

1. MINIMUM LOADING REQUIREMENTS

- A. ROOF SNOW LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)
- B. ROOF SNOW LOADS: LOADS: (EOR TO DETERMINE DRIFTING SNOW LOCATIONS)
 - a. SNOW SNOW LOAD: $P_s = 60.0 \text{ PSF}$
 - i. IMPORTANCE FACTOR: $I = 1.10$
 - ii. COLD ROOF SLOPE FACTOR: $C_s = 1.0$
 - iii. THERMAL FACTOR: $C_t = 1.1$
 - iv. EXPOSURE FACTOR: $E = 1.0$
 - v. TERRAIN CATEGORY: B
- b. FLAT ROOF SNOW LOAD: $P_s = 51.0 \text{ PSF}$
- C. ROOF DEAD LOAD:
 - a. FUTURE 3RD FLOOR/ROOF STAIR TOWER TEMPORARY ROOF: $P_{DL} = 35.0 \text{ PSF}$
 - b. STANDARD ROOF LIVE LOAD: $P_{DL} = 15.0 \text{ PSF}$
- D. ROOF LIVE LOAD:
 - a. STANDARD ROOF LIVE LOAD: 20 PSF
- E. FLOOR LIVE LOADS:

	UNIFORM	CONCENTRATED	PARTITION
a. SCHOOLS			
i. CLASSROOMS	40 PSF	1,000#	15 PSF
ii. CORRIDORS ABOVE 1ST FLOOR	80 PSF	1,000#	
iii. 1ST FLOOR CORRIDORS	100 PSF	1,000#	
iv. ASSEMBLY MOVABLE SEATS	100 PSF	1,000#	
b. OFFICES			
i. OFFICES	50 PSF	2,000#	15 PSF
ii. CORRIDORS ABOVE 1ST FLOOR	80 PSF	2,000#	
- F. WIND:

Wind Design Data	
Wind Speed:	100 mph
Occupancy Category:	III
Wind Importance Factor:	1.15
Enclosure Classification:	Enclosed
Internal Pressure Coefficient:	0.18 +/-
Components and Cladding	
Roofing at Zone 1:	8.8 psf max., 21.7 psf min.
Roofing at Zone 2:	8.8 psf max., 36.5 psf min.
Roofing at Zone 3:	54.8 psf min.
Roofing at Zone 2 Overhangs:	31.3 psf min.
Roofing at Zone 3 Overhangs:	51.6 psf min.
Stucco, Cladding, Doors & Windows:	
Zone 4:	21.7 psf max., 23.5 psf min.
Zone 5:	21.7 psf max., 29.1 psf min.
End Zone Width:	3.50 ft.

This Building is not in a Wind-Borne Debris Region, and opening protection is not required.

G. SEISMIC

- a. DESIGN DATA:
 - i. BUILDING RISK CATEGORY: III
 - ii. SEISMIC IMPORTANCE FACTOR: $I_p = 1.25$
 - iii. MAPPED RESPONSE SPECTRAL ACC. (0.2 SEC.): $S_s = 0.314 \text{ G } 7-05$
 - iv. MAPPED RESPONSE SPECTRAL ACC. (1.0 SEC.): $S_1 = 0.077 \text{ G } 7-05$
 - v. SOIL SITE CLASSIFICATION: D
 - vi. SITE COEFFICIENTS: $F_A = 1.00; F_V = 2.40$
 - vii. DESIGN RESPONSE SPECTRAL ACC. @ 5% DAMPED DESIGN: $S_{DS} = 0.324 \text{ G } 7-05; S_{D1} = 0.123 \text{ G } 7-05$
 - viii. SEISMIC DESIGN CATEGORY: B
 - ix. BASIC SEISMIC FORCE-RESISTING SYSTEM: H1 (SEE BELOW)
 - x. FUNDAMENTAL PERIOD: $T = 0.318$
 - xi. SEISMIC RESPONSE COEFFICIENT: $C_u = 0.135$
 - xii. SEISMIC BASE SHEAR: $V = 110.9 \text{ kip}$
 - xiii. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
- b. DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS
 - i. (H1) STEEL SYSTEMS NOTE SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE ORDINARY STEEL CONCENTRICALLY BRACED FRAMES
 - a. RESPONSE MODIFICATION: $R = 3$
 - b. SYSTEM OVERSTRENGTH FACTOR: $\Omega = 3$
 - c. DEFLECTION AMPLIFICATION FACTOR: $C_d = 3$

