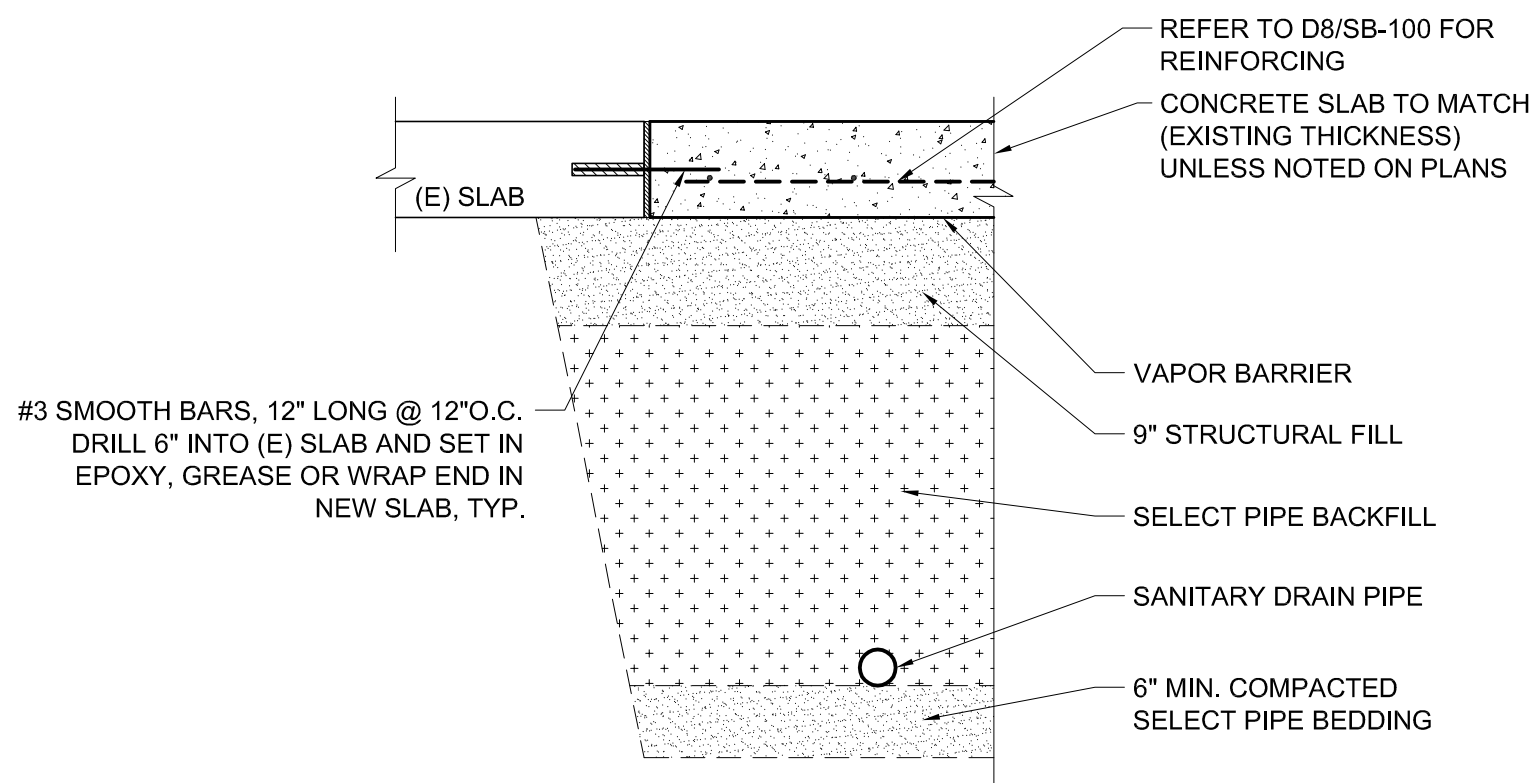


| STRUCTURAL FILL | | SELECT PIPE BACKFILL | | SELECT PIPE BEDDING | |
|-----------------|---------------|----------------------|---------------|---------------------|---------------|
| SIEVE SIZE | PERCENT FINER | SIEVE SIZE | PERCENT FINER | SIEVE SIZE | PERCENT FINER |
| 4 INCH | 100 | 3/8" INCH | 80 TO 100 | 1 INCH | 100 |
| 1/2 INCH | 35 TO 70 | NO. 40 | 0 TO 5 | 3/4 INCH | 90 TO 100 |
| 1/4 INCH | 25 TO 60 | | | 1/4 INCH | 25 TO 55 |
| NO. 40 | 0 TO 25 | | | NO. 4 | 0 TO 10 |
| NO. 200 | 0 TO 5 | | | NO. 10 | 0 TO 5 |



