEP DIVERSIONS AND OTHER WATER CONVEYANCE MEASURES FREE OF SEDIMENT DURING ALL PHASES OF DEVELOPMENT.
- 19. PERMANENTLY STABILIZE ALL GRADED AREAS AFTER FINAL GRADING IS COMPLETED ON EACH AREA OF THE GRADING PLAN. APPLY TEMPORARY STABILIZATION MEASURES ON ALL GRADED AREAS WHEN WORK IS TO BE INTERRUPTED OR DELAYED (SEE EROSION CONTROL PLAN(S)).
- 20. CONTRACTOR SHALL MATCH TOP OF PROPOSED DRAINAGE STRUCTURES WITH PROPOSED GRADES. IF A DISCREPANCY OCCURS BETWEEN PROPOSED GRADES AND PROPOSED STRUCTURE TOPS, THE GRADING SHALL GOVERN. IF THE DISCREPANCY IS MORE THAN 4 INCHES, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.
- 21. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC (H20) LOADING AND BE INSTALLED ACCORDINGLY.
- 22. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY (STATE ONE CALL SYSTEM) AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
- 23. SITE GRADING SHALL NOT PROCEED UNTIL PERIMETER EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- 24. REFER TO GEOTECHNICAL REPORT FOR GENERAL DESCRIPTION OF SOIL STRATA AND INFORMATION ON EXISTING ROCK.
- 25. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND STAKING (UNLESS APPROVED OTHERWISE BY THE ENGINEER OF RECORD).

# O GRADING/DRAINAGE KEYNOTES

- 300 DOWNSPOUT / ROOF DRAIN (SEE ARCH. PLANS) 301 REMOVE TOP OF EXISTING STRUCTURE AND RECONSTRUCT PER DETAIL
- 302 ADJUST RIM ELEVATION TO MATCH FINISHED GRADE 303 CONNECT TO EXISTING STORM DRAIN MANHOLE OR INLET PER DETAIL 33H 305 MATCH EXISTING PAVEMENT ELEVATIONS
- 310 ADA PATH. NO MORE THAN 5% SLOPE ALONG THE PATH OF TRAVEL, AND 2%
- 311 ADA LANDING / LOADING AREA. NO MORE THAN 2% SLOPE IN ANY DIRECTION

# GRADING/DRAINAGE DETAILS

- **30 SERIES: RECTANGULAR DRAINAGE STRUCTURES** 30B RECTANGULAR CURB INLET w/ EXTENSIONS
- 30G RECTANGULAR JUNCTION BOX 30H RECTANGULAR GRATE INLET
- 30K RECTANGULAR CURB INLET EXTENDED THROAT w/ EXTENSIONS **31 SERIES: CIRCULAR DRAINAGE STRUCTURES**
- 31F YARD INLET- NYOPLAST DRAIN BASIN 32 SERIES: CONCRETE SWALES, RIP-RAP PADS, AND OUTFALLS
- 32A CONCRETE SWALE (SEE LENGTH AND WIDTH AT SYMBOL) 32D CURB CUT (SEE LENGTH AT SYMBOL)
- 33 SERIES: DRAINS, CLEAN-OUTS, MISC. 33D STORM DRAIN CLEAN-OUT
- 33E DOWNSPOUT COLLECTOR 33G STORM SEWER TRENCHING, BACKFILL, & BEDDING 33H STORM PIPE BOX / INLET CONNECTION COLLAR

PROPOSED LEGEND

CONSTRUCTION PHASING DELINEATION

GRADE BREAK

FLOWLINE CONTOUR ELEVATION

STORM DRAIN

CATCH BASIN

SANITARY SEWER MANHOLE FLARED END SECTION

FLOW ARROW

SPOT ELEVATIONS FG = FINISHED GRADE G = NORMAL GUTTER INV = INVERT EG = EXISTING GRADE TW = FINISHED GRADE @ THT = THROAT FS = FINISHED PAVEMENT TOP OF WALL FL = FLOW LINE FFE = FINISHED FLOOR @ BOTTOM OF WALL LP = LOW POINT

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PLAN SCALE

( IN FEET 1 inch = 20ft.



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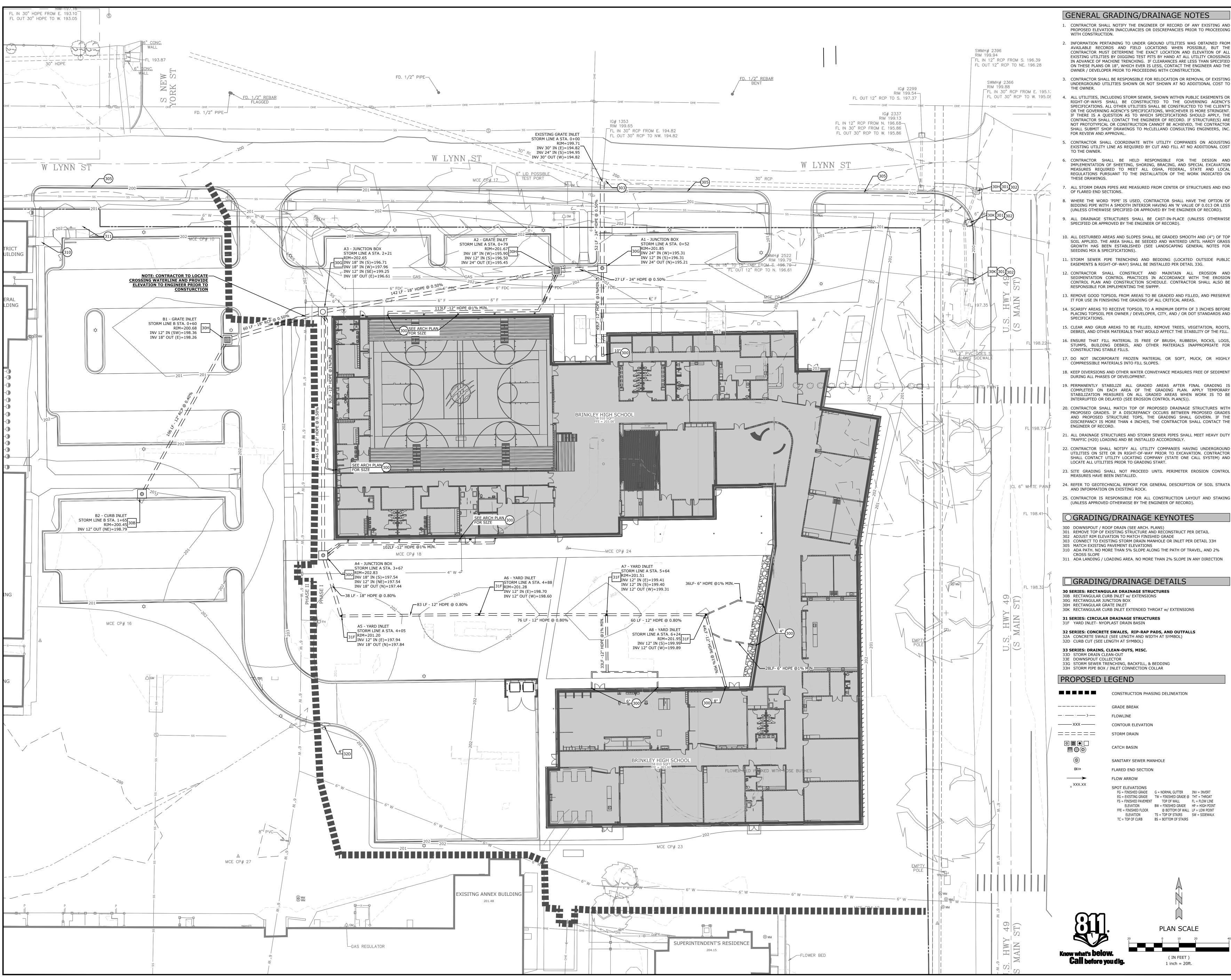


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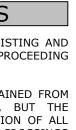
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      - PLAN SCALE
      - ( IN FEET 1 inch = 20ft.
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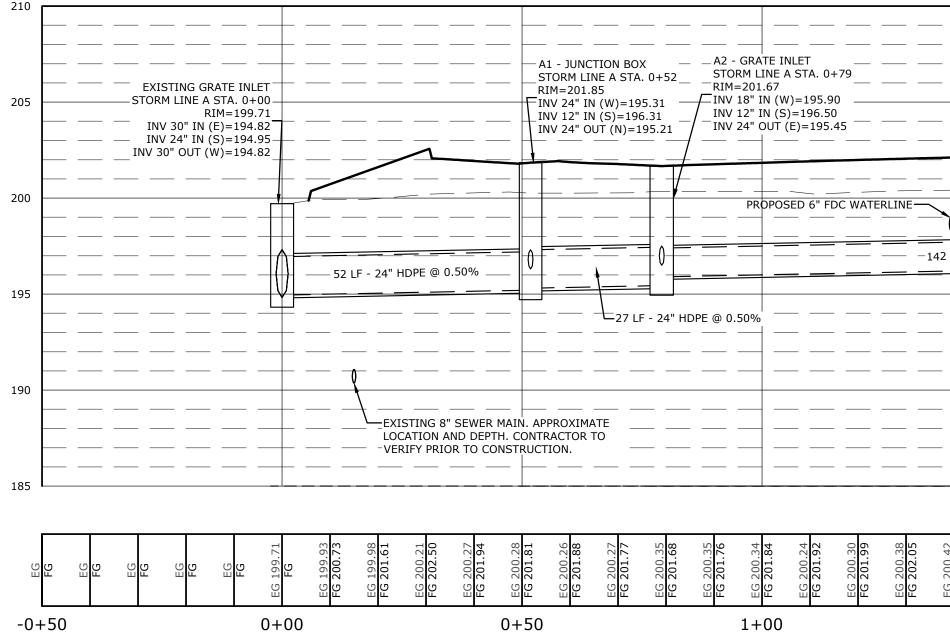
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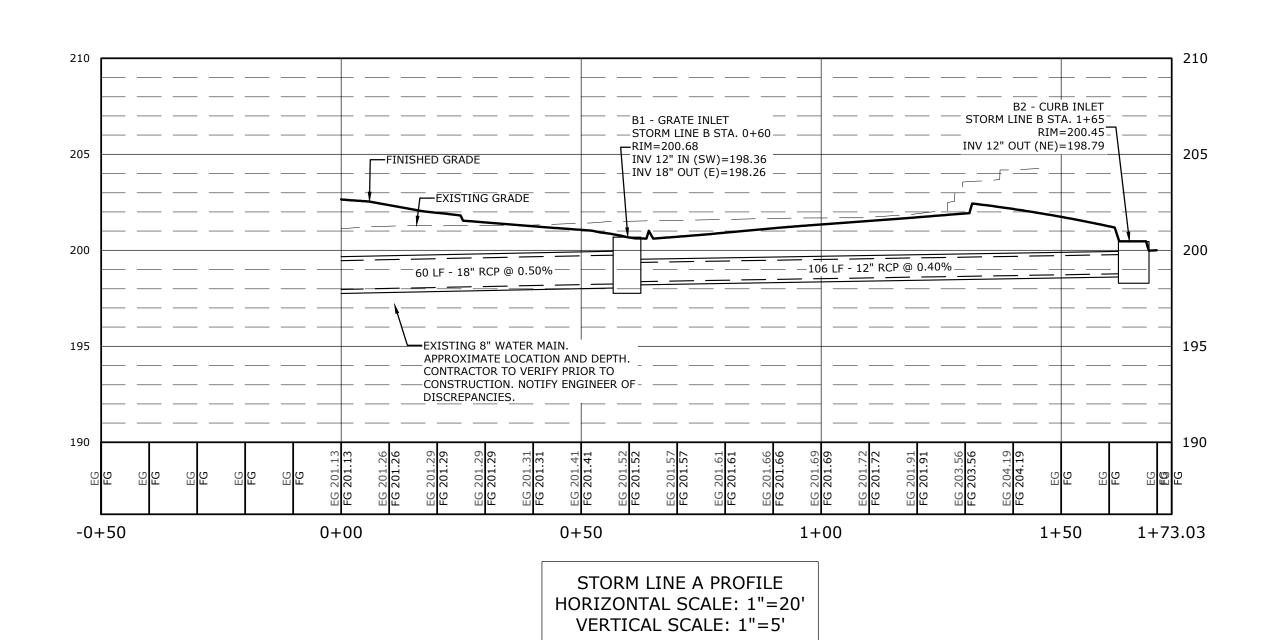
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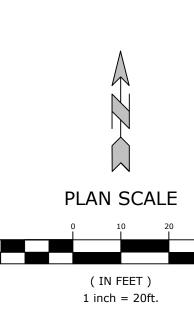


			A3 - JUNCTION BOX STORM LINE A STA. 2+21 RIM=202.65 INV 18" IN (S)=196.71 INV 18" IN (W)=197.96 INV 12" IN (SE)=199.25 INV 18" OUT (E)=196.61 		INV 18" IN (S)=197.54     WATERL       INV 12" IN (NE)=197.54     WATERL       INV 18" OUT (N)=197.44     INV 18" OUT (N)=197.44	ED 4" IC SERVICE A5 - YARD INLET INE STORM LINE A STA. 4+05 RIM=201.20 INV 12" IN (E)=197.94 INV 18" OUT (N)=197.84 	A6 - YARD INLET 	A7 - YARD INLET         STORM LINE A STA. 5+64         RIM=201.51         INV 12" IN (E)=199.41         INV 12" IN (S)=199.40         INV 12" OUT (W)=199.31
6 200.43         6 200.43           6 200.43         6 200.43           6 200.43         6 200.43           6 200.44         6 200.44           6 200.45         6 200.45<						@ 0.80% 83 LF - 12" HDPE @ 0.		A8 - YARD INLET A8 - YARD INLET STORM LINE A STA. 6+24 RIM=201.95 INV 12" IN (S)=199.99
ישוב שוב שוב שוב שוב שוב שוב שוב שוב שוב	EG 200.42 FG 202.12 FG 202.17 FG 202.17 FG 202.24 FG 202.30 FG 202.30	EG 200.78 EG 202.35 FG 202.38 FG 202.38 FG 202.40 FG 202.74 FG 202.74 FG 202.74	FG 202.68 EG 201.26 FG 202.75 FG 202.70 EG 201.45 FG 202.70 EG 201.45 FG 202.74 FG 202.74	EG 201.64 FG 202.77 EG 201.61 FG 202.79 FG 202.85 FG 202.85 FG 202.85 FG 202.85 FG 202.89 FG 202.89	EG 201.51 EG 202.91 EG 202.88 EG 201.35 EG 201.35 EG 201.17 EG 201.13 EG 201.13 EG 201.13 EG 201.13 EG 201.13 EG 201.13 EG 201.13 EG 201.08 EG 201.08	FG 201.89 EG 201.03 FG 201.43 FG 201.04 FG 201.09 FG 201.09 FG 201.16 FG 201.16 FG 201.16 FG 201.23 FG 201.23 FG 201.23 FG 201.23 FG 201.23 FG 201.23 FG 201.23 FG 201.23	EG 201.27 FG 201.83 EG 201.33 FG 201.63 FG 201.43 FG 201.40 FG 201.40 FG 201.45 FG 201.45 FG 201.40 FG 201.52 FG 201.52 FG 201.52 FG 201.52 FG 201.52 FG 201.62 FG 201.62 FG 201.92	EG 201.66 FG 202.12 EG 201.89 FG 201.80 FG 201.80 FG 201.80 FG 201.80 FG 201.80 FG 201.81 FG 201.81 FG 201.81 FG 201.81 FG 201.81 FG 201.65 FG 201.65 FG 201.81 FG 201.65 FG 202.15 FG 202.15



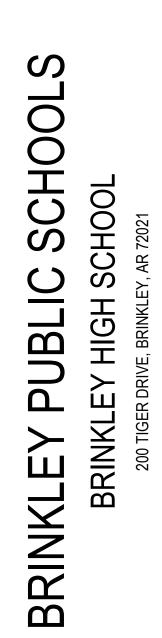
STORM LINE B PROFILE HORIZONTAL SCALE: 1"=20' VERTICAL SCALE: 1"=5'



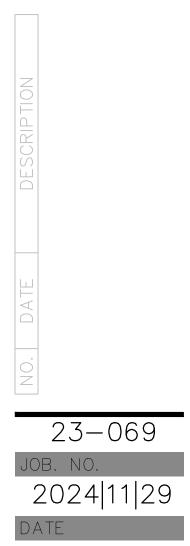












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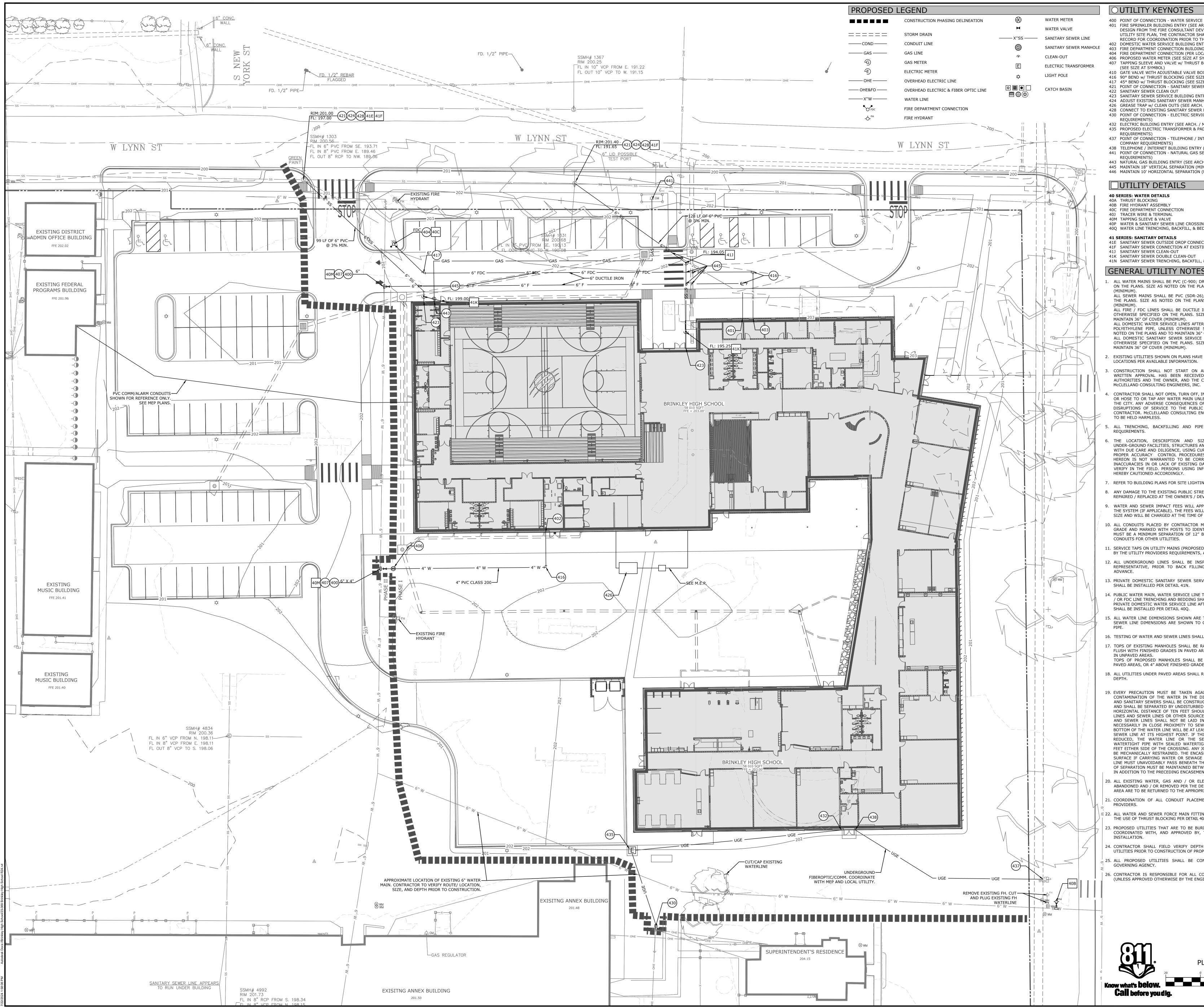
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## **OUTILITY KEYNOTES**

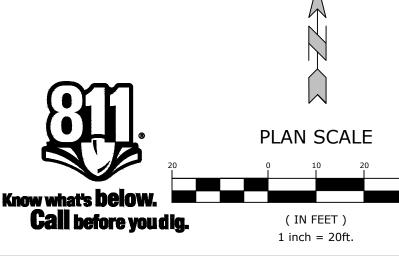
- 401 FIRE SPRINKLER BUILDING ENTRY (SEE ARCH. / MEP PLANS) SHOULD THE FIRE DESIGN FROM THE FIRE CONSULTANT DEVIATE IN ANY WAY FROM THE CIVIL UTILITY SITE PLAN, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD FOR COORDINATION PRIOR TO THE START OF CONSTRUCTION
- 402 DOMESTIC WATER SERVICE BUILDING ENTRY (SEE ARCH. / MEP PLANS) 403 FIRE DEPARTMENT CONNECTION BUILDING ENTRY (SEE ARCH. / MEP PLANS) 404 FIRE DEPARTMENT CONNECTION (PER LOCAL CODES)
- 406 PROPOSED WATER METER (SEE SIZE AT SYMBOL) 407 TAPPING SLEEVE AND VALVE w/ THRUST BLOCKING AND ADJUSTABLE VALVE BO (SEE SIZE AT SYMBOL)
- 410 GATE VALVE WITH ADJUSTABLE VALVE BOX (SEE SIZE AT SYMBOL) 416 90° BEND w/ THRUST BLOCKING (SEE SIZE AT SYMBOL) 417 45° BEND w/ THRUST BLOCKING (SEE SIZE AT SYMBOL) 421 POINT OF CONNECTION - SANITARY SEWER SERVICE
- 422 SANITARY SEWER CLEAN OUT 423 SANITARY SEWER SERVICE BUILDING ENTRY (SEE ARCH. / MEP PLANS) 424 ADJUST EXISTING SANITARY SEWER MANHOLE RIM TO MATCH FINISH GRADES
- 426 GREASE TRAP w/ CLEAN OUTS (SEE ARCH. / MEP PLANS) 428 CONNECT TO EXISTING SANITARY SEWER MANHOLE 430 POINT OF CONNECTION - ELECTRIC SERVICE (PER ELECTRIC COMPANY
- REQUIREMENTS) 432 ELECTRIC BUILDING ENTRY (SEE ARCH. / MEP PLANS)
- 435 PROPOSED ELECTRIC TRANSFORMER & PAD (PER ELECTRIC COMPANY REQUIREMENTS) 437 POINT OF CONNECTION - TELEPHONE / INTERNET SERVICE (PER TELEPHONE
- COMPANY REOUIREMENTS) 438 TELEPHONE / INTERNET BUILDING ENTRY (SEE ARCH. / MEP PLANS)
- 441 POINT OF CONNECTION NATURAL GAS SERVICE (PER GAS COMPANY REOUIREMENTS 443 NATURAL GAS BUILDING ENTRY (SEE ARCH. / MEP PLANS)
- 445 MAINTAIN 18" VERTICAL SEPARATION (MIN.) 446 MAINTAIN 10' HORIZONTAL SEPARATION (MIN.)

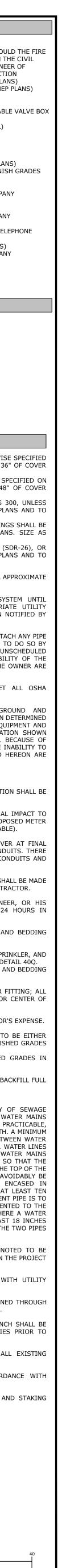
# UTILITY DETAILS

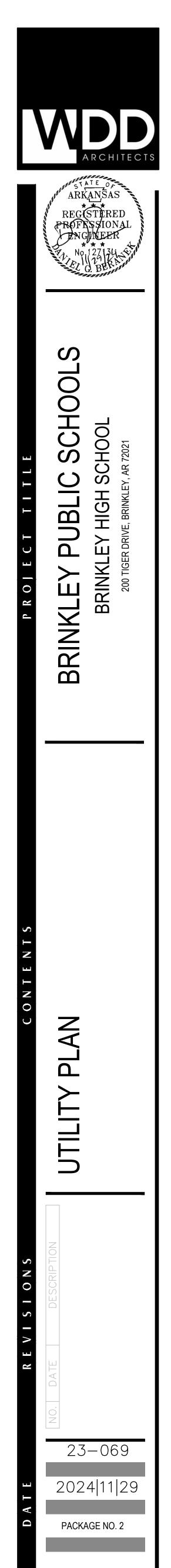
- **40 SERIES: WATER DETAILS** 40A THRUST BLOCKING
- 40B FIRE HYDRANT ASSEMBLY 40C FIRE DEPARTMENT CONNECTION 40J TRACER WIRE & TERMINAL
- 40M TAPPING SLEEVE & VALVE 40P WATER & SANITARY SEWER LINE CROSSING
- 40Q WATER LINE TRENCHING, BACKFILL, & BEDDING
- **41 SERIES: SANITARY DETAILS** 41E SANITARY SEWER OUTSIDE DROP CONNECTION 41F SANITARY SEWER CONNECTION AT EXISTING MANHOLE
- 41J SANITARY SEWER CLEAN-OUT 41K SANITARY SEWER DOUBLE CLEAN-OUT

