

BUILDING CODE(S): 2018 INTERNATIONAL BUILDING CODE WITH LOCAL AMENDMENTS

10. CONCRETE:

2. DESIGN LOADS:
- A. FLOOR LIVE LOADS
 - a. FLOORS 100 PSF
 - B. ROOF LIVE LOAD PER PEMB SUPPLIER
 - C. ROOF SNOW LOAD PER PEMB SUPPLIER
 - D. RAIN LOADS PER PEMB SUPPLIER
 - E. WIND LOADS PER PEMB SUPPLIER
 - F. SEISMIC LOADS PER PEMB SUPPLIER
 - G. DEAD LOADS PER PEMB SUPPLIER

- A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL COMPLY WITH THE APPLICABLE BUILDING CODE REQUIREMENTS, INDUSTRY GUIDES, AND REFERENCE STANDARDS INCLUDING, BUT NOT LIMITED TO:
 - a. ACI 301 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
 - b. ACI 305R - GUIDE TO HOT WEATHER CONCRETING
 - c. ACI 306R - GUIDE TO COLD WEATHER CONCRETING
 - d. ACI 318 - STRUCTURAL CONCRETE BUILDING CODE
 - e. ACI 347 - GUIDE TO FORMWORK FOR CONCRETE
 - f. ACI SP-66 - ACI DETAILING MANUAL
 - g. AWS D1.4 - STRUCTURAL WELDING CODE - REINFORCING STEEL
 - h. CRSI - MANUAL OF STANDARD PRACTICE

3. ALL FOUNDATION LOADS AND REACTIONS WERE SUPPLIED TO PMA ENGINEERING BY THE PRE-ENGINEERED METAL BUILDING (PEMB) SUPPLIER. THESE FOUNDATION LOADS AND REACTIONS WERE PROVIDED IN A DRAWINGS PACKAGE FROM "TOPLINE STEEL BUILDINGS" DATED 10/24/2022. IF FOUNDATION LOADS AND REACTIONS HAVE BEEN UPDATED FROM THIS DRAWING PACKAGE, DO NOT PROCEED WITH CONSTRUCTION AND CONTACT PMA ENGINEERING FOR REVISED FOUNDATION REQUIREMENTS. A COPY OF THE DRAWINGS PACKAGE HAS BEEN ATTACHED SEPARATELY.

B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 4,500 PSI AND HAVE MAXIMUM WATER/CEMENT RATIO OF 0.45.

C. CONCRETE EXPOSED TO WEATHER, VEHICLES, AND/OR DEICING CHEMICALS SHALL BE AIR-ENTRAINED WITH 6% (+/-) 1.5% ENTRAINED AIR BY VOLUME AT POINT OF DISCHARGE. DO NOT ALLOW AIR CONTENT OF TROWELED FINISHED FLOORS TO EXCEED 3%.

D. NORMAL WEIGHT AGGREGATES SHALL COMPLY WITH ASTM C33 STANDARD SPECIFICATION FOR CONCRETE AGGREGATES. COARSE AGGREGATE SHALL MEET THE DELETERIOUS SUBSTANCE AND PHYSICAL PROPERTIES REQUIREMENTS OF ASTM C33, TABLE 4 FOR CLASS DESIGNATION 3S OR BETTER. FINE AGGREGATE SHALL CONFORM TO ASTM C33.

E. THE CONCRETE SLAB-ON-GRADE HAS BEEN DESIGNED FOR THE FINAL USE AND NOT FOR CONSTRUCTION CONSIDERATIONS. CONTRACTOR SHALL COORDINATE THE SLAB DESIGN WITH CONSTRUCTION NEEDS. THE SLAB DESIGN INDICATED ON THESE DRAWINGS IS TO BE CONSIDERED A MINIMUM. SUBMIT CHANGES TO THE SLAB DESIGN TO THE ENGINEER OF RECORD FOR REVIEW.

F. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING AND/OR SUPER-PLASTICIZING CHEMICAL ADMIXTURES.

G. CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD PRIOR TO USE OF SELF-CONSOLIDATING CONCRETE MIX.

H. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C143) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY.