- 2. STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STEEL BEAMS SHALL CONFORM TO ASTM A992, $F_y = 50 \text{ KSI}$; MISCELLANEOUS PLATES, SHAPES, CHANNELS, ANGLES ETC. SHALL CONFORM TO ASTM A36, $F_y = 36 \text{ KSI}$. ALL STEEL SUPPORTING MECHANICAL EQUIPMENT AND TO RECEIVE FIREPROOFING SHALL BE UNPAINTED AND UNPRIMED. STEEL TUBING COLD-FORMED STEEL TUBING COMPLYING WITH ASTM A500 STEEL PIPE: ASTM A53 STANDARD WEIGHT (SCHEDULE 40), UNLESS ANOTHER WEIGHT IS INDICATED OR REQUIRED BY STRUCTURAL LOADS.
- 3. STEEL JOIST SHALL CONFORM TO THE LATEST S.J.I. STANDARDS.
- 4. SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.
- 5. FASTENED METAL DECKING TO STEEL BEAMS, BAR JOIST, AND PERIMETER ANGLES PER DIVISION 5 OF SPECIFICATIONS AND STRUCTURAL DETAILS.
- 6. PROVIDE $1\frac{1}{2} \times 4 \times 4 \times 1\frac{1}{4}$ SLAB SUPPORT ANGLE AS REQUIRED AT COLUMNS WHERE STRUCTURAL MEMBERS DO NOT FRAME IN AT ALL FOUR SIDES.
- 7. BASE PLATE ANCHOR BOLTS IN NEW CONSTRUCTION SHALL BE
 - A. ANCHOR RODS: $3\frac{1}{2}" \text{ } \phi \text{ ASTM F1554 UNO}$
 - B. NUTS: ASTM A563, GRADE A
 - C. WASHERS: ASTM F4367
- 8. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.

CONNECTIONS

- 1. DETAILS ARE CONCEPTUAL ONLY AND DO NOT INDICATE THE REQUIRED NUMBER OF BOLTS OR WELD SIZES, UNLESS SPECIFICALLY NOTED OTHERWISE.
- 2. FIELD CONNECTIONS SHALL BE FIELD BOLTED WITH A325N HIGH STRENGTH BOLTS (N.O.O.) EXCEPT WHERE SLIP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. WASHERS SHALL CONFORM TO ASTM F436, NUTS SHALL CONFORM TO ASTM A563 PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND WHERE OTHERWISE NOTED.