### 41N SANITARY SEWER TRENCHING, BACKFILL, & BEDDING GENERAL UTILITY NOTES

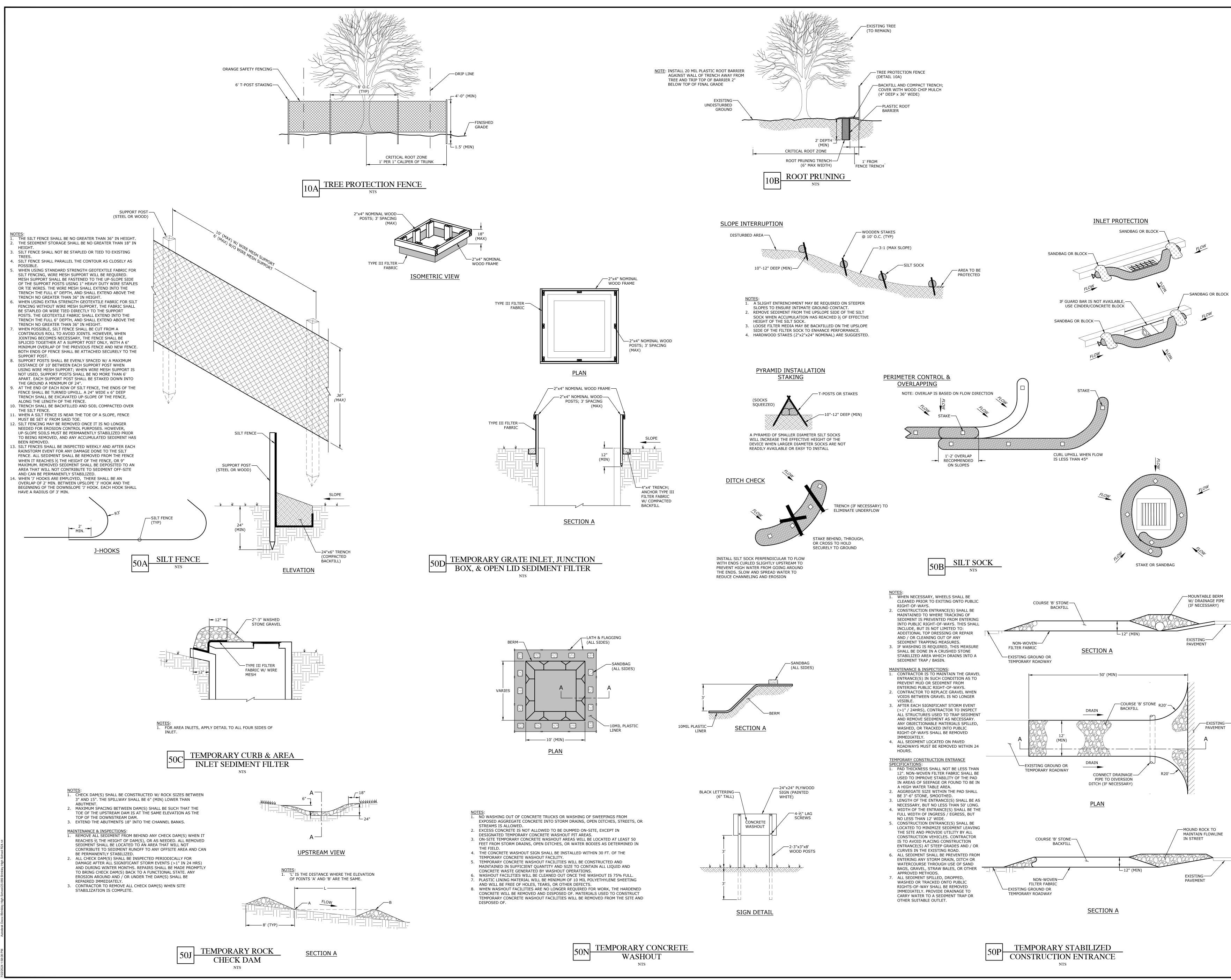
- 1. ALL WATER MAINS SHALL BE PVC (C-900; DR-14), UNLESS OTHERWISE SPECIFIED ON THE PLANS. SIZE AS NOTED ON THE PLANS AND TO MAINTAIN 36" OF COVER (MINIMUM).
- ALL SEWER MAINS SHALL BE PVC (SDR-26), UNLESS OTHERWISE SPECIFIED ON THE PLANS. SIZE AS NOTED ON THE PLANS AND TO MAINTAIN 48" OF COVER (MINIMUM). ALL FIRE / FDC LINES SHALL BE DUCTILE IRON, PRESSURE CLASS 300, UNLESS OTHERWISE SPECIFIED ON THE PLANS. SIZE AS NOTED ON THE PLANS AND TO MAINTAIN 36" OF COVER (MINIMUM). ALL DOMESTIC WATER SERVICE LINES AFTER THE METER TO BUILDINGS SHALL BE POLYETHYLENE PIPE, UNLESS OTHERWISE SPECIFIED ON THE PLANS. SIZE AS NOTED ON THE PLANS AND TO MAINTAIN 36" OF COVER (MINIMUM). ALL DOMESTIC SANITARY SEWER SERVICE LINES SHALL BE PVC (SDR-26), OR OTHERWISE SPECIFIED ON THE PLANS. SIZE AS NOTED ON THE PLANS AND TO MAINTAIN 36" OF COVER (MINIMUM).
- EXISTING UTILITIES SHOWN ON PLANS HAVE BEEN SHOWN IN THEIR APPROXIMATE LOCATIONS PER AVAILABLE INFORMATION.
- CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE APPROPRIATE UTILITY AUTHORITIES AND THE OWNER, AND THE CONTRACTOR HAS BEEN NOTIFIED BY McCLELLAND CONSULTING ENGINEERS, INC.
- CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN UNLESS DULY AUTHORIZED TO DO SO BY THE CITY. ANY ADVERSE CONSEQUENCES OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. McCLELLAND CONSULTING ENGINEERS, INC. AND THE OWNER ARE TO BE HELD HARMLESS
- . ALL TRENCHING, BACKFILLING AND PIPE LAYING IS TO MEET ALL OSHA REQUIREMENTS. 6. THE LOCATION, DESCRIPTION AND SIZE OF ALL ABOVE-GROUND AND
- UNDER-GROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DETERMINED WITH DUE CARE AND DILIGENCE, USING CURRENT TECHNIQUES, EQUIPMENT AND PROPER ACCURACY CONTROL PROCEDURES. HOWEVER, INFORMATION SHOWN HEREON IS NOT WARRANTED TO BE CORRECT IN EVERY DETAIL BECAUSE OF INACCURACIES IN OR LACK OF EXISTING DATA OR MAPS AND THE INABILITY TO VERIFY IN THE FIELD. PERSONS USING INFORMATION CONTAINED HEREON ARE HEREBY CAUTIONED ACCORDINGLY.
- 7. REFER TO BUILDING PLANS FOR SITE LIGHTING ELECTRICAL PLANS. 8. ANY DAMAGE TO THE EXISTING PUBLIC STREET DUE TO CONSTRUCTION SHALL BE REPAIRED / REPLACED AT THE OWNER'S / DEVELOPER'S EXPENSE.
- 9. WATER AND SEWER IMPACT FEES WILL APPLY FOR THE ADDITIONAL IMPACT TO THE SYSTEM (IF APPLICABLE). THE FEES WILL BE BASED ON THE PROPOSED METER SIZE AND WILL BE CHARGED AT THE TIME OF METER SET (IF APPLICABLE).
- 10. ALL CONDUITS PLACED BY CONTRACTOR MUST HAVE 24" OF COVER AT FINAL GRADE AND MARKED WITH POSTS TO IDENTIFY THE ENDS OF CONDUITS. THERE MUST BE A MINIMUM SEPARATION OF 12" BETWEEN ELECTRICAL CONDUITS AND CONDUITS FOR OTHER UTILITIES.
- 11. SERVICE TAPS ON UTILITY MAINS (PROPOSED AND / OR EXISTING) SHALL BE MADE BY THE UTILITY PROVIDERS REQUIREMENTS, AND FEES PAID BY CONTRACTOR. 12. ALL UNDERGROUND LINES SHALL BE INSPECTED BY THE ENGINEER, OR HIS REPRESENTATIVE, PRIOR TO BACK FILLING. NOTIFY ENGINEER 24 HOURS IN ADVANCE.
- 13. PRIVATE DOMESTIC SANITARY SEWER SERVICE LINE TRENCHING AND BEDDING SHALL BE INSTALLED PER DETAIL 41N.
- 14. PUBLIC WATER MAIN, WATER SERVICE LINE TO METER, BUILDING SPRINKLER, AND / OR FDC LINE TRENCHING AND BEDDING SHALL BE INSTALLED PER DETAIL 40Q. PRIVATE DOMESTIC WATER SERVICE LINE AFTER METER TRENCHING AND BEDDING SHALL BE INSTALLED PER DETAIL 40Q.
- 15. ALL WATER LINE DIMENSIONS SHOWN ARE TO CENTER OF PIPE OR FITTING; ALL SEWER LINE DIMENSIONS ARE SHOWN TO CENTER OF MANHOLE OR CENTER OF
- 16. TESTING OF WATER AND SEWER LINES SHALL BE AT THE CONTRACTOR'S EXPENSE. 17. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE EITHER FLUSH WITH FINISHED GRADES IN PAVED AREAS, OR 4" ABOVE FINISHED GRADES IN UNPAVED AREAS.
- TOPS OF PROPOSED MANHOLES SHALL BE FLUSH WITH FINISHED GRADES IN PAVED AREAS, OR 4" ABOVE FINISHED GRADES IN UNPAVED AREAS. 18. ALL UTILITIES UNDER PAVED AREAS SHALL RECEIVE CLASS 7 BASE BACKFILL FULL DEPTH.
- 19. EVERY PRECAUTION MUST BE TAKEN AGAINST THE POSSIBILITY OF SEWAGE CONTAMINATION OF THE WATER IN THE DISTRIBUTION SYSTEM. WATER MAINS AND SANITARY SEWERS SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH. A MINIMUM HORIZONTAL DISTANCE OF TEN FEET SHOULD BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION. WATER LINES AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH. WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWERS MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR THE SEWER LINE MUST BE ENCASED IN WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED THE ENCASEMENT PIPE MAY BE VENTED TO THE SURFACE IF CARRYING WATER OR SEWAGE UNDER PRESSURE. WHERE A WATER
- LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN ADDITION TO THE PRECEDING ENCASEMENT REQUIREMENT. 20. ALL EXISTING WATER, GAS AND / OR ELECTRICAL METERS AS NOTED TO BE ABANDONED AND / OR REMOVED PER THE DEMOLITION PLAN WITHIN THE PROJECT
- AREA ARE TO BE RETURNED TO THE APPROPRIATE AUTHORITY. 21. COORDINATION OF ALL CONDUIT PLACEMENT SHALL BE MADE WITH UTILITY PROVIDERS.
- $\leq$  22. ALL WATER AND SEWER FORCE MAIN FITTINGS SHALL BE RESTRAINED THROUGH THE USE OF THRUST BLOCKING PER DETAIL 40A OR APPROVED EQUAL. 23. PROPOSED UTILITIES THAT ARE TO BE BURIED IN THE SAME TRENCH SHALL BE COORDINATED WITH, AND APPROVED BY, THE INVOLVED UTILITIES PRIOR TO
- INSTALLATION. 24. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION OF PROPOSED UTILITIES.
- 25. ALL PROPOSED UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY. 26. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT AND STAKING (UNLESS APPROVED OTHERWISE BY THE ENGINEER OF RECORD).







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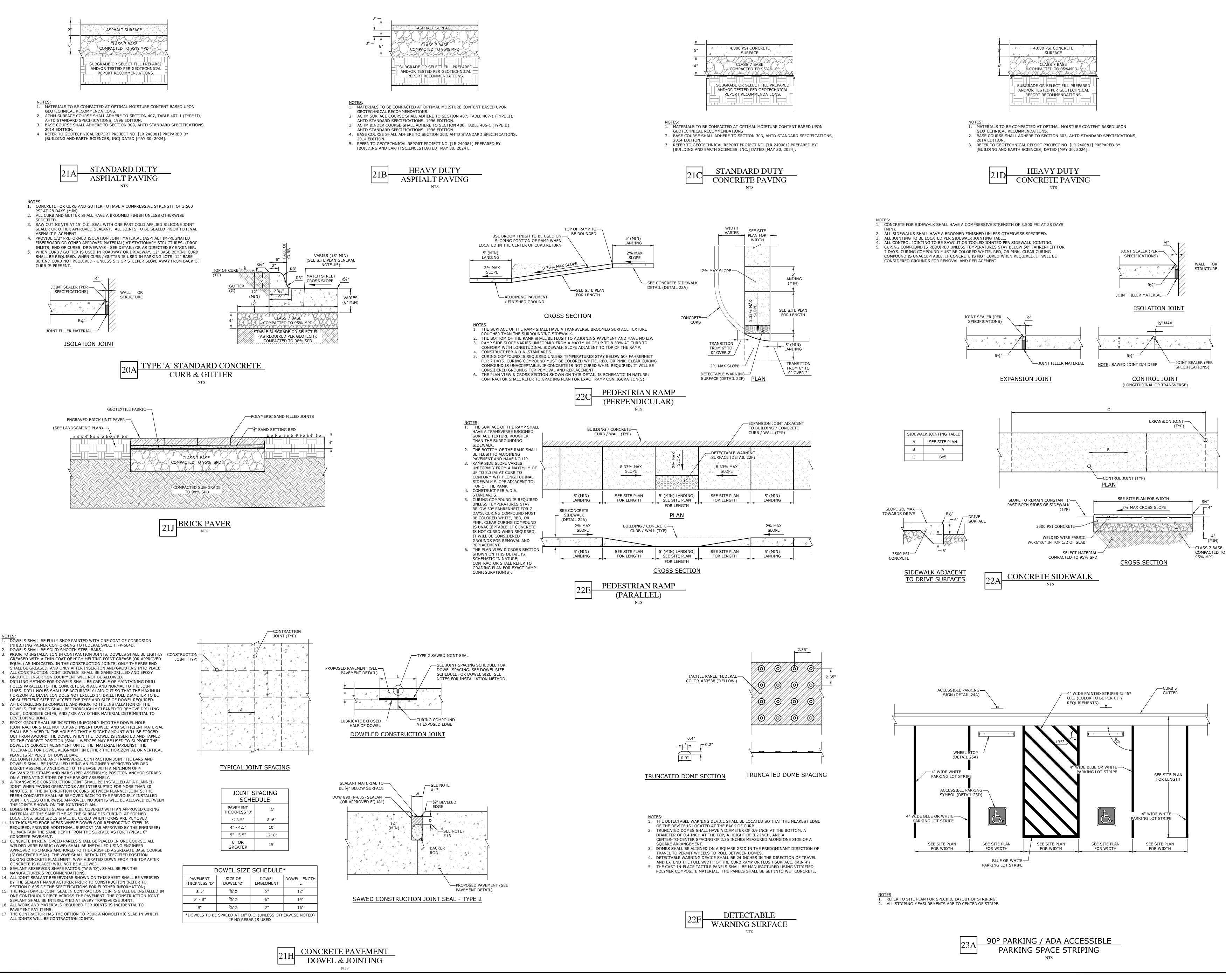
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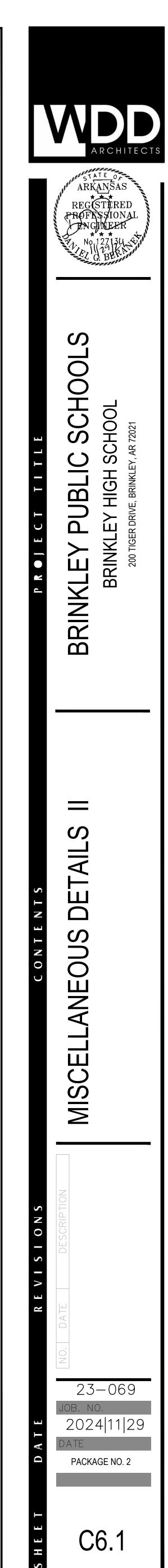
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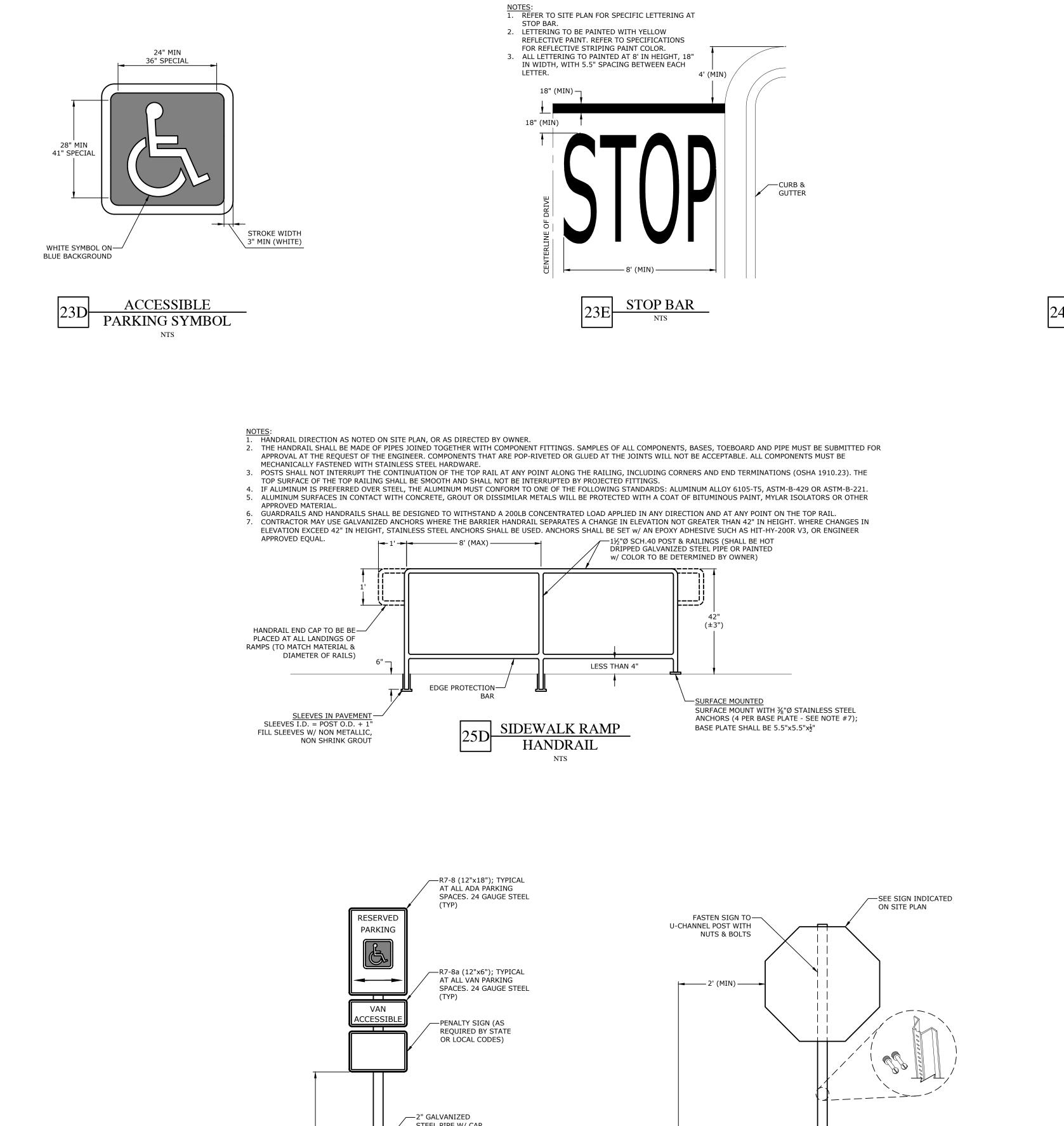
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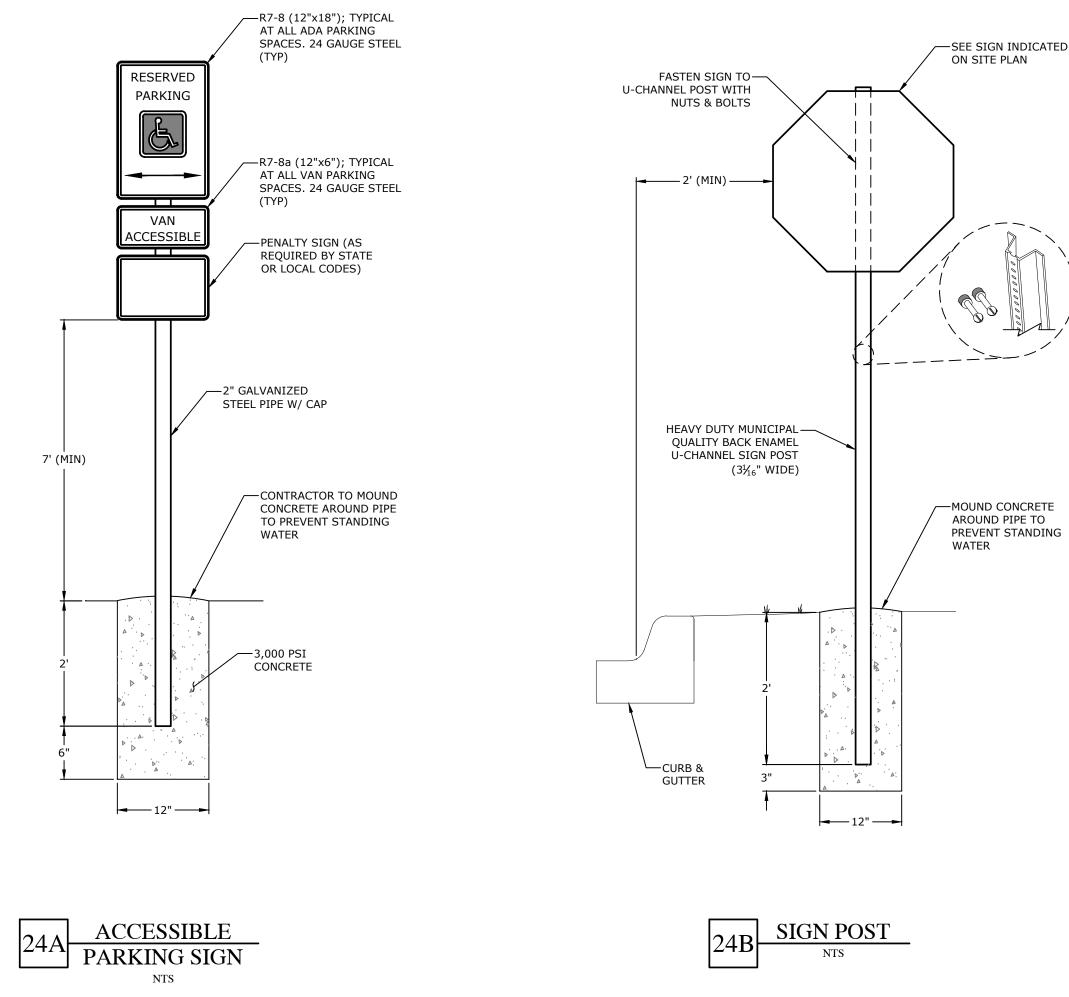
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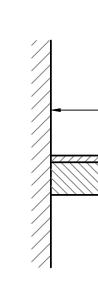


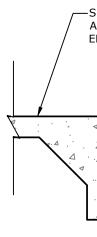


CLASS 7 BASE

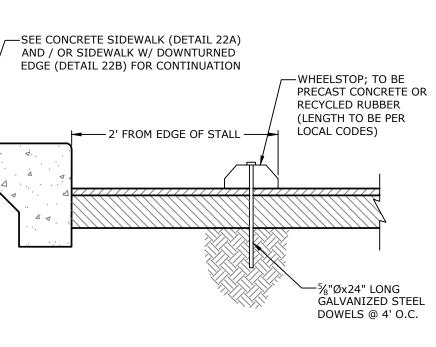


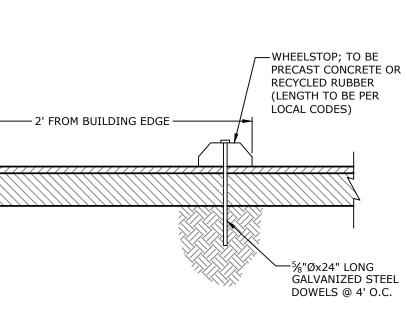




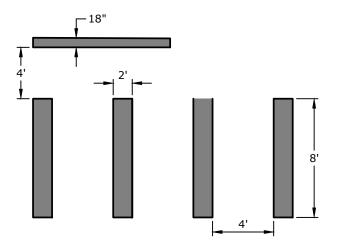










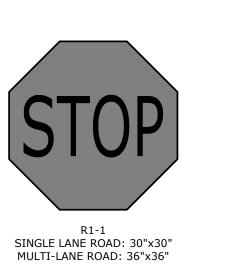


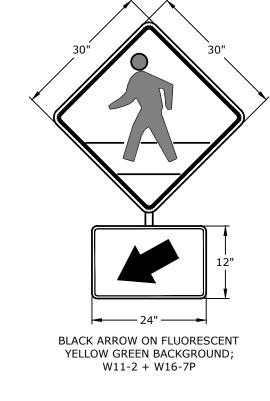
NOTES: 1. ALL PAVEMENT MARKING SHALL BE OF THERMOPLASTIC MATERIAL 2. CROSSWALK SHALL BE CENTERED ON ADA RAMP AND RUN PERPENDICULAR TO THE STREET CENTERLINE. 3. ANY EXISTING LANE MARKINGS SHALL BE REMOVED WHERE THEY CONFLICT W/ THE NEW MARKINGS.



'STOP' SIGN

(WHITE).











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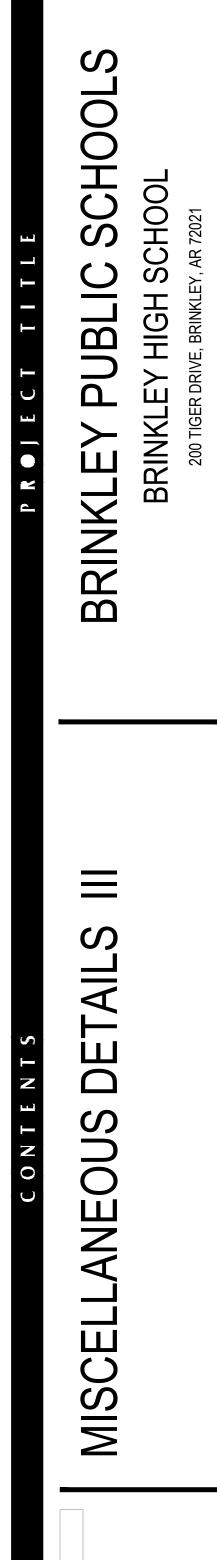
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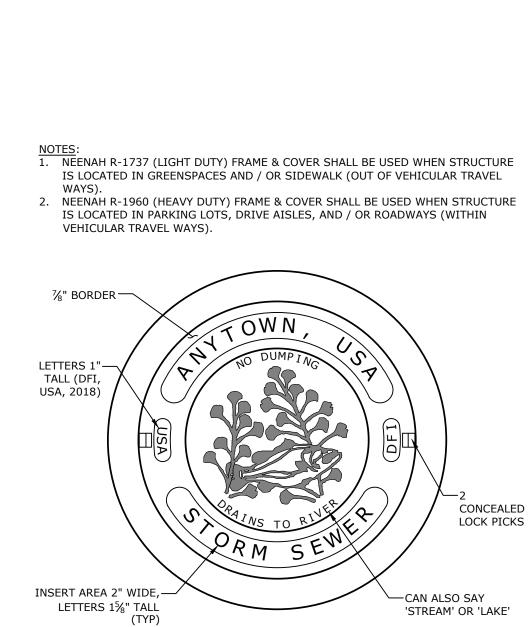
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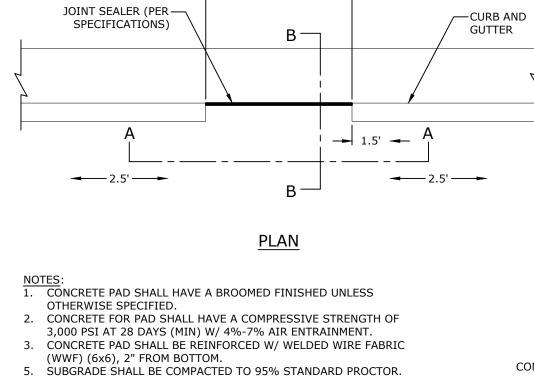
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<b>33</b> Г	

'A'

'B'

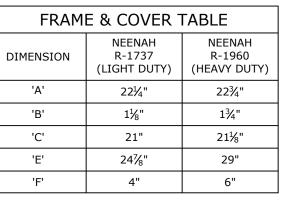
'C'





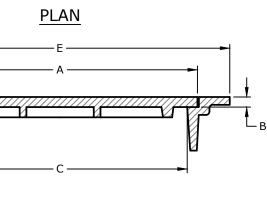
SEE GRADING / DRAINAGE

### FORM INLET RING FRAME & COVER NTS





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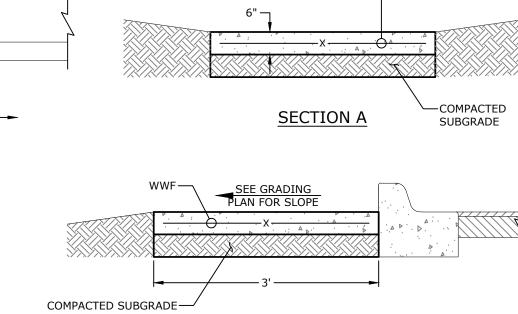


CONCEALED LOCK PICKS

—CAN ALSO SAY 'STREAM' OR 'LAKE'

NOTES: 1. NEENAH R-1737 (LIGHT DUTY) FRAME & COVER SHALL BE USED WHEN STRUCTURE IS LOCATED IN GREENSPACES AND / OR SIDEWALK (OUT OF VEHICULAR TRAVEL

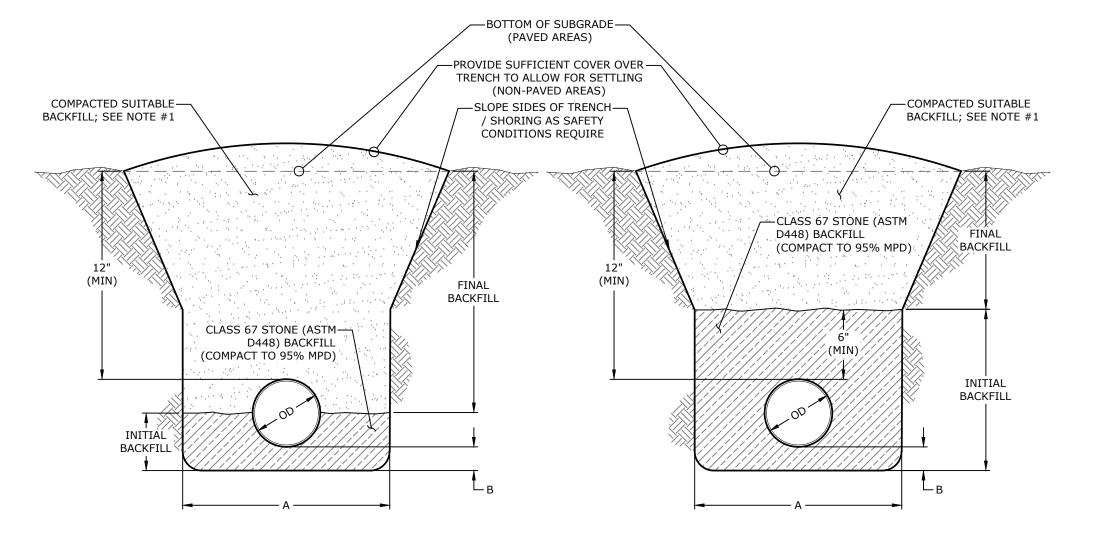
# CURB CUT



SECTION B

33G-

RIGID PIPE

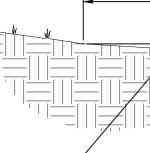


NOTES: 1. FOR AREAS WHERE PIPE IS LOCATED UNDER NON-PAVED AREAS, BACKFILL SHALL BE COMPACTED SUITABLE NATIVE MATERIAL (DO NOT INCORPORATE FROZEN MATERIAL OR SOFT, MUCK, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILL). FOR AREAS WHERE PIPE IS LOCATED UNDER PAVED AREAS, BACKFILL SHALL BE SELECT FILL COMPACTED PER THE GEOTECHNICAL REPORT PROJECT NO. [PROJECT #] PREPARED BY [GEOTECH COMPANY NAME] DATED [REPORT DATE].

