±	PLUS OR MINUS	EW	EACH WAY	NTS	NOT TO SCALE
AFF	ABOVE FINISH FLOOR	Vu	FACTORED SHEAR	#, No.	NUMBER
ALT	ALTERNATE	FFE	FINISH FLOOR ELEVATION	O.C.	ON CENTER
ACI	AMERICAN CONCRETE INSTITUTE	FLR	FLOOR (ing)	OPNG	OPENING
APA	AMERICAN PLYWOOD ASSOC.	FD	FLOOR DRAIN	PSF	POUNDS PER SQUARE FOOT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	FDN	FOUNDATION	PSI	POUNDS PER SQUARE INCH
		FOB	FACE OF BRICK	PL	PLATE
AWS	AMERICAN WELDING SOCIETY	FOC	FACE OF CONCRETE	PWD	PLYWOOD
AB	ANCHOR BOLT	FOM	FACE OF MASONRY	PLF	POUNDS PER LINEAL FOOT
ARCH	ARCHITECTURAL	FOS	FACE OF STUDS	P.T.	PRESSURE-TREATED
@	AT	Ft	FOOT	REINF	REINFORCING
BPL	BEARING PLATE	FTG	FOOTING	REV	REVISION (s) (ed)
Fb	BENDING STRESS	FV	FIELD VERIFY	RD	ROOF DRAIN
BOT	BOTTOM	GALV	GALVANIZED	Fv	SHEAR STRESS
BOF	BOTTOM OF FOOTING	GA	GAUGE	S.B.	SHORT BAR
BOW	BOTTOM OF WALL	GC	GENERAL CONTRACTOR	SIM	SIMILAR
BLDG	BUILDING	HVAC	HEATING-VENTILATING-AIR-CONDITIONING	SP	SPACER (es)
CLR	CLEAR (ance)			SPEC	SPECIFICATION (s)
CO	CLEAN OUT	HGT	HEIGHT	SQ	SQUARE
COL	COLUMN	HORIZ	HORIZONTAL	STD	STANDARD
CONC	CONCRETE	IN	INCH (es)	STL	STEEL
F'c	CONCRETE COMPRESSIVE STRENGTH	INSUL	INSULATION	SJI	STEEL JOIST INSTITUTE
		INT	INTERIOR	THRU	THROUGH
CMU	CONCRETE MASONRY UNIT	L.B.	LONG BAR	T&G	TONGUE AND GROOVE
CONN	CONNECTION	LLH	LONG LEG HORIZONTAL	TOM	TOP OF MASONRY
CONST	CONSTRUCTION	LLV	LONG LEG VERTICAL	TOP	TOP OF PLATE
CONT	CONTINUOUS	MAS	MASONRY	TOSL	TOP OF SLAB
CJ	CONTROL JOINT	F'm	MASONRY COMPRESSIVE STRENGTH	TOS	TOP OF STEEL
CFT	CUBIC FOOT			TOW	TOP OF WALL
CYD	CUBIC YARD	MO	MASONRY OPENING	TYP	TYPICAL
⌀ DIA	DIAMETER	MAX	MAXIMUM	VIF	VERIFY IN FIELD
DIAG	DIAGONAL	MDO	MEDIUM DENSITY OVERLAY	VERT	VERTICAL
DIM	DIMENSION	MTL	METAL	WWM	WELDED WIRE MESH
DWG	DRAWING	MIN	MINIMUM	WO	WITHOUT
EA	EACH	MPH	MILES PER HOUR	w/	WITH
ELEV	ELEVATION	MISC	MISCELLANEOUS	WD	WOOD
EQ	EQUAL	E	MODULUS OF ELASTICITY	Fy	YIELD STRESS
(E)	EXISTING	NOM	NOMINAL		
EXT	EXT	NIC	NOT IN CONTRACT		

