

ARCHITECT
SEMPL & DRANE ARCHITECTS
 486 CONGRESS STREET
 PORTLAND, MAINE 04103
 TEL: (207) 761-4231 FAX: 774-0152
 SDA@sempdrane.com

ENGINEERING
Miles Engineering
 160 Varanda Street
 Portland, Maine 04103
 Tel: 761-2212 286
 www.miles-eng.com

CITY OF PORTLAND
 1600 FOREST AVE. PORTLAND, ME. 04103

PROJECT: REVERTON EXPANSION AND RENOVATION PROJECT
OWNER: CITY OF PORTLAND

DRAWING: STRUCTURAL NOTES
SCHEDULES AND TYPICAL DETAILS
REVISIONS:
 DATE: 06/09/08
 CAD FILE: 0601450.DWG
 SCALE: AS NOTED

SHEET: S-000

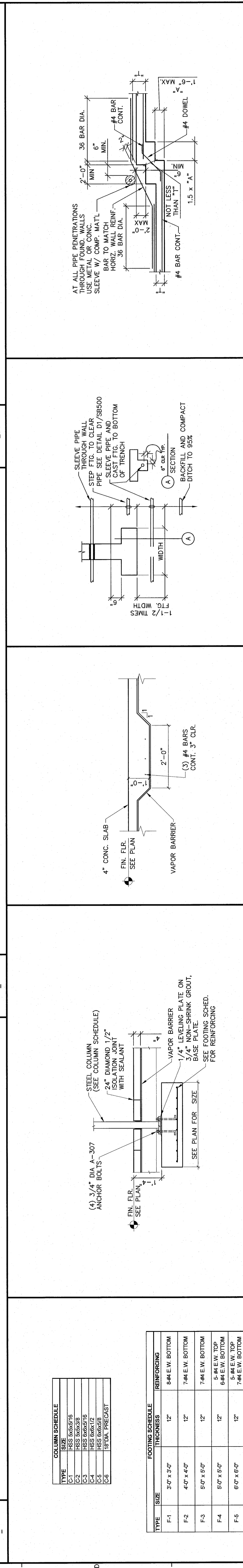
1 2 3 4 5 6 7 8 9 10

- REFERENCE DIVISION 3 FOR CONCRETE STRENGTH REQUIREMENTS AT 28 DAYS PER CAST TYPE
- ALL INTERIOR SLABS ON GRADE SHALL BE REINFORCED WITH #6 BARS AT 18" O.C. ALL 6" SLABS ON GRADE SHALL BE REINFORCED WITH #4 BARS AT 18" O.C. UNLESS OTHERWISE NOTED.
- FOUNDATION WALL CONTROL JOINTS WITH EXTERIOR MASONRY VENEER JOINTS.
- SLAB ON GRADE CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN AND SHALL BE FULLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL CHECK WITH ALL TRACES TO ASSURE CORRECT LOCATION, SIZE, LINE AND ELEVATION OF ALL BELIEVED BOND-OUTS, ETC. REQUIRED IN CONCRETE FLOORS AND WALLS.
- ALL INTERSECTING CONCRETE WALLS SHALL BE TIED WITH #4 L BARS 3'-0" LONG (BENT 18" - 18"), SPACED AT 12" O.C. OUTSIDE FACE ONLY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING FOR ELEVATION AND PLUMBNESS TO ASSURE COMPLETE AREA DRAINAGE.
- ALL FOOTINGS SHALL BEAR ON VIRGIN SOIL OR STRUCTURAL BACKFILL COMPACTED TO A UNIFORM 85% STANDARD DENSITY.
- ALL MECHANICAL EQUIPMENT RESTING ON THE CONCRETE FLOOR SLAB WILL HAVE A 4" HIGH CONCRETE PAD UNDERNEATH, REINFORCED WITH #3 BARS AT 18" O.C. EACH WAY.
- ALL STRUCTURAL STEEL BELOW FINISH FLOOR SHALL RECEIVE (2) COATS OF BITUMINOUS MASTIC.
- ADMITTANCES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. CONCRETE SHALL NOT BE IN DIRECT CONTACT WITH ALUMINUM.
- PROVIDE IN ALL SLABS ON GRADE (2) BARS 4'-0" LONG AT EACH REINFORCED CORNER AND BOTH SIDES OF DOOR OPENINGS.
- FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE ANCHOR BOLTS.
- REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.
- UNLESS OTHERWISE NOTED, REINFORCING LAP SPLICES SHALL BE ACI CLASS B SPLICES USING THE FOLLOWING LAP LENGTHS:

