

**GENERAL NOTES**

- ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2021 INTERNATIONAL EXISTING BUILDING CODE AND 2021 INTERNATIONAL BUILDING CODE. ALL GOVERNING STANDARDS LISTED IN THESE NOTES SHALL BE THE EDITION REFERENCED IN THESE GOVERNING CODES.
- CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING, AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS, AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
- DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE CONTRACTING OFFICER FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
- THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. THESE NOTES HIGHLIGHT RATHER THAN REPLACE THE SPECIFICATIONS CONTAINED IN THE PROJECT MANUAL.

**CONCRETE**

- ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
  - AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR CONCRETE" (ACI 318)
  - ACI COLLECTION, LATEST EDITION
  - CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE"
- ALL OTHER CONCRETE SHALL BE NORMAL WEIGHT CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC SIGNED AND SEALED CONCRETE MIX DESIGN FOR EACH CONCRETE TYPE SPECIFIED IN THE CONTRACT DOCUMENTS. WHERE 033000 SPECIFICATIONS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS, REFER TO THAT SPECIFICATION SECTION FOR BALANCE OF MIX DESIGN REQUIREMENTS (AGGREGATES, ADMIXTURES, W/C RATIO, AIR CONTENT, ETC.).
- REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60 OR A775 EPOXY COATED WHEN CALLED OUT ON PLAN. REINFORCING STEEL SHALL BE DETAILED ACCORDING TO THE ACI "DETAILS AND DETAILING OF REINFORCEMENT" (ACI 315).
- REINFORCING STEEL TO BE WELDED TO CONFORM TO ASTM A706 GRADE 60.
- WELDED WIRE REINFORCEMENT (W.W.R.) SHALL CONFORM TO ASTM A1064, WITH A MINIMUM YIELD STRENGTH OF 65,000 PSI.
- COORDINATE SIZE AND LOCATION OF ALL OPENINGS AND PIPE SLEEVES WITH ALL OTHER DISCIPLINES. MINIMUM CONCRETE BETWEEN SLEEVES SHALL BE 6".
- GENERAL CONTRACTOR SHALL PROVIDE COORDINATED MEP TRADE SUBMITTALS FOR CONTRACTING OFFICER REVIEW OF PENETRATIONS. ALL TRADES SHALL BE OVERLAID INTO ONE SUBMITTAL TO CAPTURE AND EVALUATE ALL PENETRATIONS THROUGH SLABS AND WALLS TOGETHER.
- ALL GROUT SHALL BE NONSHRINK WITH A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE NON-PRESTRESSED MEMBERS SHALL BE AS FOLLOWS:
  - ALL CONCRETE CAST AGAINST AND PERMANENTLY IN CONTACT WITH GROUND: 3"
  - ALL CONCRETE EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
    - 2" (#6 THROUGH #18 BARS)
    - 1-1/2" (#5 BAR, W31 OR D31 WIRE, AND SMALLER)
  - NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
    - SLABS, JOISTS, AND WALLS:
      - 1-1/2" (#14 THROUGH #18 BARS)
      - 3/4" (#11 BAR AND SMALLER)
    - BEAMS, COLUMNS, PEDESTALS, AND TENSION TIES (STIRRUPS, TIES, SPIRALS, HOOPS, AND PRIMARY REINFORCEMENT): 1-1/2"
- CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL EXISTING CONCRETE SURFACES TO RECEIVE NEW CONCRETE PRIOR TO PLACEMENT.
- SEE OTHER DRAWINGS IN THIS PROJECT FOR SIZE AND LOCATIONS OF EQUIPMENT PADS, INSERT AND EMBED ITEMS.
- REINFORCING DOWELS, WATER STOPS, AND OTHER EMBED ITEMS SHALL BE INSTALLED AND SECURED PRIOR TO CONCRETE PLACEMENT. "WET-SETTING" OF EMBEDDED ITEMS IS NOT PERMITTED.