1. WORK SHALL BE DONE IN COMPLIANCE WITH THE LATEST EDITION OF IBC-2009.
2. THE CONTRACTOR SHALL VISIT THE SITE AT A DESIGNATED TIME APPROVED BY THE OWNER, TO VERIFY EXISTING CONDITIONS, DIMENSIONS, LOCATION OF EXISTING UTILITIES, ETC. THE CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITHOUT EXCEPTION.
3. WORK SHALL BE DONE IN AN ORDERLY AND PROFESSIONAL MANNER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL WORK TO BE DONE BY SUBCONTRACTORS, LOCAL AUTHORITIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
4. UTILITY EXTENSIONS AND CONNECTIONS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL CODES OR AS INDICATED BY THE SPECIFICATIONS.
5. THE 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.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ITEMS/MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
7. THE 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 SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.

G8 GENERAL NOTES

1. MINIMUM LOADING REQUIREMENTS:
- A. FLOOR LIVE LOADS:
- | | UNIFORM | CONCENTRATED | PARTITION |
|------------------|---------|--------------|-----------|
| a. MANUFACTURING | | | |
| i. LIGHT | 125 PSF | 2,000# | |
- B. SEISMIC
- a. COEFFICIENTS:
- RESPONSE SPECTRAL ACC. (0.2 sec.) $S_s = 0.352g$
 - RESPONSE SPECTRAL ACC. (1.0 sec.) $S_1 = 0.106g$
 - SOIL CLASSIFICATION: D
 - SITE COEFFICIENTS: $F_a = 1.52$; $F_v = 2.40$
 - MAX. CONSIDERED EARTHQUAKE ACC @ 5% DAMPED DESIGN: $SDS = 0.357$; $SD1 = 0.168$
 - SEISMIC DESIGN CATEGORY FOR 0.1 AND 1.0 SECONDS: C
 - FUNDAMENTAL PERIOD $T_a = 0.403$ SEC
 - SEISMIC RESPONSE COEFFICIENT $C_s = 0.102$
2. STRUCTURAL STEEL SHALL BE DESIGNED USING THE 13TH EDITION OF THE AISC STEEL CONSTRUCTION MANUAL. STEEL BEAMS SHALL CONFORM TO ASTM A992, FY = 50ksi; MISCELLANEOUS PLATES, SHAPES, CHANNELS, ANGLES ETC. SHALL CONFORM TO ASTM A36, FY = 36ksi. STEEL SUPPORTING MECHANICAL EQUIPMENT AND TO RECEIVE FIREPROOFING SHALL BE UNPAINTED AND UNPRIMED.
 3. SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.
 4. STRUCTURAL WOOD TO CONFORM TO THE LATEST NDS STANDARDS.
 5. SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE ARRANGED BY THE BUILDING OWNER AND THE STRUCTURAL ENGINEER OF RECORD.
 6. A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC2006 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.
 7. 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.
 8. THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSIGHT: INSTALLATION OF HIGH STRENGTH BOLTS, WELDING, MASONRY INSTALLATION AND REINFORCING STEEL, ALL CONCRETE PLACEMENT, AND STRUCTURAL FILL PLACEMENT.

