

GENERAL NOTES

SPECIFICATIONS

SHOP DRAWINGS

SIMILAR CONDITIONS

DRAWINGS BY OTHERS

ELEVATIONS & DIMENSIONS

BUILDING CODE

A - DESIGN LOADS

Table with 2 columns: Item (A1 LIVE, A2 DEAD, A3 SEISMIC, A4 WIND, A5 SNOW) and Description (CORRIDORS AT OR BELOW GRADE LEVEL, PUBLIC AREA, STAIRWAYS, MINIMUM ROOF LIVE LOAD, etc.)

B - FOUNDATIONS

B1) GEOTECHNICAL REPORTS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING, UNDERSTANDING & IMPLEMENTING THE RECOMMENDATIONS OBTAINED IN THE FOLLOWING GEOTECHNICAL REPORTS BY S.W. COLE, INC.:

B2) SOIL BEARING

CONCRETE SPREAD & STRIP FOOTINGS ARE DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 6,000 PSF AT A DEPTH OF 4.5 FEET BELOW THE EXISTING GRADE. BEAR ALL FOOTINGS ON UNDISTURBED SOIL, U.O.N.

B3) EXCAVATION

ALL FOUNDATION EXCAVATION TO BE INSPECTED BY THE GEOTECHNICAL ENGINEER. EXCAVATE TO LINES AND GRADES TO PROPERLY INSTALL FOUNDATIONS ON UNDISTURBED SOIL APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE REQUIRED BEARING CAPACITY.

B4) UTILITIES AND OTHER UNDERGROUND STRUCT.

FOOTINGS TO BEAR BELOW AN IMAGINARY REFERENCE LINE DRAWN UPWARD AND OUTWARD ON A 1/16" SLOPE FROM THE BOTTOM OF ANY ADJACENT UTILITIES OR OTHER UNDERGROUND STRUCTURES.

B5) Dewatering System

A Dewatering System shall be used to remove excess water from the excavation and to prevent premature hydrostatic uplift pressures on the foundations.

B6) FOOTING SUBGRADE PREPARATION AND FILL

FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL. PLACE ALL SPREAD AND STRIP FOOTINGS ON 2" LEAN CONCRETE "MAID" MAT. ALL FOOTINGS SHALL EXTEND AT LEAST 4'-6" BELOW GRADE FOR FROST PROTECTION.

B7) SLAB SUBGRADE PREPARATION AND FILL

FOLLOW RECOMMENDATIONS OF GEOTECHNICAL REPORT INCLUDED IN PROJECT MANUAL. PLACE SLAB ON GRADE ON A 7" BED OF GRANULAR FILL WITH CONTINUOUS VAPOR BARRIER (LAP 8" AND TAPE ALL JOINTS) BETWEEN THE SLAB AND GRANULAR FILL. (U.O.N.)

B8) BACKFILL UNDER SLAB-ON-GRADE

PROOF-ROLL EXISTING SOILS PER SPECIFICATION #02200 "EARTHWORK". BACKFILL WHERE REQUIRED BELOW SLABS-ON-GRADE WITH APPROVED GRANULAR SOIL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D.

B9) BACKFILL AGAINST CANTILEVERED RETAINING WALLS

DO NOT BACKFILL AGAINST RETAINING WALLS UNTIL WALL CONCRETE IS AT FULL DESIGN STRENGTH. BACKFILL WITH APPROVED MATERIAL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D.

B10) BACKFILL AGAINST FOUNDATION WALLS

DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL WALL CONCRETE IS AT FULL DESIGN STRENGTH AND UNTIL SLABS AT BASE AND TOP OF WALL ARE IN PLACE, AND HAVE REACHED THEIR DESIGN STRENGTH, U.O.N. IN GEOTECHNICAL REPORT. BACKFILL WITH APPROVED MATERIAL PLACED IN 6 IN. LAYERS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT AS DEFINED BY ASTM D-1557, METHOD D.