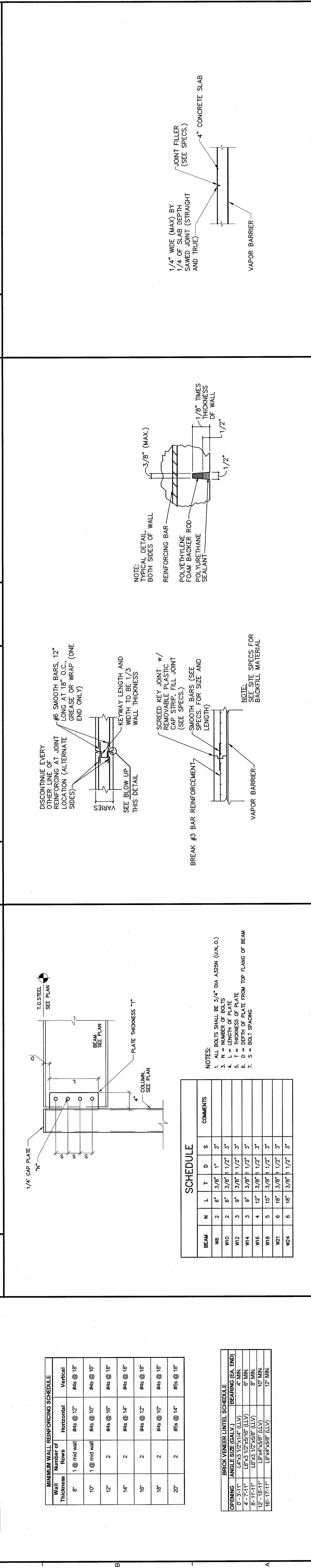
BAR SIZE	3	4	5	6	7	8	9	10	11
LAP (IN)	14	19	23	28	36	43	49	62	74

- COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL DRAWINGS
- DRILLED-ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:
 - LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.
 - REFILL AS BARE AS CLEANABLE WITH POLYURETHANE FOAM FOR PENETRATION 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.

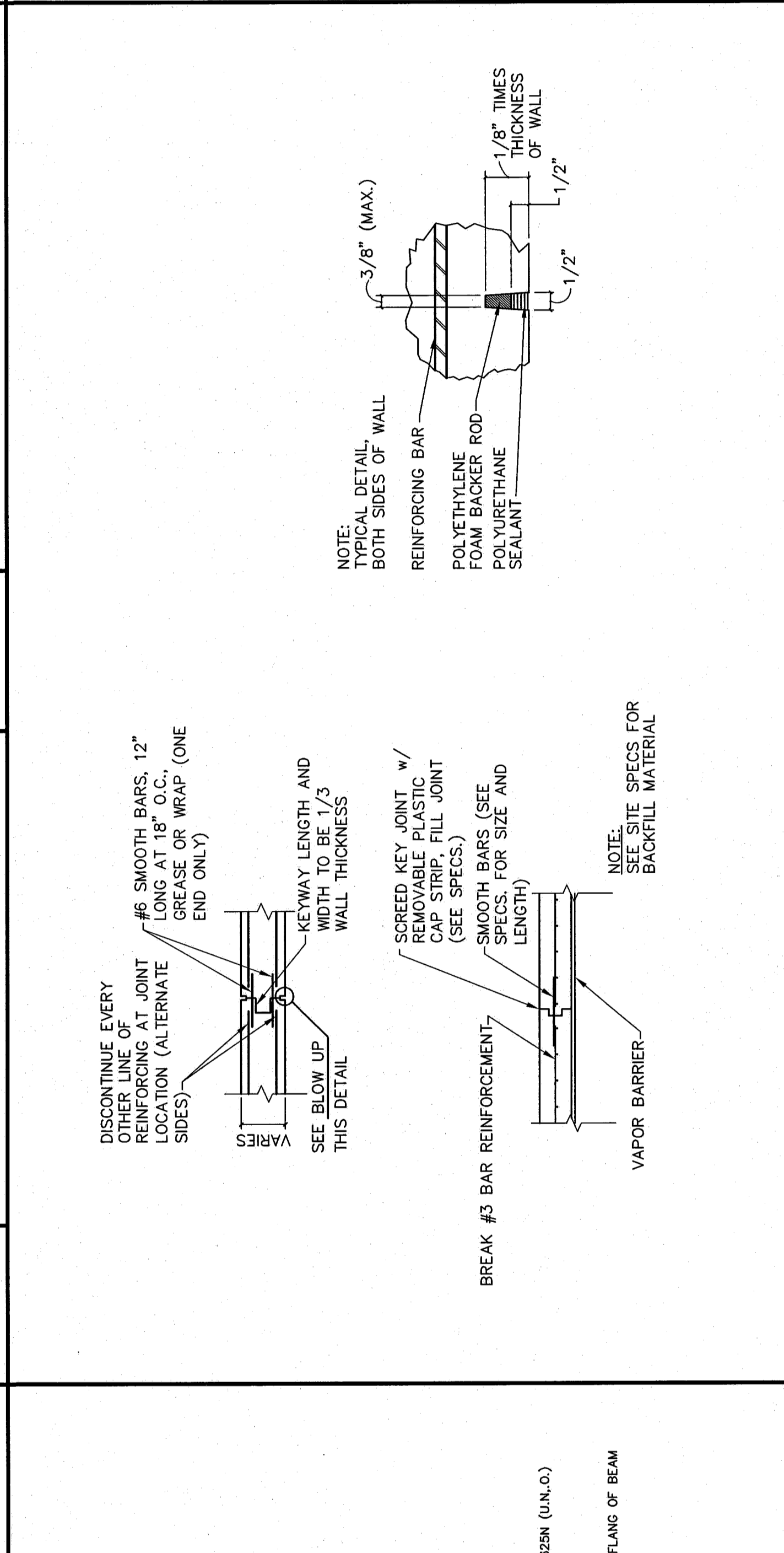
E1 FOUNDATION NOTES E2 E3 E4 E5 E6 E7 E8 E9 E10