E8 STRUCTURAL NOTES

1. MATCH SLAB DEPTHS OF CUTS MADE FOR PLUMBING TRENCH INSTALLATIONS. PROVIDE DOWELS PER DETAILS AND 4X4XW1.4XW1.4 W/M UNLESS OTHERWISE NOTED.
 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING FOR ELEVATION AND PLUMBNESS TO ASSURE COMPLETE AREA DRAINAGE.
 3. FOOTINGS SHALL BEAR ON VIRGIN SOIL OR STRUCTURAL BACKFILL COMPACTED TO UNIFORM 95-PERCENT STANDARD DENSITY.
 4. 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 16-INCHES ON-CENTER EACH WAY.
 5. STRUCTURAL STEEL BELOW FINISH FLOOR SHALL RECEIVE (2) COATS OF BITUMINOUS MASTIC.
 6. ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
 7. PROVIDE IN SLABS ON GRADE (2) BARS 4'-0" LONG AT EACH REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.
 8. REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.
 9. UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:
- | BAR SIZE | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------|----|----|----|----|----|----|----|----|----|
| LAP (in.) | 22 | 29 | 36 | 43 | 63 | 72 | 80 | 89 | 98 |
10. COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
 11. DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:
 - LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.
 - DEPTH IS BASED ON A CLEAN HOLE WITH ROUGH SIDES. ROTARY PERCUSSION EQUIPMENT AND COURSE ROCK CUTTING CHISELS ARE RECOMMENDED. DIAMOND CORE BITS SHOULD BE AVOIDED AS EMBEDMENT LENGTHS MAY NEED TO BE INCREASED. HOLE SIZE TO BE PER MANUFACTURER'S RECOMMENDATIONS.
 - CLEAN HOLES WITH COMPRESSED AIR OR VACUUM. REMOVE ANY FREE-STANDING WATER AND ALLOW HOLE TO DRY.
 - GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-150 ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (HILTI HVA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-150 ADHESIVE.)