M1 | ABBREVIATIONS

COLUMN SCHEDULE

MARK	SIZE
C-1	HSS5X5X5/16
C-2	HSS5X5X3/8
C-3	HSS5X5X1/2
C-4	HSS6X6X3/8
C-5	HSS6X6X1/2
C-6	HSS4X4X5/16

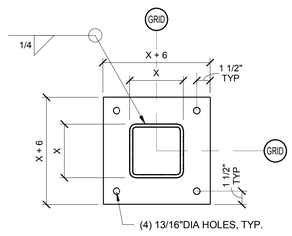
PIER SCHEDULE

MARK	SIZE	REINFORCING
P-1	14 x14	
P-2	14 x 18	
P-3	14 x 26	
P-4	16 x 16	
P-5	18 x 18	

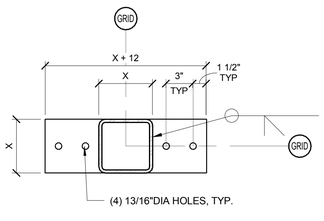
FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F-1	3'-0" x 3'-0" x 1'-0"	(4)#4 BARS, EW - BOTTOM
F-2	3'-6" x 3'-6" x 1'-8"	(6)#4 BARS, EW - TOP AND BOTTOM
F-3	4'-0" x 4'-0" x 1'-8"	(7)#4 BARS, EW - TOP AND BOTTOM
F-4	4'-6" x 4'-6" x 1'-8"	(9)#4 BARS, EW - TOP AND BOTTOM

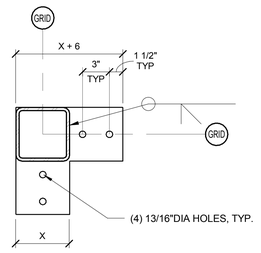
M6 | SCHEDULES



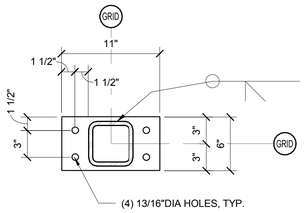
BASE PLATE TYPE "B-1"



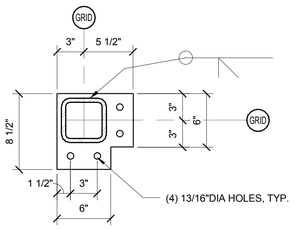
BASE PLATE TYPE "B-2"



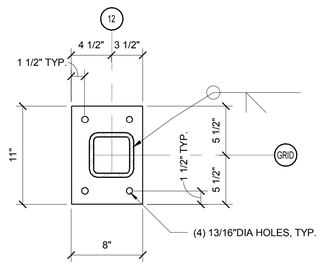
BASE PLATE TYPE "B-3"



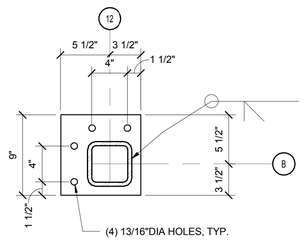
BASE PLATE TYPE "B-4"



BASE PLATE TYPE "B-5"



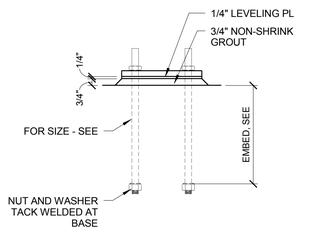
BASE PLATE TYPE "B-6"



BASE PLATE TYPE "B-7"

BASE PLATE THICKNESS:

A = 1/2"
B = 3/4"
C = 1 1/4"
D = 1 3/8"



A1 | BASE PLATE TYPES

1. THE STRUCTURAL STEEL SUPPLIER SHALL COORDINATE WITH THE BAR JOIST SUPPLIER, LOCATION, PLATE SIZES, AND SLOTS REQUIRED FOR MOMENT CONNECTED JOISTS AND TIE JOISTS. ALSO FOR THE LOCATION AND SIZES OF MISCELLANEOUS BRIDGING CLIP ANGLES REQUIRED FOR PROPER JOIST INSTALLATION. **(CONTRACTOR SHALL COORDINATE EFFORT BETWEEN SUPPLIERS)**.

2. **MINIMUM LOADING REQUIREMENTS:**
A - ROOF LOADS: (EXCEPT AT DRIFTING SNOW LOCATIONS AND THOSE LISTED BELOW)

3. a) GROUND SNOW LOAD: Pg = 60.0 PSF
1) IMPORTANCE FACTOR: I=1.0
2) COLD ROOF SLOPE FACTOR: Cs=1.0

4. 3) THERMAL FACTOR: Ct=1.1
4) EXPOSURE FACTOR: Ce=1.0
5) TERRAIN CATEGORY: C
b) FLAT ROOF SNOW LOAD: Pf = 46.2 PSF
c) DRIFT - AS INDICATED ON DRAWINGS
d) ROOF DEAD LOAD: 25.0 PSF
e) ROOF LIVE LOAD:
1) STANDARD ROOF LIVE LOAD: 20.0 PSF

B - FLOOR LOADS:

	UNIFORM	CONCENTRATED	PARTITION
5. a) OFFICE BUILDINGS:			
1) LOBBIES AND 1ST FLR CORRIDORS:	100 PSF	2000#	
2) OFFICES:	50 PSF	2000#	15 PSF
3) CORRIDORS ABOVE 1ST FLR:	80 PSF	2000#	
b) STORAGE			
1) LIGHT:	125 PSF		

WIND LOADS:
A - FACTORS:
a) BASIC WIND SPEED: 100 MPH
b) EXPOSURE CATEGORY: "C"
c) IMPORTANCE FACTOR: 1.0
d) BUILDING HEIGHT: <30'

6. **B - WIND DESIGN PRESSURE:**
a) MWFRS
1) END ZONE WIDTH: 5 FEET
2) TRANSVERSE:
2a) INTERIOR ZONE: 15 PSF
2b) END ZONE: 22 PSF
3) LONGITUDINAL:
2a) INTERIOR ZONE: 15 PSF
2b) END ZONE: 22 PSF
b) COMPONENTS AND CLADDING
1) END ZONE WIDTH: 5 FEET
2) WALLS:
2a) FIELD: 21 PSF
2b) END ZONE: 21 PSF
c) ROOF UPLIFT (IBC-2009)
1) FIELD: 23 PSF
2) PERIMETER: 29 PSF
3) CORNERS: 13 PSF
4) STRIP WIDTH: 5 FEET

STRUCTURAL/SEISMIC RESISTING SYSTEM:

A - SEISMIC COEFFICIENTS:
7. a) RESPONSE SPECTRAL ACC. (1.0 sec) S1 = 0.106g
b) RESPONSE SPECTRAL ACC. (0.2 sec) Ss = 0.352g
c) SITE COEFFICIENTS: Fa = 1.52; Fv = 2.40
d) MAX. CONSIDERED EARTHQUAKE ACC @ 5% DAMPED DESIGN: Sds = 0.357; Sd1 = 0.168
8. e) OCCUPANCY CATEGORY: III
f) SEISMIC DESIGN CATEGORY FOR 0.1 AND 1.0 SECONDS: C
9. g) SOIL CLASSIFICATION: D
h) SEISMIC RESPONSE COEFFICIENT: Cs = 0.102
10. i) FUNDAMENTAL PERIOD: Ta = 0.403 SEC

11. **B - DESIGN COEFFICIENTS AND FACTORS FOR SEISMIC FORCE RESISTING SYSTEMS:**
a) MOMENT RESISTING FRAME SYSTEMS
12. 1) ORDINARY STEEL MOMENT FRAMES
i) RESPONSE MODIFICATION FACTOR (R) = 3 1/2
ii) DEFLECTION AMPLIFICATION FACTOR (Cd) = 3
13. iii) SYSTEM OVERSTRENGTH FACTOR (Ω_0) = 3

14. STRUCTURAL STEEL BEAMS, COLUMNS SHALL CONFORM TO ASTM A992, Fy=50ksi; STEEL TUBE COLUMNS SHALL CONFORM TO ASTM A500 GRADE "B", Fy=46ksi; MISCELLANEOUS PLATES, SHAPES ANGLES ETC. SHALL CONFORM TO ASTM A36 Fy36ksi.

STEEL JOIST SHALL CONFORM TO THE LATEST S.J.I. STANDARDS.

15. STRUCTURAL WOOD TO CONFORM TO THE LATEST NDS STANDARDS.

16. SEE ARCHITECTURAL WALL SECTIONS AND DETAILS FOR MISCELLANEOUS STEEL.

17. REFERENCE ROOF OPENING STANDARD DETAILS SHEET S-0.1 FOR ROOF PENETRATION SUPPORT CONDITIONS.

18. BASE PLATE ANCHOR BOLTS IN PROPOSED CONSTRUCTION SHALL BE:
A - ANCHOR RODS: 3/4" Ø ASTM F1554, UNO
B - NUTS: ASTM A563, GRADE A
C - WASHERS: ASTM F844

AT LOCATIONS BETWEEN SUPPORTS, PROVIDE 3/8-INCH WEB STIFFENERS (UNLESS OTHERWISE NOTED) ON BOTH SIDES OF STEEL BEAMS AT LOCATIONS WHERE STEEL BEAMS SUPPORT COLUMNS ABOVE.

19. STEEL TUBE, PIPE, OR STRUCTURAL STEEL COLUMNS SUPPORTED BY A STEEL BEAM SHALL HAVE BASE PLATES WELDED TO THE BEAM ON ALL SIDES.