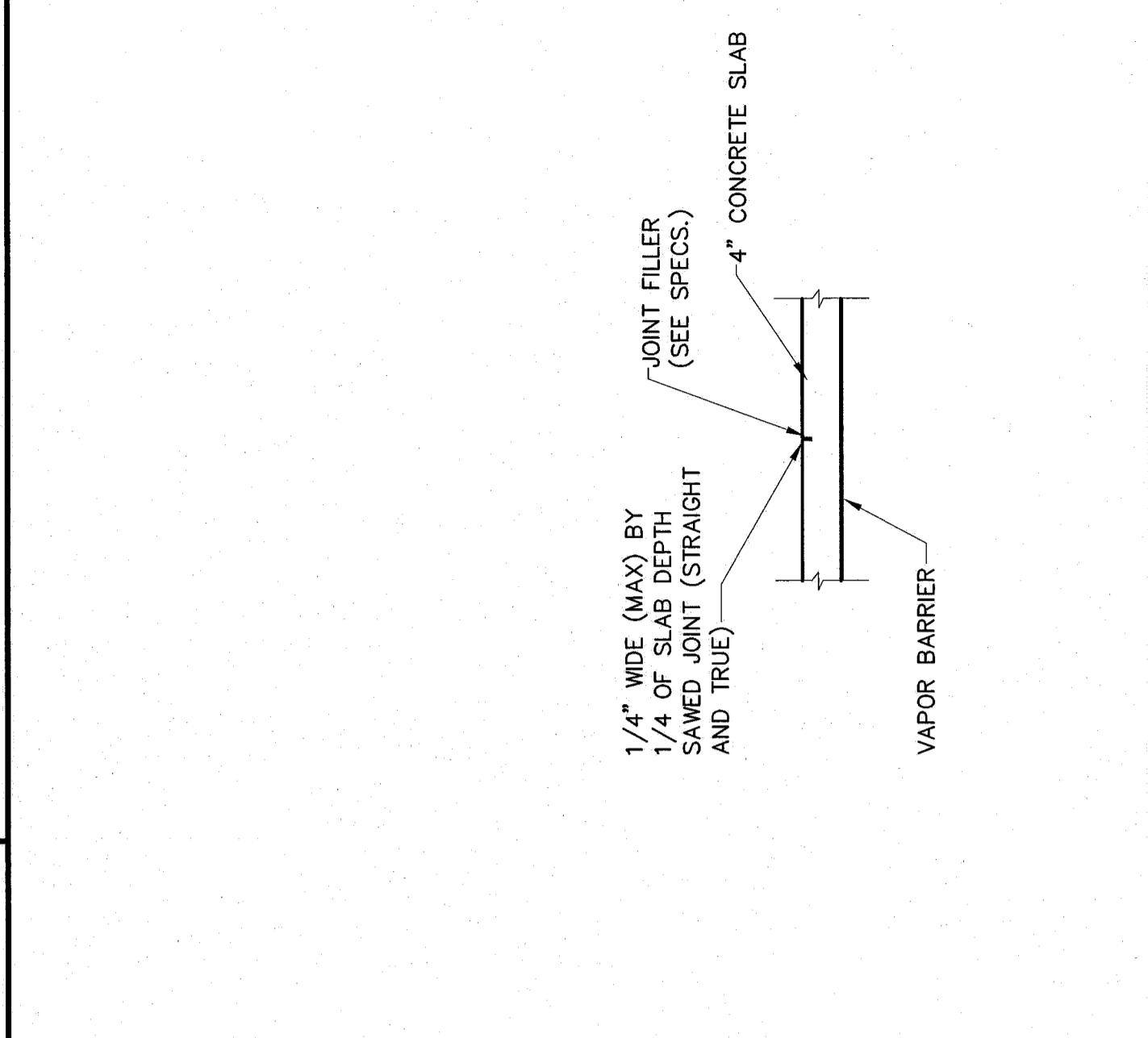
C2 TYPICAL COLUMN FOOTING DETAIL



A5 TYPICAL WALL AND SLAB CONSTRUCTION JOINT DETAIL



C6 TYPICAL THICKENED SLAB DETAIL



C8 TYPICAL STEP FOOTING DETAIL

A8 TYPICAL SLAB CONTROL JOINT DETAIL

G8 MASONRY NOTES

- ALL WORK SHALL BE DONE IN COMPLIANCE IBC-2003 WITH PORTLAND SUPPLEMENTAL
- ALL 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 AGENCIES, STATE AGENCIES AND/OR UTILITY COMPANIES WHICH MAY HAVE JURISDICTION OVER THIS PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING, HANDLING, AND STORAGE OF ALL MATERIALS TO REMAIN THE PROPERTY OF THE OWNER WITH THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEANS AND METHODS AND ALL TEMPORARY SHORING, PRECAUTIONS DURING BUILDING OPERATIONS, PROTECTION OF EXISTING UTILITIES, OPENINGS, SAFETY PRECAUTIONS, AND SANITARY PROVISIONS FOR EMPLOYEES AND SUBCONTRACTORS AS REQUIRED FOR THE DURATION OF THE CONTRACT.
- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, HVAC, PLUMBING, ELECTRICAL, CIVIL SITE DRAWINGS AND MATERIAL SPECIFICATIONS. THESE DRAWINGS SHALL BE REFERRED TO FOR SIZE AND LOCATIONS OF OPENINGS, VENTS, PIPES, INSERTS, DRAWINGS, ETC.