

GENERAL NOTES

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, REGLETS, SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- ALL DIMENSIONS, EXISTING CONDITIONS, AND AS-BUILT CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
- THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE ONLY AFTER THE STRUCTURAL WORK CONTAINED IN THE S- DRAWINGS IS COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
- SECTIONS AND DETAILS SHOWN ON ANY STRUCTURAL DRAWINGS SHALL BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AS DETERMINED BY THE STRUCTURAL ENGINEER. THE STRUCTURAL ENGINEER RESERVES THE RIGHT TO INTERPRET DETAILS TO ADDRESS OTHER PROJECT CONDITIONS.
- THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK INCLUDING DESCRIPTION OF SHORING AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT AND ENGINEER. SUBMIT ONE COPY AND ONE SEPIA COPY WILL BE REVIEWED AND SEPIA WILL BE RETURNED. FOR SHOP DRAWINGS AND SUBMITTALS REQUIRED, REFERENCE THE PROJECT SPECIFICATION.
- ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.
- IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (2003 EDITION, SECTION 1704.1), A STATEMENT OF SPECIAL INSPECTIONS IS REQUIRED AS A CONDITION FOR PERMIT ISSUANCE BY THE LOCAL CODE OFFICIAL. THIS STATEMENT SHALL INCLUDE A COMPLETE LIST OF MATERIALS AND WORK REQUIRING SPECIAL INSPECTIONS, THE INSPECTIONS TO BE PERFORMED AND A LIST OF THE INDIVIDUALS, APPROVED AGENCIES AND FIRMS INTENDED TO BE RETAINED FOR CONDUCTING SUCH INSPECTIONS.
- REFERENCE THE PROJECT SPECIFICATIONS FOR ALL TESTING REQUIREMENTS.

DESIGN LOADS

- BUILDING CODE:**
INTERNATIONAL BUILDING CODE, 2003 EDITION
ASCE 7-02 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
- DESIGN ROOF SNOW LOAD:**
GROUND SNOW LOAD (Pg): 60 PSF
SNOW EXPOSURE FACTOR (Ce): 1.0
SNOW LOAD IMPORTANCE FACTOR (Is): 1.0
SNOW LOAD THERMAL FACTOR (Ct): 1.0
FLAT ROOF SNOW LOAD (Pf): 42 PSF + DRIFT
- DESIGN WIND LOAD:**
BASIC WIND SPEED: 100 MPH
WIND LOAD IMPORTANCE FACTOR (Iw): 1.0
WIND EXPOSURE: B
INTERNAL PRESSURE COEFFICIENT: ±0.18
COMPONENTS & CLADDING PER ASCE 7-02
- DESIGN SEISMIC LOADS:**
PER THE INTERNATIONAL EXISTING BUILDING CODE (2003), SECTION 903.3.3, "ADDITIONS WHERE THE LATERAL-FORCE STOREY SHEAR IN ANY STOREY IS NOT INCREASED BY MORE THAN 5 PERCENT" ARE EXEMPT FROM DESIGNED FOR INCREASED LOADS.

FOUNDATION NOTES (SOIL SUPPORTED)