**STRUCTURAL STEEL**

- ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE FOLLOWING GOVERNING STANDARDS:
  - AISC 360 "SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS".
  - AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
  - AMERICAN WELDING SOCIETY (AWS D1.1) "STRUCTURAL WELDING CODE - STEEL".
  - RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS (RCSC) "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS".
- ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS:
  - WIDE FLANGE BEAMS, COLUMNS, AND STRUCTURAL TEES: ASTM A992.
  - HOLLOW STRUCTURAL SECTIONS: ASTM A500, GRADE C.
  - CHANNELS, ANGLES, AND PLATES: ASTM A36 UNLESS OTHERWISE NOTED.
  - BOLTED CONNECTIONS SHALL BE PER ASTM F3125. GRADES ARE TO BE SELECTED AS FOLLOWS:
    - STANDARD BEAM TO BEAM/GIRDER: ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN SNUG-TIGHTENED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
    - BEAM/GIRDER TO COLUMN CONNECTIONS, COLUMN SPLICES AND BOLTS EXPERIENCING TENSION LOADS (UNLESS OVERSIZED OR SLOTTED HOLES ARE USED, IN WHICH CASE SLIP-CRITICAL JOINTS SHALL BE USED): ASTM F3125, GRADES A325, F1852, A490 OR F2280 BOLTS IN PRETENSIONED JOINTS (3/4" DIAMETER MINIMUM WITH HARDENED WASHERS).
  - ANCHOR RODS: ASTM F1554, GRADE 36.
- STEEL CONNECTION SHALL BE STANDARD AISC FRAMED BEAM CONNECTIONS, AND SHALL BE DESIGNED BY A LICENSED ENGINEER WORKING FOR THE FABRICATOR, WHO SHALL PROVIDE CALCULATIONS, UTILIZING LRFD LOADS AND PROCEDURES.
  - WHERE CONNECTIONS HAVE BEEN DESIGNED BY A LICENSED ENGINEER, STEEL CONTRACTOR IS RESPONSIBLE FOR INTEGRATING RESULTS OF ALL CALCULATIONS INTO THE SHOP DRAWINGS.
  - UNLESS OTHERWISE NOTED ON PLAN, PROVIDE CONNECTIONS BASED ON MINIMUM SHEAR CAPACITY REQUIREMENTS IN THE FOLLOWING TABLE
    - WHICH ARE BASED ON AISC DOUBLE ANGLE CONNECTIONS.

**STRUCTURAL STEEL (CONT.)**

MINIMUM SHEAR CAPACITY REQUIREMENTS		
BEAM DEPTH (NOMINAL)	MIN. SHEAR CAPACITY LRFD (Kips)	MIN. NUMBER OF BOLT ROWS
8", 10"	34	2
12", 14"	54	3
16"	68	3
18"	82	4
21"	117	4
24"	157	5
27"	211	6
30"	242	7
33"	284	7
36"	315	8
40"+	345	9