- 3. SUP CRITICAL (S.C.) BOLTED CONNECTIONS SHALL BE CHECKED AND INSPECTED USING ONE OF THE FOLLOWING:
 - A. TURN OF THE NUT
 - B. CALIBRATED WRENCH
 - C. ALTERNATE DESIGN FASTENER
 - D. DIRECT TENSION INDICATOR
 - E. OTHER BOLTED CONNECTIONS SHALL BE TIGHTENED TO "SNUG TIGHT" CONDITION UNLESS NOTED OTHERWISE.
- 4. UNLESS NOTED OTHERWISE, CONNECTIONS SHALL BE WELDED OR BOLTED WITH $\frac{3}{4}"$ DIAMETER BOLTS (BEARING TYPE, DESIGNATION N, THREADS IN SHEAR PLANE) BEAM TO COLUMN CONNECTIONS SHALL BE FULL DEPTH (BOLT SPACING 3" ON-CENTER).
- 5. OVERSIZE OR SLOTTED HOLES SHALL NOT BE USED FOR ANY CONNECTIONS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS OR APPROVED IN WRITING BY ENGINEER OF RECORD.
- 6. MINIMUM NUMBER OF BOLTS PER CONNECTION SHALL BE 2.
- 7. ALTERNATE CONNECTIONS SHALL BE ACCEPTED ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER OF RECORD; HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTABILITY. THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THOSE SPECIFIC DETAILS SHOWN ON THE DRAWINGS. IN ANY EVENT THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS.
- 8. WELDS INDICATED SHALL BE THE MINIMUM WELD SIZED SPECIFIED BY THE AISC MANUAL OF STEEL DESIGN (SINGLE PASS AS REQUIRED). ALL BUTT AND FULL PENETRATION WELDS SHALL BE MADE USING RUN OFF TABS THAT SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED. ALL WELD BACK UP BARS SHALL BE REMOVED AND GROUND SMOOTH AFTER WELD IS COMPLETED.
- 9. SHOP CONNECTIONS, UNLESS NOTED OTHERWISE, SHALL BE WELDED. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BEAM CONNECTION CAPABILITIES SHALL BE CALCULATED IN ACCORDANCE WITH AISC'S "THE STEEL CONSTRUCTION MANUAL", 13TH EDITION, FOR EACH SHEAR CONNECTION PROVIDE THE GREATER OF THE FOLLOWING SHEAR CAPACITIES:
 - A. BEAMS: SUPPORT A REACTION ϕ EQUAL TO HALF TOTAL UNIFORM LOAD CAPACITY OF BEAM FOR GIVEN SHAPE, SPAN AND STEEL SPECIFICATION (AISC) WITH EFFECT OF CONCENTRATED LOADS ACCOUNTED FOR OR THE (UNFACTORED) REACTIONS SHOWN ON PLAN, WHICHEVER IS GREATER.
- 10. CONNECTION DESIGN IS THE RESPONSIBILITY OF THE FABRICATOR FOR OTHER THAN THE STANDARD CONNECTIONS NOTED ON DETAIL. (REFERENCE TYPICAL CONNECTION DETAIL HERE). CONNECTIONS CALCULATIONS SHALL BE SIGNED, SEALED BY A PE REGISTERED IN THE PROJECT STATE AND SUBMITTED FOR REVIEW WITH THE SHOP DRAWINGS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. PARTIAL SUBMITTAL PACKAGES SHALL BE RETURNED.

SPECIAL INSPECTIONS

- 1. SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE ARRANGED BY THE BUILDING OWNER AND THE STRUCTURAL ENGINEER OF RECORD.
- 2. A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC-2009 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
- 3. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDING OFFICIAL, ARCHITECT AND SER.
- 4. THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSITE: STRUCTURAL STEEL FABRICATION, ERECTION AND CONNECTIONS, METAL DECK FASTENING, INSTALLATION OF REINFORCING STEEL FOR CONCRETE, ALL CONCRETE PLACEMENT AND STRENGTH TESTING, AND STRUCTURAL FILL PLACEMENT.

FIELD TESTING

- 1. BOLTED CONNECTIONS: 100% OF COMPONENTS AND FASTENERS IN SLIP CRITICAL CONNECTIONS, AS IDENTIFIED IN THE PROJECT CONTRACT DOCUMENTS SHALL BE VISUALLY INSPECTED AND TESTED FOR TIGHTNESS IN ACCORDANCE WITH AISC SPECIFICATIONS FOR STRUCTURAL JOINTS, PARTS 8 AND 9.
- 2. CHECK BY CALIBRATION TORQUE WRENCH 25% OF BOLTS IN EACH NON-SOC SHEAR CONNECTION BUT NOT LESS THAN (2) PER CONNECTION.
- 3. FIELD WELDED CONNECTIONS: PERFORM TESTING IN ACCORDANCE WITH ANSIAW5 D1.1, CHAPTER 6.
- 4. CONDUCT TESTING OF 10% OF WELDS ON STRUCTURAL STEEL BY DYE PENETRATION OR MAGNETIC PARTICLE TESTING.
- 5. CONDUCT TESTING OF 100% OF GROOVE, PLUG, OR SLOT WELDS IN STRUCTURAL STEEL BY ULTRASONIC TESTING OR OTHER NONDESTRUCTIVE TESTING APPROVED BY ENGINEER OF RECORD.
- 6. RADIOGRAPHICALLY TEST 5% OF ALL FULL PENETRATION WELDS.
- 7. THE STRUCTURAL FABRICATOR AND ERECTOR SHALL SCHEDULE ALL WORK TO ALLOW THE ABOVE INSPECTION AND TESTING REQUIREMENTS TO BE COMPLETED.