- FOUNDATION DESIGN IS BASED ON SHALLOW SPREAD FOOTINGS BEARING ON SUITABLE UNDISTURBED NATIVE SOILS AND/OR NEW COMPACTED STRUCTURAL FILL EXTENDING TO UNDISTURBED NATIVE SOIL.
- PRESUMPTIVE BEARING CAPACITY 3,000 PSF
- EXTEND BOTTOM OF EXTERIOR FOOTINGS AT LEAST 4.5 FEET BELOW THE FINAL EXTERIOR GRADE FOR PROTECTION AGAINST FROST.
- NO FILL FOR BUILDING SUPPORT SHALL BE PLACED UNTIL UPGRADES HAVE BEEN OBSERVED AND APPROVED BY THE GEOTECHNICAL ENGINEER.
- SOILS EXPOSED AT THE BASE OF ALL SATISFACTORY FOUNDATION EXCAVATIONS SHOULD BE PROTECTED AGAINST ANY DETRIMENTAL CHANGE IN CONDITION, SUCH AS DISTURBANCE FROM RAIN OR FROST. SURFACE RUNOFF SHOULD BE DRAINED AWAY FROM THE EXCAVATIONS AND NOT BE ALLOWED TO POND. FOUNDATION EXCAVATIONS SHOULD BE ADEQUATELY PROTECTED FROM RAINFALL OR FREEZING CONDITIONS. GROUNDWATER SHOULD BE ANTICIPATED FOR EXCAVATIONS AND APPROPRIATE DEWATERING MEASURES SHALL BE EMPLOYED.
- EXCAVATIONS FOR BUILDING CONSTRUCTION SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS. BRACED EXCAVATIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE. DO NOT UNDERMINE EXISTING FOUNDATIONS OF ANY ADJACENT STRUCTURES. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL AND/OR MORE SPECIFIC REQUIREMENTS.

METAL DECK

- THE METAL ROOF DECK SHALL BE FORMED OF STEEL SHEETS CONFORMING TO ASTM STANDARD A611.
- ROOF DECK SHALL BE AS NOTED ON THE DRAWINGS (OR EQUIVALENT).
- FOR DECK ATTACHMENTS, PENETRATIONS AND ACCESSORIES REFER TO SPECIFICATIONS.

STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC FABRICATION AND ERECTION OF STRUCTURAL STEEL LATEST EDITION, AND THE "CODE OF STANDARD PRACTICE", LATEST EDITION.
- STRUCTURAL STEEL: STEEL PLATES, SHAPES, AND BARS, CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE (U.N.O.). STRUCTURAL STEEL SHAPES DESIGNATED ON THE DRAWINGS FOR WIDE-FLANGE SECTIONS: ASTM A992 (ASTM A572 GRADE 50 WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3 DATED MARCH, 1997)
- STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B 46 KSI.
- FIELD CONNECTIONS SHALL BE BOLTED USING ASTM A325N HIGH STRENGTH BOLTS (U.N.O.) EXCEPT WHERE SLOP CRITICAL CONNECTIONS ARE REQUIRED AND NOTED BY A325 (SC) ON THE DRAWINGS. PROVIDE SLIP CRITICAL (SC) CONNECTIONS AT ALL MOMENT CONNECTIONS, BRACED FRAMES, RELIEVING ANGLES AND AS OTHERWISE NOTED. USE 490 BOLTS WHERE INDICATED.
- WHERE WELDING IS INDICATED, ALL WELDING SHALL CONFORM TO AWS D1.1-LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.1 E70XX SERIES WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN)
- SEE CONCRETE NOTES AND DRAWINGS FOR ANCHOR BOLT INFORMATION, TYP.
- PROVIDE 1/4" THICK LEVELING PLATE UNDER ALL COLUMN BASE PLATES UNLESS OTHERWISE NOTED. LEVELING PLATES SHALL BE SET AND GROUTED PRIOR TO ERECTING COLUMNS.
- PROVIDE ALL MISCELLANEOUS ANGLES, PLATES, ANCHOR BLOTS ETC., SHOWN ON ARCHITECTURAL DRAWINGS FOR SUPPORT OF BLOCKING, PARAPETS, FINISHES, ETC. COORDINATE WITH MISCELLANEOUS METAL FABRICATOR TO ENSURE COMPLETE COVERAGE OF ALL ITEMS.