NOTES: 1. SUBGRADE SHALL BE COMPACTED TO 95% STANDARD PROCTOR.

32A

SCARIFIED AND COMPACTED SUBGRADE —



# STORM SEWER TRENCHING, BACKFILL, & BEDDING NTS

TRENCHING, BACKFILL, & BEDDING TABLE					
'A'	OD + 24" (MIN) OD + 36" (MAX)				
'B'	.10 x OD (6" MIN)				

NON-RIGID PIPE

**GRASS SWALE** NTS

\_SEE GRADING / DRAINAGE \_\_\_\_\_ PLAN FOR WIDTH <u>с Х</u>"







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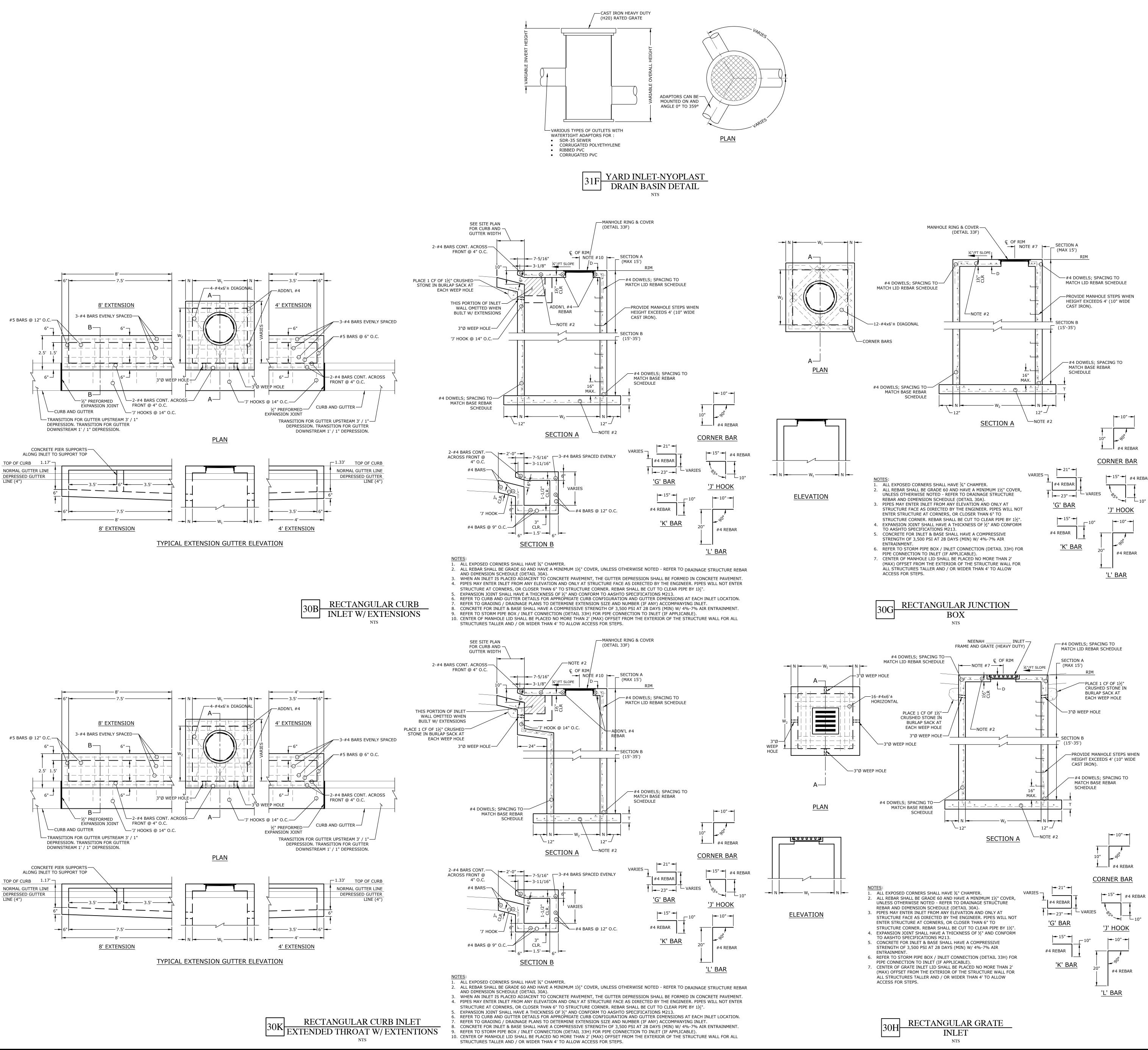
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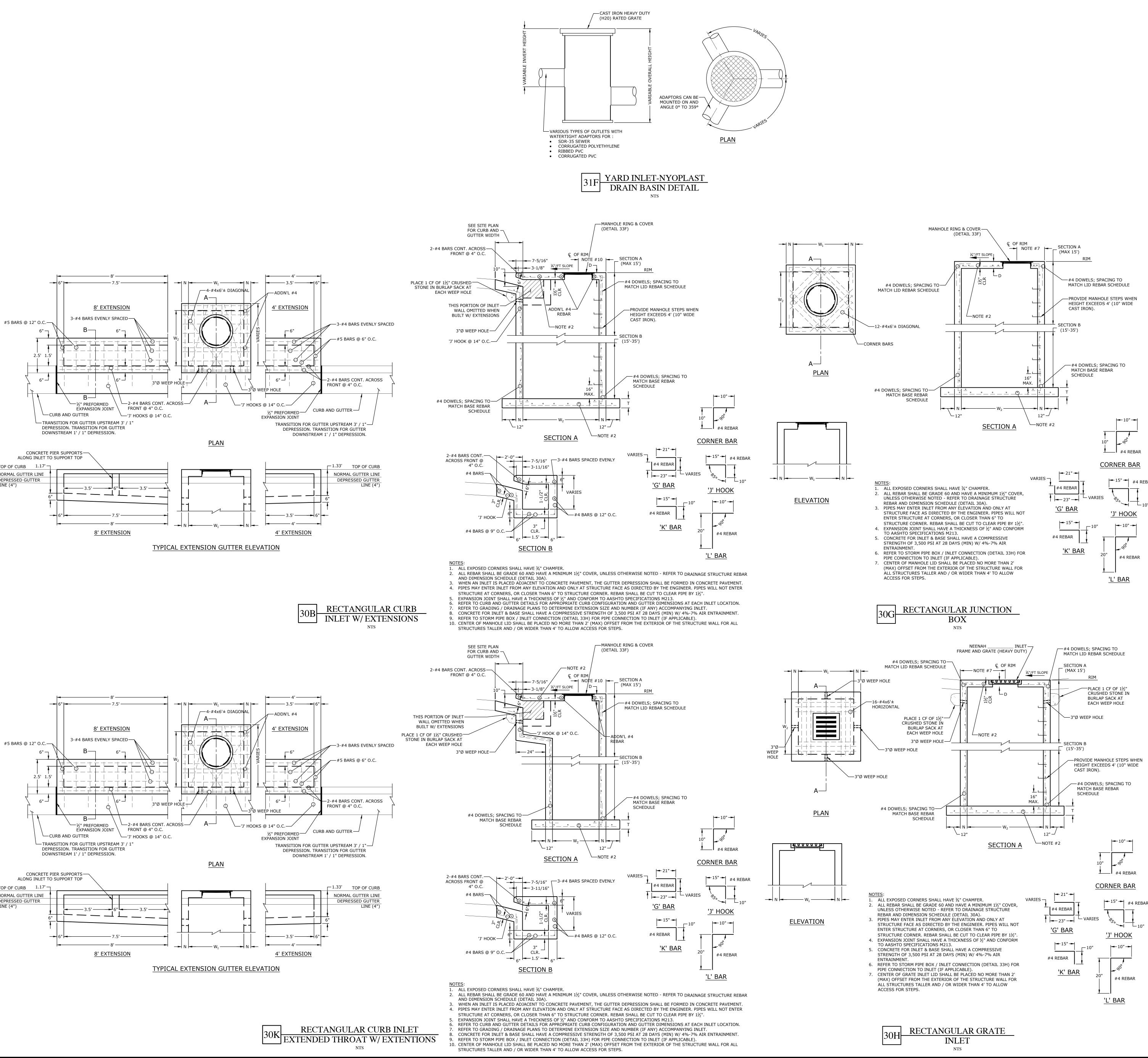
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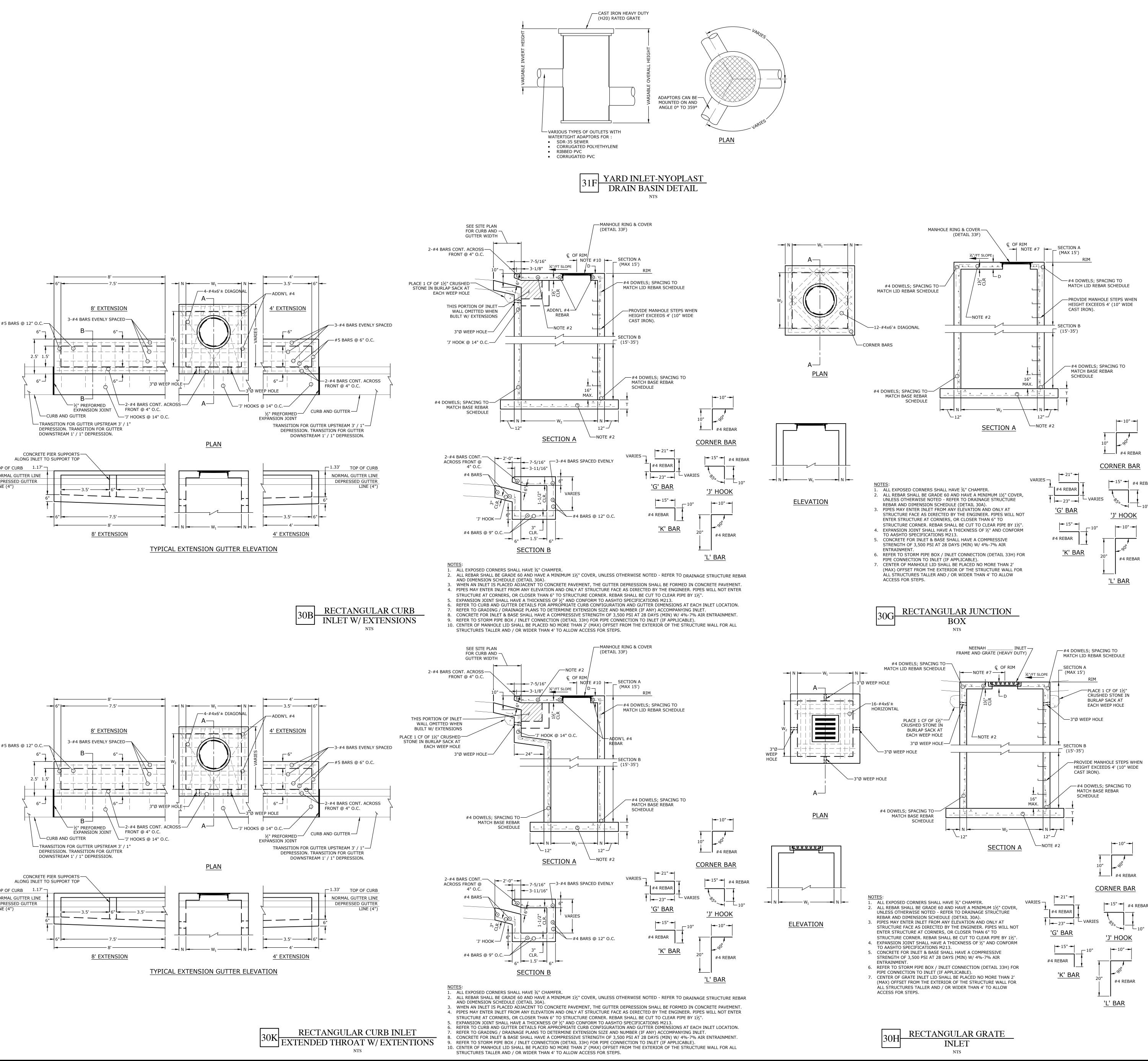


### DRAINAGE STRUCTURE REBAR 30A & DIMENSION SCHEDULE NTS

	SECTION		REBAR							
	'/	۹.	#4s @ 6" O.C.B.W.							
	'E	3'		#4s @ 6" O.C.B.W.						
			LID R	LID REBAR SCHEDULE						
	DIMEN	SIONS		REBAR			PATTERN			
		≤ 7' ≤ 7'	#4s @ 8" O.C.B.W. #4s @ 8" O.C.B.W.				onal @ C Onal @ C			
		≤ 7' ≥ 7'		@ 8" O.C.B.W @ 6" O.C.B.W			ONAL @ C ONAL @ C			
		≥ 7' ≥ 7'		@ 6" O.C.B.W @ 6" O.C.B.W			ONAL @ C ONAL @ C			
	WALL REBAR SCHEDULE									
SEC	SECTION 'W' (W <sub>1</sub> & W <sub>2</sub> ) REBAR (HORIZONTAL) REBAR (VERTI						ERTI	CAL)		
		4'-	·0"	#4s @	9" O	.C.	#49	s @ 1	0" O	.C.
'/	۹'	4'-0" ·	- 7'-0"	#6s @	9" O	.C.	#49	s @ 1	0" O	.C.
		> 7	'-0"	#5s @ 4	4½" (	).C.	#49	s @ 1	0" O	.C.
		4'-	·0"	#4s @	6" O	.C.	#49	s @ 1	0" O	.C.
1	3'	4'-0" ·	- 7'-0"	#6s @	6" O	.C.	#49	s @ 1	0" O	.C.
		1	T', 'N'	, & 'D' DI	ME	NSION	J			
SEC	TION	'W' (W	'T'		1'	'N'		'D'		
		4'-0" ·	- 7'-0" 6" + PIPE W		'ALL	8	3"		6"	
'4	<b>4</b> '	> 7	'-0"	6" + PIPE WALL		8	8"		8'	I
	3'	4'-	·0"	8" + PIPE WALL		8	;"		8"	
	5	4'-0" ·	- 7'-0"	8" + PIPE WALL		10	כ"		8'	I
			'Ø' &	'W' DIM	ENS	SION				
PIPE	SIZE	CIRCL	JLAR STR	UCTURE Ø	RECTANGULAR STRUCTURE SKEW			URE	PIPE	
					ST	RAIGHT	30°			45°
≤ 2	24"		48"		4'-0"		4'-0"	1	4	'-10"
3	0"		60"			4'-0"	4'-7"		5	5'-8"
30	6"		60"		4'-0"		5'-3"		6	5'-5"
42	2"		60"			5'-3"	5'-11"		7	7'-3"
4	8"		72"		5	5'-10"	6'-7"		8	3'-0"
6	0"		*_			7'-0"	7'-10"		ç	9'-8"
DOL	JBLE		-			FOR	'A' SECTION ON		NLY	
24	4"		-		· ·	7'-0"	7'-10"		ç	9-5"
30	0"		-			8'-2"	9'-2"		1	1'-0"
30	6"		-			9'-4"	10'-6	"	1	2'-6"
4	2"		-			.0'-6"	11'-10	)"	1	4'-2"
4	8"		-			.1'-8"	13'-2			5'-10"
	*FOR A	ALL PIPE I	LARGER 1	THAN 48", US	E RE	CTANGUL	AR STRU	CTUR	RE	

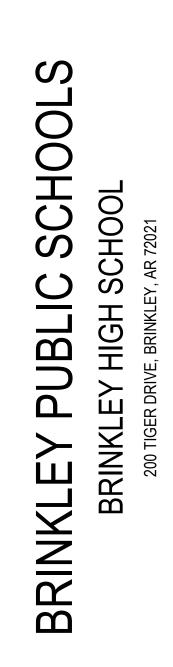
BASE REBAR SCHEDULE











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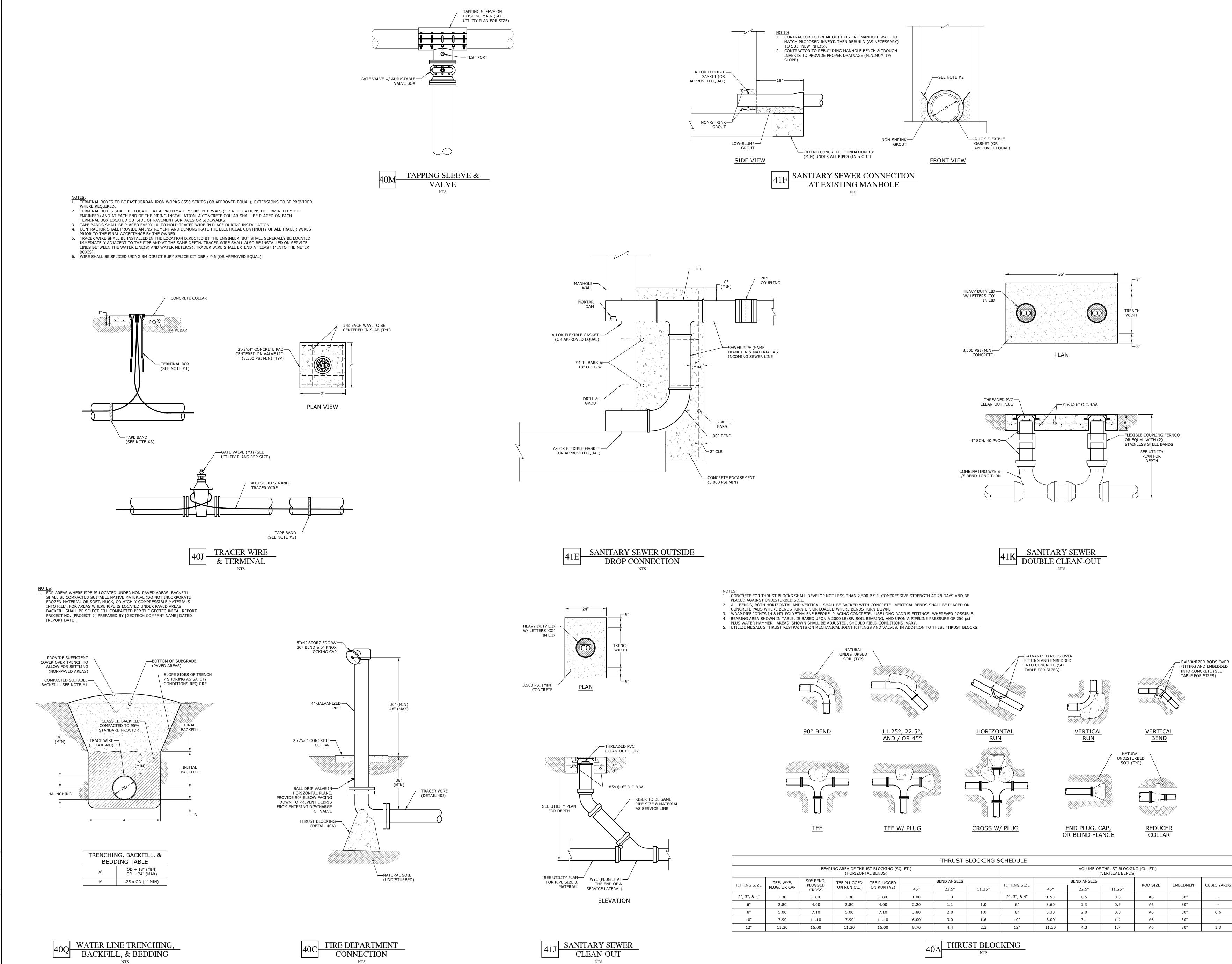
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PACKAGE NO. 2

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BEARING AREA OF THRUST BLOCKING (SQ. FT.) (HORIZONTAL BENDS)									THRUST BLOCKIN	· · ·			
Έ,	90° BEND, TEE PLUGGED TEE PLUG				BEND ANGLES		FITTING SIZE	BEND ANGLES			ROD SIZE EMBEDM	EMBEDMENT	CU
CAP	PLUGGED CROSS	ON RUN (A1)	ON RUN (A2)	45°	22.5°	11.25°	FITTING SIZE	45°	22.5°	11.25°	ROD SIZE	EMBEDMENT	
	1.80	1.30	1.80	1.00	1.0	-	2", 3", & 4"	1.50	0.5	0.3	#6	30"	
	4.00	2.80	4.00	2.20	1.1	1.0	6"	3.60	1.3	0.5	#6	30"	
	7.10	5.00	7.10	3.80	2.0	1.0	8"	5.30	2.0	0.8	#6	30"	
	11.10	7.90	11.10	6.00	3.0	1.6	10"	8.00	3.1	1.2	#6	30"	
	16.00	11.30	16.00	8.70	4.4	2.3	12"	11.30	4.3	1.7	#6	30"	







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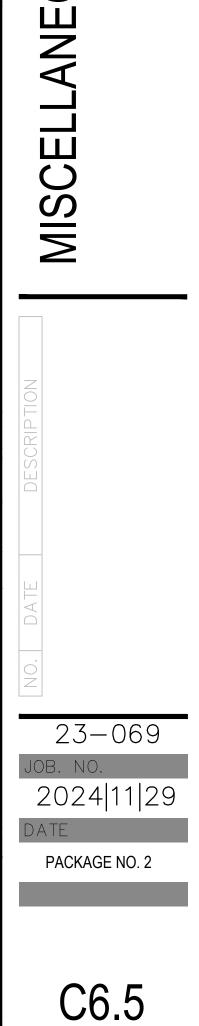
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ADD'L AFF ARCH B PL BLDG BOS BTW CMU CONC CONST CONT DLH DWLS ELEV EMBED EOS ERECT EWEF FXIST FIN FLR EL FTG HORIZ INFC KCS M.B. MECH OSB PF## REINF REQ'D RTU SCHED. SECT STIFF TEMF WWF

ABBREVIATIONS ADDITIONA ABOVE FINISHED FLOOR ANCHOR RODS ARCHITECTURAL BASE PLATE BOTTOM OF FOOTING **BELOW FINISHED FLOO** BUILDING BOTTOM OF STEEL BOTTOM BOTTOM OF PIER BEARING BETWEEN CHANNEL SHAPE (i.e. C8x11.5 COLD FORMED C SHAPE CENTER OF GRAVIY (KEYED) CONTROL JOINT CENTERLINE CEILING CLEAR CONCRETE MASONRY UNI COLUMN CONCRETE CONNECTION CONSTRUCTION CONTINUOUS DOUBLE DEGREES DIAMETER DIMENSION DEEP LONGSPAN JOIST (i.e. 60DLH12) DETAIL DOWELS EACH EXTENDED BOTTOM CHORD EXPANSION JOINT ELEVATION ELEVATION EMBEDMENT LENGTH EDGE OF SLAB ERECTION EACH WAY, EACH FACI EXISTING EXPANSION EXTERIOR FROM ADJACENT SPAN FLOOR DRAIN FINISHED FLOOR FINISHED FLOOR ELEVATION FINISHED FLOOR ELEVATION FAR SIDE FOOTING FIELD VERIFY STEEL YIELD STRENGTH JOIST GIRDER (i.e. 24G8N7K) GRADE BEAM HORIZONTAL H-PILE SHAPE (i.e. HP8x36) HEADED STUD HOLLOW STRUCTURAL SECTION (STEEL) INSIDE INFORMATION INTERIOR JOIST BEARING ELEVATION K-JOIST (i.e. 12K1 S.J.) KIPS (KILO-POUNDS) KIPS PER FOOT CONSTANT SHEAR JOIST (i.e. 12KCS2 S.J.) KILN-DRIED KIPS PER SQUARE FOOT KIPS PER SQUARE INCH LONG LEG HORIZONTAL LONG LEG VERTICAL LONG WAY LAM. WOOD BEAM (i.e. LWB3x11) METAL BUILDING MATERIAL MAXIMUN MISC. CHANNEL SHAPE (i.e. MC12x10.6) MOMENT CONN MECHANICAL MANUFACTURER MINIMUM MISCELLANEOUS MILES PER HOUR METAL JOIST SPACES ON GIRDEF NON-SHRINK NUMBER NEAR SIDE NOT TO SCALE ON CENTER OUTSIDE OUTSIDE DIAMETER OPENING OPPOSITE ORIENTED STRAN BOARD DRILLED PIER (##-DIA IN INCHES) POST-TENSIONED PAD FOOTING (###-SIZE IN FEET) PI ATF POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH RADIUS REFERENCE REINFORCING REQUIRED ROOF TOP UNIT STANDARD STEEL SHAPE (i.e. S10x35) STEEL JOIST (i.e. 12K1 S.J.) SCHEDULE SECTION COLD-FORMED HAT SHAPE SIMILAR (SAWN) CONTROL JOINT SQUARE STIFFENER SHORT WAY TOP AND BOTTOM TONGUE AND GROOV TEMPERATURE TOP OF FOOTING TOP OF COLUMN TOP OF CONCRET TOP OF MASONRY TOP OF STEEL TOP OF PIER TUBE STEEL SHAPE (i.e. TS4x4x1/4) TYPICAL UNLESS NOTED OTHERWISE VERIEY VERTICAL VS JOIST (i.e. 2.5VS1) WIDE FLANGE SHAPE (i.e. W8x10) WITH WITHOUT

WORK POINT

T SHAPE (i.e. WT8x13)

WELDED WIRE FABRIC

COLD FORMED Z SHAPE

STRUCTURAL NOTES

**GENERAL NOTES** 

1. THE CONTRACTOR SHALL THOROUGHLY REVIEW ALL CONTRACT DOCUMENTS AND INFORM THE ARCHITECT OF CONFLICTS OR DISCREPANCIES PRIOR TO BIDDING, FABRICATION, AND CONSTRUCTION.