20. STEEL ROOF DECK AND FLOOR DECK REQUIREMENTS - SEE SPECIFICATIONS

21. SPECIAL INSPECTIONS: AN INDEPENDENT INSPECTIONS PROGRAM AND SCHEDULE SHALL BE ARRANGED BY THE BUILDING OWNER AND THE STRUCTURAL ENGINEER OF RECORD.

A QUALIFIED PERSON APPROVED BY THE BUILDING OFFICIALS SHALL MAKE SPECIAL INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF THE IBC2009 AND AS DEFINED. SPECIAL INSPECTOR SHALL OBSERVE WORK FOR CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS.

22. INSPECTION REPORTS SHALL BE FURNISHED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND SER. DISCREPENCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR AND IF NOT CORRECTED, SHALL BE REPORTED TO THE OWNER, BUILDNG OFFICIAL, ARCHITECT AND SER.

23. THE FOLLOWING TYPES OF WORK SHALL RECEIVE SPECIAL INSPECTION OVERSITE: INSTALLATION OF HIGH STRENGTH BOLTS, WELDING, STRUCTURAL FRAME AND DETAILS, INSTALLATION OF REINFORCING STEEL, CONCRETE PLACEMENT, STRUCTURAL FILL PLACEMENT, AND FABRICATION PROCESSES OF WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES.

24. SITE PREPARATION FOR THE FOUNDATION SHALL BE IN ACCORDANCE WITH THE "(REPORT NAME GOES HERE)"; PREPARED FOR THIS PROJECT BY (NAME OF FIRM GOES HERE), DATED (DATE GOES HERE). REFER TO REPORT FOR FOUNDATION BACKFIL, SLAB-ON-GRADE SOILD AND UNDERSLAB AND PERIMETER DRAINAGE PIPING REQUIREMENTS.

STRUCTURAL STEEL JOISTS
A - JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL JOIST INSTITUTE (SJI) STANDARD SPECIFICATIONS AND INSTALLATION REQUIREMENTS.
B - PROVIDE CONTINUOUS BAR JOIST BOTTOM CHORD "UPLIFT BRIDGING" AT THE FIRST PANEL POINT FROM EACH END OF ROOF JOIST AND SIZED AS REQUIRED TO SATISFY THE NET WIND UPLIFT REQUIREMENTS LISTED IN THE MINIMUM LOAD REQUIREMENTS.
C - JOIST MANUFACTURER SHALL DESIGN ROOF JOISTS FOR A NET WIND UPLIFT (SEE WIND LOADS ABOVE). STRESSES SHALL NOT BE INCREASED BY 1/3 ALLOWABLE STRESS FACTOR FOR WIND LOADING.
D - ROOF AND FLOOR JOISTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MAINE AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND SHALL BE CONSIDERED AN INTEGRAL PART OF THE BAR JOIST SHOP SUBMITTAL. FINAL APPROVAL OF JOIST SHOPS ARE CONTINGENT UPON REVIEW AND ACCEPTANCE OF THE JOIST CALCULATIONS.
E - WELD BAR JOIST TO BEAMS OR BEARING PLATES WITH (2) FILLET WELDS AT EACH END. SIZE AND LENGTH
25. AS INDICATED ON THE STRUCTURAL DRAWINGS OR AS REQUIRED BY THE STEEL JOIST INSTITUTE.

ELEVATED SLABS SHALL RECEIVE 6x6xW1.4xW1.4 WELDED WIRE FABRIC POSITIONED AT MIDPOINT ELEVATION OF SLAB.

CONTRACTOR SHALL COORDINATE OPENINGS AT EACH FLOOR LEVEL INCLUDING SHAFT OPENING AND MECHANICAL CHASES. REFER TO APPLICABLE DRAWINGS FOR COORDINATING LOCATIONS, DIMENSIONS, SIZES ETC. OPENINGS 12-INCHES IN DIAMETER AND SMALLER DO NOT REQUIRE ADDITIONAL FRAMING.

NET ALLOWABLE BEARING PRESSURE =(AMOUNT GOES HERE) PSF FOR INTERIOR AND PERIMETER FOOTINGS.

A10 | STRUCTURAL NOTES

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 PROPOSED CONSTRUCTION, AND FOR ANY INCIDENTAL REPAIRS OF EXISTING FINISHED SURFACES DISTURBED BY PROPOSED 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.