- REINFORCING IS TO BE PROVIDED AT CONNECTIONS WHERE CUTS REDUCE THE SHEAR OR MOMENT CAPACITY BELOW THAT REQUIRED TO SUSTAIN THE REACTION. FLANGES AND WEBS ARE TO BE REINFORCED WHERE THE LOCAL CAPACITY TO SUSTAIN CONNECTION LOADS ARE INADEQUATE. CUTS OR COPES MAY PREVENT MINIMUM NUMBER OF BOLT ROWS SHOWN ABOVE FROM BEING ACHIEVED, WHICH IS ACCEPTABLE PENDING WRITTEN APPROVAL AND CONFIRMATION THAT MINIMUM SHEAR CAPACITY HAS BEEN MET.
  - CONNECTIONS SHALL BE DESIGNED FOR SHEAR AND ECCENTRICITY, CONSIDERING THAT THE CONNECTIONS ARE AN EXTENSION OF THE BEAMS AND GIRDERS.
- MINIMUM WELD SIZE IS 1/4" FILLET UNLESS NOTED OTHERWISE.
  - ALL BEAMS EXCEPT CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED WITH NATURAL CAMBER UP. CANTILEVER BEAMS SHALL BE FABRICATED AND INSTALLED SO THAT NATURAL CAMBER RAISES CANTILEVER END.
  - FIELD CUTTING OR BURNING OF STEEL IS PROHIBITED EXCEPT WITH THE EXPRESS WRITTEN APPROVAL OF THE CONTRACTING OFFICER. (IN WHICH CASE ALL BURNING OF STEEL MUST CONFORM TO THE THERMAL CUTTING REQUIREMENTS OF AISC AND AWS)
  - WELDING SHALL BE PERFORMED BY CERTIFIED, AWS-QUALIFIED WELDERS. WELDING ELECTRODES FOR CARBON STEEL SHALL BE AWS 5.1, CLASS E70XX. WELDING ELECTRODES FOR ASTM A276 STAINLESS STEEL, TYPE 304, SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E308; OR AWS A5.9 FOR GAS METAL ARC WELDING, ELECTRODE CLASS ER308. WELDING ELECTRODES FOR ASTM A276 TYPE 316L STAINLESS STEEL SHALL CONFORM TO AWS A5.4 FOR SHIELDED METAL ARC WELDING, ELECTRODE CLASS E316; OR AWS A5.9 FOR GAS METAL ARC WELDING.
  - SHOP PAINT EXPOSED STEEL MEMBERS, STEEL MEMBERS NOT ENCASED IN CONCRETE OR SPRAY FIREPROOFED, AND ALL STEEL MEMBERS AT THE EXTERIOR WALL WITH TNEMEC V10-99 OR APPROVED EQUAL EXCEPT FOR MEMBERS TO BE HOT DIPPED GALVANIZED.
  - LINTELS SHALL BE INSTALLED OVER ALL OPENINGS IN MASONRY WALLS AS FOLLOWS:

MASONRY OPENING	LINTEL
4' - 0" OR LESS	L4x3-1/2x5/16 LLV
4' - 1" TO 7' - 0"	L6x3-1/2x5/16 LLV

- 3-1/2" LEGS ARE HORIZONTAL.
  - PROVIDE ONE ANGLE FOR EACH 4" OF WALL THICKNESS.
  - PROVIDE L5x5x5/16 ANGLES FOR 6" THICK WALLS AND PARTITIONS WITH OPENINGS UP TO 6' - 0".
  - PROVIDE MINIMUM 6" BEARING AT EACH END.
  - LINTELS OVER 6' - 4" SHALL BE FIREPROOFED.
- SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR REVIEW AND APPROVAL. NO FABRICATION OF STEEL SHALL COMMENCE WITHOUT APPROVED SHOP DRAWINGS.
  - SHOP DRAWING SUBMITTALS SHALL FOLLOW THE FOLLOWING SEQUENCE (WITH EACH NOT BEING SUBMITTED UNTIL THE PREVIOUS ONE IS APPROVED):
    - JOB STANDARDS (BASIS OF DESIGN AND REPRESENTATIVE CALCULATIONS FOR VARIOUS CONNECTION TYPES)
    - ERECTION PLANS
    - PIECE DETAILS AND PIECE-SPECIFIC CONNECTION CALCULATIONS

**POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS**

- POST INSTALLED ANCHORAGE SHALL BE INSTALLED BY QUALIFIED PERSONNEL PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), AS INCLUDED IN THE ANCHOR PACKAGING, TO INTACT BASE MATERIAL. INSTALLATION OF ANCHORS SHALL BE CARRIED OUT BY AN INSTALLER TRAINED TO INSTALL THE SPECIFIED ANCHORS. NOTIFY CONTRACTING OFFICER PRIOR TO INSTALLATION IF BASE MATERIAL CONDITION DEVIATES FROM STRUCTURAL DRAWINGS OR ASSUMPTIONS AND CONDITIONS OF THE MPII. ALL HOLES SHALL BE DRY AND HAMMER DRILLED UNLESS OTHERWISE NOTED, AND ALL CONCRETE BASE MATERIAL TO RECEIVE ADHESIVE ANCHORS SHALL HAVE A MINIMUM AGE OF 21 DAYS.
- INSTALLATION OF ADHESIVE ANCHORS IN A HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND SUPPORTING A SUSTAINED TENSION LOAD SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM OR APPROVED EQUAL. PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS PROVIDE OWNER AND CONTRACTING OFFICER WITH DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL HORIZONTAL OR UPWARDLY INCLINED ADHESIVE ANCHORS SUPPORTING SUSTAINED TENSION LOADS ARE TRAINED AND CERTIFIED.
  - OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE PISTON PLUG SYSTEM SPECIFIED BY THE MPII AND PRODUCED BY THE CORRESPONDING MANUFACTURER FOR THE ANCHOR SYSTEM BEING INSTALLED.
- EXISTING REINFORCING BARS IN THE STRUCTURE MAY CONFLICT WITH SPECIFIC ANCHOR LOCATIONS. REINFORCING BARS SHALL NOT BE CUT WITHOUT THE WRITTEN APPROVAL OF THE CONTRACTING OFFICER. UNLESS NOTED ON THE DRAWINGS THAT THE EXISTING REBARS CAN BE CUT, THE CONTRACTOR SHALL REVIEW THE EXISTING STRUCTURAL DRAWINGS AND SHALL UNDERTAKE TO LOCATE THE POSITION OF THE REINFORCING BARS BY A MEANS APPROVED BY THE CONTRACTING OFFICER.
- ANCHOR CAPACITY IS DEPENDENT UPON SPACING BETWEEN ADJACENT ANCHORS, PROXIMITY OF ANCHORS TO EDGE OF CONCRETE, AND EMBEDMENT DEPTH INTO THE SUBSTRATE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING, EDGE CLEARANCES, AND EMBEDMENT DEPTHS INDICATED ON THE DRAWINGS.

**POST-INSTALLED ADHESIVE AND MECHANICAL ANCHORS (CONT.)**

- UNLESS OTHERWISE INDICATED, POST INSTALLED ANCHORAGE SHALL BE ADHESIVE TYPE HILTI HIT-HY 200-R INTO CONCRETE OR HILTI HIT-HY 270 INTO BRICK MASONRY. GROUT FILLED CMU OR UNGROUTED CMU BASE MATERIAL. PROVIDE MESH SCREEN IN UNGROUTED CMU, UNREINFORCED MASONRY CONSTRUCTION, AND BRICK MASONRY WITH HOLES OR VOIDS.
- SUBSTITUTION REQUESTS FOR ALTERNATE ANCHORAGE PRODUCTS SHALL BE SUBMITTED TO CONTRACTING OFFICER FOR REVIEW AND APPROVAL PRIOR TO USE. THIS SHALL INCLUDE MANUFACTURER PRODUCT DATA AND CALCULATIONS DEMONSTRATING THAT THE PROPOSED SUBSTITUTE CAN ACHIEVE THE PERFORMANCE VALUES OF THE SPECIFIED PRODUCT. ANCHOR CAPACITY USED IN DESIGN SHALL BE BASED ON THE TECHNICAL DATA PUBLISHED BY THE MANUFACTURER OR SUCH OTHER METHOD AS APPROVED BY THE CONTRACTING OFFICER. SUBSTITUTIONS WILL BE EVALUATED BY THEIR HAVING AN ICC-ES EVALUATION REPORT SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE, SEISMIC USE, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF MPII. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE AND INSTALLATION TEMPERATURE AND MUST PROVIDE INFORMATION ON THESE ITEMS. SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE CONTRACTING OFFICER PRIOR TO USE.