B11) FOUNDATION PLACEMENT & PROTECTION

PROTECT ALL SOIL BEARING SURFACES FROM FREEZING BEFORE AND AFTER FOUNDATION CONSTRUCTION. IF CONSTRUCTION IS PERFORMED DURING FREEZING WEATHER, BACKFILL FOOTINGS TO A SUFFICIENT DEPTH (UP TO FOUR AND ONE HALF FEET) AS SOON AS POSSIBLE AFTER CONSTRUCTION. ALTERNATIVELY, USE APPROVED INSULATING BLANKETS OR OTHER APPROVED MEANS FOR PROTECTION AGAINST FREEZING. DO NOT PLACE FOUNDATION CONCRETE IN WATER OR ON FROZEN GROUND. PROTECT IN-PLACE FOUNDATIONS AND SLABS FROM FROST PENETRATION UNTIL THE PROJECT IS COMPLETE.

B12) DE-ICING

DO NOT USE SALT OR CHLORIDE-COMPOUNDS TO DE-ICE SITE.

D - CAST-IN-PLACE CONCRETE

D1) CONCRETE STRENGTH

PROVIDE THE FOLLOWING 28 DAY COMPRESSIVE STRENGTH FOR FIELD CONCRETE:
I) 4,500 PSI (MIN.) NORMAL WEIGHT FOR ALL CAST-IN-PLACE CONCRETE FOUNDATIONS, COLUMNS, BASEMENT WALLS, STRUCTURAL SLABS, SLABS-ON-GRADE, AND RETAINING WALLS.
II) 4,000 PSI (MIN.) LIGHTWEIGHT CONCRETE FOR SLABS ON METAL DECK.
III) 2,000 PSI (MIN.) NORMAL WEIGHT FOR ALL LEAN CONCRETE USED IN MUD MATS.

D2) PORTLAND CEMENT

ASTM C150, TYPE II. WATER CEMENT RATIO AS REQUIRED FOR DESIGN STRENGTH. NORMAL WEIGHT: ASTM C33, WITH MAXIMUM SIZE OF 1 IN. LENGTH: ASTM C30.

D4) WATER

PURE. 4 INCH MAXIMUM PRIOR TO ADDITION OF ADMIXTURES. SEE SPECIFICATIONS. ASTM C260 AIR-ENTRAINING AGENT AS REQUIRED FOR A TOTAL ENTRAINED AIR CONTENT OF 6% (±1%) FOR ALL CONCRETE EXPOSED TO FREEZING.

D5) SLUMP

DO NOT USE CALCIUM CHLORIDE. ASTM A615 GRADE 60. ASTM A185 FOR WELDED WIRE FABRIC (W/F). USE FLAT SHEETS ONLY (NO ROLLS).

D6) ADMIXTURES

PROVIDE #6 CHAIR BARS, HIGH CHAIRS, TIES, CLIPS, SLAB BOLSTERS AND OTHER ACCESSORIES WHERE NOT SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES; ACI 315 OR CRSI-WRSI MANUAL OF STANDARD PRACTICE. USE PLASTIC TIPS ON ALL CHAIRS PLACED ON THE SIDES OF CONCRETE FORMWORK.

D7) STEEL REINFORCEMENT

REINFORCE ALL WALLS LESS THAN 8" THICK WITH AT LEAST #4 @ 12 IN. EACH WAY EACH FACE AND 2 - #6 EACH EDGE, U.O.N. REINFORCE ALL WALLS 8" TO 12" THICK WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 2-#7 EACH EDGE, U.O.N. REINFORCE ALL WALLS THICKER THAN 12" WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 3-#8 EACH EDGE, U.O.N.

D8) OPENINGS

PROVIDE 2 - #6 AT EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS AND EXTEND 2 FT-6 IN. BEYOND THE OPENING OR AS DETAILED, EXCEPT VERTICAL BARS AT SIDES OF OPENINGS IN WALLS ARE TO EXTEND FROM FLOOR TO FLOOR.

D9) REINFORCEMENT AT OPENINGS

CONCRETE PLACED AGAINST EARTH: 3 IN. SLABS-ON-GRADE BOTTOM: 1-1/2 IN. SLABS-ON-GRADE TOP: 1 IN. SLABS-ON-GRADE TOP EXPOSED TO WATER OR WEATHER: 2 IN. FORMED CONCRETE EXPOSED TO EARTH, WATER OR WEATHER: 2 IN. FORMED SLABS, TOP AND BOTTOM: 1 IN. INTERIOR FACES OF WALLS: 1 IN.