N16 | GENERAL NOTES

1. CONCRETE (EXCEPT EXTERIOR SLABS ON GRADE, SIDEWALKS, RETAINING WALLS, STAIRS AND INTERIOR SLABS ON GRADE WITH EXPANSIVE CEMENT) SHALL BE 3500 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 4-INCHES. CONCRETE EXTERIOR SLABS ON GRADE SIDEWALKS, RETAINING WALLS, STAIRS AND INTERIOR SLABS ON GRADE WITH EXPANSIVE CEMENT SHALL BE 4000 PSI AT (28) DAYS. SLUMP SHALL NOT EXCEED 4-INCHES (6-INCHES WITH EXPANSIVE CEMENT).

2. SLABS ON GRADE SHALL BE REINFORCED AS NOTED ON FOUNDATION PLAN.

3. FOUNDATION WALL CONTROL JOINTS SHALL BE PLACED AS SHOWN ON THE BUILDING ELEVATIONS (EXTERIOR) AND AT A MAXIMUM SPACING OF 15'-0" (INTERIOR).

4. FLOOR SLAB CONTROL JOINTS (INCLUDING ELEVATED SLAB) SHALL BE PLACED AS SHOWN ON THE FOUNDATION PLAN (SLAB ON GRADE) OR AS DIRECTED BY THE ENGINEER (ELEVATED SLABS). UNLESS OTHERWISE NOTED, CONTROL JOINTS AT ELEVATED SLABS AND SLABS ON GRADE SHALL BE SPACED NOT TO EXCEED 12'-0" ON-CENTER IN BOTH DIRECTIONS AND SHALL BE FILLED WITH SEALANT AT THE COMPLETION OF THE PROJECT.

5. 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.

6. INTERSECTING CONCRETE WALLS SHALL BE TIED WITH #4 L-BARS 3'-0" LONG (BENT 18-INCHES - 18-INCHES), SPACED AT 12-INCHES ON-CENTER, OUTSIDE FACE ONLY.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOOR DRAIN SETTING FOR ELEVATION AND PLUMBNESS TO ASSURE COMPLETE AREA DRAINAGE.

8. EXPOSED CONCRETE SHALL BE NEATLY FINISH-RUBBED.

9. FOOTINGS SHALL BEAR 5'-6" MIN. BELOW FINISH GRADE ON VIRGIN SOIL OR STRUCTURAL BACKFILL COMPACTED TO A UNIFORM 95-PERCENT STANDARD DENSITY AS INDICATED IN GEOTECHNICAL REPORT BY S.W. COLE ENGINEERING INC.

10. 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.

11. STRUCTURAL STEEL BELOW FINISH FLOOR SHALL RECEIVE (2) COATS OF BITUMINOUS MASTIC.

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 REENTRANT CORNER AND BOTH SIDES OF DOOR OPENING.

14. FOUNDATION WALL REINFORCING WILL BE ADJUSTED AS REQUIRED NOT TO INTERFERE WITH BASE PLATE ANCHOR BOLTS.

15. REFER TO ACI 318 (LATEST EDITION) FOR MINIMUM CONCRETE COVER FOR REINFORCING STEEL.

16. 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

17. COORDINATE SLAB DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.

18. DRILLED-IN ANCHOR BOLTS OR REBAR DOWELS SHALL BE INSTALLED AS FOLLOWS:

A - LOCATE ANCHOR BOLTS OR DOWELS TO AVOID CUTTING EXISTING REBAR.
B - 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.
C - CLEAN HOLES WITH COMPRESSED AIR OR VACUUM, REMOVE ANY FREE-STANDING WATER AND ALLOW HOLE TO DRY.
D - GROUT ANCHOR BOLTS OR DOWELS WITH HILTI HIT HY-150 ADHESIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. (HILTI HEA ADHESIVE CAPSULE MAY BE SUBSTITUTED FOR THE HILTI HIT HY-150 ADHESIVE.)

B16 | FOUNDATION NOTES

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AEI PROJECT NO.: 11086 | CAD FILE: 11086S.rvt

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cPort CREDIT UNION

REVISIONS

#	DATE	DESCRIPTION
-	-	-

DATE:	08.02.2011
PROJECT #	030311
DRAWN BY:	PED
CHECKED BY:	VWF
DRAWING SCALE	As indicated

SHEET TITLE
AUDITORIUM STRUCTURAL - GENERAL INFORMATION

S-000

90% REVIEW SET ~ 23 SEPTEMBER 2011 ~ NOT FOR CONSTRUCTION