2. IN CASES OF DISCREPANCIES IN DIMENSIONS AND ELEVATIONS BETWEEN STRUCTURAL AND ARCHITECTURAL DRAWINGS, CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.

3. THE CONTRACTOR SHALL COORDINATE THE FIELD VERIFICATION OF ALL EXISTING SITE CONDITIONS SUCH AS EXISTING FLOOR ELEVATIONS, EXISTING FOOTING ELEVATIONS, EXISTING UTILITIES, ETC. WHETHER NOTED OR NOT IN THE CONTRACT DOCUMENTS AND SHALL NOTIFY THE ARCHITECT OF ANY CONFLICTS, DISCREPANCIES OR UNKNOWN CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.

4. REPRODUCTION OF CONTRACT DRAWINGS, IN ANY FORM, WILL NOT BE ACCEPTED AS SHOP DRAWINGS.

5. REVIEW OF SUBMITTALS AND/OR SHOP DRAWINGS BY THE STRUCTURAL ENGINEER-OF-RECORD DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL FOR REVIEW. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS. CONTRACTOR ALSO SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES, AND PROCEDURES OF CONSTRUCTION.

6. CONTRACTOR SHALL PROVIDE TEMPORARY GUYS AND BRACING AS REQUIRED DURING CONSTRUCTION. STRUCTURE IS NOT STABLE UNTIL ALL STRUCTURAL MEMBERS, CONNECTIONS, AND DECKING IS IN PLACE.

7. ACI, AISC, AITC AND AWS SPECIFICATIONS SHALL GOVERN ALL PHASES OF FABRICATION AND CONSTRUCTION.

CONCRETE NOTES CONCRETE REINFORCEMENT

DETAILED OR NOTED OTHERWISE:

WALLS

1. CONCRETE REINFORCEMENT SUPPLIER SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR

**REVIEW PRIOR TO CONSTRUCTION.** 2. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.

3. PROVIDE THE FOLLOWING PROTECTIVE COVERING FOR ALL REINFORCING BARS UNLESS

SLAB-ON-GRADE BARS (BOTTOM)	3" CLEAR
BELOW GRADE (CAST AGAINST EARTH)	3" CLEAR
BELOW GRADE (FORMED EDGE)	2" CLEAR

4. DO NOT CUT TIES OR CONTINUOUS BARS TO PROVIDE CLEARANCE FOR EMBEDDED ITEMS OR OTHER OBSTRUCTIONS. INDIVIDUAL BARS AND TIES MAY BE MOVED VERTICALLY UP TO 1.5" AS REQUIRED TO PROVIDE CLEARANCE FOR EMBEDS, HOOKS, ETC. DO NOT HEAT REINFORCING TO BEND IT.

2" CLEAR

5. IF DOWELS OR VERTICAL REINFORCING ARE CUT OR SEVERELY BENT, CONTRACTOR MAY BE REQUIRED TO REMOVE THE CONCRETE BACK TO THE PREVIOUS POUR JOINT AND REPLACE THE DAMAGED BARS AND CONCRETE AT THE CONTRACTOR'S EXPENSE.

6. REINFORCEMENT SHALL BE SPLICED ONLY AS SHOWN OR NOTED IN THE CONTRACT DOCUMENTS. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER-OF-RECORD PRIOR TO FABRICATION.

7. REINFORCING BARS MARKED AS CONTINUOUS SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICES ONLY

8. ALL TENSION LAP SPLICES SHALL BE CLASS "B" UNLESS NOTED OTHERWISE.

9. WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM A185. LAP REINFORCEMENT 8 INCHES ON SIDES AND ENDS. MAINTAIN WIRE 1 TO 2 INCHES BELOW TOP SURFACE OF SLAB-ON-GRADE, UNLESS NOTED OTHERWISE. WELDED WIRE REINFORCEMENT MUST BE PLACED ON CHAIRS OR BOLSTERS AS REQUIRED TO MAINTAIN POSITION IN THE SLAB.

10. ONCE SHOP DRAWINGS HAVE BEEN REVIEWED, DO NOT ADD REINFORCING OR INFORMATION TO PREVIOUSLY SUBMITTED SHEETS FOR SUBSEQUENT SUBMITTALS UNLESS SHOP DRAWINGS ARE BEING RESUBMITTED AFTER BEING RETURNED "NOT REVIEWED".

11. WHERE ANCHOR RODS ARE CAST INTO CONCRETE, PROVIDE SUPPLEMENTAL REINFORCING EACH WAY, TIED NEAR THE TOP AND BOTTOM OF ALL ANCHOR RODS TO THE ADJACENT REBAR TO SECURE RODS DURING CONCRETE PLACEMENT. (MINIMUM SIZE #4)

CAST-IN-PLACE CONCRETE

1. CONCRETE SUPPLIER SHALL SUBMIT CONCRETE MIX DESIGN DATA TO THE ARCHITECT FOR REVIEW PRIOR TO CONSTRUCTION.

2. CONCRETE SHALL HAVE AT LEAST THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS

A. FOOTINGS, GRADE BEAMS & DRILLED PIERS	3000 PSI
B. STAIR LANDINGS & STAIR TREADS	4000 PSI
C. REINFORCED CMU & BOND BEAM FILL	(SEE MASONRY NOTE:
D. SLABS-ON-GRADE, WALLS, PILASTERS, & PEDESTALS	4000 PSI

3. SEE CONCRETE MIX DESIGN TABLE

4. PROPORTIONS OF CONCRETE MIX DESIGNS SHALL BE DETERMINED BY THE PROCEDURES ESTABLISHED IN SECTION 5.3 OF ACI 318-05.

5. MIX DESIGN MAY INCLUDE WATER REDUCING ADMIXTURES CONFORMING TO ASTM C494, TYPE A, TO PROVIDE WORKABILITY AND SPECIFIED SLUMP WITHOUT EXCEEDING SPECIFIED WATER/CEMENT RATIOS. WATER SHALL NOT BE ADDED ON SITE WITHOUT PRIOR APPROVAL. ANY APPROVED WATER AMOUNTS ADDED ON SITE MUST BE RECORDED & REPORTED BY THE TESTING AGENCY.

6. ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 5.5% AIR ENTRAINMENT (±1.5%). DO NOT EXCEED 3% AIR CONTENT IN CONCRETE RECEIVING A STEEL TROWEL FINISH.

### MASONRY NOTES

1. ALL CONCRETE MASONRY UNITS (CMU) SHALL COMPLY WITH ASTM C90, AND HAVE A MINIMUM NET COMPRESSIVE STRENGTH OF 1900 PSI. SIZES SHALL BE AS INDICATED ON THE CONTRACT DRAWINGS.

2. TYPE S MORTAR SHALL BE USED ABOVE GRADE. MIX MORTAR IN ACCORDANCE WITH ASTM C270. USE TYPE 1 PORTLAND CEMENT (TYPE III MAY BE USED FOR COLD WEATHER CONSTRUCTION) MEETING ASTM C1329, HYDRATED LIME MEETING ASTM C207 AND AGGREGATE MEETING ASTM C144.

3. FILL ALL BOND BEAMS, ALL CMU CELLS WITH VERTICAL REINFORCING OR EXPANSION BOLTS, AND ALL CELLS BELOW GRADE WITH 3000 PSI GROUT MEETING THE FOLLOWING REQUIREMENTS:

- A. USE A MINIMUM OF 5.5 BAGS OF PORTLAND CEMENT PER CUBIC YARD. B. MAXIMUM WATER/CEMENT RATIO BY WEIGHT SHALL BE 0.54.
- C. WATER-REDUCING ADMIXTURE MEETING ASTM C494 SHALL BE USED TO PROVIDE SUFFICIENT
- FLOWABILITY TO READILY FILL CELLS WITH A REASONABLE AMOUNT OF RODDING. ADDITIONAL WATER WILL NOT BE ALLOWED AFTER INITIAL MIXING.
- D. AGGREGATE SHALL BE WELL GRADED WITH A MAXIMUM SIZE OF 3/8".

E. ALTERNATE MIX DESIGNS WILL BE CONSIDERED IF SUBMITTED TO THE ARCHITECT FOR APPROVAL AFTER CONTRACT IS AWARDED. ALTERNATE DESIGNS MUST SHOW SUFFICIENT FLOWABILITY CHARACTERISTICS AND A 28-DAY COMPRESSIVE STRENGTH OF AT LEAST 3000 PSI

4. MAXIMUM HEIGHT OF ALL GROUT FILL SHALL NOT EXCEED 4'-0" UNLESS CLEANOUT AND INSPECTION HOLE IS PROVIDED AT THE BOTTOM OF THE POUR.

5. ALL CMU SHALL BE REINFORCED WITH #5 VERTICAL AND DOWELS AT 4'-0" ON CENTER UNLESS SPECIFICALLY NOTED OTHERWISE OR NOTED AS UNREINFORCED MASONRY ON THE PLANS. WHERE SPLICES ARE REQUIRED, USE A LAP LENGTH OF AT LEAST 28 INCHES.

6. ALL VERTICAL CORNERS, VERTICAL END CELLS AND ONE CELL EACH SIDE OF ALL OPENINGS SHALL BE GROUTED AND REINFORCED WITH (1) #5 UNLESS NOTED OTHERWISE.

7. HORIZONTAL BOND BEAMS WITH (2) #5 CONTINUOUS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF ALL OPENINGS, AT STRUCTURALLY CONNECTED ROOF AND FLOOR LEVELS, AT THE TOP OF ALL PARAPETS OR WALLS AND AS SPECIFICALLY SHOWN ON THE CONTRACT DRAWINGS. BOND BEAMS ABOVE AND BELOW OPENINGS SHALL EXTEND AT LEAST 2'-0" BEYOND THE OPENING UNLESS NOTED OTHERWISE.

8. WHERE VERTICAL REINFORCING AND HORIZONTAL REINFORCING INTERSECT, ALL REINFORCING SHALL RUN CONTINUOUS.

9. HORIZONTAL REINFORCING SHALL BE CONTINUOUS AT CORNERS WITH 90-DEGREE BENDS OR CORNER BARS WITH EACH LEG EQUAL TO THE REQUIRED LAP LENGTH. (SEE TYPICAL CORNER BAR DETAIL)

### MASONRY NOTES CONT'D

10. ALL CMU SHALL HAVE 9 GAUGE TRUSS TYPE JOINT REINFORCEMENT AT 16" ON CENTER VERTICALLY ABOVE GRADE AND 8" ON CENTER VERTICALLY BELOW GRADE UNLESS NOTED OTHERWISE.

11. IN SEISMIC DESIGN CATEGORY D, E, OR F, BOND BEAMS WITH (2) #4 CONTINUOUS HORIZONTAL BARS SHALL BE PLACED AT A MAXIMUM OF 4'-0" ON CENTER VERTICALLY TO PROVIDE THE HORIZONTAL REINFORCING REQUIRED BY THE BUILDING CODE.

### METALS NOTES

STRUCTURAL STEEL

1. STRUCTURAL STEEL SUPPLIER SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

2. ALL STRUCTURAL STEEL SHAPES SHALL BE AS FOLLOWS:

- A. ALL WIDE FLANGE STRUCTURAL STEEL SHAPES SHALL BE ASTM A992.
- B. SQUARE OR RECTANGULAR HOLLOW STRUCTURAL SECTIONS SHALL BE ASTM A500, GRADE B, Fy = 46 KSI C. ROUND HOLLOW STRUCTURAL SECTIONS SHALL BE ASTM A500, GRADE B, Fy = 42 KSI D. ROUND STEEL PIPES SHALL BE ASTM A53, GRADE B, Fy = 35 KSI

E. ALL OTHER STRUCTURAL STEEL (CHANNELS, ANGLES, PLATES, ETC.) SHALL BE ASTM A36.

3. ALL ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 (OR GRADE 55 WITH SUPPLEMENT S1 -WELDABILITY) UNLESS NOTED OTHERWISE.

4. STRUCTURAL BOLTS SHALL BE ASTM A325-N, UNLESS OTHERWISE NOTED.

5. BOLTS THRU WOOD BLOCKING SHALL BE ASTM A307. ALL BOLTS IN CONTACT WITH TREATED WOOD SHALL BE STAINLESS STEEL (TYPE 316L), OR HOT DIPPED GALVANIZED WITH A MINIMUM COATING THICKNESS OF 0.2 OUNCES PER SQUARE FEET (ASTM A153). USE STAINLESS BOLTS WITH STAINLESS STEEL CONNECTORS AND GALVANIZED BOLTS WITH GALVANIZED CONNECTORS IF ONLY ONE IS SPECIFIED.

6. POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE SHALL BE STANDARD ASTM A36 THREADED RODS (OR APPROVED EQUAL) WITH A MINIMUM STEEL YIELD STRENGTH OF Fy=36 KSI, OR ASTM F593 STAINLESS STEEL ANCHORS WITH A MINIMUM YIELD STRENGTH OF Fy=45 KSI, UNLESS SHOWN OTHERWISE ON THE DRAWINGS. ADHESIVE SHALL BE HILTI "HIT-RE 500-SD" SYSTEM (REF: ICC-ES ESR-2322), SIMPSON STRONG-TIE "SET-XP" SYSTEM (REF: ICC-ES ESR-2508), (OR APPROVED EQUAL).

7. POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE FILLED CMU CELLS SHALL BE STANDARD ASTM A36 THREADED RODS (OR APPROVED EQUAL) WITH A MINIMUM STEEL YIELD STRENGTH OF Fy= 36 KSI, OR ASTM F593 STAINLESS STEEL ANCHORS WITH A MINIMUM YIELD STRENGTH OF Fy=45 KSI, UNLESS SHOWN OTHERWISE ON THE DRAWINGS. ADHESIVE SHALL BE HILTI "HIT-HY70" SYSTEM (REF: ICC-ES ESR-2682), SIMPSON STRONG-TIE "SET" SYSTEM (REF: ICC-ES ESR-1772), (OR APPROVED EQUAL).

8. POST-INSTALLED SCREW ANCHORS SHALL BE HILTI "KWIK HUS EZ" (REF: ICC-ES ESR-3027), SIMPSON STRONG-TIE "TITEN HD" (REF: ICC-ES ESR-2713), (OR APPROVED EQUAL), UNLESS NOTED OTHERWISE.

9. POST-INSTALLED ANCHORS IN CONCRETE IN BUILDINGS UNDER SEISMIC CATEGORY C & D SHALL BE HILTI "HDA" UNDERCUT ANCHORS (REF: ICC-ES ESR-1546), SIMPSON STRONG-TIE "TORQ-CUT" UNDERCUT ANCHORS (REF: ICC-ES ESR-2705), (OR APPROVED EQUAL), UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

10. CONNECTIONS WITH HIGH STRENGTH BOLTS SHALL BE DESIGNED CONSIDERING BOLT THREADS INCLUDED IN THE SHEAR PLANE (A325-N). ALL BOLTING SHALL BE INSTALLED BY THE TURN-OF-THE-NUT METHOD, REMOVABLE LOAD INDICATOR BOLTS, OR CALIBRATED WRENCH. SNUG TIGHT BOLTING WILL NOT BE PERMITTED UNLESS SPECIFICALLY DETAILED ON THE CONTRACT DRAWINGS.

11. ALL HIGH STRENGTH BOLTED CONNECTIONS (EXCEPT COMPOSITE FLOOR BEAM CONNECTIONS) SHALL BE BEARING TYPE SELECTED TO SUPPORT ONE-HALF (1/2) OF THE TOTAL UNIFORM LOAD CAPACITY OF THE BEAMS AS SHOWN IN TABLE 3-6 OF THE AISC MANUAL, 14TH EDITION, FOR THE GIVEN BEAM SIZE, SPAN AND GRADE OF STEEL SPECIFIED. THE EFFECTS OF ANY CONCENTRATED LOADS MUST BE TAKEN INTO ACCOUNT. CONNECTIONS SHALL BE DESIGNED CONSIDERING THREADS INCLUDED IN THE SHEAR PLANE (A325-N).

12. ALL WELDS SHALL BE E70XX, MINIMUM AND SHALL BE PERFORMED BY AWS CERTIFIED WELDERS, CERTIFIED WITHIN THE PREVIOUS TWELVE (12) MONTHS. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE BUILDING AND COMPONENTS DUE TO FIRE HAZARDS FROM WELDING.

15. DO NOT PRIME PAINT STEEL THAT RECEIVES SPRAYED FIREPROOFING.

16. ALL STEEL LINTELS AND SHELF ANGLES SHALL BE COATED WITH A ZINC RICH PRIMER.

17. ALL STRUCTURAL STEEL EXPOSED TO WEATHER (SUCH AS MECHANICAL FRAMES) SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.

18. WHERE STEEL BACKING IS USED IN CONNECTIONS WITH COMPLETE-JOINT PENETRATION (CJP) FLANGE WELDS, STEEL BACKING AND TABS SHALL BE REMOVED EXCEPT THAT TOP FLANGE BACKING ATTACHED TO THE COLUMN BY A CONTINUOUS FILLET WELD ON THE EDGE BELOW THE CJP GROOVE WELD NEED NOT BE REMOVED. REMOVAL OF STEEL BACKING AND TABS SHALL BE AS FOLLOWS:

A. FOLLOWING THE REMOVAL OF BACKING, THE ROOT PASS SHALL BE BACKGOUGED TO SOUND WELD METAL AND BACKWELDED WITH A REINFORCING FILLET. THE REINFORCING FILLET SHALL HAVE A MINIMUM LEG SIZE OF 3/16" (8 mm).

B. WELD TAB REMOVAL SHALL EXTEND TO WITHIN 1/8" (3 mm) OF THE BASE METAL SURFACE EXCEPT AT CONTINUITY PLATES WHERE REMOVAL TO WITHIN 1/4" (6 mm) OF THE PLATE EDGE IS ACCEPTABLE. EDGES OF THE WELD TAB SHALL BE FINISHED TO A SURFACE ROUGHNESS VALUE OF 500 MICRO-IN. (13 MICROMETERS) OR BETTER. GRINDING TO A FLUSH CONDITION IS NOT REQUIRED. GOUGES AND NOTCHES ARE NOT PERMITTED. THE TRANSITIONAL SLOPE OF ANY AREA WHERE GOUGES AND NOTCHES HAVE BEEN REMOVED SHALL NOT EXCEED 1:5. MATERIAL REMOVED BY GRINDING THAT EXTENDS MORE THAN 1/16" (2 mm) BELOW THE SURFACE OF THE BASE METAL SHALL BE FILLED WITH WELD METAL. THE CONTOUR OF THE WELD AT THE ENDS SHALL PROVIDE A SMOOTH TRANSITION, FREE OF NOTCHES AND SHARP CORNERS.

22. WHERE WELD ACCESS HOLES ARE PROVIDED, THEY SHALL BE AS SHOWN IN FIGURE 11-1 OF ANSI/AISC 341-02 (AISC SEISMIC PROVISIONS, DATED MAY 21, 2002). THE WELD ACCESS HOLE SHALL BE GROUND SMOOTH TO A SURFACE ROUGHNESS VALUE NOT TO EXCEED 500 MICRO-IN. (13 MICROMETERS), AND SHALL BE FREE OF NOTCHES AND GOUGES.

### METAL JOISTS

1. METAL JOIST SUPPLIER SHALL SUBMIT SHOP DRAWINGS PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

3. METAL JOISTS SHALL BE DESIGNED, MANUFACTURED, AND BRIDGED TO CONFORM TO THE "STEEL JOIST INSTITUTE" STANDARD SPECIFICATION. PROVIDE RECOMMENDED CAMBER FOR THE JOIST SPAN. DO NOT WELD EXTENDED BOTTOM CHORDS OF JOISTS UNTIL ALL DEAD LOAD IS IN PLACE. PROVIDE SLOPED AND SKEWED SEATS ON ALL JOISTS AS REQUIRED. PROVIDE UPLIFT BRIDGING AND DESIGN JOISTS FOR A NET UPLIFT OF 12 PSF. ALL BRIDGING SHALL BE DESIGNED AND SUPPLIED BY THE JOIST MANUFACTURER.

4. DO NOT PRIME PAINT METAL JOISTS THAT WILL RECEIVE SPRAYED FIREPROOFING.

### METAL DECKING

1. METAL DECKING SUPPLIER SHALL SUBMIT SHOP DRAWINGS PREPARED UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

2. ROOF DECKING SHALL BE 1.5B22 PAINTED ROOF DECK ATTACHED TO THE STRUCTURE WITH 5/8" DIAMETER PUDDLE WELDS IN A 36/4 PATTERN AND (4) #10 TEK SCREW SIDELAP FASTENERS BETWEEN SUPPORTS

3. POWDER ACTUATED OR PNEUMATIC FASTENERS MAY NOT BE SUBSTITUTED FOR PUDDLE WELDS. COLD-FORMED STRUCTURAL STEEL FRAMING

1. COLD-FORMED METAL FRAMING SUPPLIER SHALL SUBMIT CALCULATIONS AND SHOP DRAWINGS SEALED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

2. SHOP DRAWINGS SHALL DETAIL A COMPLETE SYSTEM SHOWING MEMBER SIZES, SPACING AND CONNECTIONS TO THE STRUCTURE.

3. ALL STRUCTURAL STUDS, TRACK, BRIDGING, END CLOSURES AND ACCESSORIES SHALL BE FORMED FROM STEEL CONFORMING TO THE REQUIREMENTS OF ASTM A653/A653M.

COLD-FORMED STRUCTURAL STEEL FRAMING CONT'D GIVEN IN THE "STEEL STUD MANUFACTURERS ASSOCIATION" (SSMA) PRODUCT TECHNICAL INFORMATION MANUAL. SEE SSMA FOR MINIMUM SECTION PROPERTIES.

EXAMPLE: 600S162-43 600 = MEMBER DEPTH

		(600 x 1/100 INCHES = 6")
S	=	STYLE (S = STUD, T = TRACK, U =
162	=	FLANGE WIDTH (162 x 1/100 INCHES = 1.625
43	=	MATERIAL THICKNESS

(43 = 43 MILS x 1/1000 INCHES = 0.043")

YIELD STRENGTH SHALL BE 33 KSI UNLESS NOTED ON PLANS AS FOLLOWS:

600S162-43 (50 KSI) - FOR 50 KSI YIELD STRENGTH

5. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. 6. PROVIDE COLUMNS BUILT-UP OF MULTIPLE STUDS (2 STUDS MIN.) FOR HEADER AND BEAM BEARING.

7. ALL STUDS AT LOADBEARING WALLS SHALL BE CUT FULL LENGTH WITH TRACKS (TOP & BOTTOM) INSTALLED TIGHT AGAINST ENDS OF STUD. NO GAPS BETWEEN END OF STUDS AND TRACK WILL BE ALLOWED IN LOAD BEARING STUDS.

8. ALL COLD-FORMED STEEL FRAMING SHAPES (SUCH AS Z-PURLINS, C-PURLINS, HAT CHANNELS AND EAVE STRUTS) ARE IDENTIFIED ACCORDING TO THE DESIGNATIONS GIVEN IN THE LIGHT GAGE STEEL INSTITUTE (LGSI) "LIGHT GAGE STRUCTURAL STEEL FRAMING SYSTEM DESIGN HANDBOOK". SEE LGSI FOR MINIMUM SECTION PROPERTIES.

PRE-ENGINEERED METAL BUILDING SYSTEMS

AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ARKANSAS TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

2. METAL BUILDING SHOP DRAWINGS WILL NOT BE REVIEWED IF THE LAYOUT DOES NOT FOLLOW THE LAYOUT PROPOSED IN THE CONTRACT DRAWINGS AND IF ANY DEVIATIONS FROM THE PROPOSED LAYOUT ARE NOT CLEARLY MARKED ON THE SHOP DRAWINGS OR APPROVED IN WRITING PRIOR TO SUBMITTAL.

3. METAL BUILDING FRAMING LAYOUT AND MEMBERS SHOWN ARE SUGGESTED ONLY. MANUFACTURER IS RESPONSIBLE FOR COORDINATING REQUIREMENTS WITH OWNER AND PROVIDING A COMPLETE STRUCTURAL FRAMING SYSTEM DESIGNED BY THE MANUFACTURER. METAL BUILDING MANUFACTURER SHALL COORDINATE ALL DIMENSIONS, ELEVATIONS, BRACING, AND SIZES AND SHAPES OF MEMBERS WITH OWNER PRIOR TO FABRICATION AND CONSTRUCTION. ALL MEMBERS, CONNECTIONS AND DECKING NOT SPECIFICALLY SIZED ON DRAWINGS SHALL BE DESIGNED AND SUPPLIED BY THE METAL BUILDING MANUFACTURER.

4. METAL BUILDING VERTICAL BRACING SHALL CONSIST OF PORTAL FRAMES AT THE LOCATIONS SHOWN ON THE PLANS. THE METAL BUILDING MANUFACTURER SHALL COORDINATE THE LOCATION OF ALL BRACES TO MINIMIZE INTERFERENCE WITH ARCHITECTURAL FEATURES. ROD OR CABLE BRACES MAY NOT BE SUBSTITUTED WHERE PORTAL FRAMES ARE SHOWN. WHERE X-BRACES ARE USED, THE METAL BUILDING MANUFACTURER SHALL CLEARLY IDENTIFY TO THE ARCHITECT WHERE ALL INTERFERENCES WITH ARCHITECTURAL FEATURES. WHERE ARCHITECTURAL FEATURES (COLUMN SURROUNDS, CEILINGS, FURR DOWNS, ETC) ARE PROVIDED TO COVER OR SURROUND THE METAL BUILDING COMPONENTS (COLUMNS, FRAMES, ETC.), THE METAL BUILDING COMPONENTS SHALL BE SIZED TO STAY WITHIN THE LIMITS OF THE ARCHITECTURAL FEATURES UNLESS THE ARCHITECT IS NOTIFIED IN WRITING PRIOR TO SUBMISSION OF THE APPROVAL DRAWINGS AND APPROVAL IS GIVEN FOR AN EXCEPTION.

5. MAXIMUM PURLIN LIVE LOAD DEFLECTION FOR PURLINS SUPPORTING CEILINGS SHALL NOT EXCEED SPAN/360 OR 1". WHICHEVER IS LESS. MAXIMUM PURLIN LIVE LOAD DEFLECTION FOR PURLINS NOT SUPPORTING CEILINGS SHALL NOT EXCEED SPAN/180.

6. FRAME LIVE LOAD DEFLECTION SHALL NOT EXCEED SPAN/360 OR 1-1/2" FOR FRAMES SUPPORTING CEILINGS.

7. MAXIMUM GIRT LATERAL DEFLECTION FROM WIND OR SEISMIC LOADS SHALL NOT EXCEED SPAN/240 FOR GIRTS PROVIDING LATERAL SUPPORT FOR METAL SIDING ONLY. MAXIMUM GIRT LATERAL DEFLECTION FROM WIND OR SEISMIC LOADS SHALL NOT EXCEED SPAN/360 FOR GIRTS PROVIDING LATERAL SUPPORT FOR BRICK.

8. MAXIMUM BUILDING SIDESWAY (DRIFT) FROM WIND OR GRAVITY LOADS SHALL NOT EXCEED WALL HEIGHT/240. SEISMIC DRIFT SHALL BE WITHIN THE LIMITS PRESCRIBED IN ASCE 7. TABLE 12,12-1 WITH ACTUAL DRIFT DETERMINED PER SECTION 12.8.6.