D10) MINIMUM CONCRETE COVER

PLACEMENT OF WALLS AND GRADE BEAMS IN LEVEL. FILL HEIGHT LIFTS WITH CONSTRUCTION JOINTS WHERE INDICATED ON ARCHITECTURAL AND STRUCTURAL DRAWINGS. PROVIDE OPENINGS FOR WATER, ELECTRICAL, AND OTHER SERVICES AS REQUIRED. PROVIDE KEYS AND DOWELS AT ALL CONSTRUCTION JOINTS.

D11) WALLS AND GRADE BEAMS

AS SHOWN IN TABLE ON THIS SHEET, BUT NOT LESS THAN 40 BAR DIAMETERS FOR SLABS AND BEAM BOTTOM BARS, AND NOT LESS THAN 48 BAR DIAMETERS FOR WALLS AND BEAM TOP STEEL. PROVIDE A LAP OF 8 IN OR 1-1/2 SPACES, WHICHEVER IS LARGER, FOR W/F. THE WIRES TOUCH AT LAP.

D12) SPACING OF REINFORCEMENT

REINFORCE ALL WALLS LESS THAN 8" THICK WITH AT LEAST #4 @ 12 IN. EACH WAY EACH FACE AND 2 - #6 EACH EDGE, U.O.N. REINFORCE ALL WALLS 8" TO 12" THICK WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 2-#7 EACH EDGE, U.O.N. REINFORCE ALL WALLS THICKER THAN 12" WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 3-#8 EACH EDGE, U.O.N.

D13) MINIMUM REINFORCEMENT

REINFORCE ALL WALLS LESS THAN 8" THICK WITH AT LEAST #4 @ 12 IN. EACH WAY EACH FACE AND 2 - #6 EACH EDGE, U.O.N. REINFORCE ALL WALLS 8" TO 12" THICK WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 2-#7 EACH EDGE, U.O.N. REINFORCE ALL WALLS THICKER THAN 12" WITH AT LEAST #6@12" O.C., E.W., E.F. W/ 3-#8 EACH EDGE, U.O.N.

D14) SHOP DRAWINGS

SUBMIT FOR ENGINEER'S APPROVAL. COMPLETE BENDING AND PLACING DETAILS OF ALL REINFORCING STEEL INCLUDING WELDED WIRE FABRIC, INDICATING POSITION OF SPLICES. INCLUDE ACCESSORY DRAWINGS INCLUDING PRECISE LOCATIONS OF ALL SLEEVES CAST INTO CONCRETE TO ACCOMMODATE PLUMBING AND ELECTRICAL WORK.

D15) STANDARD SPECIFICATIONS

COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF THE AMERICAN CONCRETE INSTITUTE: ACI 301 STRUCTURAL CONCRETE FOR BUILDINGS ACI 302 CONCRETE FLOOR AND SLAB CONSTRUCTION ACI 304 MEASURING, MIXING, TRANSPORTING AND PLACING CONCRETE ACI 305 HOT WEATHER CONCRETING ACI 306 COLD WEATHER CONCRETING ACI 315 DETAILING REINFORCING STEEL ACI 318 GENERAL DESIGN OF ITEMS NOT OTHERWISE SPECIFIED ACI 347 FORMWORK FOR CONCRETE ACI 348 MANUAL OF STANDARD PRACTICE

D16) CONSTRUCTION JOINTS

PROVIDE KEYS AND DOWELS AT ALL CONSTRUCTION JOINTS. PROVIDE DOWELS WITH AN AREA EQUAL TO THE WALL OR SLAB BENT, BUT NOT LESS THAN 0.005 TIMES THE CONCRETE CROSS SECTIONAL AREA AT THE CONSTRUCTION JOINT. SUBMIT THE PROPOSED LOCATION OF CONSTRUCTION JOINTS TO THE DESIGNER FOR APPROVAL. MAXIMUM SPACING OF CONSTRUCTION JOINTS TO BE 60 FT. FOR WALLS AND STRUCTURAL FLOORS AND 80 FT. FOR SLABS ON GRADE.

D17) FOUNDATION DOWELS

ROUGHEN ALL EXISTING CONCRETE SURFACES COMMON WITH NEW CONCRETE TO AN AMPLITUDE OF 1/4" (MIN.). A MINIMUM OF THREE (3) CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY NOR LESS THAN ONCE FOR 100 CUBIC YARDS OF CONCRETE FOR COMPRESSIVE STRENGTH TESTING. TESTING IS TO BE PAID FOR BY THE OWNER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AT LEAST 24 HOURS PRIOR TO CASTING ANY CONCRETE SO THAT STRUCTURAL TESTING & INSPECTION CAN BE COORDINATED.