D8 FOUNDATION NOTES

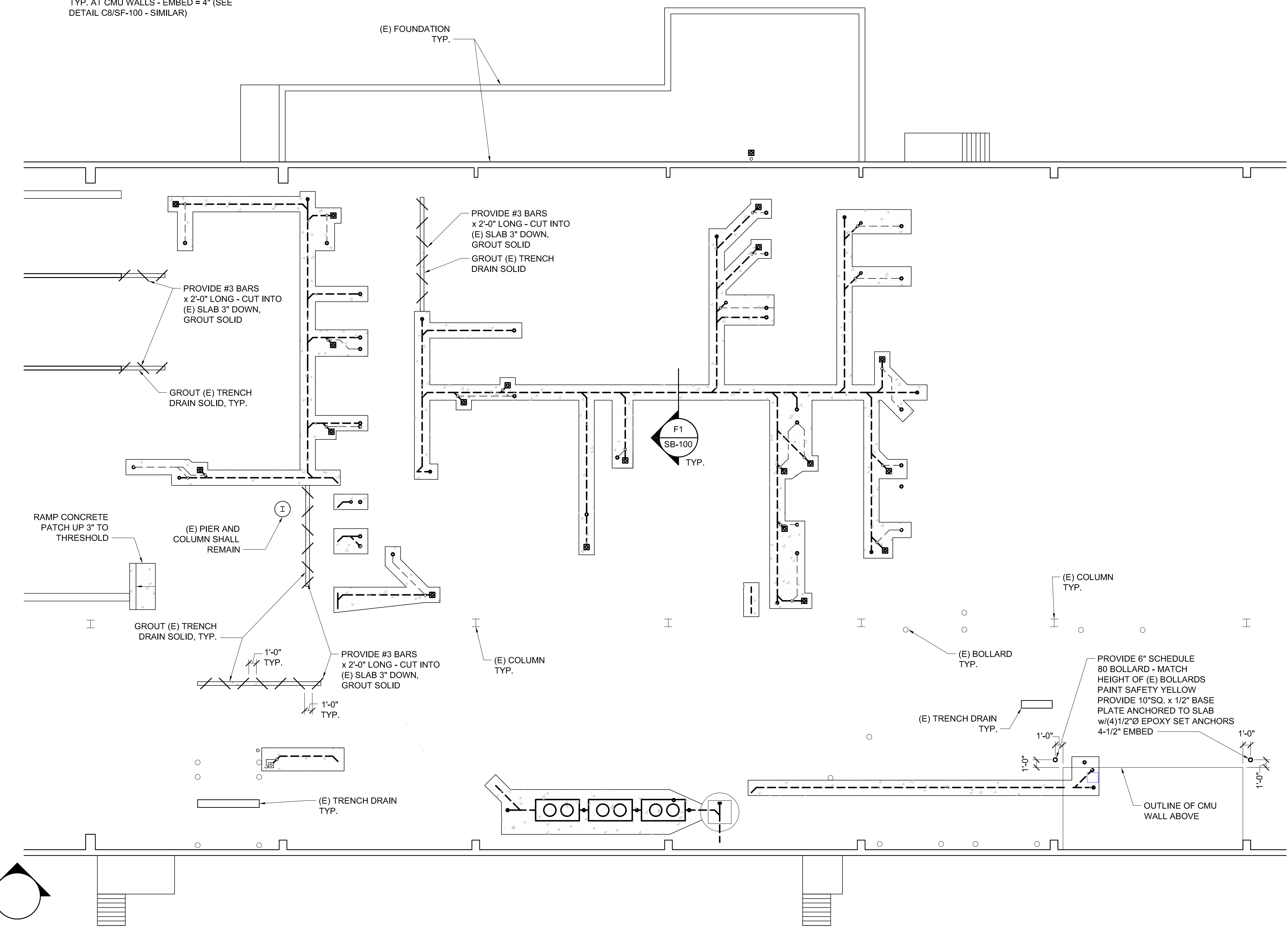
1. PROVIDE AND INSTALL MASONRY LINTELS FOR MASONRY WALL OPENINGS UNLESS INDICATED OTHERWISE ON DRAWINGS. PROVIDE MASONRY LINTELS OF SIZE AND REINFORCEMENT AS FOLLOWS:
 - A - OPENINGS UP TO 3'-11" (UNLESS NOTED OTHERWISE); PROVIDE 8-INCH HIGH C.M.U. LINTEL W/ (2) #4 BARS IN 6-INCH WIDE UNITS (2) #4 BARS IN 8-INCH WIDE UNITS (3) #4 BARS IN 12-INCH WIDE UNITS
 - B - OPENINGS 4'-0" TO 8'-0" (UNLESS OTHERWISE NOTED); PROVIDE 16-INCH HIGH C.M.U. LINTEL W/ (2) #6 BARS IN 6-INCH WIDE UNITS (2) #6 BARS IN 8-INCH WIDE UNITS (3) #6 BARS IN 12-INCH WIDE UNITS
 - B - OPENINGS 8'-1" TO 12'-0" (UNLESS OTHERWISE NOTED); PROVIDE 16-INCH HIGH C.M.U. LINTEL W/ (2) #7 BARS IN 6-INCH WIDE UNITS
2. CONCRETE MASONRY LINTELS 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. CONCRETE MASONRY BLOCK WALLS WITH HORIZONTAL REINFORCEMENT SHALL BE PROVIDED @ 16-INCHES ON-CENTER VERTICALLY. FIRST LAYER SHALL BE INSTALLED ABOVE THE FIRST COURSE ABOVE FINISHED FLOOR. LAST HORIZONTAL REINFORCEMENT LAYER SHALL BE INSTALLED WITHIN 16" OF TOP OF WALL.
4. PROVIDE VERTICAL CONTROL, EXPANSION OR CONTRACTION JOINTS SPACED AT 15'-0" ON-CENTER (MAX) AND LOCATE JOINTS AT EACH SIDE OF DOOR OPENINGS WHERE POSSIBLE FOR INTERIOR MASONRY WALLS. CONTROL JOINTS FOR EXTERIOR MASONRY WALLS SHALL BE AS INDICATED IN THIS NOTE OR AS SHOWN ON EXTERIOR ELEVATIONS.
5. OMIT REBAR/GROUTING IN MASONRY CELLS WHICH SHALL RECEIVE CONDUITS, ETC. REQUIRED REINFORCEMENT SHALL BE INSTALLED IN THE ADJACENT CELL AND SHALL BE GROUTED SOLID.
6. HOLLOW CONCRETE BLOCK UNITS: GRADE N, 1000 PSI, MINIMUM COMPRESSIVE STRENGTH. WALL DESIGN STRENGTH, FM = 1800 psi.
7. LAY UNITS IN RUNNING BOND - CORNERS SHALL HAVE A STANDARD BOND BY OVERLAPPING UNITS.
8. MORTAR: TYPE S.
9. GROUT: (3000) PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH. ROD GROUT IMMEDIATELY AFTER POURING AND AGAIN APPROX. 5 MINUTES LATER.
10. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS SHALL NOT EXCEED 4'-0" IN BLOCK WALLS.
11. TIE VERTICAL REINFORCING AT EACH END AND AT 8'-0" MAXIMUM VERTICAL SPACING USING SINGLE WIRE AND LOOP TYPE TIES AS MANUFACTURED BY A.A. WIRE PRODUCTS COMPANY OR APPROVED EQUAL.
12. IN 8-INCH WALLS, PROVIDE VERTICAL REINFORCING IN CENTER OF GROUT, AT CENTER OF WALL, CONTINUOUS FULL HEIGHT OF WALL AS FOLLOWS:
 - A - (1) #4 VERTICAL AT CORNERS, INTERSECTIONS, WALL ENDS, JAMBS AND EACH SIDE OF EXPANSION OR CONTROL JOINTS.
 - B - (1) #4 VERTICAL IN EACH CORE WITHIN 12-INCHES OF WALL CORNERS.
13. PLACE BOND BEAM REINFORCING CONTINUOUS THROUGH EXPANSION AND CONTROL JOINTS, WRAPPING BARS WITH 1/8-INCH THICK BOND BREAKING TAPE 24-INCHES BOTH SIDES OF JOINT. DO NOT SPLICE BOND BEAM REINFORCING WITHIN 6'-0" OF AN EXPANSION OR CONTROL JOINT.
14. PROVIDE CONTINUOUS WIRE LATHE GROUT BARRIERS AS REQUIRED UNDER FIRST COURSE OF GROUTED (3000 PSI CONC.) CELLS.
15. WET MASONRY WALLS THOROUGHLY FOR (3) CONSECUTIVE DAYS IMMEDIATELY AFTER PLACEMENT IF TEMPERATURES ARE/WILL BE ABOVE 80°F DURING THE DAY.
16. NO EXPANSION BOLTS SHALL BE ALLOWED IN MASONRY WALLS. (CHEMICAL ANCHORS ONLY)
17. MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF THE "MIAMVC RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY".