**SPECIAL INSPECTIONS (IBO)**

- REFERENCE NPS STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS FOR FULL LIST OF REQUIREMENTS.
- STRUCTURAL OBSERVATIONS REQUIRED BY THE LOCAL JURISDICTION AND IBC 1704.5 SHALL BE PERFORMED BY A REGISTERED DESIGN PROFESSIONAL PROVIDED BY THE OWNER. STRUCTURAL OBSERVATIONS SHALL BE THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS.
- TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE FORMS WITH THE BUILDING DEPARTMENT.

**STRUCTURAL SYSTEM DESCRIPTION**

FOLLOWING WHAT HAS BEEN DOCUMENTED IN 1920 ORIGINAL STRUCTURAL DRAWINGS, 1956 RENOVATION DRAWINGS, 2022 SD REHAB DRAWINGS BY SEA, AND SITE OBSERVATIONS PERFORMED BY SILMAN IN FEBRUARY & JULY 2023, THE STRUCTURAL DESCRIPTION IS AS FOLLOWS:  
 THE GRAVITY SYSTEM OF THE BUILDING IS GENERALLY COMPRISED OF STEEL OPEN WEB ROOF TRUSSES THAT SPAN TO THE PERIMETER STRUCTURE, SECOND FLOOR REINFORCED CONCRETE SLABS AND BEAMS SUPPORTED BY PERIMETER STRUCTURE AND INTERIOR REINFORCED CONCRETE COLUMNS, AND FIRST FLOOR SLAB ON GRADE. STRUCTURE WITHIN THE EXTERIOR WALLS IS BELIEVED TO BE REINFORCED CONCRETE COLUMNS AND SPANDREL BEAMS WITH TERRACOTTA TILE INFILL. BOTH WALLS AND CONCRETE COLUMNS BEAR ON REINFORCED CONCRETE WALL AND SPREAD FOOTINGS RESPECTIVELY. LIBBEY BATHHOUSE WAS CONSTRUCTED IN 1922. MOST BUILDINGS CONSTRUCTED IN THIS REGION AND ERA WERE NOT DESIGNED WITH AN EXPLICITLY DEFINED LATERAL FORCE RESISTING SYSTEM. AN ACCEPTABLE STRUCTURAL SYSTEM TO RESIST LATERAL FORCES WAS STEEL OR CONCRETE FRAMED BUILDINGS DESIGNED TO SUPPORT GRAVITY LOADS SURROUNDED BY WELL-PROPORTIONED MASONRY OR CONCRETE WALLS.  
 THE SCOPE OF WORK WITHIN THESE DOCUMENTS DOES NOT ALTER THE EXISTING STRUCTURAL BEHAVIORS OR LOAD PATHS. THEREFORE, PER 2021 INTERNATIONAL EXISTING BUILDING CODE SECTION 706 AND 1205, REPAIRS CAN BE INSTALLED TO BRING THE BUILDING BACK TO THE ORIGINAL CAPACITY AT THE TIME OF CONSTRUCTION. REFERENCE SILMAN MEMO DATED JULY 5, 2023 FOR SEISMIC SAFETY CONSIDERATIONS PER STANDARDS OF SEISMIC SAFETY FOR EXISTING FEDERALLY OWNED AND LEASED BUILDINGS; ICSSC RECOMMENDED PRACTICE 10 (RP 10-22). NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.

**TEMPORARY SHORING**

- DETERMINATION OF THE FULL SCOPE AND EXTENT OF ALL TEMPORARY SHORING WORK AND SEQUENCING REQUIRED TO SAFELY EXECUTE THE STRUCTURAL WORK SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND THE CONTRACTOR'S ENGINEER.
- THE DESIGN OF TEMPORARY SHORING BY THE CONTRACTOR'S ENGINEER SHALL ABIDE BY THE REQUIREMENTS IN THE GENERAL NOTES.
- THE DESIGN OF TEMPORARY SHORING, AND DETERMINATION OF THE EXTENT OF TEMPORARY SHORING, ARE NOT THE RESPONSIBILITY OF SILMAN.