D18) SURFACE TREATMENT

ABSOLUTELY NO CONCRETE IS TO BE CAST PRIOR TO BEING REBINS INSPECTED AND APPROVED BY THE OWNER'S TESTING AGENCY.

D19) STRUCTURAL TESTING & INSPECTION

ALL CONDUIT, PIPING, DUCTWORK, ETC. TO BE EMBEDDED WITHIN OR SLABS, WALLS, BEAMS OR COLUMNS SHALL BE CLEARLY SHOWN ON THE SHOP DRAWINGS AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER. APPROVED EMBEDDED ITEMS SHALL BE LOCATED AND EVENLY DISTRIBUTED IN SUCH A MANNER TO PREVENT ADVERSELY AFFECTING THE STRENGTH OF CONCRETE MEMBERS.

D20) EMBEDDED ITEMS

NO CONCRETE FOOTING SHALL BE POURED UNTIL SUBGRADE FOR SAME HAS BEEN APPROVED BY A LICENSED PROFESSIONAL ENGINEER. 8000 PSI 28-DAY COMPRESSIVE STRENGTH. DO NOT USE CURING COMPOUNDS WITHOUT WRITTEN APPROVAL FROM THE ENGINEER.

D21) FOOTING SUBGRADE

UNLESS OTHERWISE NOTED ON THE DRAWINGS, SHEAR KEYS BELOW WALL BOTTOMS SHALL BE 4" WIDE BY 3" DEEP. SHEAR KEYS AT WALL TOPS SHALL BE 3" WIDE BY 2" DEEP. DO NOT USE EPS MATERIAL FOR FORMING KEYS UNLESS IT IS FIRMLY ATTACHED TO RIGID BACKUP MATERIALS.

D22) BASE PLATE GROUTING

PADS AND CURBS MAY BE SHOWN ON PLAN IN CERTAIN INSTANCES FOR REFERENCE ONLY. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS AND COORDINATE WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND LOCATION.

D23) CURING COMPOUNDS

USE HILTI HSE 2421 EPOXY ADHESIVE ANCHOR SYSTEM, OR APPROVED EQUAL, FOR ALL EPOXY DOWELS AND ANCHORS.

D24) SHEAR KEYS

USE HILTI KWIK BOLT II EXPANSION ANCHOR, OR APPROVED EQUAL.

D25) HOUSEKEEPING PADS AND CURBS

UNLESS OTHERWISE NOTED ON THE DRAWINGS, SHEAR KEYS BELOW WALL BOTTOMS SHALL BE 4" WIDE BY 3" DEEP. SHEAR KEYS AT WALL TOPS SHALL BE 3" WIDE BY 2" DEEP. DO NOT USE EPS MATERIAL FOR FORMING KEYS UNLESS IT IS FIRMLY ATTACHED TO RIGID BACKUP MATERIALS.

D26) EPOXY DOWELS AND ANCHORS

UNLESS OTHERWISE NOTED ON THE DRAWINGS, SHEAR KEYS BELOW WALL BOTTOMS SHALL BE 4" WIDE BY 3" DEEP. SHEAR KEYS AT WALL TOPS SHALL BE 3" WIDE BY 2" DEEP. DO NOT USE EPS MATERIAL FOR FORMING KEYS UNLESS IT IS FIRMLY ATTACHED TO RIGID BACKUP MATERIALS.

D27) EXPANSION ANCHORS

UNLESS OTHERWISE NOTED ON THE DRAWINGS, SHEAR KEYS BELOW WALL BOTTOMS SHALL BE 4" WIDE BY 3" DEEP. SHEAR KEYS AT WALL TOPS SHALL BE 3" WIDE BY 2" DEEP. DO NOT USE EPS MATERIAL FOR FORMING KEYS UNLESS IT IS FIRMLY ATTACHED TO RIGID BACKUP MATERIALS.