CONCRETE NOTES

- CONCRETE WORK SHALL CONFORM TO "ACI MANUAL OF CONCRETE PRACTICE", LATEST EDITION. THIS PUBLICATION IS AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848-3800.
- ALL CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI, U.N.O. EXTERIOR SLAB-ON-GRADE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI. ADDITIONAL CONCRETE MIX PERFORMANCE DATA INCLUDING AIR CONTENT, WATER-CEMENT RATIO, AGGREGATE SIZE, SLUMP, ETC. HAS BEEN INCLUDED IN THE PROJECT SPECIFICATIONS. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.
- PROVIDE PVC SLEEVES WHERE PIPES PAS THROUGH EXTERIOR CONCRETE, OR SLABS.
- REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS AND SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI 315, LATEST EDITION.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND BE PROVIDED IN FLAT SHEETS.
- FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMER POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.
- MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:
A. SURFACES CAST AGAINST AND PERMANENTLY IN CONTACT WITH EARTH, 3.0"
B. FORMED SURFACES IN CONTACT WITH EARTH OR EXPOSED TO WEATHER
#5 BARS, 5/8" DIAMETER WIRE AND SMALLER, 1.5"
#6 THROUGH #11 BARS, 2.0"
C. SURFACES NOT IN CONTACT WITH EARTH OR EXPOSED TO WEATHER
WALLS, SLABS, JOISTS #11 BARS AND SMALLER, 1.0"
BEAMS, GIRDERS, AND COLUMNS; ALL REINFORCEMENT, 1.5"
- REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT NECESSARY SPLICES OR HOOKED BARS AT DISCONTINUOUS ENDS. PROVIDE TENSION SPLICES PER THE SCHEDULE ON THIS DWG, FOR ALL REINFORCING UNLESS OTHERWISE SHOWN ON PLAN.
- WELDING OF REINFORCEMENT IS NOT PERMITTED
- FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS, PROVIDE SUPPLEMENTAL REINFORCING AROUND OPENING AS SHOWN ON THE CONTRACT DOCUMENTS TYPICAL DETAILS. NO PENETRATIONS SHALL BE MADE THROUGH FOOTINGS WITHOUT WRITTEN PERMISSION FROM ENGINEER.
- CONSTRUCTION JOINTS ARE SHOWN ON DRAWINGS ARE MANDATORY. OMISSIONS, ADDITIONS, OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMITTAL OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOIN LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, OR WHEN ALTERNATE LOCATIONS ARE PROPOSED, DRAWINGS SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED. VERTICAL CONSTRUCTION JOINTS AND STOPS IN CONCRETE BEAMS/ GRADE BEAMS SHALL BE MADE AT MIDSPAN OR AT POINTS OF MINIMUM SHEAR, UNLESS NOTED OTHERWISE.
- SPACING OF CONSTRUCTION JOINTS, UNLESS NOTED OTHERWISE SHALL BE AS FOLLOWS:
A. FOOTINGS AND WALLS
MAX LENGTH 40'-0" NOR 15'-0" FROM ANY CORNER**
B. SLABS CON GRADE
SEE FOUNDATION PLAN
- EXCEED ONLY WHERE INTERMEDIATE CONTRACTION JOINTS ARE PROVIDED. MINIMUM OF 72 HOURS SHALL ELAPSE BETWEEN ADJACENT CONCRETE PLACEMENTS.
- ANCHOR RODS SHALL BE HEADED RODS CONFORMING TO ASTM F1554, GRADE 36 KSI WELDABLE STEEL, UNLESS NOTED OTHERWISE ON DRAWINGS. ANCHOR RODS THAT ARE TO BE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED.
- ALL GROUT BENEATH BASE PLATES & BEARING PLATES SHALL BE "5-STAR" 5000-PSI NON-SHRINK GROUT BY U.S. GROUT CORP.
- SLAB THICKNESSES INDICATED ON THE DRAWINGS ARE MINIMUMS. PROVIDE SUFFICIENT CONCRETE TO ACCOUNT FOR STRUCTURE DEFLECTION, SUBGRADE FLUCTUATIONS, AND TO OBTAIN THE SPECIFIED SLAB ELEVATION AT THE FLATNESS AND LEVELNESS INDICATED.
- INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO THE SCHEDULED CONCRETE PLACEMENT. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO THE SCHEDULED COMPLETION OF THE INSTALLATION OF REINFORCEMENT.
- ALL ITEMS TO BE EMBEDDED INTO CONCRETE SHALL BE INSTALLED PRIOR TO PLACEMENT OF CONCRETE. PROVIDE ADDITIONAL REINFORCEMENT AND/OR TEMPLATES AS REQUIRED TO ENSURE THE CORRECT POSITIONS OF EMBEDMENTS. "WET SETTING" OF EMBEDMENTS INTO CONCRETE IS PROHIBITED.