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE S.E.R. AND RECEIVE APPROVAL PRIOR TO CONSTRUCTION. ALL MATERIALS SHALL BE APPROVED BY THE S.E.R. PRIOR TO CONSTRUCTION. CONTRACT AND SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CODES SPECIFIED IN THE FILES.
- ALL WORK SHALL REQUIRE ADHERENCE TO THE REQUIREMENTS OF ASTM DESIGNATION E-589 FOR CONCRETE TESTING. NOTICE FOR INSPECTION AND TESTING AGENCIES FOR CONCRETE AND STEEL USED IN CONSTRUCTION.

E8 GENERAL NOTES

- MASONRY AND INSTALLATION SHALL CONFORM TO IBC2003 REQUIREMENTS AND SPECIFICATIONS FOR MASONRY CONSTRUCTION, INCLUDING ACI 530, ACI 531, ACSE 9 AND 6, AND NICMA.
- PROVIDE FOR ALL OPENINGS AND PENETRATIONS IN BRICK WALLS UP TO 3'-11" WIDE (UNLESS OTHERWISE NOTED) (1) 4" x 3" STEEL ANGLE LINE FOR ALL OPENINGS AND PENETRATIONS LESS THAN 4'-0" AND 6" x 6" WIDE (UNLESS OTHERWISE NOTED) PROVIDE (1) 6" x 3" x 1/4" STEEL ANGLE LINE.
- ALL CONCRETE MASONRY AND BRICK UNITS SHALL HAVE 8" (MIN) END BEARING UNLESS OTHERWISE NOTED.
- CONTROL JOINTS FOR ALL EXTERIOR MASONRY WALLS WILL BE AS INDICATED ON EXTERIOR ELEVATIONS.
- MASONRY LAID IN OUTSIDE AIR TEMPERATURES BELOW 40°F SHALL BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE IMMAC RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY.