F - STRUCTURAL STEEL

F1) STRUCTURAL SHAPES

WIDE FLANGE SHAPES AND CHANNELS: ASTM A992, OR ASTM A572 GRADE 50 (Fy = 50,000 PSI) ANGLES, BARS AND PLATES: ASTM A36 U0N

F2) HOLLOW STRUCTURAL SECTIONS (HSS)

ASTM A500 - GRADE B (Fy = 46,000 PSI) ASTM A515 TYPE E GRADE B OR ASTM A501

F3) PIPE

FOR BOLTED BEAM CONNECTIONS NOT SHOWN ON THE DRAWINGS, PROVIDE THE FOLLOWING MINIMUM NUMBER OF 3/4" DIAMETER A325X5NCS BOLTS: 2 FOR W8 AND W10 BEAMS 3 FOR W12, W14, AND W16 BEAMS 4 FOR W18 AND W21 BEAMS 5 FOR W24 AND W27 BEAMS 7 FOR W30 AND W33 BEAMS

F4) BOLTED CONNECTIONS

PROVIDE ANGLES OR PLATES WITH A THICKNESS TO DEVELOP THE CAPACITY OF THE BOLTS PROVIDED. TENSION CONTROL BOLTS ARE ACCEPTABLE. SEE TYPICAL DETAIL C.

F5) ANCHOR BOLTS

ASTM A307 OR ASTM F1554 GRADE 36 BOLTS U0N ON THE DRAWINGS. "J" BOLTS ARE NOT ALLOWED. CONFORM TO AWS SPECIFICATIONS FOR ELECTRODES BASED ON WELDING PROCESS AND THE TYPE AND GRADE OF STEEL.

F6) WELDING ELECTRODES

PROVIDE ANCHOR BOLTS, STEEL WEDGES, THREADED SCREWS OR SHIMS TO SUPPORT AND PLUMB ALL COLUMNS. GROUT SOLID UNDER BASE PLATES IMMEDIATELY AFTER COLUMNS ARE PLUMBED.

F7) ERECTION

PROVIDE BEARING PLATES AND WALL ANCHORS OR ANCHOR BOLTS FOR ALL BEAMS RESTING ON CONCRETE AND ALL OTHER NECESSARY CONNECTING HARDWARE. SET ANCHOR BOLTS USING TEMPLATE. DO NOT FIELD CUT OR FIELD MODIFY ANY STRUCTURAL STEEL WITHOUT PRIOR WRITTEN APPROVAL BY ARCHITECT FOR EACH SPECIFIC CASE.

F8) PAINT

SHOP PRIME ALL STEEL NOT ENCASED IN CONCRETE OR TO BE FREFROOFED. FOR ALL EXPOSED STEEL, USE A THREE COAT PAINT SYSTEM WITH A ZINC-RICH PRIMER, AN EPOXY INTERMEDIATE COAT, AND A PROTECTIVE TOP COAT, OR HOT-DIP GALVANIZE THE STEEL AFTER FABRICATION IS COMPLETE.

F9) FABRICATION

SHIP FABRICATE TO GREATEST EXTENT POSSIBLE BY WELDING INCLUDING BEAM STIFFENERS, COLUMN CAPS AND BASE PLATES, HOLES AND CONNECTIONS. SUBMIT COMPLETE SHOP DRAWINGS, FROM FIELD DIMENSIONS, FOR DESIGNER'S APPROVAL.

F10) STANDARD SPECIFICATIONS

DO NOT START FABRICATION OF STRUCTURAL STEEL MEMBERS UNTIL THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER OF RECORD (EOR).

F11) UNTELS

COMPLY WITH THE LATEST RECOMMENDATIONS AND SPECIFICATIONS OF: - AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS, ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN. - ASD LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. - LRFD LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATION FOR STEEL HOLLOW STRUCTURAL SECTIONS. - SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. - AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. - AWS D11.1 STRUCTURAL WELDING CODE - STEEL.

F12) FIREPROOFING

FOR OPENINGS IN MASONRY WALLS NOT OTHERWISE PROVIDED FOR ON ARCHITECT'S DRAWINGS, PROVIDE LOOSE UNTEL PER SCHEDULE I IN TYPICAL DETAIL C.

F13) FRAMING

STEEL ANGLES IN Pairs SHALL BE PLUG WELDED TOGETHER EVERY 12 INCHES. PROVIDE A MINIMUM OF SIX INCHES OF BEARING FOR ALL UNTELS. ALL EXTERIOR UNTELS TO BE HOT-DIPPED GALVANIZED. FIREPROOF BEAMS AND COLUMNS AS SHOWN ON THE ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS.