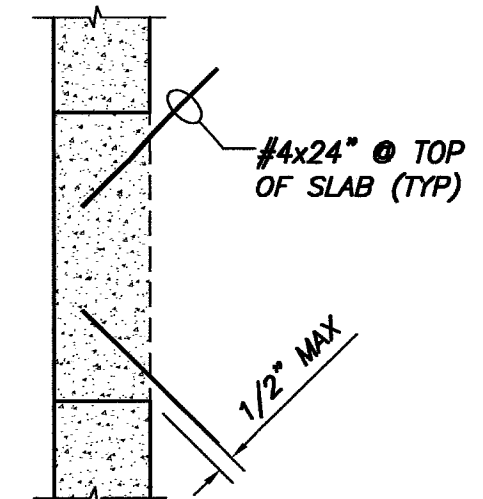
SUBMITTALS

- THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS FOR ALL PARTS OF THE WORK, INCLUDING DESCRIPTION OF SHORING, AND CONSTRUCTION METHODS AND SEQUENCING WHERE APPLICABLE. NO PERFORMANCE OF THE WORK INCLUDING, BUT NOT LIMITED TO, SHORING AND DEMOLITION OF EXISTING STRUCTURE, OR FABRICATION OR ERECTION OF NEW STRUCTURAL ELEMENTS, SHALL COMMENCE WITHOUT REVIEW OF THE SHOP DRAWINGS BY THE ARCHITECT AND ENGINEER. SUBMIT ONE HARD COPY & ONE ELECTRONIC COPY. HARD CC REVIEWED AND ELECTRONIC WILL BE RETURNED. CONTRACTOR SHALL ALLOW 10 DAYS FOR REVIEW.
- REQUIRED SUBMITTALS INCLUDE:
STATEMENT OF SPECIAL INSPECTIONS
AS-BUILT LOCATIONS OF PLANK PRESTRESSING STRANDS NOTED IN DWGS
CONCRETE MIX DESIGN INCLUDING BACK UP TEST DATA
CONCRETE PRODUCT DATA
CONCRETE REINFORCING INCLUDING BAR SUPPORTS
STRUCTURAL STEEL FRAMING FABRICATION DRAWINGS
**EXTERIOR COLD-FORMED METAL FRAMING SHOP DWGS & CALCULATIONS
PRODUCT DATA FOR ARCHITECTURAL METAL PANEL FASTENERS AND LAYOUT PLAN TEST RESULTS

** INDICATES SUBMITTAL TO BE SIGNED & SEAL BY AN ENGINEER REGISTERED IN THE STATE OF MAINE
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING SUBMITTALS.