9. THE GENERAL CONTRACTOR AND METAL BUILDING MANUFACTURER SHALL BE RESPONSIBLE FOR OVERALL BUILDING COORDINATION. ALL COORDINATION OF THE INTERFACE AND COMPATIBILITY BETWEEN THE METAL BUILDING AND THE ARCHITECTURAL FEATURES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND THE METAL BUILDING MANUFACTURER. ACCORDINGLY, ALL MISCELLANEOUS FRAMING REQUIRED TO SUPPORT THE BASKETBALL GOALS SHALL BE PROVIDED AND SHALL BE ATTACHED ONLY TO THE MAIN FRAMING MEMBERS WITHOUT ANY ATTACHMENT TO THE PURLINS OR ROOFING.

10. DESIGN OF THE METAL BUILDING USING DEAD, LIVE, SEISMIC, WIND AND SNOW LOADS IN THE CODE REQUIRED COMBINATIONS SHALL BE PERFORMED BY THE METAL BUILDING MANUFACTURER.

**EARTHWORK & FOUNDATION NOTES** 

**EXCAVATION & FILL** 

1. ALL UNDERCUTTING, SITE PREPARATION, FILL SELECTION, BACKFILLING AND COMPACTION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND SOILS ENGINEER'S RECOMMENDATIONS.

2. SELECT FILL BENEATH THE BUILDING SHALL BE PLACED IN LIFTS NOT EXCEEDING 8" LOOSE THICKNESS AND COMPACTED TO AT LEAST 98" OF STANDARD PROCTOR DRY DENSITY (ASTM D698). THE IN-PLACE DENSITY AND MOISTURE CONTENT SHALL BE ESTABLISHED AND APPROVED FOR EACH LIFT PRIOR TO PLACEMENT OF SUBSEQUENT LIFTS.

3. SUBGRADE PREPARATION, INCLUDING UNDERCUTS WHERE REQUIRED, SHALL EXTEND AT LEAST 5'-0" BEYOND BUILDING LIMITS.

### SPREAD FOOTINGS

1. BOTTOM OF FOOTING ELEVATIONS (BF) SHOWN ON THE PLANS ARE FOR ESTIMATING PURPOSES ONLY AND ARE NOT NECESSARILY TO BE USED FOR CONSTRUCTION. THE SOILS ENGINEER OR HIS REPRESENTATIVE SHALL BE ENGAGED TO INSPECT ALL FOOTING EXCAVATIONS TO VERIFY THAT THE REQUIRED ALLOWABLE BEARING CAPACITY IS ATTAINABLE. BOTTOM OF FOOTING ELEVATIONS SHALL BE ADJUSTED PER THE ON-SITE RECOMMENDATIONS OF THE SOILS ENGINEER OR HIS REPRESENTATIVE.

2. ALL SPREAD FOOTINGS SHALL BE FOUNDED IN PROPERLY COMPACTED SELECT FILL WITH AN ALLOWABLE NET BEARING CAPACITY OF AT LEAST 2000 PSF. (REF: GEOTECHNICAL INVESTIGATION, JOB NO. LR240081 DATED MAY 30, 2024 BY BUILDING AND EARTH.)

3. MAINTAIN FINISHED GRADE (AND/OR BOTTOM OF FOOTING ELEVATIONS) TO PROVIDE AT LEAST 1'-6" COVER ABOVE THE BOTTOM OF ALL EXTERIOR FOOTINGS FOR FROST PROTECTION.

SPECIAL INSPECTION NOTES

1. SPECIAL INSPECTIONS SHALL BE REQUIRED IN ACCORDANCE WITH CHAPTER 17 OF THE BUILDING CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS WITH THE INSPECTION AGENCY.

2. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE TO PERFORM THE REQUIRED INSPECTION TO THE SATISFACTION OF THE BUILDING OFFICIAL.

3. THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF INSPECTIONS. INSPECTION REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE.

4. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.

5. A FINAL REPORT OF INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES SHALL BE SUBMITTED TO THE OWNER, BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AT THE COMPLETION OF THE STRUCTURAL PORTION OF THE WORK.

# 4. ALL COLD-FORMED STEEL STUD SECTIONS ARE IDENTIFIED ACCORDING TO THE DESIGNATIONS

= CHANNEL)

25" = 1-5/8")

1. METAL BUILDING MANUFACTURER SHALL PROVIDE CALCULATIONS AND SHOP DRAWINGS SEALED

SOIL TESTING AND INSPECTIONS

1. A QUALIFIED TESTING LABORATORY SHALL TEST ALL CONTROLLED STRUCTURAL FILL. A MINIMUM OF TWO SOIL COMPACTION TESTS SHALL BE MADE FOR EACH LIFT.

2. AFTER FOOTING EXCAVATIONS HAVE BEEN MADE TO DESIGN ELEVATIONS, THE INDEPENDENT TESTING AGENCY SHALL INSPECT AND TEST THE BEARING SOIL TO VERIFY THAT IT MEETS THE REQUIRED DESIGN CAPACITY.

CONCRETE CONSTRUCTION INSPECTIONS

1. INSPECT REINFORCING STEEL PRIOR TO PLACING CONCRETE. CHECK REINFORCING SIZE, SPACING AND LOCATION.

2. VERIFY SIZE, TYPE, EMBEDMENT DEPTH, PROJECTION AND QUANTITY OF ANCHOR BOLTS.

3. CYLINDERS SHALL BE MADE FOR DETERMINING THE CONCRETE STRENGTH FROM EACH CLASS OF CONCRETE TO BE PLACED. SAMPLES SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 150 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE FOR EACH 5,000 SQUARE FEET OF SURFACE AREA FOR SLABS OR WALLS. (EACH SAMPLE SHALL CONSIST OF 4 CYLINDERS MADE, HANDLED AND TESTED PER THE SPECIFICATIONS.)

4. EACH TIME THE CYLINDERS ARE MADE THE SLUMP, AIR CONTENT AND TEMPERATURE OF THE CONCRETE SHALL ALSO BE CHECKED.

5. THE CONTRACTOR'S METHOD OF MAINTAINING THE MINIMUM CURING TEMPERATURE AND CURING TECHNIQUE SHALL BE REVIEWED.

6. PROVIDE CONTINUOUS INSPECTION OF POST-INSTALLED ADHESIVE ANCHORS IN CONCRETE ELEMENTS TO VERIFY THE INSTALLATION IS IN ACCORDANCE WITH STRUCTURAL DRAWINGS, EVALUATION SERVICE REPORT, AND MANUFACTURER'S INSTRUCTIONS. VERIFY LOCATION, EDGE DISTANCES, SPACING, DRILL BIT SIZE, HOLE DEPTH, HOLE CLEANING PROCEDURES, ANCHOR MATERIAL, EMBEDMENT, AND INSTALLATION PROCEDURES INCLUDING CHECKING EXPIRATION DATE AND PROPER MIXING OF ADHESIVE.

MASONRY CONSTRUCTION INSPECTIONS

1. ALL MASONRY CONSTRUCTION FOR LOAD BEARING WALLS SHALL BE INSPECTED AND EVALUATED IN ACCORDANCE WITH THE REQUIREMENTS FOR LEVEL B QUALITY ASSURANCE AS OUTLINED IN TABLE 1.19.2 OF THE MASONRY CODE (TMS 402/ACI 530/ASCE 5).

STEEL CONSTRUCTION INSPECTIONS

1. PERIODICALLY VERIFY THAT THE PROPER MATERIALS FOR HIGH-STRENGTH BOLTS, STRUCTURAL STEEL AND WELD FILLER MATERIALS ARE BEING USED.

2. PERIODICALLY CHECK TIGHTENING OF HIGH-STRENGTH BOLTS USING THE TURN OF THE NUT METHOD WITH MATCH MARKING TECHNIQUES OR DIRECT TENSION INDICATOR BOLTS.

3. WELDING PROCEDURES, MATERIALS AND WELDER QUALIFICATIONS FOR ALL FIELD WELDING SHALL BE VERIFIED PRIOR TO THE START OF WORK.

4. PERIODIC INSPECTION OF WELDING IN PROGRESS AND VISUAL INSPECTION OF ALL FIELD WELDS SHALL BE MADE FOR ALL SINGLE PASS FILLET WELDS NOT EXCEEDING 5/16" IN SIZE AND FOR FLOOR DECK WELDING.

WEIGHT OF THE STRUCTURE

Pnet30: SEE ASCE 7-16, FIGURE 30.4-1

STRUCTURAL STEEL FRAMING

4. ORDINARY STEEL CONCENTRICALLY BRACE FRAMES

PRE-ENGINEERED METAL BUILDING FRAMING

C. MOMENT RESISTING FRAME SYSTEMS

4. STEEL ORDINARY MOMENT FRAMES

3.50 (PRE-ENGINEERED METAL BUILDING)

0.19W (PRE-ENGINEERED METAL BUILDING)

EQUIVALENT LATERAL FORCE METHOD

(PER ASCE 7-16, TABLE 12. 6-1 & SECT. 12.8)

2021 AKRANSAS FIRE PREVENTION CODE

A.C.A. 12-80-101 ET. SEQ. (ARKANSAS STATE LAW)

Cs: 0.19 (PRE-ENGINEERED METAL BUILDING)

**B. BUILDING FRAME SYSTEM** 

3.25 (STRUCTURAL STEEL)

0.20 (STRUCTURAL STEEL)

0.20W (STRUCTURAL STEEL)

20 PS

10 PSF

Vult: 112 MPH

GCpi: ±0.18

Sds: 0.522

le:

Ss:

S1:

Sd1:

R:

Cs:

ZONE:

1.25

0.589

0.221

0.318

Pg:

<u>DESIGN LOADS</u> DEAD LOADS:

ROOF LIVE LOADS:

GROUND SNOW LOAD WIND SPEED FOR RISK CATEGORY III & EXPOSURE C

BUILDING RISK CATEGORY

WIND EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT COMP. & CLADDING WIND PRESSURE

SIESMIC IMPORTANCE FACTOR MAPPED SPECTRAL REPSONSE ACCELERATIONS

SITE CLASS SPECTRAL RESPONSE COEFFICIENT

SIESMIC DESIGN CATEGORY BASIC SIESMIC-FORCE-RESISTING SYSTEMS

(PER ASCE 7-16, TABLE 12. 2-1)

RESPONSE MODIFICATION FACTOR DESIGN BASE SHEAR SIESMIC RESPONSE COEFFICIENT

ANALYSIS PROSEDURE

SIESMIC ZONE PER A.C.A. 12-80-101 ET. SEQ. CODES:

THE FOUNDATIONS AND STRUCTURAL FRAMING HAVE BEEN DESIGNED TO RESIST THE LOADS AND FORCES STATED ABOVE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2021 ARKANSAS FIRE PREVENTION CODE AND A.C.A. 12-80-101 ET. SEQ.

PRE-ENGINEERED METAL BUILDING DESIGN LOADS:

ROOF DEAD LOAD:	ACTUAL WEIGHT OF THE STRUCTURE
COLLATERAL LOAD:	HAGNING EQUIMPMENT, LIGHTS, CEILINGS, ETC. (7 PSF MINIMUM COLLATERAL DEAD LOAD. INCLUDE ACTUAL WEIGHT OF SUSPENDED EQUIPMENT.)
ROOF LIVE LOAD:	20 PSF (PURLINS & FRAMES.) LIVE LOAD REDUCTIONS WILL NOT BE ALLOWED.
NOW LOAD:	(SEE DESIGN LOADS ABOVE)
VIND LOAD:	(SEE DESIGN LOADS ABOVE)
SIESMIC LOAD:	(SEE DESIGN LOADS ABOVE)
CODES:	2021 ARKANSAS FIRE PREVENTION CODE MBMA METAL BUILDING SYSTEMS MANUAL (LATEST EDITION

CAST-IN-PLACE CONCRETE MIX DESIGN TABLE MIX DESIGN SHALL INCLUDE AT LEAST THE FOLLOWING AMOUNTS OF PORTLAND CEMENT MEETING ASTM C150 OR D595 PER CUBIC YARD OF CONCRETE

	e en Beeer En		CONTORNETE		
	NON-AIR ENTRAINED		AIR ENTRAINED		
28 DAY MIN. COMPRESSIVE STRENGTH (PSI)	MIN. CEMENT CONTENT (LBS/YARD <sup>3</sup> )	MAXIMUM PERMISSIBLE W/C RATIO	MIN. CEMENT CONTENT (LBS/YARD <sup>3</sup> )	MAXIMUM PERMISSIBLE W/C RATIO	DESIGN SLUMP w/ WRA
3000	470	0.53	NA	NA	4"+/-1"
4000	564	0.44	611	0.40	6"+/-1"

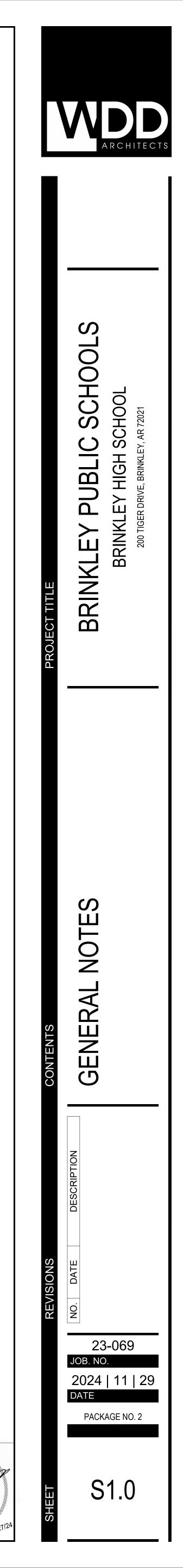


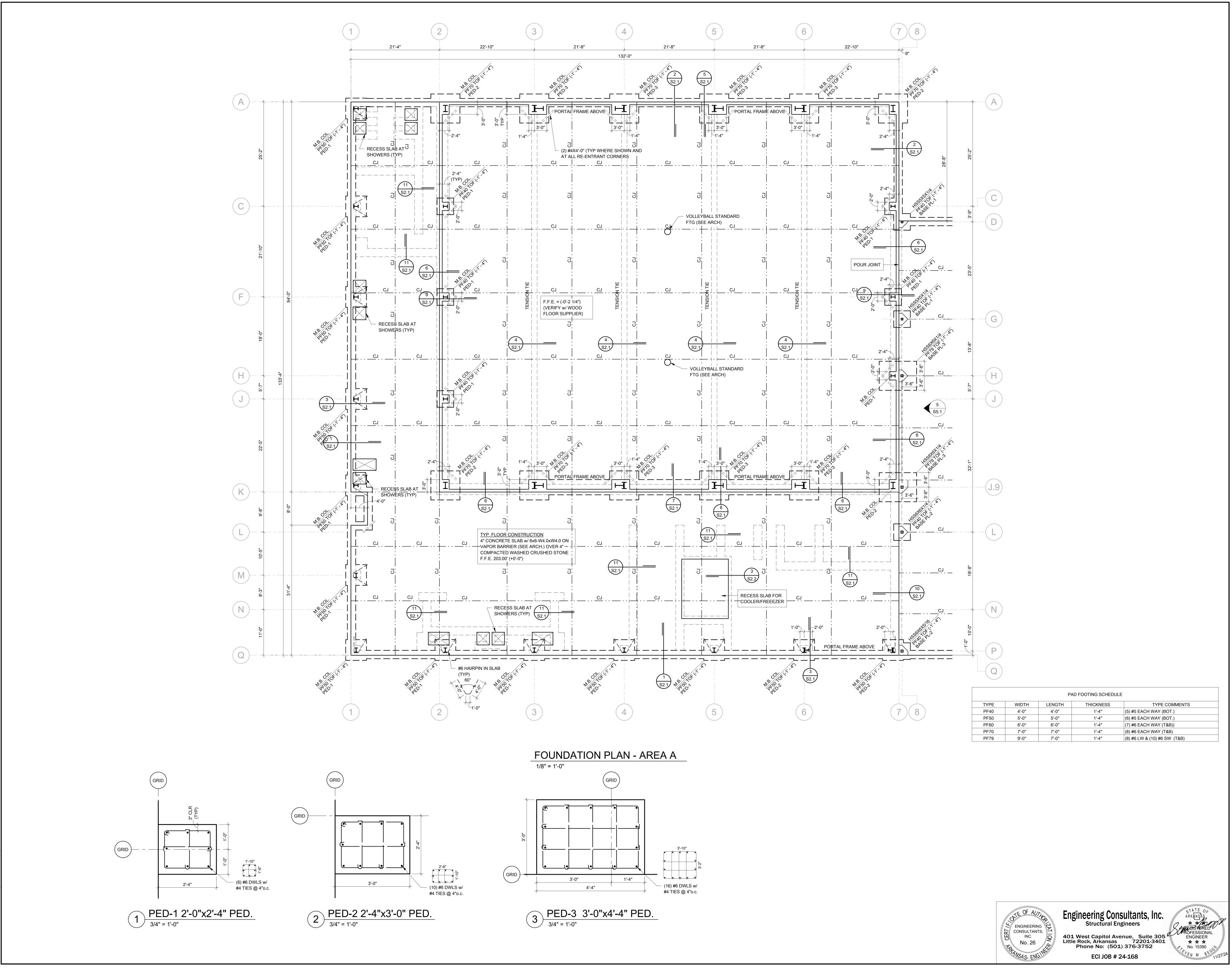
Engineering Consultants, Ind **Structural Engineers** 

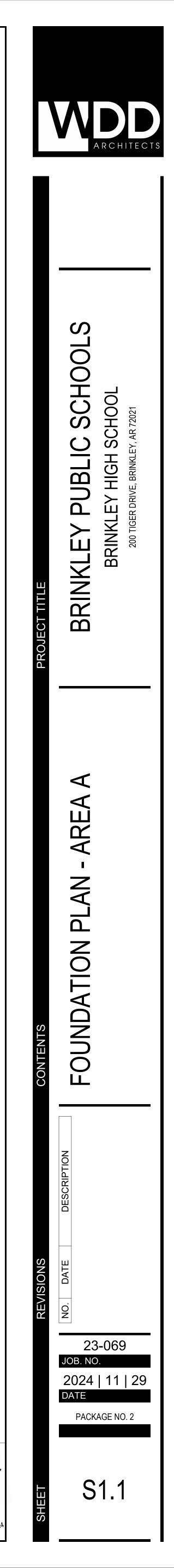
ENGINEER \* \* \* No. 15390 EN M

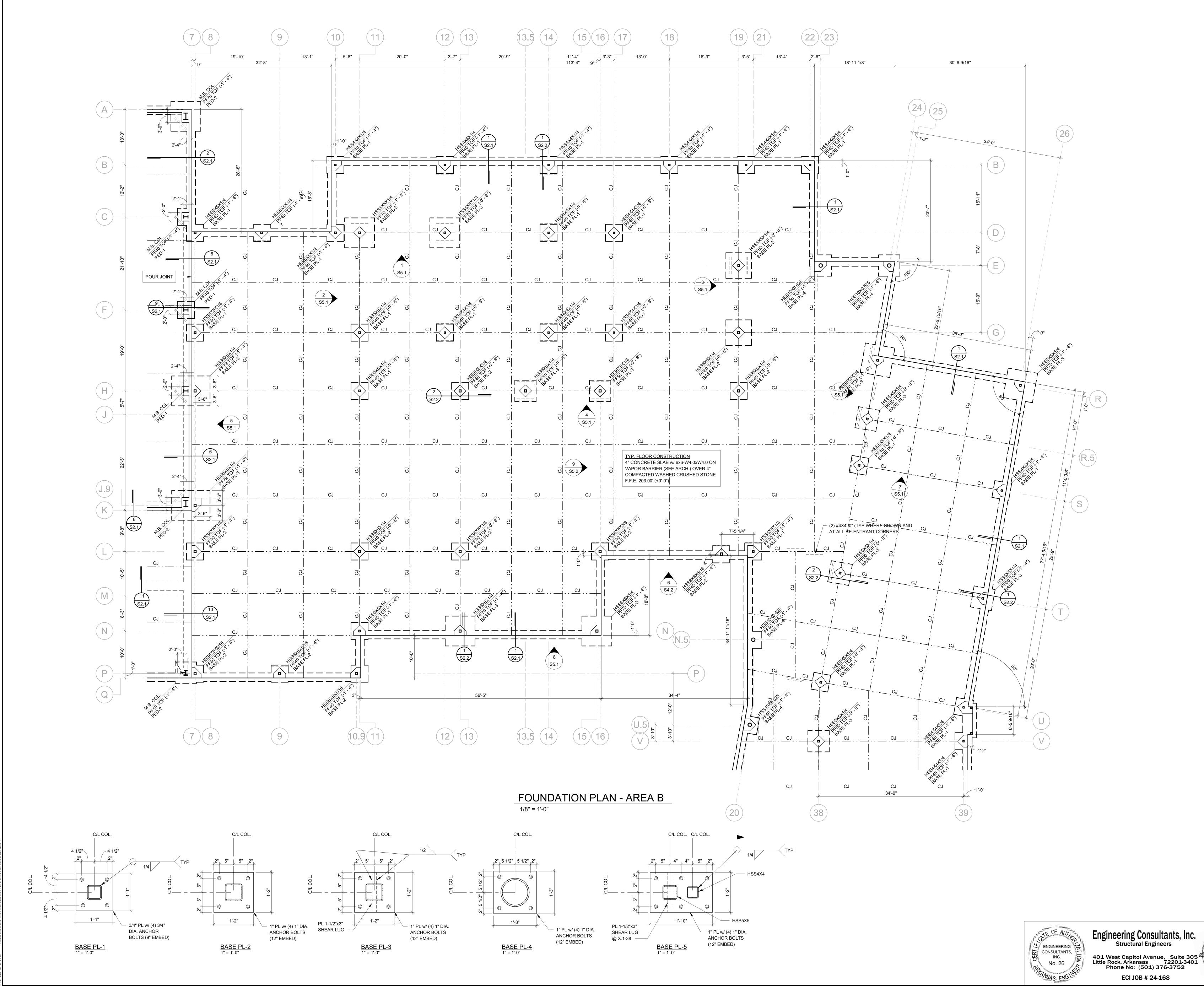
401 West Capitol Avenue, Suite 305 Little Rock, Arkansas 72201-3401 Phone No: (501) 376-3752 ECI JOB # 24-168

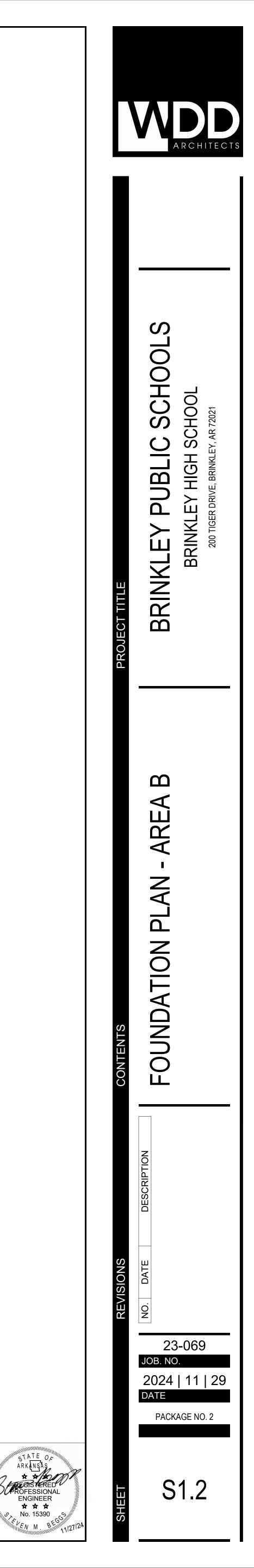
A.C.A. 12-80-101 ET. SEQ. (ARKANSAS STATE LAW)







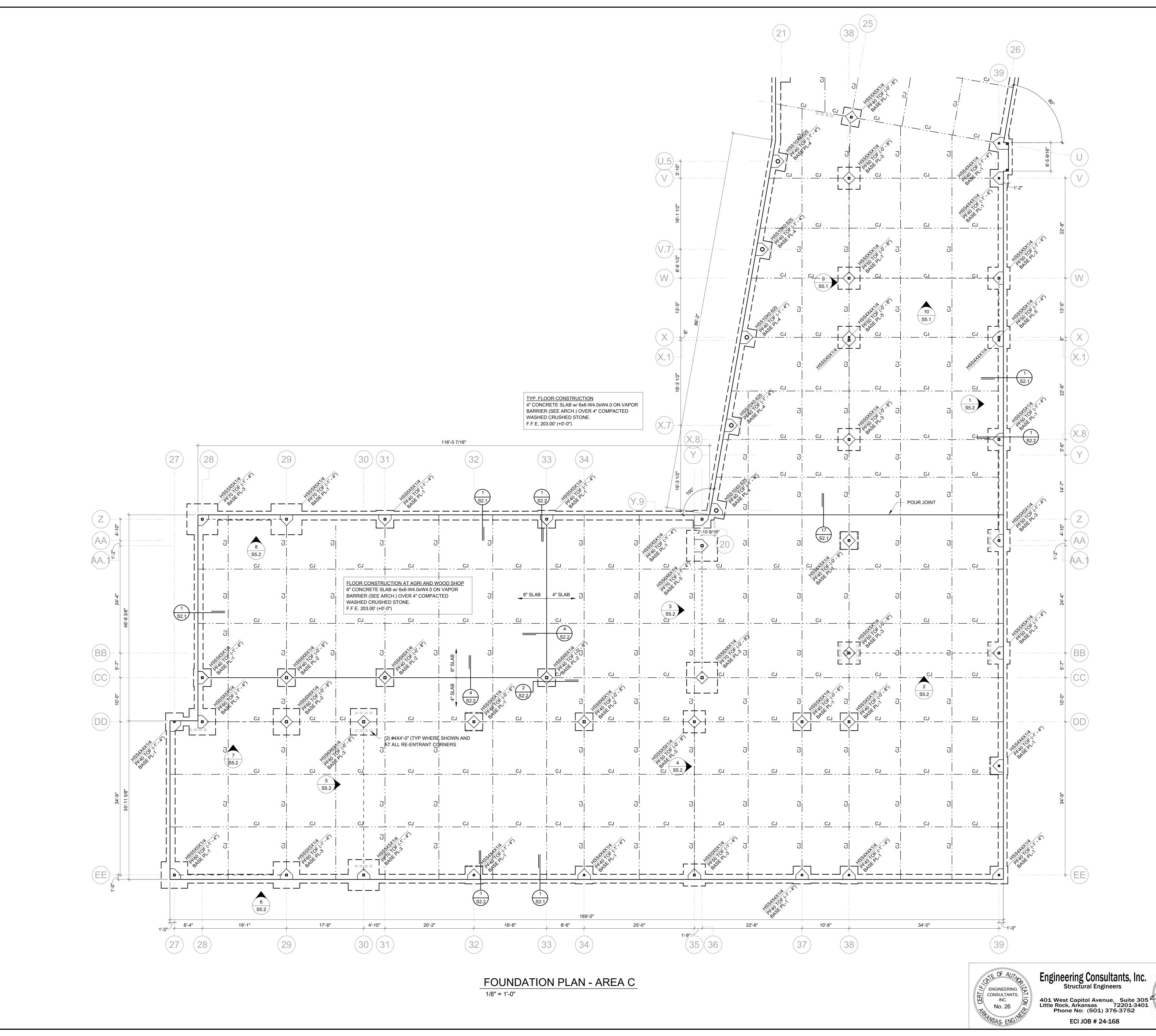




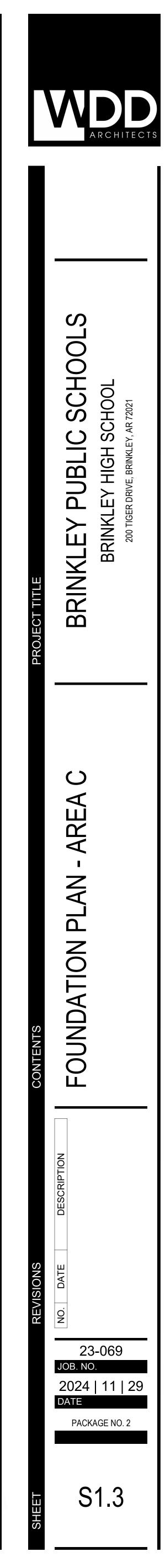
STATE OF

ENGINEER

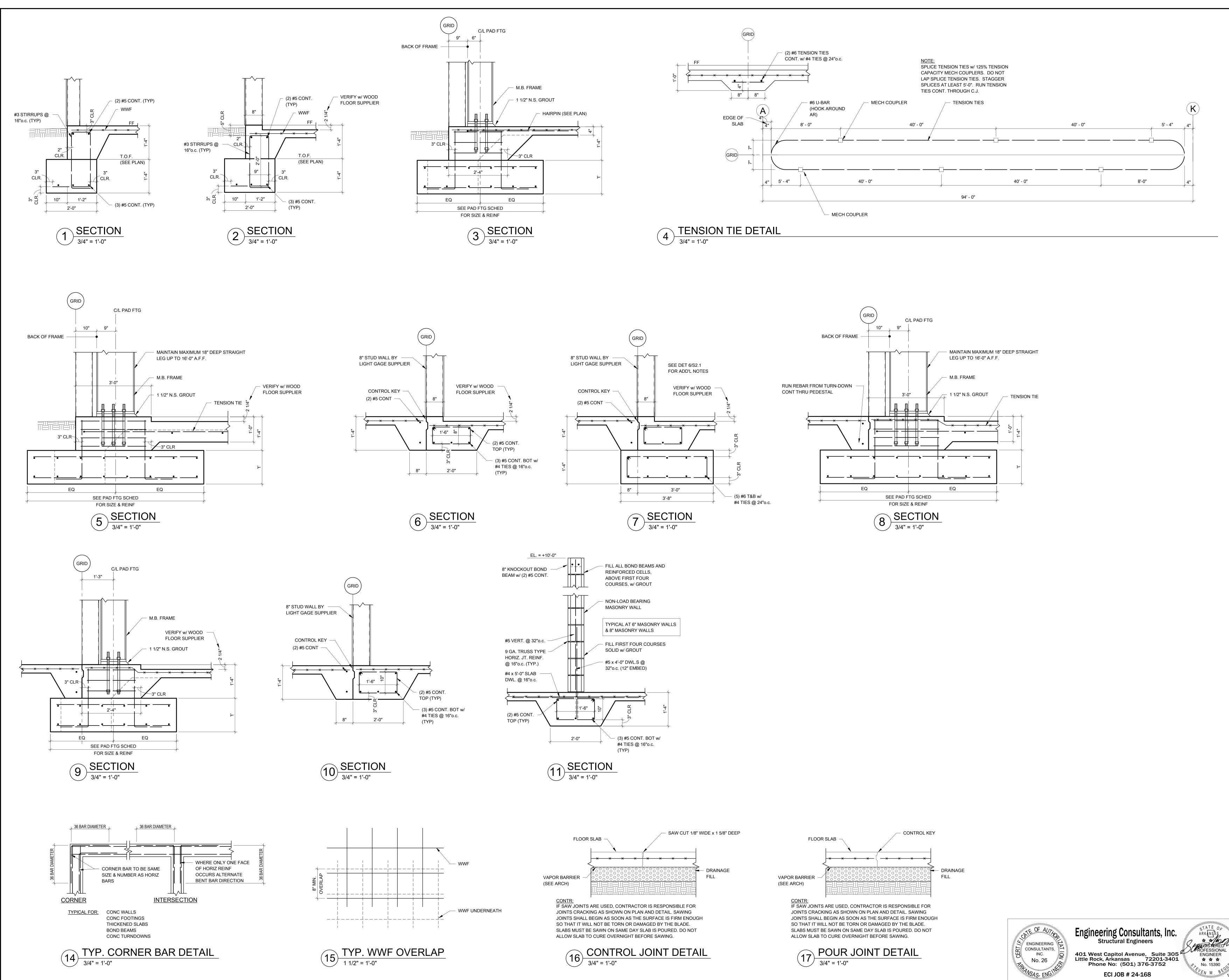
 $\bigstar \bigstar \bigstar$ ഗ<sub>ഗ</sub> No. 15390