FOUNDATIONS

- 1. NET ALLOWABLE BEARING PRESSURE(S) LISTED BELOW SHALL BE VERIFIED BY THE OWNER'S TESTING AGENCY PRIOR TO PLACING FOOTING CONCRETE - ASSUMED AS BEING 2.0 KSF.
- 2. EXTERIOR STRIP AND SPREAD FOOTINGS SHALL HAVE MINIMUM 4'-6" GRADE COVER TO BOTTOM OF FOOTING ELEVATIONS.
- 3. 10 MIL VAPOR BARRIER RELOCATED BENEATH SLABS THROUGHOUT.
- 4. UNDERDRAINS SHALL BE PLACED AS SHOWN ON THE SITE DRAWINGS. UNDERDRAINS SHALL BE INSTALLED TO POSITIVELY DRAIN TO A SUITABLE DISCHARGE POINT AWAY FROM THE STRUCTURE REFER TO SITE DRAWINGS FOR ADDITIONAL INFORMATION.
- 5. EXCAVATIONS FOR BUILDING FOUNDATIONS AND STRUCTURES SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT STATE. DO NOT UNDERMINE EXISTING ADJACENT FOUNDATIONS.
- 6. IN NO CASE SHALL HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION/BASEMENT WALL. IF THE DESIGN-BUILD CONTRACTOR DEEMS IT NECESSARY TO OPERATE SUCH EQUIPMENT CLOSER THAN 8'-0", THE DESIGN-BUILD CONTRACTOR SHALL BE SOLELY RESPONSIBLE AND, AT HIS OWN EXPENSE, PROVIDE ADEQUATE SUPPORTS OR WALL BRACES TO WITHSTAND THE ADDITIONAL LOADS SUPERIMPOSED FROM SUCH EQUIPMENT.
- 7. CONCRETE SHALL NOT BE PLACED ON FROZEN GROUND OR IN WATER.