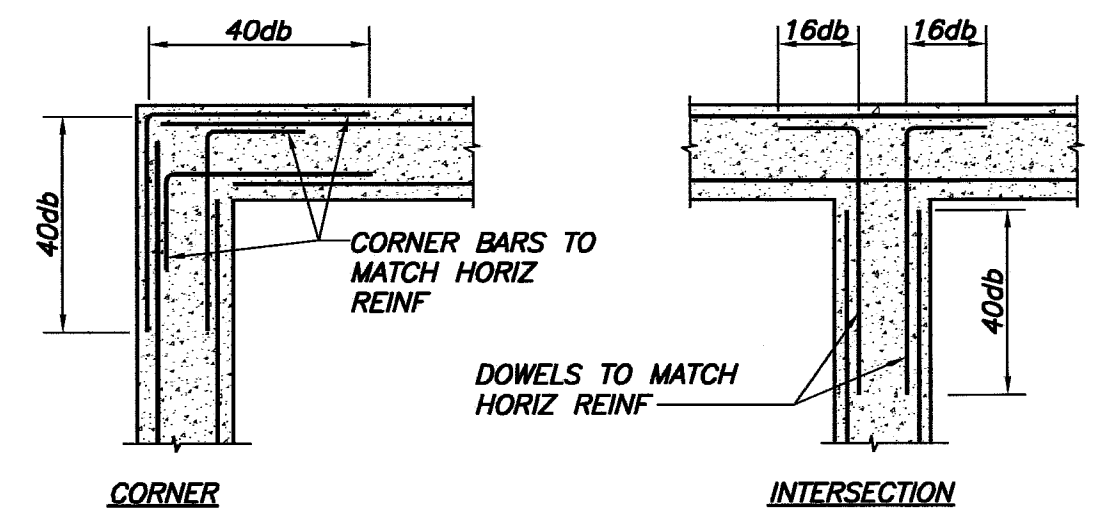
TESTING

- OWNER WILL ENGAGE A QUALIFIED TESTING AGENCY TO CONDUCT PERIODIC TESTS TO CONFIRM CONSTRUCTION IS IN CONFORMANCE WITH SPECIFIED PROCEDURES AND SPECIFICATIONS.
- TESTING SHALL INCLUDE:
STRUCTURAL FILL GRADATION AND COMPACTION
CONCRETE SLUMP, TEMPERATURE, AIR CONTENT AT POINT OF PLACEMENT
CONCRETE COMPRESSION TESTS
STRUCTURAL STEEL FIELD BOLTED CONNECTIONS
STRUCTURAL STEEL FIELD WELDED CONNECTION
- TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW WITHIN 72 HOURS OF COMPLETION OF EACH TEST
REFER TO SPECIFICATIONS FOR DETAILED INFORMATION REGARDING TESTING.



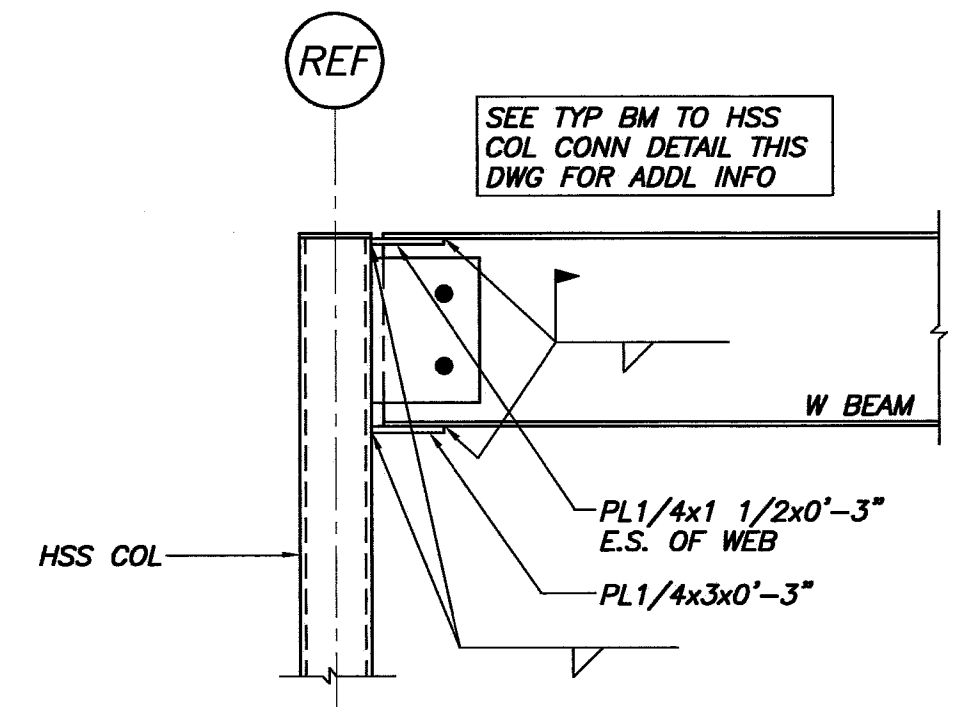
NOTE: ALSO PROVIDE #4x24" (TOP) IN SLAB @ INSIDE RE-ENTRANT CORNERS (SEE PLAN)