F14) SLIP CRITICAL CONNECTIONS

BEAMS EQUALLY SPACED U.O.N. CANTILEVER BEAMS ARE SAME SIZE AS BACKSPAN U.O.N. U.O.N. ON PLANS, MINIMUM BOLT SIZE SHALL BE 3/4" DIAMETER. ALL SHIP CONNECTIONS SHALL BE HIGH STRENGTH BOLTED OR WELDED. ALL ENDS OF COLUMNS AT SPLICES AND OTHER SURFACES IN CONTACT ON BEARING CONNECTIONS SHALL BE SQUARE CUT TO COMPLETE THE BEARING.

F15) SLIDE BEARING CONNECTIONS

U.O.N. ALL BEAM TO BEAM MOMENT CONNECTIONS SHALL DEVELOP THE STRENGTH OF THE SMALLER MEMBER BEING CONNECTED. CONNECTION FORCES SHOWN ON DRAWINGS ARE SERVICE FORCES U.O.N. SHEAR REACTIONS SHOWN ON PLAN AT ONE BEAM END ARE THE SAME AT BOTH BEAM ENDS. DO NOT TAKE 33% ALLOWABLE STRESS INCREASE. INCLUDE FULL DEPTH SHEAR CONNECTION IN DESIGN OF BEAMS WITH AXIAL FORCE SHOWN ON PLAN IN ADDITION TO THE FLANGE CONNECTIONS REQUIRED TO TRANSFER THE LOADS. GALVANIZED NUTS AND BOLTS TO BE MATCHED ASSEMBLIES.

F16) SLIDE BEARING CONNECTIONS

- BOLTED MOMENT CONNECTIONS - TRUSS MEMBER CONNECTIONS - AS REQUIRED BY DETAILS AND SECTIONS

F17) SLIDE BEARING CONNECTIONS

USE FLUOROGLD (FC-1025-CS) TEFLON BEARING PAD BY SEISMIC ENERGY PRODUCTS, ATHENS, TEXAS, OR APPROVED EQUAL FOR ALL SLIDE BEARING ELEMENTS. THE FLUOROGLD MATERIAL SHALL BE 3/32" MIN. THICKNESS, SUITABLY BONDED TO STEEL SUBSTRATE. ATTACHMENT IN FIELD WILL BE TACK WELDING.

G - METAL DECK AND SHEAR STUDS

G1) METAL DECK

PROVIDE METAL DECK MADE FROM GALVANIZED STEEL WITH MINIMUM YIELD STRENGTH OF 33 KSI. SEE DRAWINGS AND SPECIFICATIONS FOR GAUGE AND PROFILE. PROVIDE SHEET METAL POUR STOPS WITH THICKNESS BASED ON SDC CRITERIA (SDC PUBLICATION #29) - 14 GAUGE MIN. THICKNESS.

G2) SHEAR STUDS

PROVIDE HEADED TYPE STUDS WHICH CONFORM TO ASTM A108 GRADE 1015 OR 1020 COOL FINISHED CARBON STEEL. THE NUMBER OF SHEAR STUDS REQUIRED PER BEAM IS INDICATED BY [#] ON THE DRAWINGS. PROVIDE 3/4 IN. DIAMETER BY 5 IN. LONG STUDS U0N.

G3) STUD PLACEMENT

SPACE STUDS UNFORMALLY ALONG LENGTH OF BEAM. PROVIDE A MINIMUM OF 1 IN. BETWEEN THE EDGE OF ANY STUD AND THE FACE OF CONCRETE. A METAL DECK RIB OR SIMILAR DISCONTINUITY.

G4) STANDARD SPECIFICATIONS

ASC SPECIFICATIONS PER STRUCTURAL STEEL SECTION ABOVE. AISC SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. AISC SPECIFICATION FOR THE DESIGN OF WELDED JOINTS FOR COMPOSITE STEEL FLOOR DECK. AWS STRUCTURAL WELDING CODE - STEEL AND STRUCTURAL STEEL WELDING CODE - SHEET STEEL.