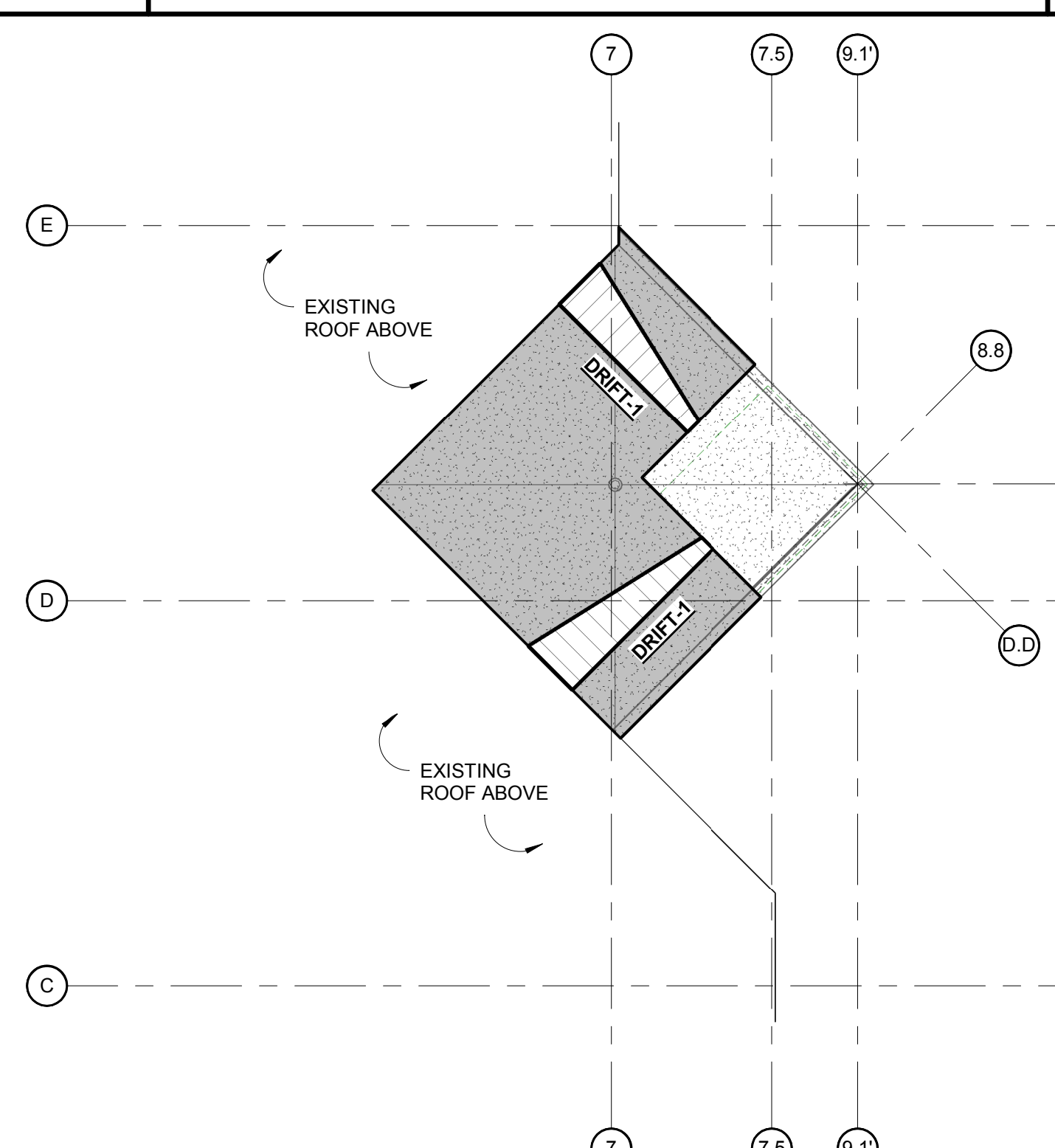
CONCRETE

- 1. CONCRETE WORK SHALL COMPLY WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS", ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND ACI 315 "ACI DETAIL MANUAL, AND CRSI "MANUAL OF STANDARD PRACTICE".
- 2. CONTRACTOR SHALL PROVIDE TIES AND BRACING WHERE NECESSARY DURING CONSTRUCTION, TO REMAIN IN PLACE UNTIL THE STRUCTURES ARE COMPLETE.
- 3. CONCRETE SHALL BE:
 - a. FOOTINGS, PIERS AND FOUNDATION WALLS: 3,500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (WC RANGE: 0.48 - 0.52) - (AIR ENTRAINED).
 - b. INTERIOR SLABS-ON-GRADE (NO AIR): 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6 INCHES (WC RANGE: 0.47 - 0.50). MAXIMUM AGGREGATE SHALL BE 3/4".
 - c. ELEVATED AREAS - 3,500 PSI CONCRETE AT (28) DAYS. SLUMP SHALL NOT EXCEED 6- INCHES (WC RANGE: 0.47 - 0.50). MAXIMUM AGGREGATE SHALL BE 3/8".
 - d. EXTERIOR SLABS ON GRADE SIDEWALKS, AND STAIRS SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 6-INCHES (WC = 0.45) - (AIR ENTRAINED).
- 4. CONCRETE MATERIALS:
 - a. PORTLAND CEMENT: ASTM C150, TYPE I OR II. USE ONE TYPE THROUGHOUT PROJECT.
 - b. NORMAL WEIGHT AGGREGATES: ASTM C33. PROVIDE FROM SINGLE SOURCE FOR ENTIRE PROJECT. NO AGGREGATE CONTAINING SOLUBLE SALTS, IRON SULFIDES, PYRITE, MARCASITE, OR COHRE WHICH CAN CAUSE STAINS ON EXPOSED CONCRETE SURFACES.
 - c. LIGHTWEIGHT AGGREGATES: ASTM C330
 - d. WATER: POTABLE
 - e. AIR-ENTRAINING ADMIXTURE: ASTM C250
 - f. HIGH RANGE WATER REDUCING ADMIXTURES (SUPER PLASTICIZER): ASTM C494, TYPE F OR G CONTAINING NOT MORE THAN 1% CHLORIDE IONS
 - g. NORMAL RANGE WATER REDUCING ADMIXTURES: ASTM C494 TYPE A CONTAINING NO CALCIUM CHLORIDE
 - h. ACCELERATING ADMIXTURES: ASTM C484, TYPE C OR E
- 5. PROVIDE PVC SLEEVES WHERE PIPES PASS THROUGH CONCRETE WALLS OR SLABS.
- 6. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS, AND SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH ACI 315-LATEST EDITION. PROVIDE
- 7. COMPLETE SHOP DRAWINGS AND SCHEDULES OF ALL REINFORCING STEEL SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER AFTER REVIEW BY EOR FOR REVIEW PRIOR TO COMMENCEMENT OF THAT PORTION OF THE WORK. ALL ACCESSORIES MUST BE SHOWN ON THE SHOP DRAWINGS.
- 8. ALL CONSTRUCTION JOINTS FOR SLABS SHALL BE KEY JOINTED AT MID-SPAN WITH REINFORCING DISCONTINUOUS AT JOINT AND FILLED WITH AN APPROPRIATE SEALANT FOR THE INTENDED USE.
- 9. CONTRACTOR WILL CHECK WITH EACH TRADE TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF SLEEVES, BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.
- 10. WELDING OF REINFORCEMENT IS NOT PERMITTED.
- 11. MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB SHALL HAVE A 4-INCH HIGH CONCRETE PAD UNDERNEATH, EXTENDING A MINIMUM OF 6-INCHES BEYOND UNIT EDGE (EACH DIRECTION), REINFORCED WITH #3 BARS AT 18-INCHES ON-CENTER EACH WAY.
- 12. ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
- 13. PROVIDE IN SLABS-ON-GRADE: (2) BARS 4'-0" LONG AT EACH REINTEGRANT CORNER AND BOTH SIDES OF DOOR OPENING.
- 14. COORDINATE SLAB DEPRESSIONS AND ALL INTERIOR FLOOR SLOPES TO DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- 15. SLAB THICKNESSES (ELEVATED OR ON-GRADE) INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION AND/OR SUBGRADE FLUCTUATIONS IN ORDER TO OBTAIN SPECIFIED SLAB ELEVATIONS AT THE FLATNESS AND LEVELNESS INDICATED IN THE SPECIFICATION.
- 16. ANCHOR BOLTS SHALL CONFORM TO ASTM A1554 - GRADE 36 UNLESS NOTED OTHERWISE ON PLAN.