A8 MASONRY NOTES

F1 TYPICAL SLAB PATCH DETAIL

NOTES AND LEGEND:

1. PROVIDE #4 x 8" LONG DOWEL @ 24" O.C., SET IN EPOXY - GROUT CELL W/300PSI GROUT TYP. AT CMU WALLS - EMBED = 4" (SEE DETAIL C8/SF-100 - SIMILAR)

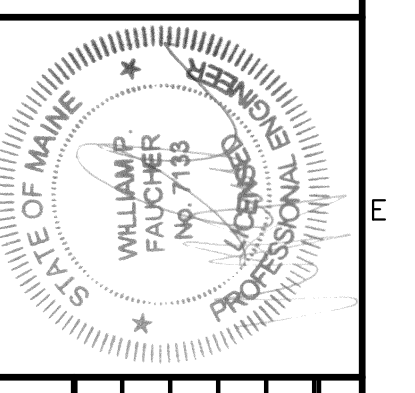


A1 STRUCTURAL ~ SLAB PLAN

1/8" = 1'-0"

160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

Allied Engineering
Structural Mechanical Electrical Commissioning



| REVISIONS | | DESCRIPTION |
|-----------|------|-------------|
| NUMBER | DATE | BY |
| | | |
| | | |
| | | |
| | | |

| | | | | | | |
|------------------|---------------|-----------------|------------------|-------------------|----------------------|------------------|
| Date: 03/20/2013 | Drawn By: PED | Checked By: WPF | Project Mgr: IAM | Project No: 13001 | Cad File: 13001S.dwg | Graphic Scale: 0 |
|------------------|---------------|-----------------|------------------|-------------------|----------------------|------------------|

STRUCTURAL ~
SLAB PLAN AND DETAILS

CITY OF PORTLAND
PORTLAND PUBLIC SCHOOLS - CENTRAL KITCHEN
92 WALDRON WAY, PORTLAND, MAINE

SB-100

N:\Projects\2013\13001 - Portland Public Schools - Central Kitchen\03 Drawing\Plan\13001S.dwg Mar 19, 2013 - 2:28pm