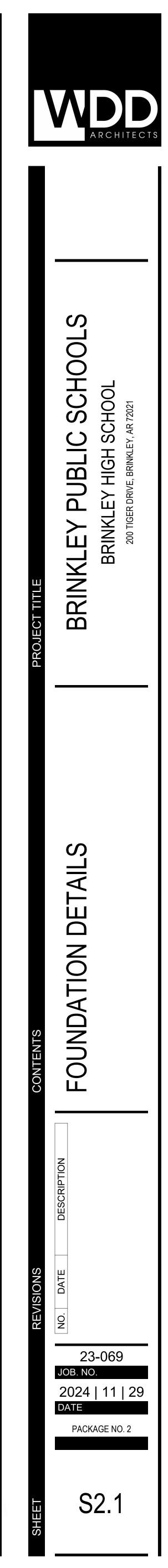




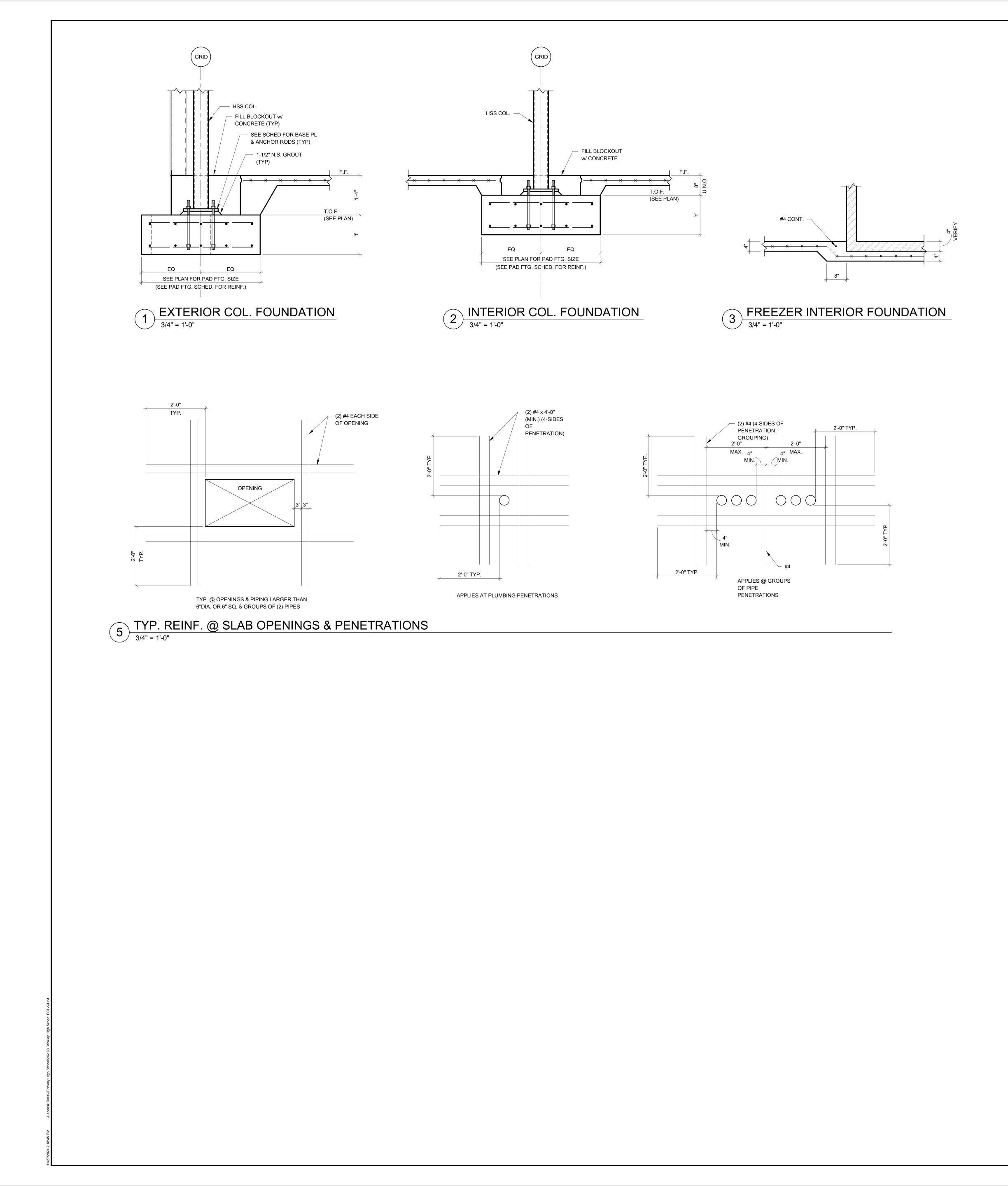


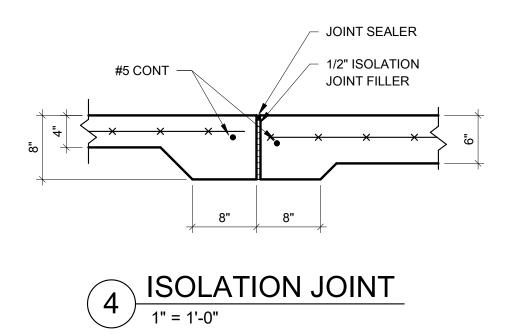
ARKANSAS ARKANSAS ARKANSAS ARKANSAS ARKANSAS ENGINEER  $\bigstar \bigstar \bigstar$ NO. 15390 5

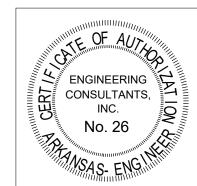




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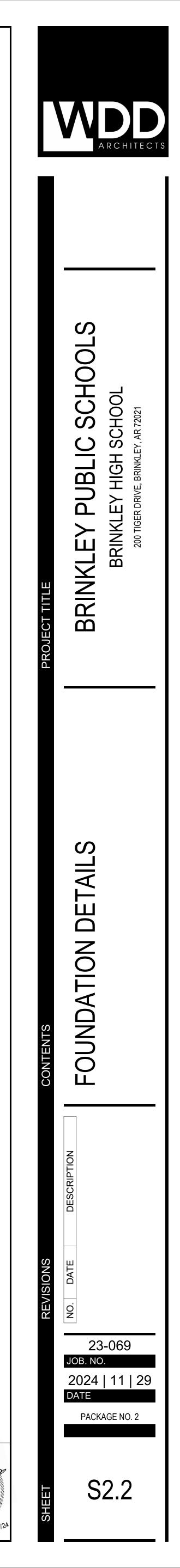


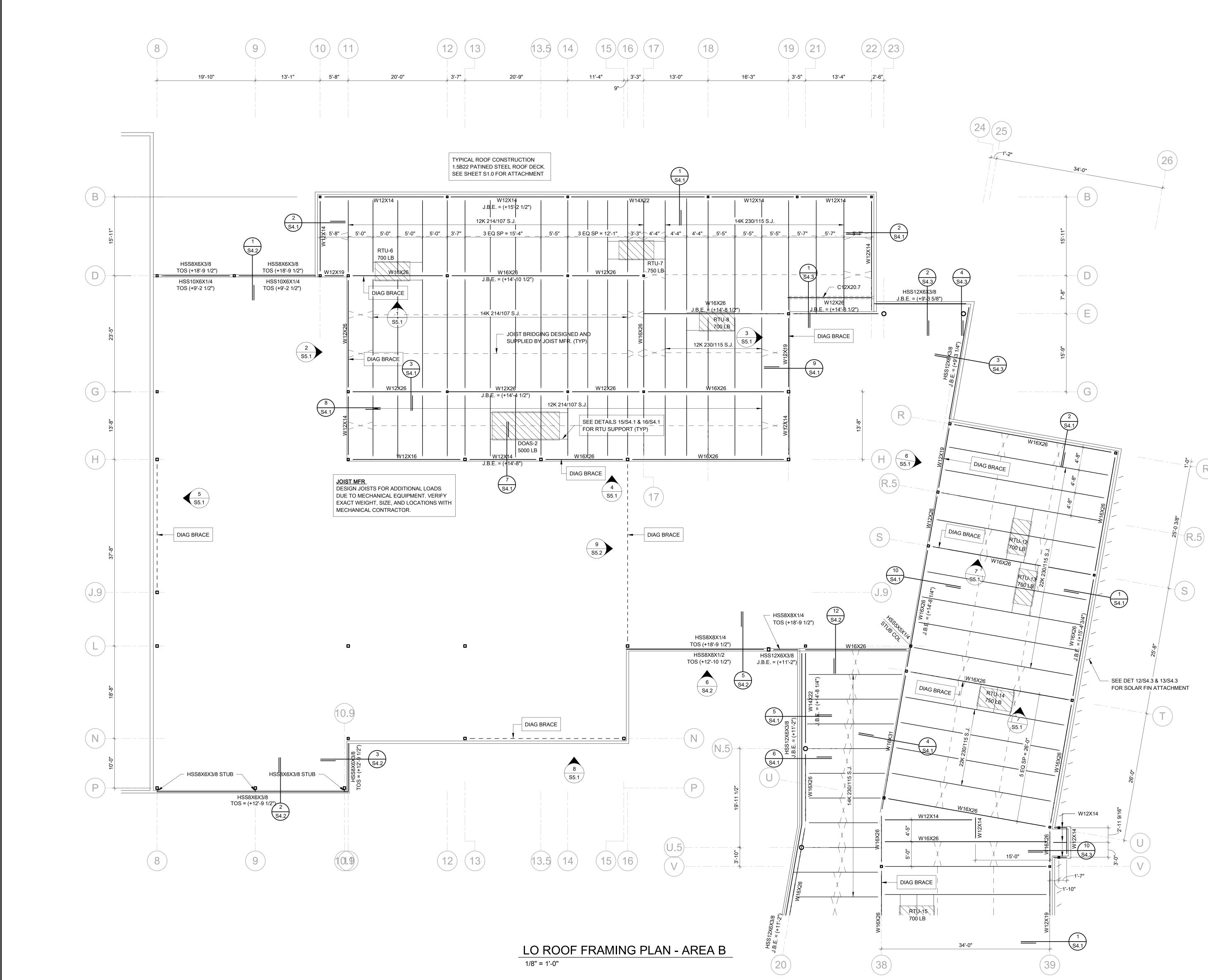


Engineering Consultants, Inc. Structural Engineers 401 West Capitol Avenue, Suite 305 Little Rock, Arkansas 72201-3401 Phone No: (501) 376-3752

ECI JOB # 24-168

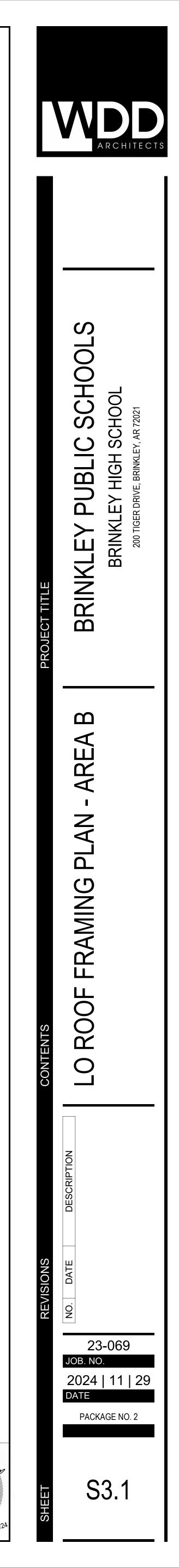


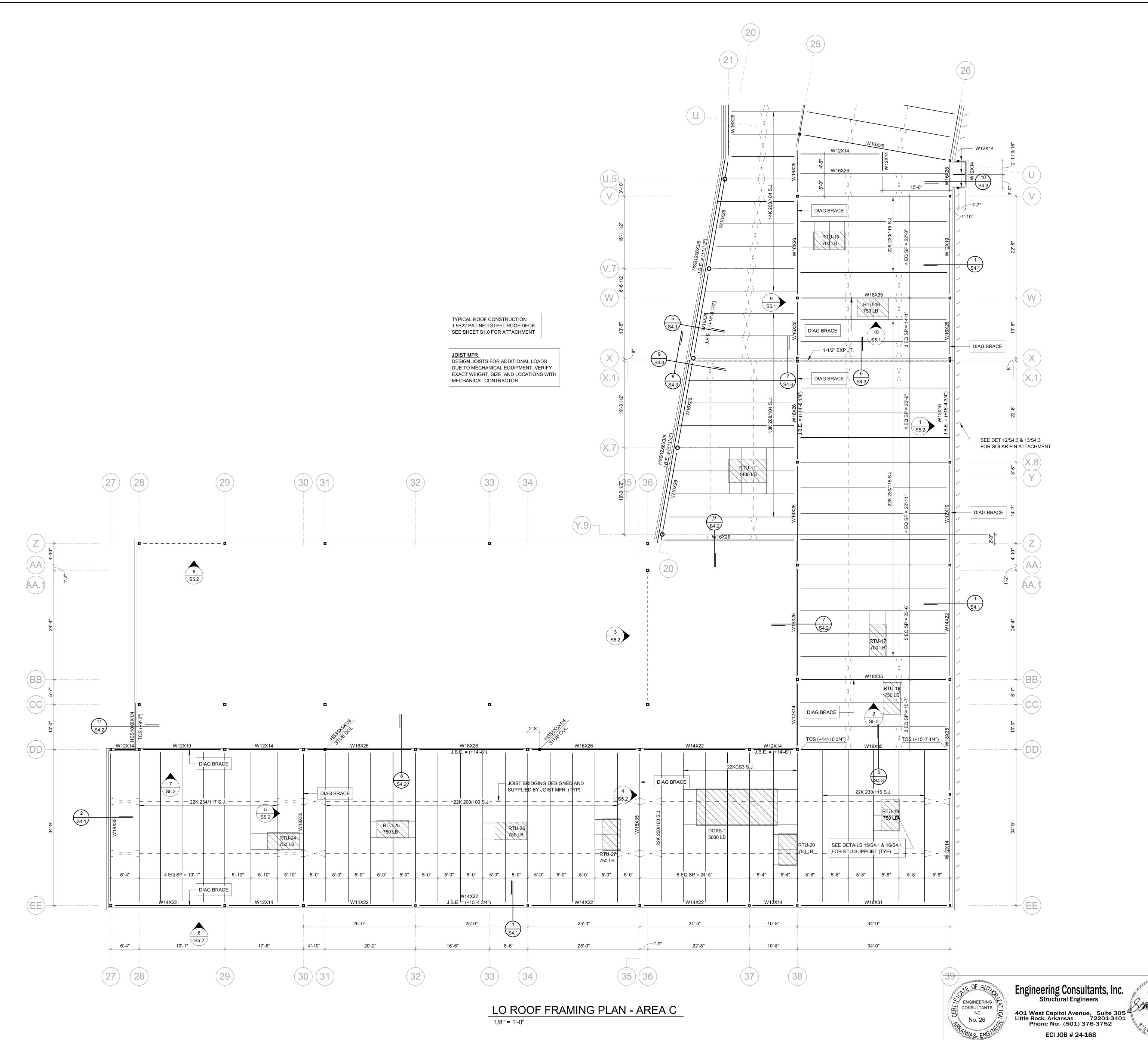








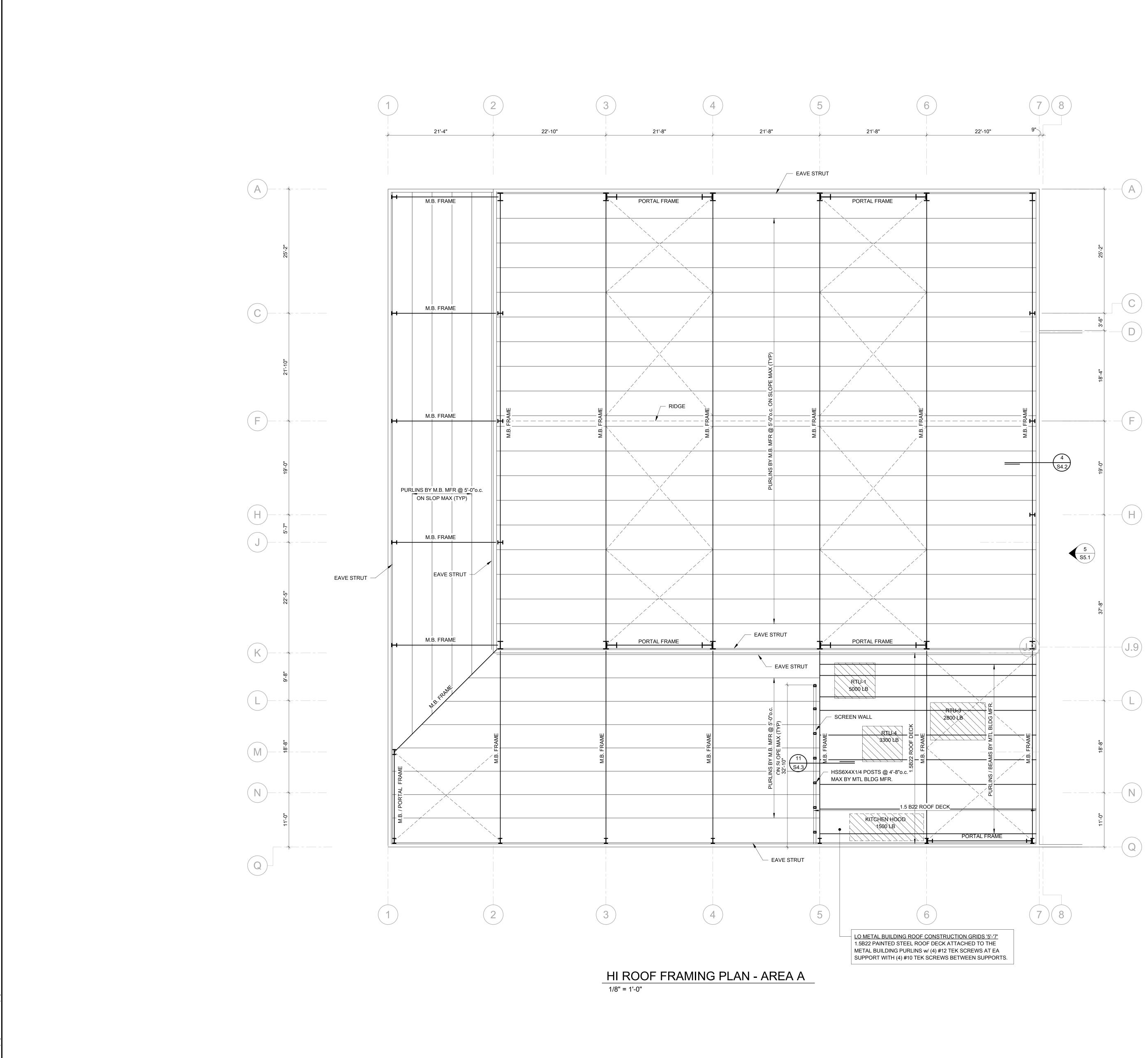




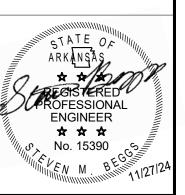


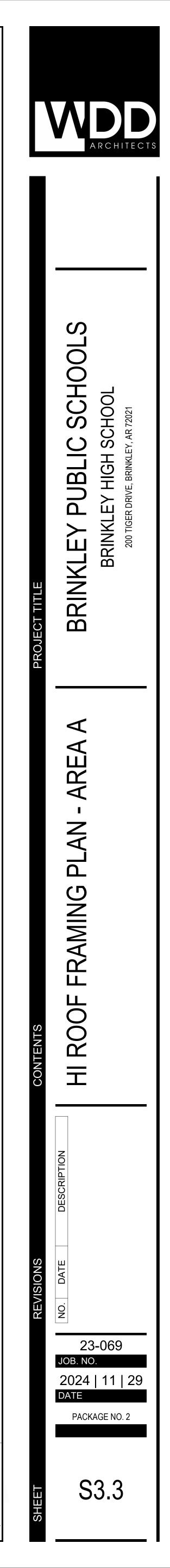


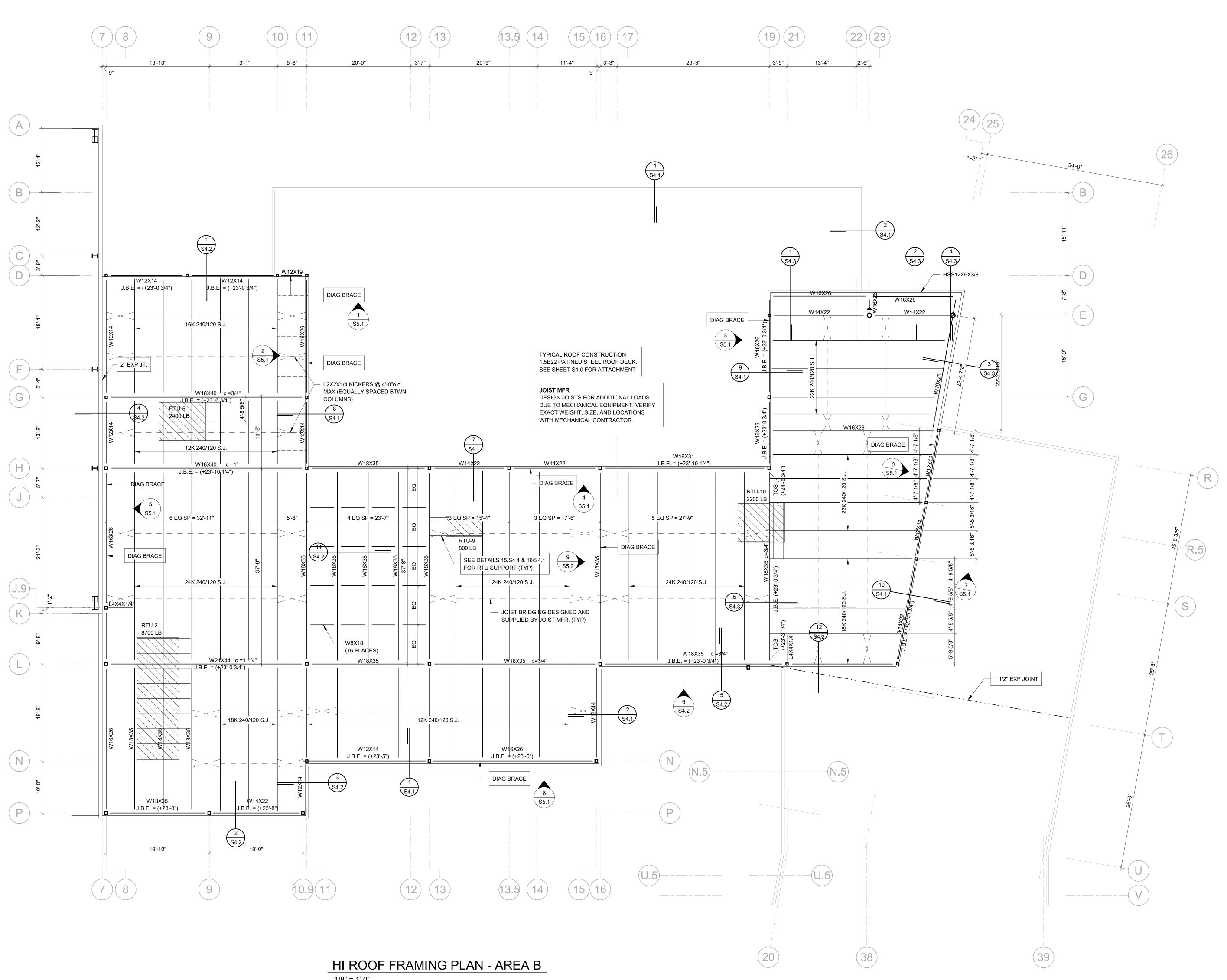
ARKANSAS ENGINEER \* \* \* v, No. 15390 MILEVEN M BEGININA