1. BUILDING CODE:

- a. INTERNATIONAL BUILDING CODE - 2009 EDITION
- b. ASCE 7-5 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
- 2. CONTRACTOR SHALL CONFORM TO SAFETY REQUIREMENTS OF THE OWNER, OSHA SAFETY AND HEALTH STANDARDS, AND OTHER LOCAL AUTHORITIES IN CONNECTION WITH THE PERFORMANCE OF THIS PROJECT.
- 3. ALL REFERENCED STANDARDS OR PUBLICATIONS SHALL PERTAIN TO THE MOST CURRENT DATA, STANDARD OR PUBLICATION, UNLESS NOTED OTHERWISE.
- 4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND CIVIL DRAWINGS WHICH DESCRIBE THE SCOPE OF THIS EFFORT.
- 5. CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
- 6. THE STRUCTURE SHALL BE DESIGNED AS A SELF-SUPPORTING SYSTEM ONCE ALL WORK HAS BEEN COMPLETED. CONTRACTOR IS SOLELY RESPONSIBLE FOR ERECTION PROCEDURES AND SEQUENCE OF INSTALLATION TO ENSURE SAFETY OF THE BUILDING AND ITS OCCUPANTS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND TEMPORARY SHORING, PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF PUBLIC AND WORKERS, REMOVAL OF WASTE MATERIAL, PROTECTION OF ADJACENT PROPERTY, PROTECTION OF HAZARDOUS OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS OF EMPLOYEES AND SUB-CONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
- 7. WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUB-CONTRACTORS. LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
- 8. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES.
- 9. CONTRACTOR SHALL REVIEW AND SUBMIT COMPLETE SHOP DRAWINGS FOR ALL SPECIFIED PARTS OF THE WORK. NO PORTION OF THE WORK COVERED BY THESE SHOP DRAWINGS SHALL COMMENCE UNTIL RETURNED APPROVED SHOPS ARE RECEIVED BY THE CONTRACTOR. SHOP SUBMITTAL PACKAGES SHALL INCLUDE, BUT NOT BE LIMITED TO:
 - a. SITE SHORING AND CONSTRUCTION METHODS/SEQUENCING WHERE APPLICABLE
 - b. CONCRETE MIX DESIGNS, ADMIXTURES, MIX HISTORIES, REBAR ORIGIN STRENGTH/GRADE, REBAR PLACEMENT DRAWINGS
 - c. COLD FORMED METAL FRAMING: COLD-FORMED METAL CUT SHEETS, CONNECTIONS, PLACEMENT DRAWINGS ALONG WITH HEADER/UMB AT OPENINGS AND FRAMING ELEMENT CALCULATIONS SIGNED BY A PE REGISTERED IN THE PROJECT STATE.
 - d. STRUCTURAL STEEL MISCELLANEOUS STEEL FRAMING COMPONENT SHOP DRAWINGS ALONG WITH STEEL, ISOCAL AND STRENGTH DRAWINGS
- 10. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY EXISTING ITEMS DAMAGED BY NEW CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY NEW CONSTRUCTION; SUCH REPAIRS SHALL MATCH EXISTING TO THE OWNER'S SATISFACTION.
- 11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF TEMPORARY MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
- 12. SPECIAL INSPECTIONS AS REQUIRED BY IBC 2009 CHAPTER 17 SHALL BE PERFORMED BY AN INSPECTION AGENCY CONTRACTED BY THE OWNER FOR ALL WOOD, STEEL, MASONRY (LEVEL 1), CONCRETE AND SOIL ACTIVITIES.