G5) REINFORCEMENT

WHERE REQUIRED, DECK BOTTOM REINFORCEMENT SHALL BE CONTINUOUS IN EACH BAY. EMBEDDED CONDUIT AND PIPE: MAXIMUM OUTER DIAMETER 1"; SPACE NO CLOSER THAN 3 DIAMETERS ON CENTER. MINIMUM CONCRETE COVER: 3/4"; DO NOT USE ANY ALUMINUM PIPE OR CONDUIT.

G6) EMBEDDED CONDUIT AND PIPE

EXCEPT AS SUBRANSING AS DIRECTED BY ENGINEER WHERE THESE PARAMETERS CANNOT BE SATISFIED. COMPOSITE BEAM DESIGN ASSUMES UNSHORED DECK CONSTRUCTION. DECK DESIGN REQUIRES SHORING OF SINGLE SPAN SHEETS.

G7) SHORING

SET EXPANSION ANCHORS AT DECK RIBS ONLY. DO NOT CUT ANY REINFORCEMENT IN DECK RIBS.

G8) EXPANSION ANCHORS

SET EXPANSION ANCHORS AT DECK RIBS ONLY. DO NOT CUT ANY REINFORCEMENT IN DECK RIBS.

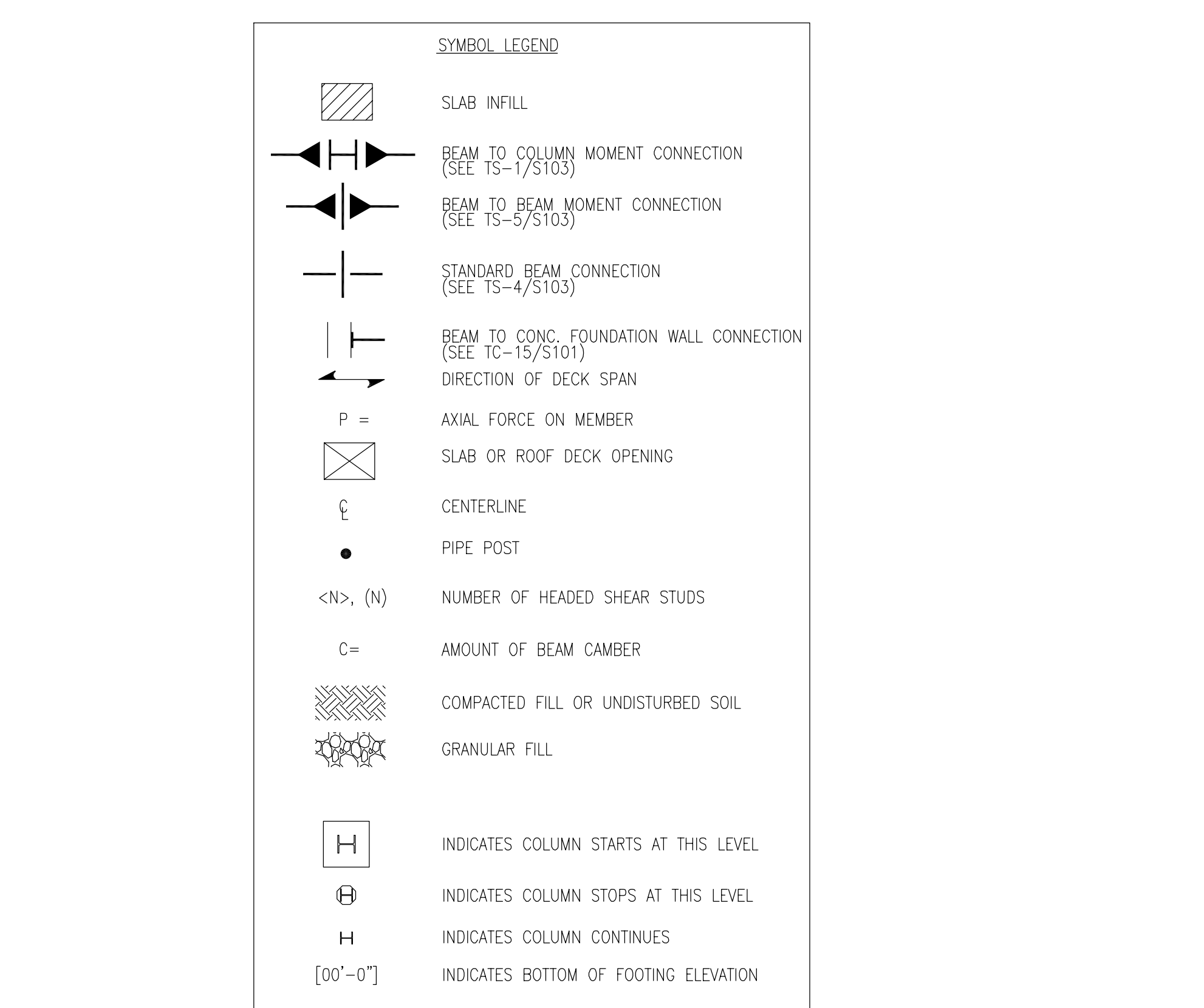
ABBREVIATIONS

Table with 2 columns: Abbreviation and Word or Phrase. Includes terms like ASD, ALTERNATE, AMERICAN CONCRETE INSTITUTE, etc.

CLASS B TENSION SPLICE MINIMUM SPLICE and DEVELOPMENT LENGTH SCHEDULE (UNLESS OTHERWISE SHOWN ON DRAWINGS)