DESIGN PARAMETER TABLE		
GOVERNING CODES:		2021 INTERNATIONAL BUILDING CODE & 2021 INTERNATIONAL EXISTING BUILDING CODE
RISK CATEGORY:		II (BASED ON CURRENT UNOCCUPIED STATE; DESIGN PARAMETERS ARE SUBJECT TO CHANGE ONCE FUTURE OCCUPANCY...)
SNOW LOAD:		
10	Pg	GROUND SNOW LOAD
8	Pf	FLAT-ROOF SNOW LOAD
1.0	Ce	SNOW EXPOSURE FACTOR
1.0	Is	SNOW LOAD IMPORTANCE FACTOR
1.1	Ct	THERMAL FACTOR (ASSUMED FOR MAIN BUILDING)
0.9	Cs	SLOPE FACTOR
7.2	Ps	SLOPED ROOF SNOW LOAD
WIND LOAD:		
105	Vult	ULTIMATE DESIGN WIND SPEED
84	Vasd	NOMINAL DESIGN WIND SPEED
1.0	I	WIND IMPORTANCE FACTOR
C		WIND EXPOSURE CATEGORY
0.18	GCFI	INTERNAL PRESSURE COEFFICIENT
SEISMIC DESIGN:		
1.0	I	SEISMIC IMPORTANCE FACTOR
0.238	Ss	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION
0.111	S1	1-SECOND PERIOD SPECTRAL RESPONSE ACCELERATION
C		SITE CLASS
0.206	S(ds)	5%-DAMPED SPECTRAL RESPONSE COEFFICIENT AT SHORT...
0.111	S(d1)	5%-DAMPED SPECTRAL RESPONSE COEFFICIENT AT 1-SECOND...
B		SEISMIC DESIGN CATEGORY
SEE STRUCTURAL DESCRIPTION ON S0.1. NO STRUCTURAL LATERAL ASSESSMENT OR RETROFIT IS REQUIRED PER IEBC OR ICSSC-RP10.		BASIC SEISMIC FORCE RESISTING SYSTEM



AREA	F'c AT 28 DAYS (psi)	NOTES	DENSITY	CONCRETE MIX DESIGN				NOTES
				DURABILITY EXPOSURE CATEGORIES AND CLASSES (ACI 318 TABLE 4.2.1.)				
				FREEZING AND THAWING (F)	SULFATE (S)	PERMEABILITY (P)	CORROSION PROTECTION OF REINFORCEMENT (C)	
SITE CONCRETE (LIGHT POSTS, FENCE POSTS, ETC.)	3500	MAX w/c = 0.45	NORMAL WEIGHT	F3	S0	P0	C1	REFER TO CIVIL AND LANDSCAPE DRAWINGS FOR EXTERIOR SLABS
EXTERIOR SLAB ON GRADE	5000			F3	S0	P0	C2	
INTERIOR SLAB ON GRADE	4000			F0	S0	P0	C0	
STRUCTURED SLAB	6000			F0	S0	P0	C0	

A/E FIRMS	DESIGNED: KH	SUB SHEET NO.	TITLE OF SHEET	DRAWING NO.
ARCH: QUINN EVANS 219 1/2 N. MAIN STREET ANN ARBOR, MI T: 734.663.5888	CADD: CM	02 S0.1	LIBBEY BATHHOUSE	128 182951
ENG: SILMAN 211 N 4TH AVE. ANN ARBOR, MI T: 734.900.2460	TECH. REVIEW: NH		GENERAL STRUCTURAL NOTES & DESIGN TABLES	PMIS/PKG NO. 318915
	DATE: 10.27.2023		REHABILITATE BATHHOUSES HOT SPRINGS NATIONAL PARK	213 OF 286