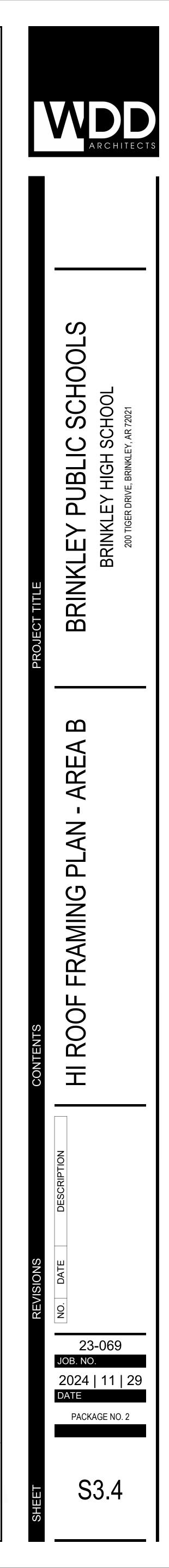


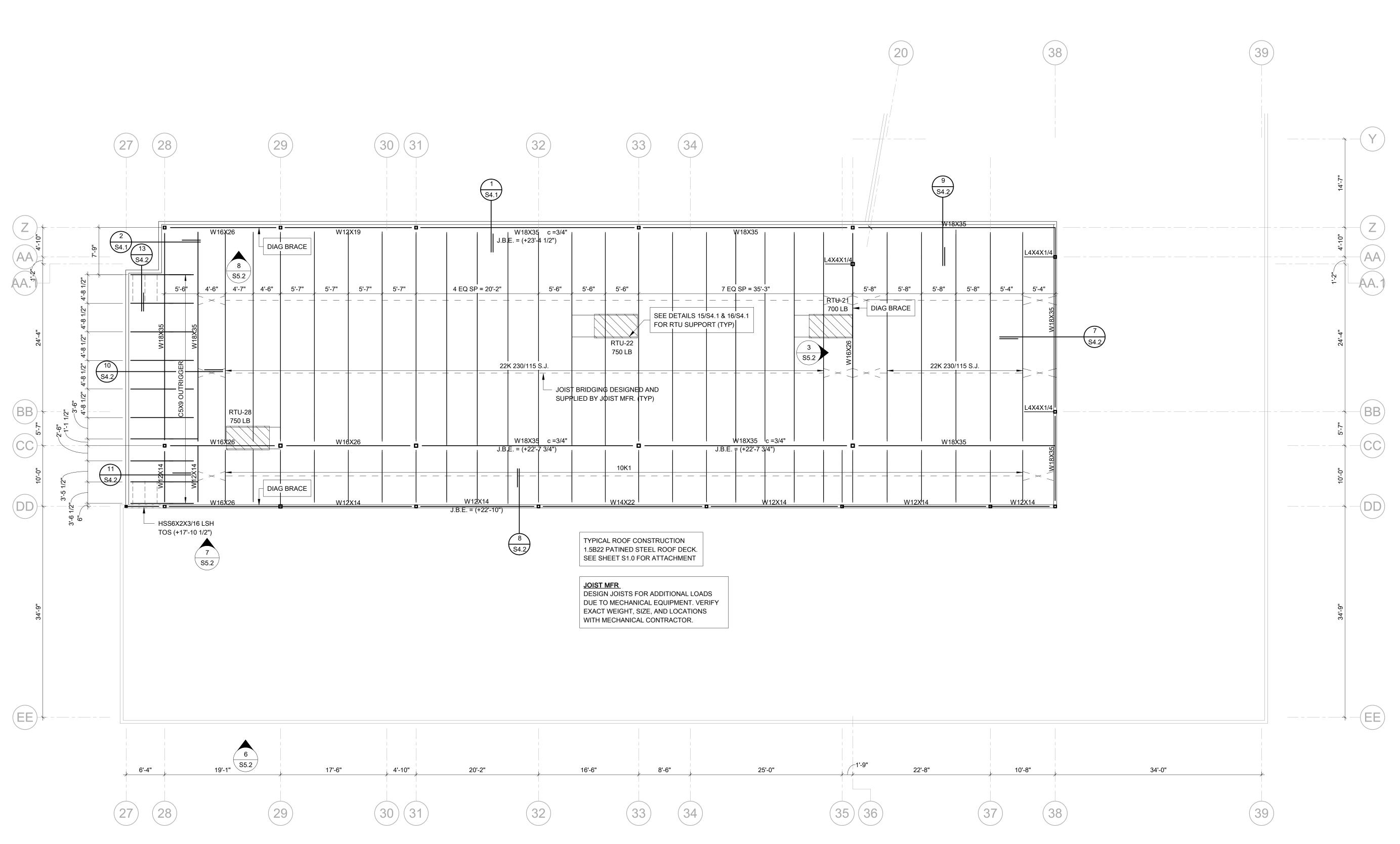




1/8" = 1'-0"



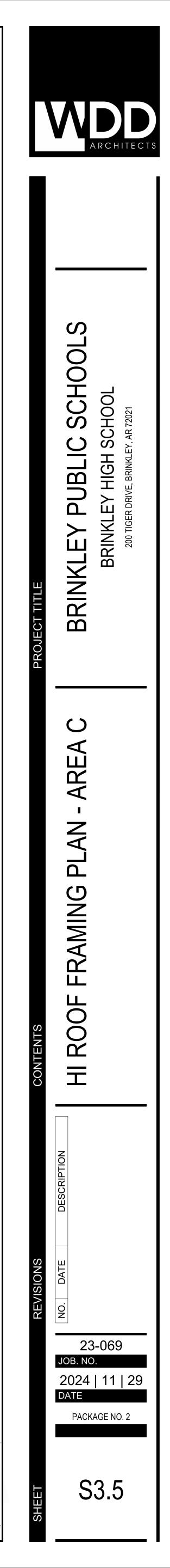


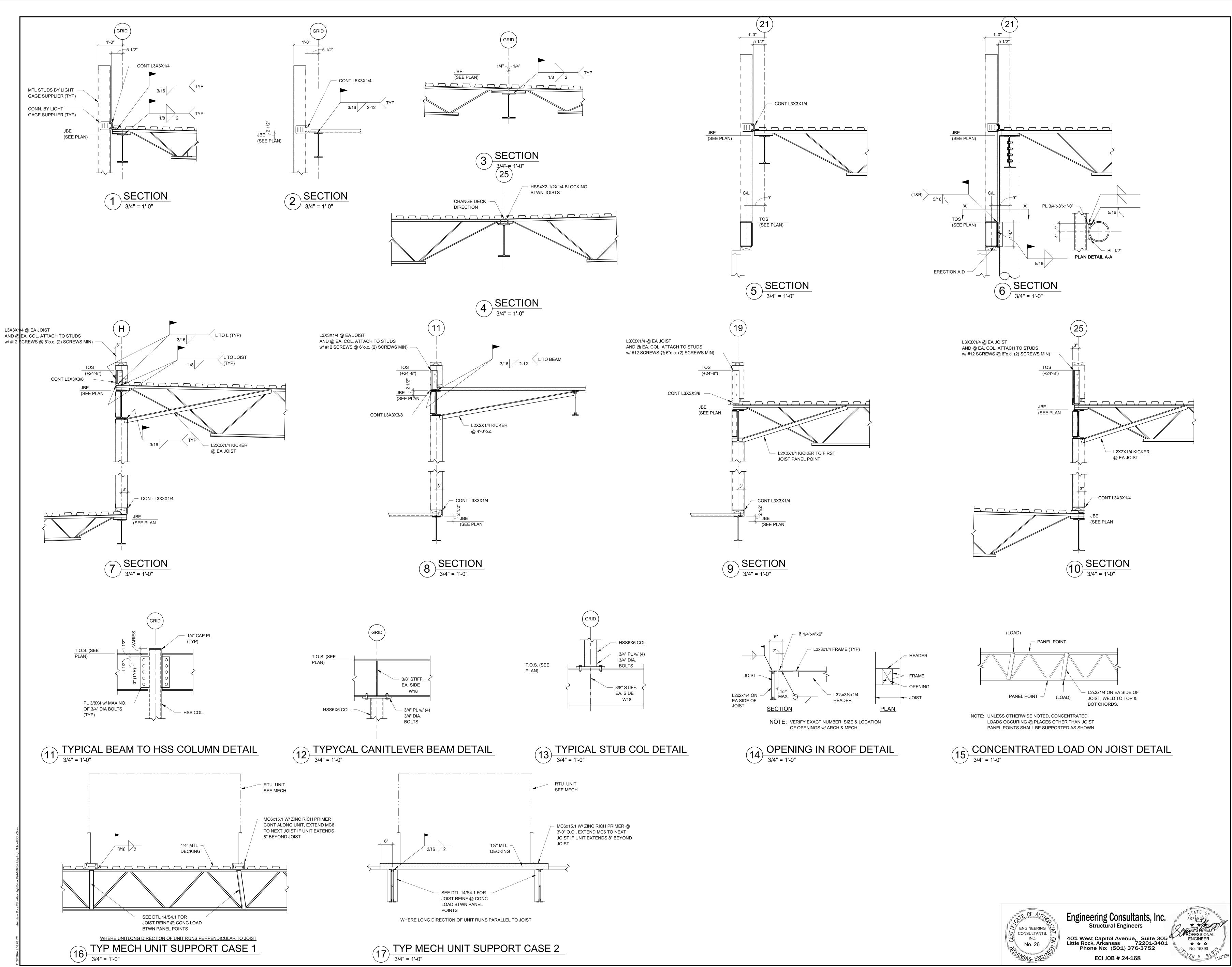


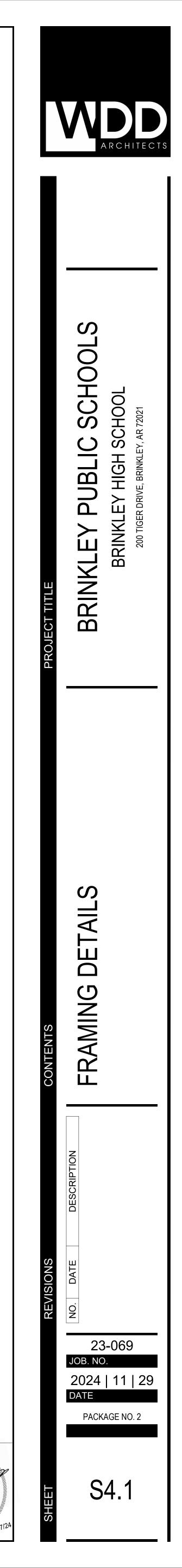
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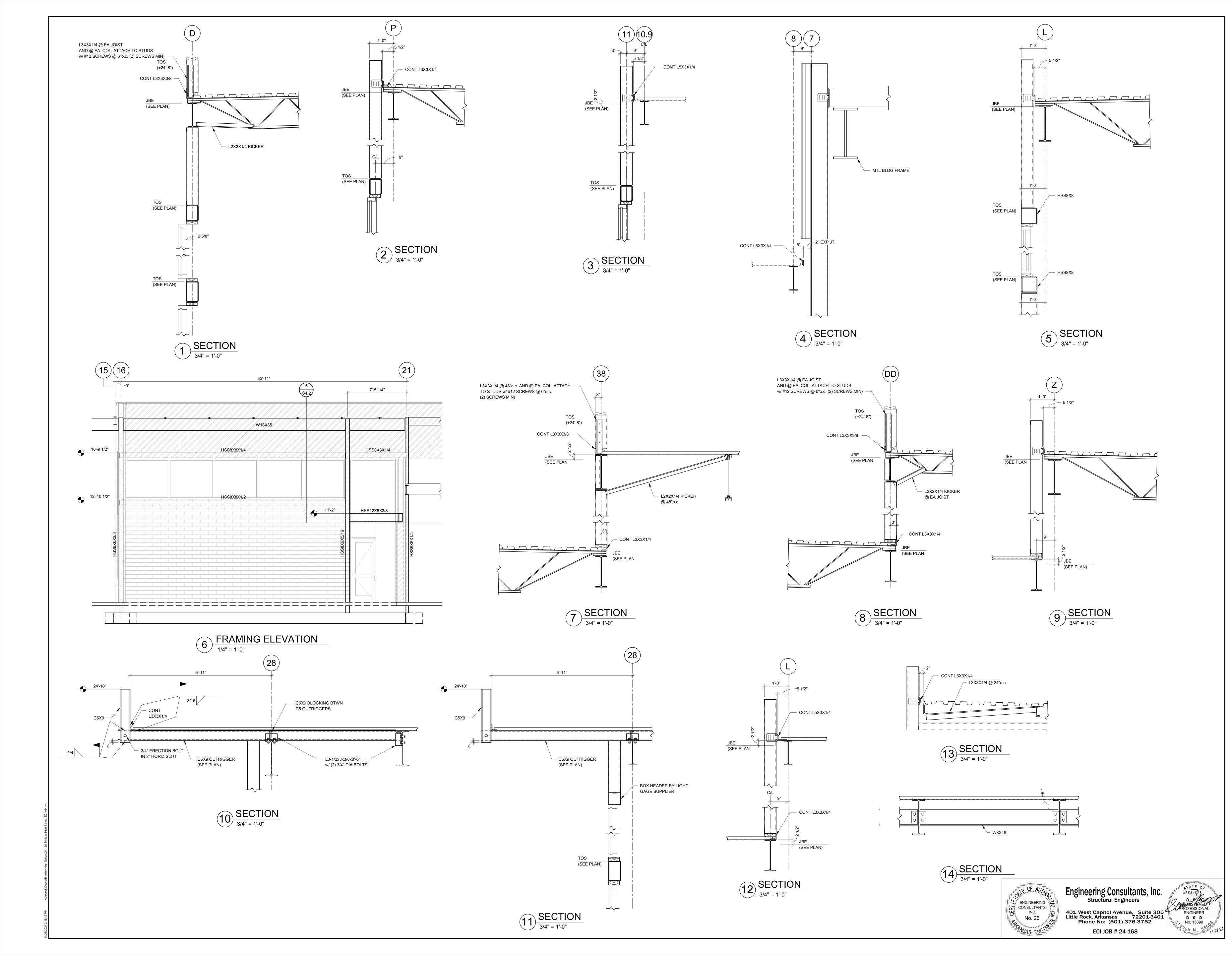
HIGH ROOF FRAMING PLAN - AREA C

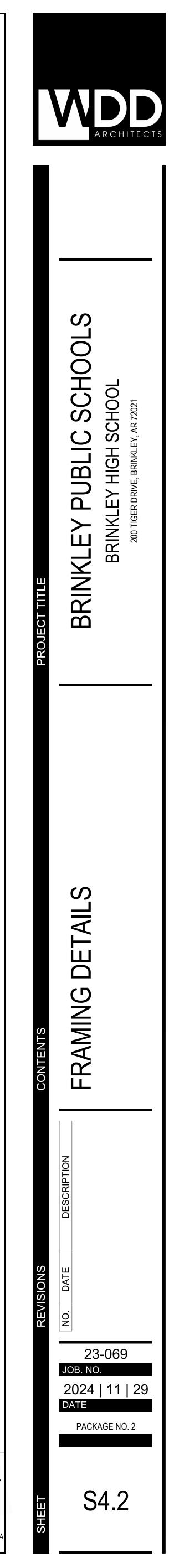


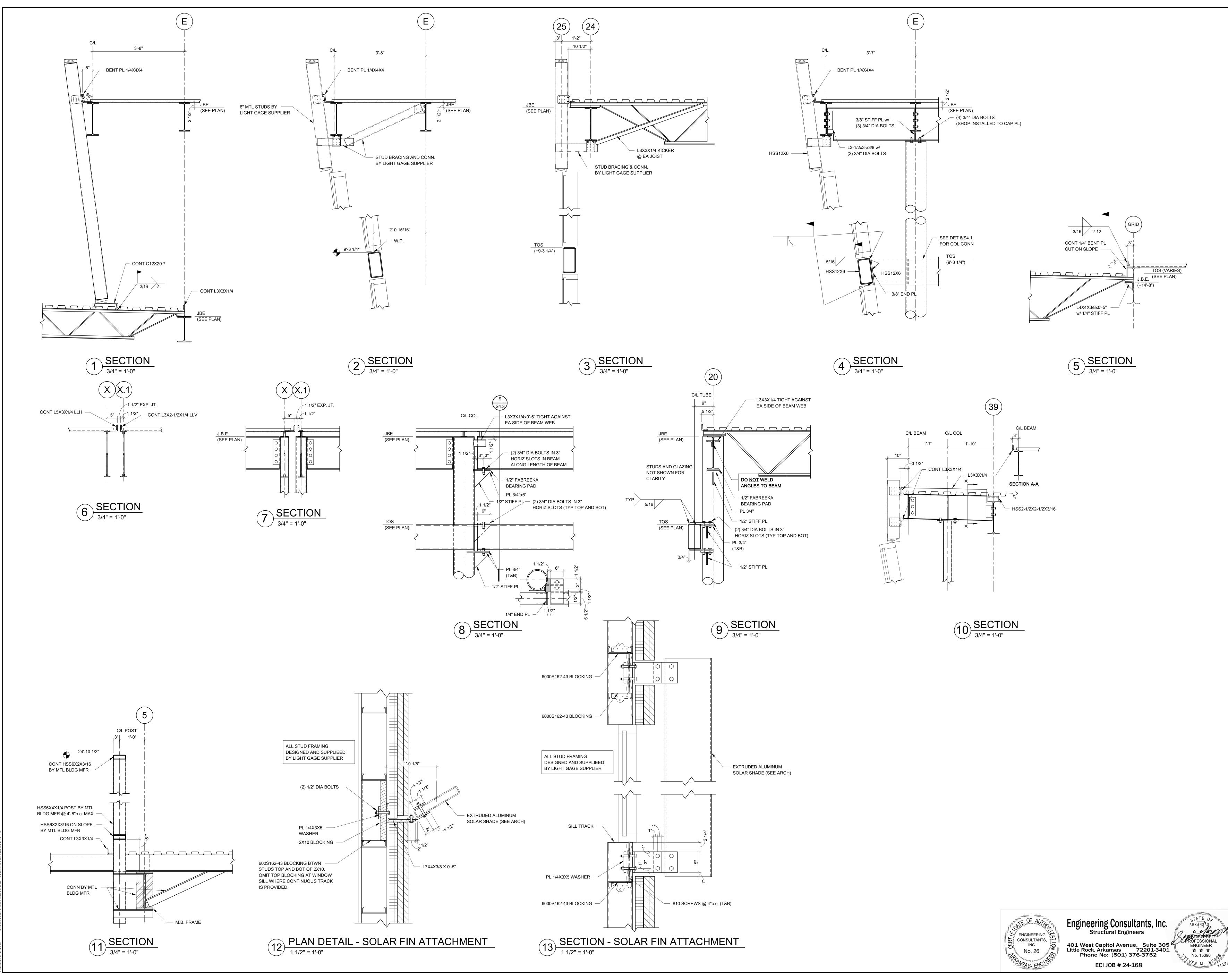


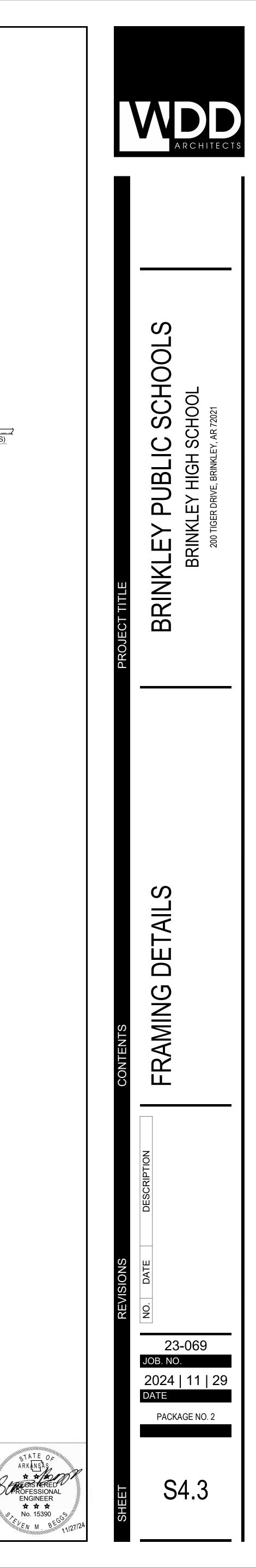






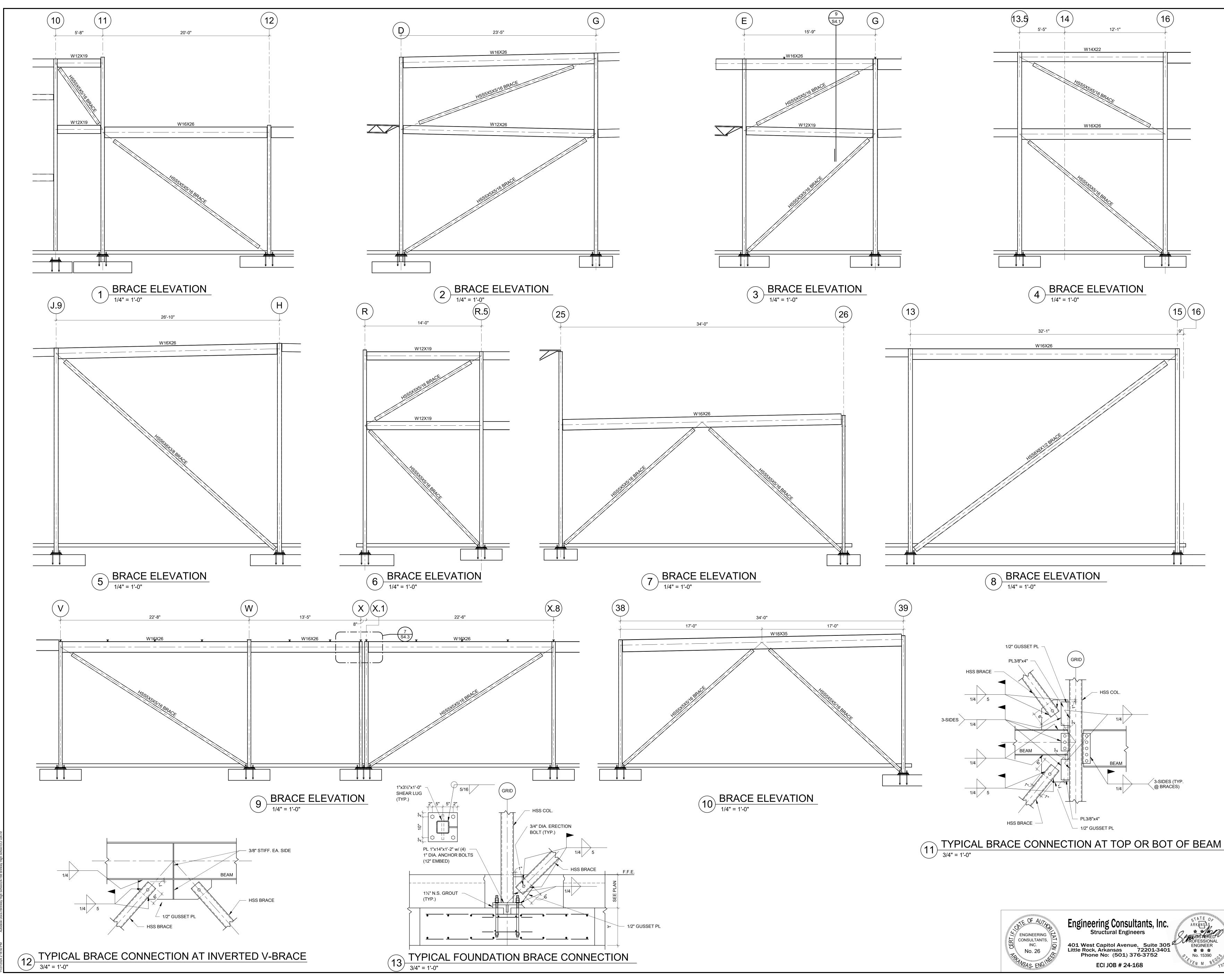




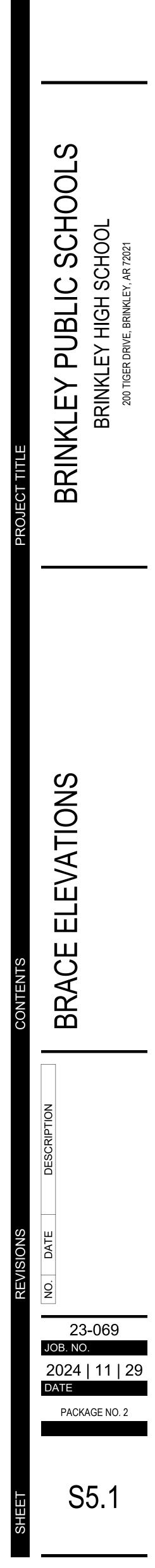


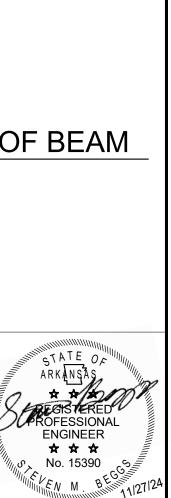
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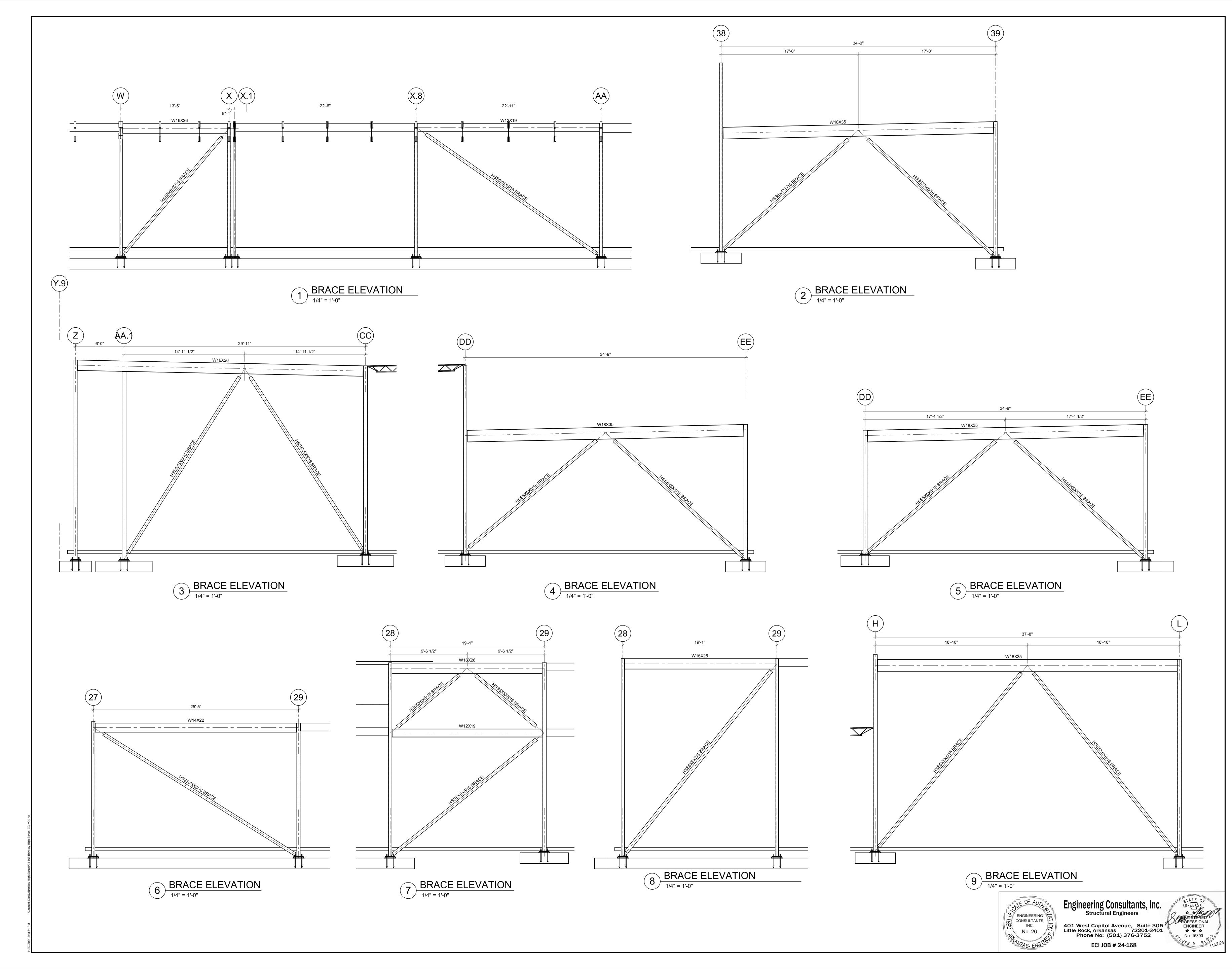
ENGINEER