TYP SLAB CORNER DETAIL
N.T.S.

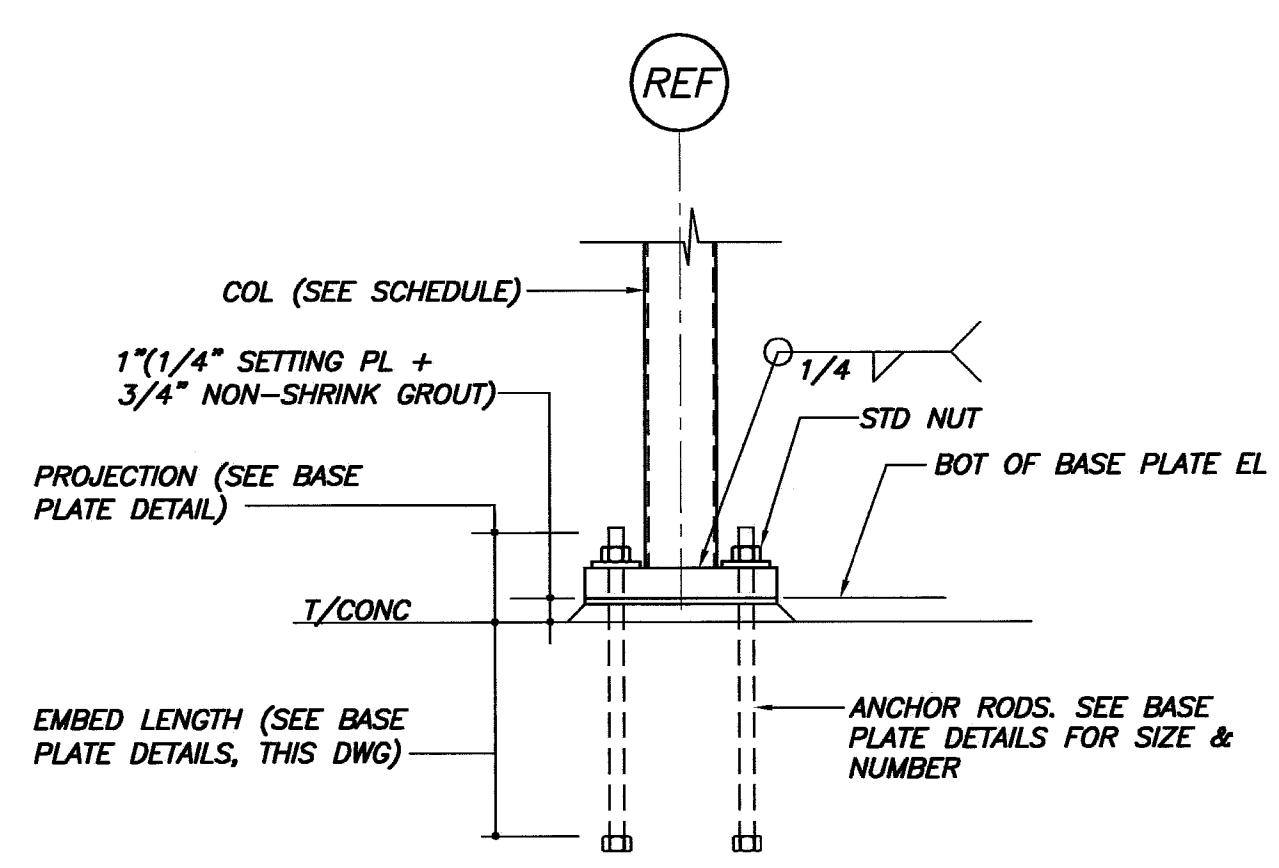


TYP WALL REINF DETAILS
N.T.S.