- PORTIONS OF STEEL FRAMING TO RECEIVE FIREPROOFING SHALL BE SHIPPED UNPRIMED & UNPAINTED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS.
- MINIMUM LOADING REQUIREMENTS:
 - ROOF LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW). LIVE (SNOW) LOAD: 30.0 P.S.F. (IMPORTANCE FACTOR = 1.0; EXPOSURE FACTOR = 0.7) DEAD LOAD: 25.0 P.S.F. 6" MAX. PONDING DESIGN DEPTH: 6" MAX.
 - MISCELLANEOUS CONDITIONS: DIVIDER CURTAINS, ETC. SPRINKLER SYSTEM, ROOF-TOP MECHANICAL UNITS. SEE PLAN FOR SPECIFIC LOADING CONDITIONS.
 - FLOOR LOADS: Lobbies and 1st Floor Corridors: LIVE 100 P.S.F.

- FACTORS: SPEED: 65 MPH AVERAGE BUILDING HEIGHT: 16' IMPORTANCE FACTOR: 1.0
- MINIMUM ROOF LIFT DESIGN LOADS:
 - PERMETER (12" x 12"): 28 PSF
 - CORNERS (12" x 12"): 32 PSF
- SEISMIC COEFFICIENTS:
 - RESPONSE SPECTRAL ACC (0.2 sec): $S_s = 0.3709$
 - RESPONSE SPECTRAL ACC (1.0 sec): $S_1 = 0.0996$
 - MAX. CONSIDERED EARTHQUAKE ACC @ 5% DAMPED DESIGN: $S_{0.5} = 0.373$; $S_{0.1} = 0.158$
 - BUILDING CATEGORY: II
 - SEISMIC DESIGN CATEGORY FOR 0.1 AND 1.0 SECONDS: C

G8 MASONRY NOTES

TYPE	SIZE	THICKNESS	REINFORCING
F-1	3'-0" x 3'-0"	12"	8-#4 E.W. BOTTOM
F-2	4'-0" x 4'-0"	12"	7-#4 E.W. BOTTOM
F-3	5'-0" x 5'-0"	12"	7-#4 E.W. BOTTOM
F-4	5'-0" x 5'-0"	12"	8-#4 E.W. TOP
F-5	6'-0" x 6'-0"	12"	8-#4 E.W. TOP
F-6	7'-0" x 7'-0"	12"	8-#4 E.W. TOP
F-7	8'-0" x 8'-0"	12"	8-#4 E.W. BOTTOM

MINIMUM WALL REINFORCING SCHEDULE	Vertical
Wall Thickness	Revs
8"	1 @ mid wall #4 @ 12"
10"	1 @ mid wall #4 @ 12"
12"	2 #4 @ 12"
14"	2 #4 @ 14"
16"	2 #4 @ 12"
18"	2 #4 @ 10"
20"	2 #4 @ 14"

MINIMUM WALL REINFORCING SCHEDULE	Vertical
Wall Thickness	Revs
8"	1 @ mid wall #4 @ 12"
10"	1 @ mid wall #4 @ 12"
12"	2 #4 @ 12"
14"	2 #4 @ 14"
16"	2 #4 @ 12"
18"	2 #4 @ 10"
20"	2 #4 @ 14"

BEAM	N	L	T	D	S	COMMENTS
WB	2	6"	3/8"	1"	3"	
WT	2	6"	3/8"	1 1/2"	3"	
WT2	3	9"	3/8"	1 1/2"	3"	
WB	4	12"	3/8"	1 1/2"	3"	
WB	5	15"	3/8"	1 1/2"	3"	
WB	6	18"	3/8"	1 1/2"	3"	
WB2	6	18"	3/8"	1 1/2"	3"	

NOTES:
 1. ALL BEAMS SHALL BE 3/4" DIA. A509 (UNCLD.)
 2. N = NUMBER OF BEAMS
 3. L = LENGTH OF BEAM
 4. T = THICKNESS OF PLATE
 5. D = DEPTH OF PLATE FROM TOP FLANGE OF BEAM
 6. S = BOLT SPACING

A1 SCHEDULES A2 TYPICAL BEAM TO COLUMN CONNECTION DETAIL A3 A4 A5 TYPICAL WALL AND SLAB CONSTRUCTION JOINT DETAIL A6 A7 A8 TYPICAL SLAB CONTROL JOINT DETAIL