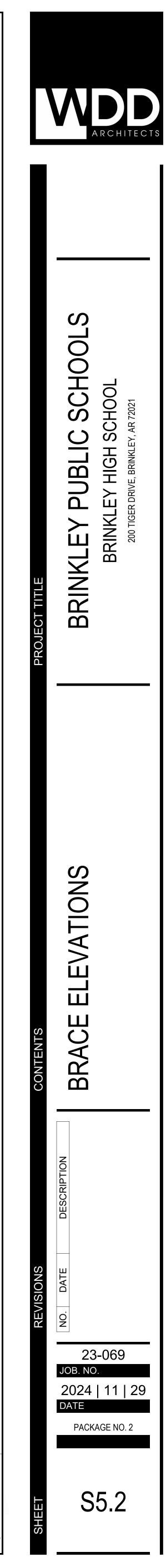












# LEGEND

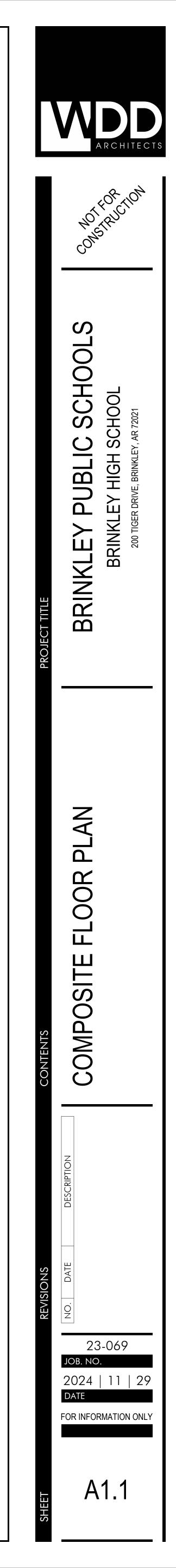


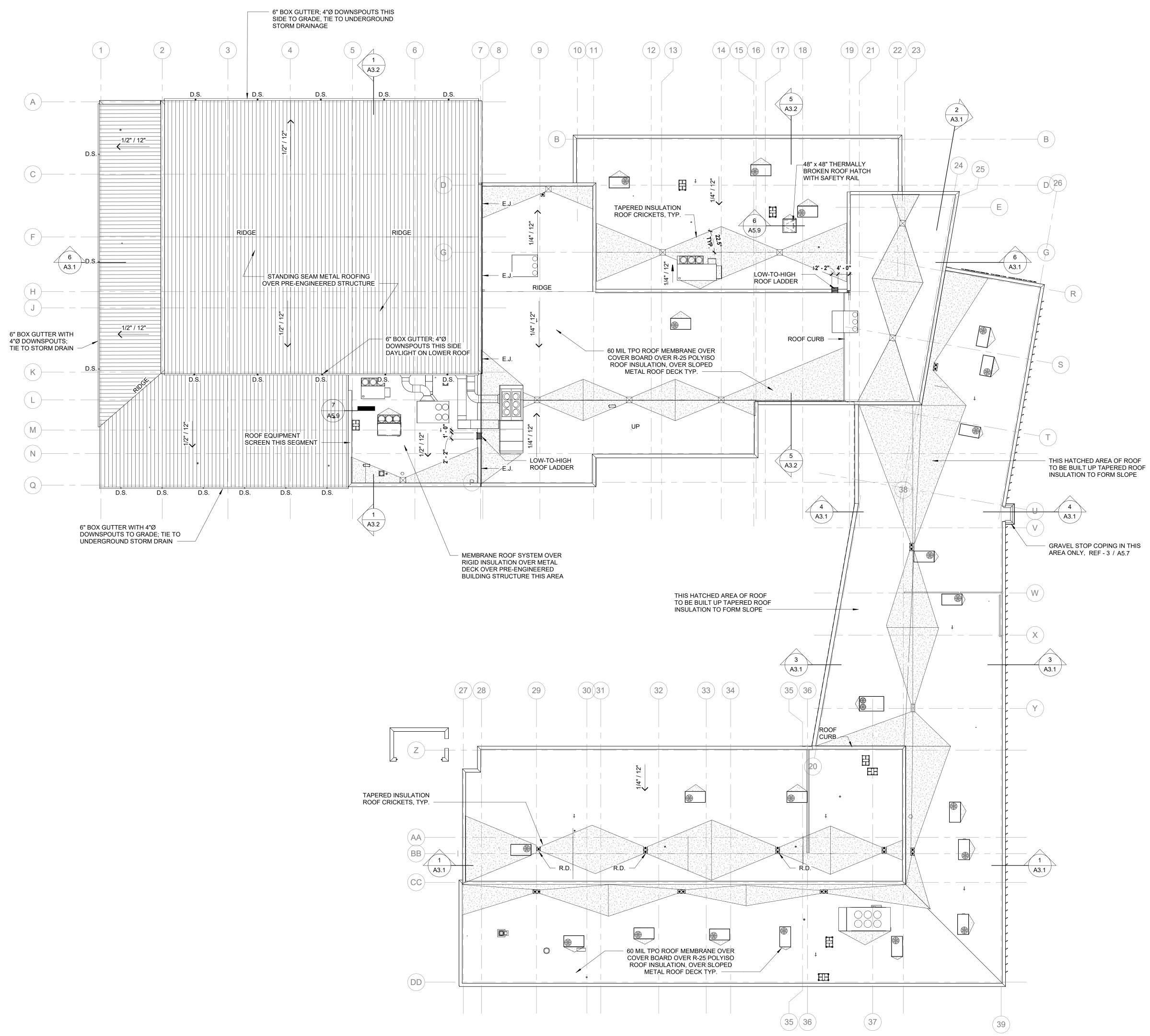
### COMPOSITE FLOOR PLAN NOTES:

- FURNITURE IS SHOWN FOR REFERENE ONLY, NOT IN CONSTRUCTION CONTRACT - TO BE PROCURED BY OWNER THROUGH FF&E CONTRACT
- REFER TO SITE PLAN AND CIVIL/LANDSCAPE DRAWINGS FOR SCOPE OF
  WORK OUTSIDE BUILDING

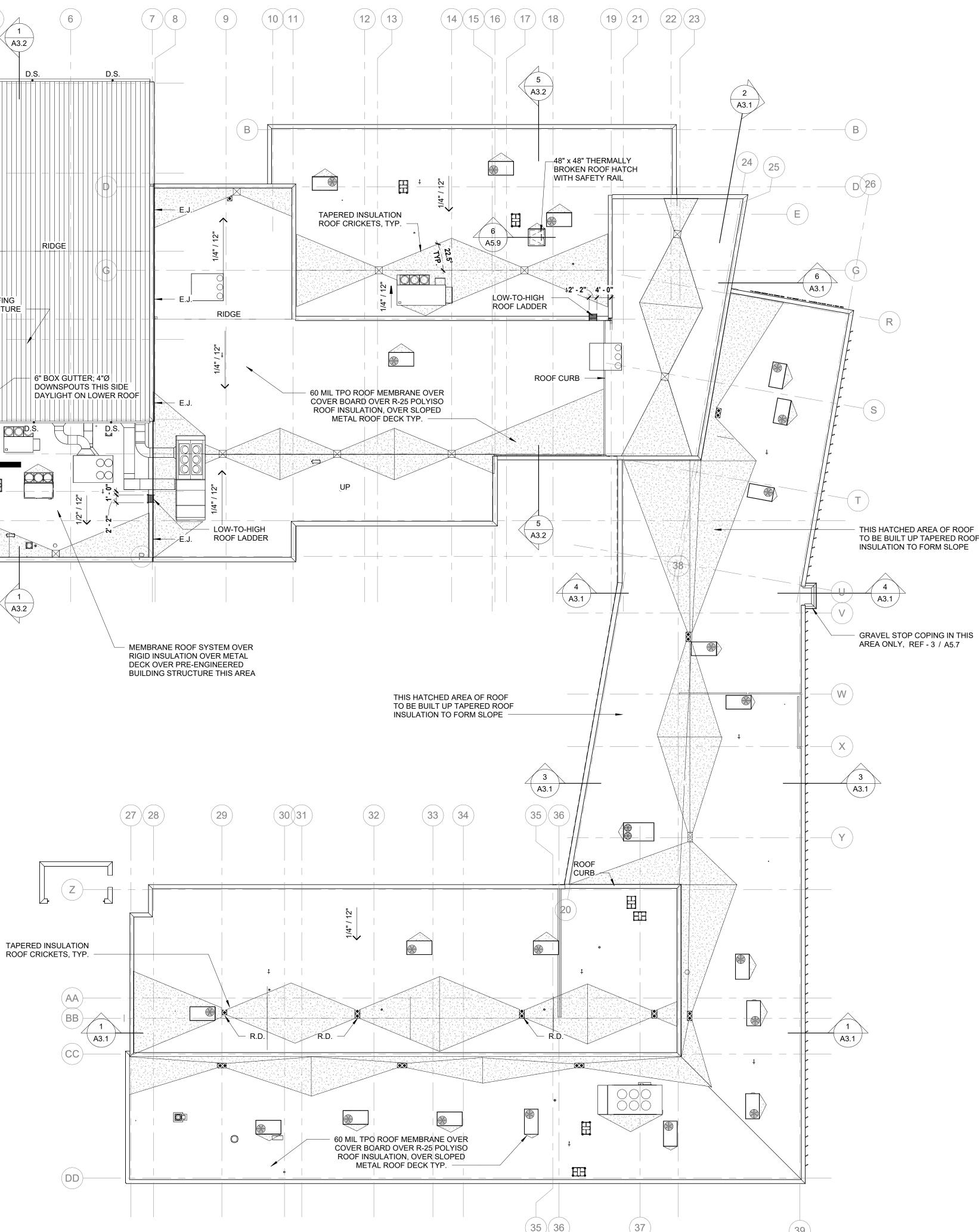


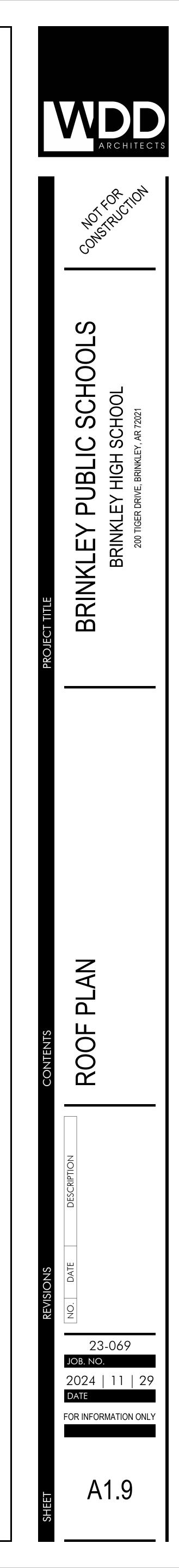


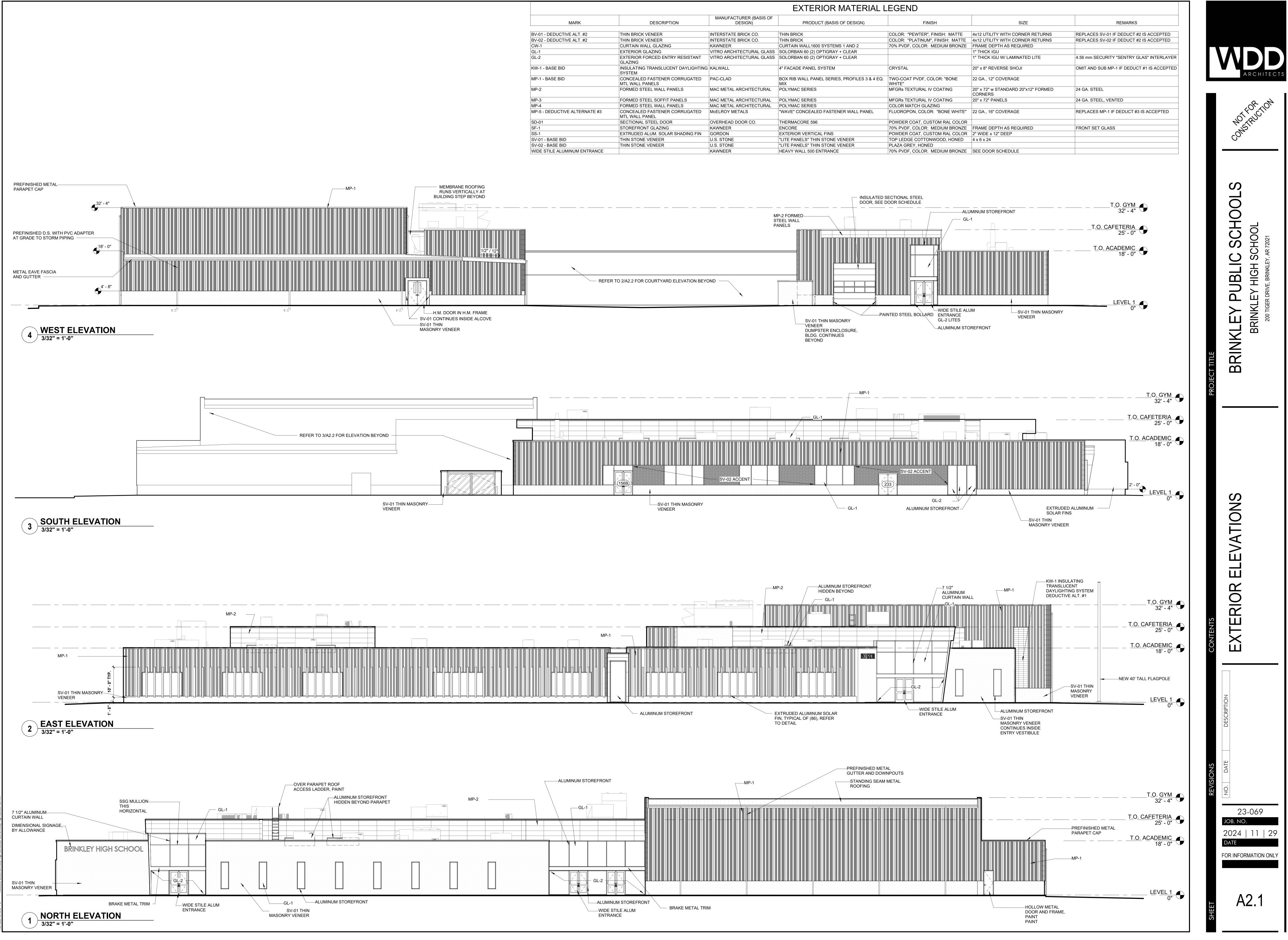




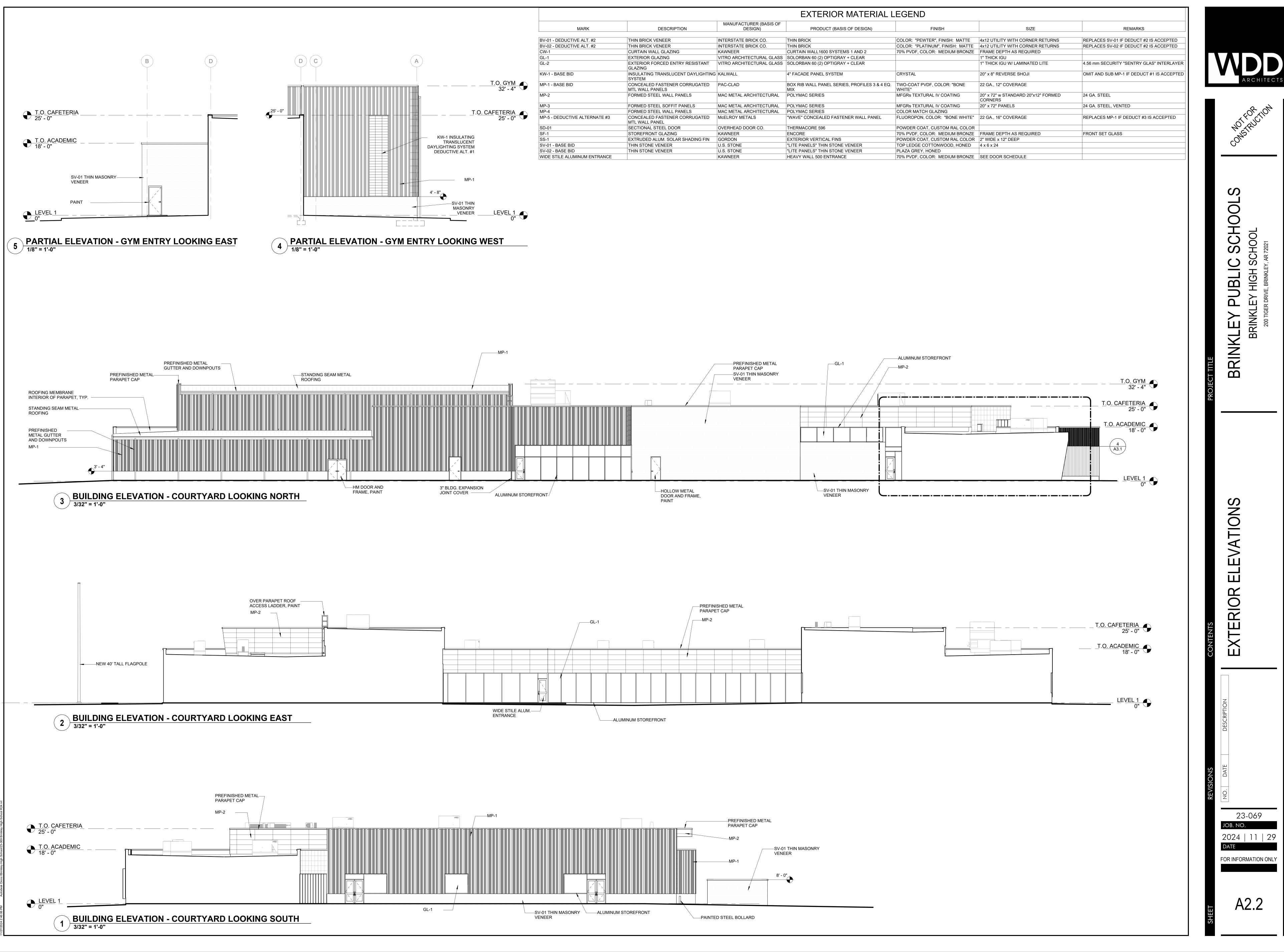








MARK	DECODIDION	MANUFACTURER (BASIS OF			SIZE	REMARKS		
MARK	DESCRIPTION	DESIGN)	PRODUCT (BASIS OF DESIGN)	FINISH	SIZE	REMARKS		
BV-01 - DEDUCTIVE ALT. #2	THIN BRICK VENEER	INTERSTATE BRICK CO.	THIN BRICK	COLOR: "PEWTER", FINISH: MATTE	4x12 UTILITY WITH CORNER RETURNS	REPLACES SV-01 IF DEDUCT #2 IS ACCEF		
BV-02 - DEDUCTIVE ALT. #2	THIN BRICK VENEER	INTERSTATE BRICK CO.	THIN BRICK	COLOR: "PLATINUM", FINISH: MATTE	4x12 UTILITY WITH CORNER RETURNS	REPLACES SV-02 IF DEDUCT #2 IS ACCEF		
CW-1	CURTAIN WALL GLAZING	KAWNEER	CURTAIN WALL1600 SYSTEMS 1 AND 2	70% PVDF, COLOR: MEDIUM BRONZE	FRAME DEPTH AS REQUIRED			
GL-1	EXTERIOR GLAZING	VITRO ARCHITECTURAL GLASS	SOLORBAN 60 (2) OPTIGRAY + CLEAR		1" THICK IGU			
GL-2	EXTERIOR FORCED ENTRY RESISTANT GLAZING	VITRO ARCHITECTURAL GLASS	SOLORBAN 60 (2) OPTIGRAY + CLEAR		1" THICK IGU W/ LAMINATED LITE	4.56 mm SECURITY "SENTRY GLAS" INTE		
KW-1 - BASE BID	INSULATING TRANSLUCENT DAYLIGHTING SYSTEM	G KALWALL	4" FACADE PANEL SYSTEM	CRYSTAL	20" x 8" REVERSE SHOJI	OMIT AND SUB MP-1 IF DEDUCT #1 IS AC		
MP-1 - BASE BID	CONCEALED FASTENER CORRUGATED MTL WALL PANELS	PAC-CLAD	BOX RIB WALL PANEL SERIES, PROFILES 3 & 4 EQ. MIX	TWO-COAT PVDF, COLOR: "BONE WHITE"	22 GA., 12" COVERAGE			
MP-2	FORMED STEEL WALL PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	MFGRs TEXTURAL IV COATING	20" x 72" w STANDARD 20"x12" FORMED CORNERS	24 GA. STEEL		
MP-3	FORMED STEEL SOFFIT PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	MFGRs TEXTURAL IV COATING	20" x 72" PANELS	24 GA. STEEL, VENTED		
MP-4	FORMED STEEL WALL PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	COLOR MATCH GLAZING				
MP-5 - DEDUCTIVE ALTERNATE #3	CONCEALED FASTENER CORRUGATED MTL WALL PANEL	McELROY METALS	"WAVE" CONCEALED FASTENER WALL PANEL	FLUOROPON, COLOR: "BONE WHITE"	22 GA., 16" COVERAGE	REPLACES MP-1 IF DEDUCT #3 IS ACCEP		
SD-01	SECTIONAL STEEL DOOR	OVERHEAD DOOR CO.	THERMACORE 596	POWDER COAT, CUSTOM RAL COLOR				
SF-1	STOREFRONT GLAZING	KAWNEER	ENCORE	70% PVDF, COLOR: MEDIUM BRONZE	FRAME DEPTH AS REQUIRED	FRONT SET GLASS		
SS-1	EXTRUDED ALUM. SOLAR SHADING FIN	GORDON	EXTERIOR VERTICAL FINS	POWDER COAT, CUSTOM RAL COLOR	2" WIDE x 12" DEEP			
SV-01 - BASE BID	THIN STONE VENEER	U.S. STONE	"LITE PANELS" THIN STONE VENEER	TOP LEDGE COTTONWOOD, HONED	4 x 6 x 24			
SV-02 - BASE BID	THIN STONE VENEER	U.S. STONE	"LITE PANELS" THIN STONE VENEER	PLAZA GREY, HONED				
WIDE STILE ALUMINUM ENTRANCE		KAWNEER	HEAVY WALL 500 ENTRANCE	70% PVDF, COLOR: MEDIUM BRONZE	SEE DOOR SCHEDULE			



		MANUFACTURER (BASIS OF				
MARK	DESCRIPTION	DESIGN)	PRODUCT (BASIS OF DESIGN)	FINISH	SIZE	REMARKS
		1	1	- 1	1	
BV-01 - DEDUCTIVE ALT. #2	THIN BRICK VENEER	INTERSTATE BRICK CO.	THIN BRICK	COLOR: "PEWTER", FINISH: MATTE	4x12 UTILITY WITH CORNER RETURNS	REPLACES SV-01 IF DEDUCT #2 IS AC
BV-02 - DEDUCTIVE ALT. #2	THIN BRICK VENEER	INTERSTATE BRICK CO.	THIN BRICK	COLOR: "PLATINUM", FINISH: MATTE	4x12 UTILITY WITH CORNER RETURNS	REPLACES SV-02 IF DEDUCT #2 IS AC
CW-1	CURTAIN WALL GLAZING	KAWNEER	CURTAIN WALL1600 SYSTEMS 1 AND 2	70% PVDF, COLOR: MEDIUM BRONZE	FRAME DEPTH AS REQUIRED	
GL-1	EXTERIOR GLAZING	VITRO ARCHITECTURAL GLASS	SOLORBAN 60 (2) OPTIGRAY + CLEAR		1" THICK IGU	
GL-2	EXTERIOR FORCED ENTRY RESISTANT GLAZING	VITRO ARCHITECTURAL GLASS	SOLORBAN 60 (2) OPTIGRAY + CLEAR		1" THICK IGU W/ LAMINATED LITE	4.56 mm SECURITY "SENTRY GLAS" II
KW-1 - BASE BID	INSULATING TRANSLUCENT DAYLIGHTING SYSTEM	KALWALL	4" FACADE PANEL SYSTEM	CRYSTAL	20" x 8" REVERSE SHOJI	OMIT AND SUB MP-1 IF DEDUCT #1 IS
MP-1 - BASE BID	CONCEALED FASTENER CORRUGATED MTL WALL PANELS	PAC-CLAD	BOX RIB WALL PANEL SERIES, PROFILES 3 & 4 EQ. MIX	TWO-COAT PVDF, COLOR: "BONE WHITE"	22 GA., 12" COVERAGE	
MP-2	FORMED STEEL WALL PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	MFGRs TEXTURAL IV COATING	20" x 72" w STANDARD 20"x12" FORMED CORNERS	24 GA. STEEL
MP-3	FORMED STEEL SOFFIT PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	MFGRs TEXTURAL IV COATING	20" x 72" PANELS	24 GA. STEEL, VENTED
MP-4	FORMED STEEL WALL PANELS	MAC METAL ARCHITECTURAL	POLYMAC SERIES	COLOR MATCH GLAZING		
MP-5 - DEDUCTIVE ALTERNATE #3	CONCEALED FASTENER CORRUGATED MTL WALL PANEL	McELROY METALS	"WAVE" CONCEALED FASTENER WALL PANEL	FLUOROPON, COLOR: "BONE WHITE"	22 GA., 16" COVERAGE	REPLACES MP-1 IF DEDUCT #3 IS AC
SD-01	SECTIONAL STEEL DOOR	OVERHEAD DOOR CO.	THERMACORE 596	POWDER COAT, CUSTOM RAL COLOR		
SF-1	STOREFRONT GLAZING	KAWNEER	ENCORE	70% PVDF, COLOR: MEDIUM BRONZE	FRAME DEPTH AS REQUIRED	FRONT SET GLASS
SS-1	EXTRUDED ALUM. SOLAR SHADING FIN	GORDON	EXTERIOR VERTICAL FINS	POWDER COAT, CUSTOM RAL COLOR	2" WIDE x 12" DEEP	
SV-01 - BASE BID	THIN STONE VENEER	U.S. STONE	"LITE PANELS" THIN STONE VENEER	TOP LEDGE COTTONWOOD, HONED	4 x 6 x 24	
SV-02 - BASE BID	THIN STONE VENEER	U.S. STONE	"LITE PANELS" THIN STONE VENEER	PLAZA GREY, HONED		
WIDE STILE ALUMINUM ENTRANCE		KAWNEER	HEAVY WALL 500 ENTRANCE	70% PVDF, COLOR: MEDIUM BRONZE	SEE DOOR SCHEDULE	