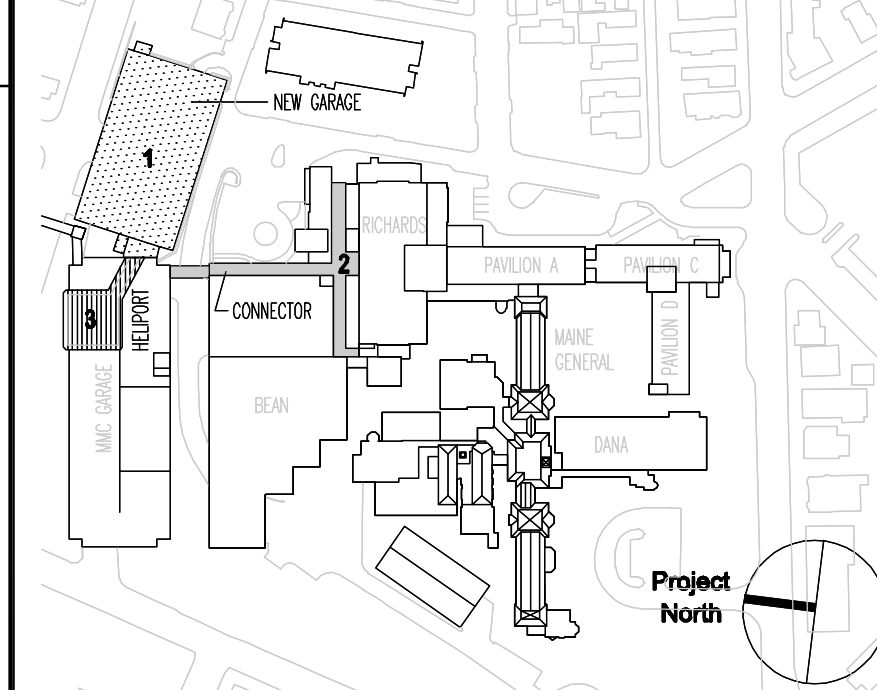
Table with columns for Splice Length and Development Length for various bar sizes (#3 to #11) and concrete strengths (F'c=4000 PSI and F'c=5000 PSI).

- 1. AVOID SPLICES IN REGIONS OF MAXIMUM MOMENT. IF THIS IS NOT POSSIBLE STAGGER SPLICES SO THAT NOT MORE THAN 50% OF THE BARS ARE SPLICED WITHIN A REQUIRED SPLICE LENGTH OTHERWISE INCREASE SPLICE LENGTH BY 50%.
2. TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST IN THE MEMBER BELOW THE REINFORCEMENT. WALL REINFORCING IS CLASSIFIED AS OTHER BARS.



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Table with columns: MARK, ISSUE DATE, DESCRIPTION. Includes PERMIT SET (09/16/04) and BID SET (08/26/04).



Maine Medical Center Pkg F - Garage / Vault / Conn / Heliport Portland, ME M/C Project No. 21845

GENERAL NOTES



Table with columns: Commission No. (4678), Date Issued (08/26/04), Scale (1/8"=1'-0"), Sheet Number, Drawn By (SWW), Approved By (JHT/JJZ), Date (9/01), and Project Name (S001).