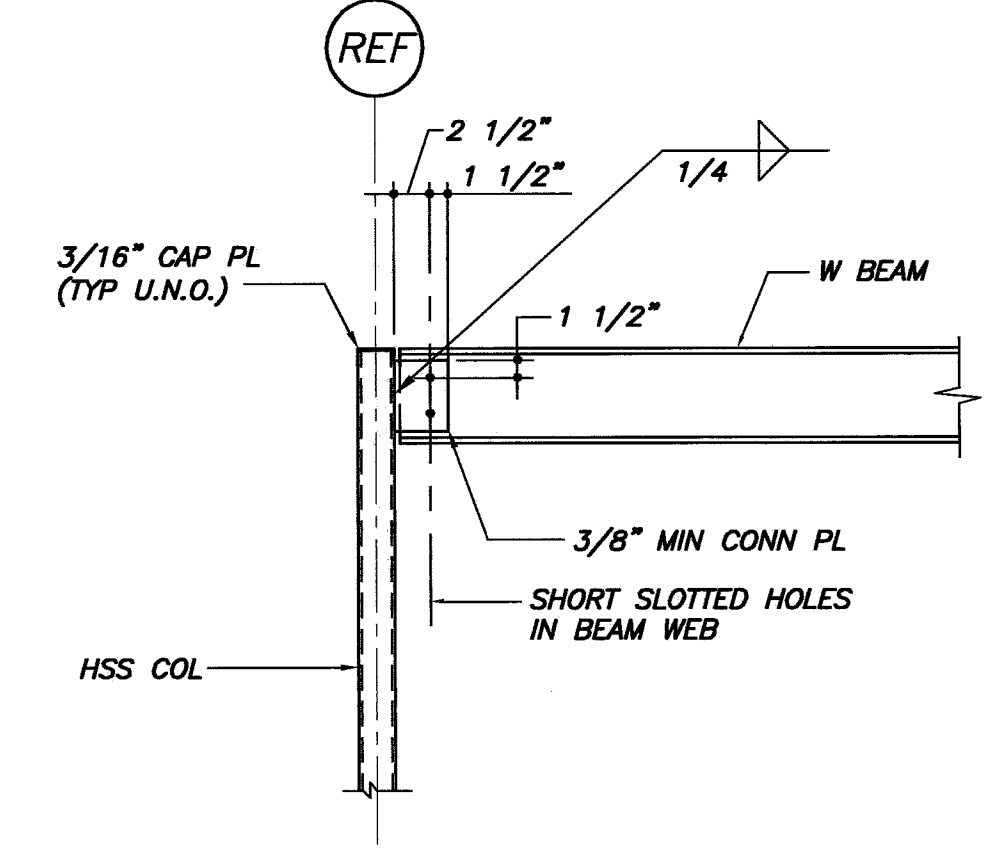
BAR SIZE	LAP LENGTH		
	3,000 PS1	3,500 PS1	4,000 PS1
#3	30"	28"	24"
#4	36"	34"	32"
#5	48"	45"	42"
#6	56"	52"	48"
#7	81"	78"	72"
#8	93"	88"	80"



TYP MOMENT CONN DETAIL
N.T.S.



TYP COL BASE DETAIL U.N.O.
N.T.S.



TYP BEAM TO HSS COL CONN U.N.O.
N.T.S.

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Issued For	
Date	
Rev. No	

DEERING PAVILION
PORTLAND, MAINE

GENERAL NOTES & TYPICAL DETAILS

Designed NRM	Scale AS NOTED
Drawn DSF	Date 05/20/10
Checked EAR	Becker Job Number 2261

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