- 1. PROVIDE AND INSTALL MASONRY LINTEL AT STAIR OPENING AS NOTED ON PLAN.
- 2. CONCRETE MASONRY SHALL HAVE 8-INCH (MIN) END BEARING UNLESS OTHERWISE NOTED.
- 3. CONCRETE MASONRY BLOCK WALLS WITH VERTICAL REINFORCING SHALL HAVE CORES FILLED WITH 3000 PSI CONCRETE. INSTALLATION OF REINFORCEMENT SHALL BE CONTINUOUS AND RUN UNOBSTRUCTED BY BAR JOIST SEAT/BEARING PLATE ARRANGEMENTS. HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY.
- 4. VERTICAL CONTROL, EXPANSION OR CONTRACTION JOINTS SHALL BE SHOWN ON THE CONTRACT DOCUMENTS AT LOCATION DETERMINED BY THE DESIGN-BUILD TEAM'S STRUCTURAL ENGINEER.
 - A - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTRACTION JOINTS.
 - B - (1) #5 VERTICAL AT 48-INCHES ON-CENTER TYPICAL, (UNLESS NOTED ON PLAN)
 - C - (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.
- 5. HOLLOW CONCRETE BLOCK UNITS: GRADE N, 3,250 PSI CMU NET AREA, DESIGN STRENGTH, $F_m = 2,500 \text{ psi}$
- 6. LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
- 7. MORTAR: TYPE S
- 8. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.
- 9. IN 8-INCH WALLS, PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS, UNLESS OTHERWISE NOTED:
 - A - (1) #5 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTRACTION JOINTS.
 - B - (1) #5 VERTICAL AT 48-INCHES ON-CENTER TYPICAL, (UNLESS NOTED ON PLAN)
 - C - (1) #5 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.
- 10. MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF THE "IRAWC" RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY".

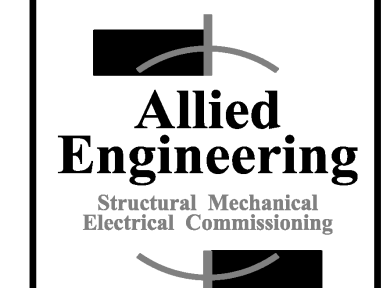


A2 STRUCTURAL ~ ROOF LOADING PLAN



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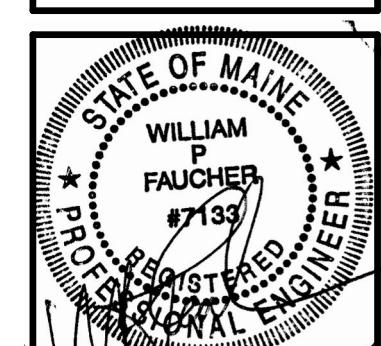


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CASCO BAY HIGH SCHOOL- RENOVATIONS
196 Allen Avenue
Portland, ME

No.	Date	Description
Revision Schedule		



JOB NO.
17056

DRWN: CHK
PED: WPF

SCALE:

ISSUE
Permitting Set
19 February 2018

TITLE
STRUCTURAL -
GENERAL
INFORMATION

SHEET
S000