I. NO WATER MAY BE ADDED TO THE CONCRETE MIX ON SITE.

J. FLY ASH MAY BE USED AT A RATE NOT TO EXCEED 25% OF THE TOTAL CEMENT CONTENT.

K. CHAMFER ALL EXPOSED CORNERS OF CONCRETE WALLS, BEAMS, AND COLUMNS 3/4".

L. ALL CONTROL JOINTS IN CONCRETE SLABS-ON-GRADE SHALL BE CUT TO 1/4 OF THE DEPTH. CUT JOINTS AS SOON AS POSSIBLE AFTER CONCRETE HAS BEEN PLACED WITHOUT DISLODGING AGGREGATE OR USE KEYS COLD JOINT.

M. THE UNIT POUR FOR SLABS SHALL NOT EXCEED 100 LINEAL FEET IN ANY ONE DIRECTION. CUT SLABS TO 1/4 THE DEPTH ON GRID LINES INTO AREAS OF ABOUT 150 SQUARE FEET.

N. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESSES, AND BLOCKOUTS SHOWN ON THE ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.

O. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.

P. ANCHOR RODS SHALL BE HELD IN PLACE WITH A RIGID TEMPLATE.

Q. CONCRETE CURING SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ACI 318-11 SECTION 5.11 AND STANDARD PRACTICE FOR CURING CONCRETE REPORTED BY COMMITTEE 308.

11. FOUNDATIONS:

A. FOUNDATIONS AND STRIP FOOTINGS ARE DESIGNED TO BEAR ON NON-EXPANSIVE SOIL CAPABLE OF SUSTAINING A MINIMUM NET ALLOWABLE BEARING PRESSURE OF 2000 PSF.

B. EXTERIOR AND BUILDING PERIMETER FOUNDATIONS AND STRIP FOOTINGS HAVE BEEN DESIGNED TO BEAR AT OR BELOW THE LOCAL FROST DEPTH OF 36". PROVIDE FOOTING DEPTHS AS INDICATED IN THE DRAWINGS.

C. A SITE INVESTIGATION AND GEOTECHNICAL REPORT WAS NOT PREPARED FOR THIS SITE. THE FINISH EXCAVATION SHALL BE INSPECTED BY A REGISTERED SOILS ENGINEER TO VERIFY THE BEARING CAPACITY. IF ADEQUATE BEARING IS NOT ENCOUNTERED AT THE SPECIFIED BEARING ELEVATION, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY.

D. CONTRACTOR SHALL REMOVE EXISTING FOOTINGS AND FOUNDATIONS THAT ARE LOCATED WITHIN THE FOOTPRINT OF THE NEW BUILDING.

E. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY UNUSUAL SOIL CONDITIONS THAT ARE IN VARIANCE WITH THE SPECIFIED BEARING CAPACITIES OR WHEN DIFFERENT BEARING MATERIAL IS EVIDENT AND THERE IS A QUESTION OF BEARING CAPACITY.

F. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF UNSUITABLE FILL MATERIAL OR ORGANIC MATERIAL.

12. SUBMITTALS:

A. ALL SHOP DRAWINGS AND SUBMITTALS MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL. ENGINEER'S REVIEW OF SHOP DRAWINGS IS LIMITED TO CHECKING FOR GENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE DESIGN DRAWINGS, QUANTITIES, DIMENSIONAL ERRORS, OR OMISSIONS IN THE SHOP DRAWINGS.

B. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS OF THESE CONTRACT DOCUMENTS.

C. SUBMIT SHOP DRAWINGS DETAILING FABRICATION OF EACH MEMBER AND ITS CONNECTIONS. CONNECTION DRAWINGS ARE TO BE PREPARED UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER.

D. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING:

- a. CONCRETE MIX DESIGN AND MATERIALS
- b. CONCRETE REINFORCING STEEL
- c. CONCRETE FORMWORK

I. ALL LAP SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE.

J. FOR REINFORCING BAR LAP LENGTHS IN CONCRETE, SEE TABLE 5/S002.

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S002
S101
S301

GENERAL NOTES
TYPICAL DETAILS
FOUNDATION PLAN
FOUNDATION SECTIONS

STRUCTURAL SHEET INDEX

2
S001

STRUCTURAL ABBREVIATIONS

3
S001

A.F.F.	ABOVE FINISH FLOOR	JST	JOIST
ALT	ALTERNATE	JT	JOINT
A.B.	ANCHOR BOLT	K	KIP (1000 LBS)
ARCH & AT	ARCHITECTURAL PLANS AND	LBS	POUNDS
@	BALANCE	LLH	LONG LEG HORIZONTAL
BAL	BALANCE	LLV	LONG LEG VERTICAL
BLDG	BUILDING	MANUF	MANUFACTURER
BL	BUILDING LINE	MAS	MASONRY
BM	BEAM	MAX	MAXIMUM
BOT	BOTTOM	MIN	MINIMUM
BRG	BEARING	MISC	MISCELLANEOUS
BTWN	BETWEEN	MK	MARK
CL	CENTER LINE	N.S.	NEAR SIDE
C.G.S.	CENTER OF GRAVITY OF STRANDS	N.T.S.	NOT TO SCALE
CIP	CAST-IN-PLACE CONCRETE	O.C.	ON CENTER
CLR	CLEAR	O.F.	OUTSIDE FACE
C.J.	CONTROL JOINT	OPNG	OPENING
COL	COLUMN	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT	PC	PRECAST
CONC	CONCRETE	PEMB	PRE ENGINEERED METAL BUILDING
CONT	CONTINUOUS	PSF	POUNDS PER SQUARE FOOT
CTR	CENTER	PT	POST TENSION
DIA	DIAMETER	RAD	RADIUS
DEG	DEGREE	REINF	REINFORCEMENT
DIM	DIMENSION	REF	REFERENCE
DTL	DETAIL	RE	REFERENCE
DWG	DRAWING	SCHED	SCHEDULE
E.F.	EACH FACE	SECT	SECTION
ELEV	ELEVATION	SHT	SHEET
EQ	EQUAL	SIM	SIMILAR
E.W.	EACH WAY	SPA	SPACING
EXIST	EXISTING	SPECS	SPECIFICATION
EXP	EXPANSION	SQ	SQUARE
EXT	EXTERIOR	STD	STANDARD
FND	FOUNDATION	STL	STEEL
FIN	FINISHED	SW	SHEAR WALL
FLR	FLOOR	T&B	TOP & BOTTOM
F.S.	FAR SIDE	T.O.	TOP OF...(ADD ITEM)
FTG	FOOTING	TYP	TYPICAL
F.V.	FIELD VERIFY	U.N.O.	UNLESS NOTED OTHERWISE
GA	GAUGE	VAR	VARIES
G.B.	GRADE BEAM	VERT	VERTICAL
GALV	GALVANIZED	w/	WITH
HORIZ	HORIZONTAL	W.W.F.	WELDED WIRE FABRIC
I.F.	INSIDE FACE		

4. STATEMENT OF SPECIAL INSPECTIONS

A. THIS STATEMENT OF SPECIAL INSPECTIONS IS IN ACCORDANCE WITH 1704.3 OF THE 2018 INTERNATIONAL BUILDING CODE (2018 IBC). THE INTENT OF THIS SECTION IS THAT ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CHAPTER 17 OF THE 2018 IBC (2018 IBC) UNLESS SPECIFICALLY NOTED OTHERWISE. ADDITIONAL SPECIAL INSPECTIONS MAY BE REQUIRED BY LOCAL CODE OR BUILDING OFFICIAL. AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ANY ADDITIONAL REQUIREMENTS ABOVE AND BEYOND THE CODE REQUIRED SPECIAL INSPECTION INDICATED BELOW.

B. THE FOLLOWING ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.

- a. CONCRETE DESIGN MIX
- b. PLACING OF CONCRETE AND REINFORCING STEEL
- c. BOLTS AND ANCHORS EMBEDDED IN CONCRETE
- d. CONCRETE FORMWORK

C. THE OWNER IS RESPONSIBLE FOR EMPLOYING ONE OR MORE SPECIAL INSPECTORS TO PERFORM INSPECTIONS DURING CONSTRUCTION, BASED ON REQUIREMENTS OF ONE OR MORE DESIGN PROFESSIONALS.

D. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO THE JOB SITE AND ITEMS TO BE INSPECTED. SAFE ACCESS INCLUDES BUT IS NOT LIMITED TO LADDERS, SCAFFOLDING AND/OR CONTRACTOR OPERATED LIFTS AS REQUIRED FOR SITE OBSERVATION.

E. SPECIAL INSPECTOR SHALL PROVIDE BI-WEEKLY SPECIAL INSPECTION REPORTS AND SHALL DISTRIBUTE THESE REPORTS TO THE BUILDING OFFICIAL, OWNER, CONTRACTOR, ARCHITECT, STRUCTURAL ENGINEER OF RECORD, AND MECHANICAL/ELECTRICAL/PLUMBING ENGINEER OF RECORD. SPECIAL INSPECTION REPORTING SHALL BE IN ACCORDANCE WITH SECTION 1704.2.4 OF THE 2018 IBC.

F. ALL DISCREPANCIES NOTED DURING INSPECTIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR. IF LEFT UNCORRECTED, THESE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE APPROPRIATE DESIGN PROFESSIONALS AND/OR BUILDING OFFICIAL. THE INSPECTOR IS NOT AUTHORIZED TO APPROVE DEVIATIONS FROM THE CONTRACT DRAWINGS.

5. STRUCTURAL ENGINEER SITE OBSERVATIONS:

A. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES.

B. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

C. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF PMA ENGINEERING IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR.

6. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FABRICATION.

7. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR OTHER PERTINENT INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED. THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE UTILIZED AS A COMPLETE SET OF DOCUMENTS THAT REPRESENT THE BUILDING'S STRUCTURAL SYSTEMS. NO SINGLE SHEET OR SERIES OF SHEETS IS INTENDED TO "STAND ALONE." THESE STRUCTURAL DRAWINGS ARE INTENDED TO BE INCLUDED IN A COMPLETE SET OF CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO: ARCHITECTURAL DRAWINGS, CIVIL DRAWINGS, AND MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS. CONTRACTOR SHALL VERIFY COORDINATION OF THESE DRAWINGS WITH CONTENTS OF ABOVE DRAWING SETS SPECIFIED AND ONLY PROCEED WITH BIDDING AND CONSTRUCTION AFTER SUCH HAS TAKEN PLACE.

8. DETAILS LABELED "TYP" OR "TYPICAL" ARE TO BE APPLIED AT LOCATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY INDICATED. WHERE A DETAIL IS NOT INDICATED, THE DETAIL SHALL BE THE SAME AS FOR SIMILAR CONDITIONS OR AS SHOWN IN THE "TYPICAL DETAILS."

9. REINFORCING STEEL:

A. ALL REINFORCING STEEL SHALL BE ASTM A615 GRADE 60, EXCEPT WELDED REINFORCING WHICH SHALL BE ASTM A706 GRADE 60.

B. ALL WELDED WIRE FABRIC SHALL BE ASTM A185 AND A82 COLD DRAWN WIRE.

C. ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE GALVANIZED OR HAVE PLASTIC-COATED FEET.

D. PROVIDE CORNER BARS AT THE EXTERIOR FACE OF ALL WALL AND FOOTING CORNERS EQUAL TO HORIZONTAL BARS.

E. PROVIDE AT LEAST TWO VERTICAL #5 (MATCH BAR SIZE IN DRAWINGS) BARS AT ALL STEPS IN FOUNDATION WALLS, FOOTINGS, AND GRADE BEAMS.

F. REINFORCING SHALL BE DETAILED, FABRICATED, PLACED, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST EDITION.

G. STANDARD COVERAGE OF REINFORCING, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

- a. CAST AGAINST EARTH, PERMANENTLY EXPOSED TO WEATHER 3"
- b. EXPOSED TO EARTH AND WEATHER (FORMED) 2"
- c. NOT EXPOSED TO EARTH OR WEATHER: SLABS, WALLS 3/4"

I. ALL LAP SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE.

J. FOR REINFORCING BAR LAP LENGTHS IN CONCRETE, SEE TABLE 5/S002.

STRUCTURAL GENERAL NOTES

1
S001

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12.02.2022
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REVISIONS	
DESCRIPTION	DATE

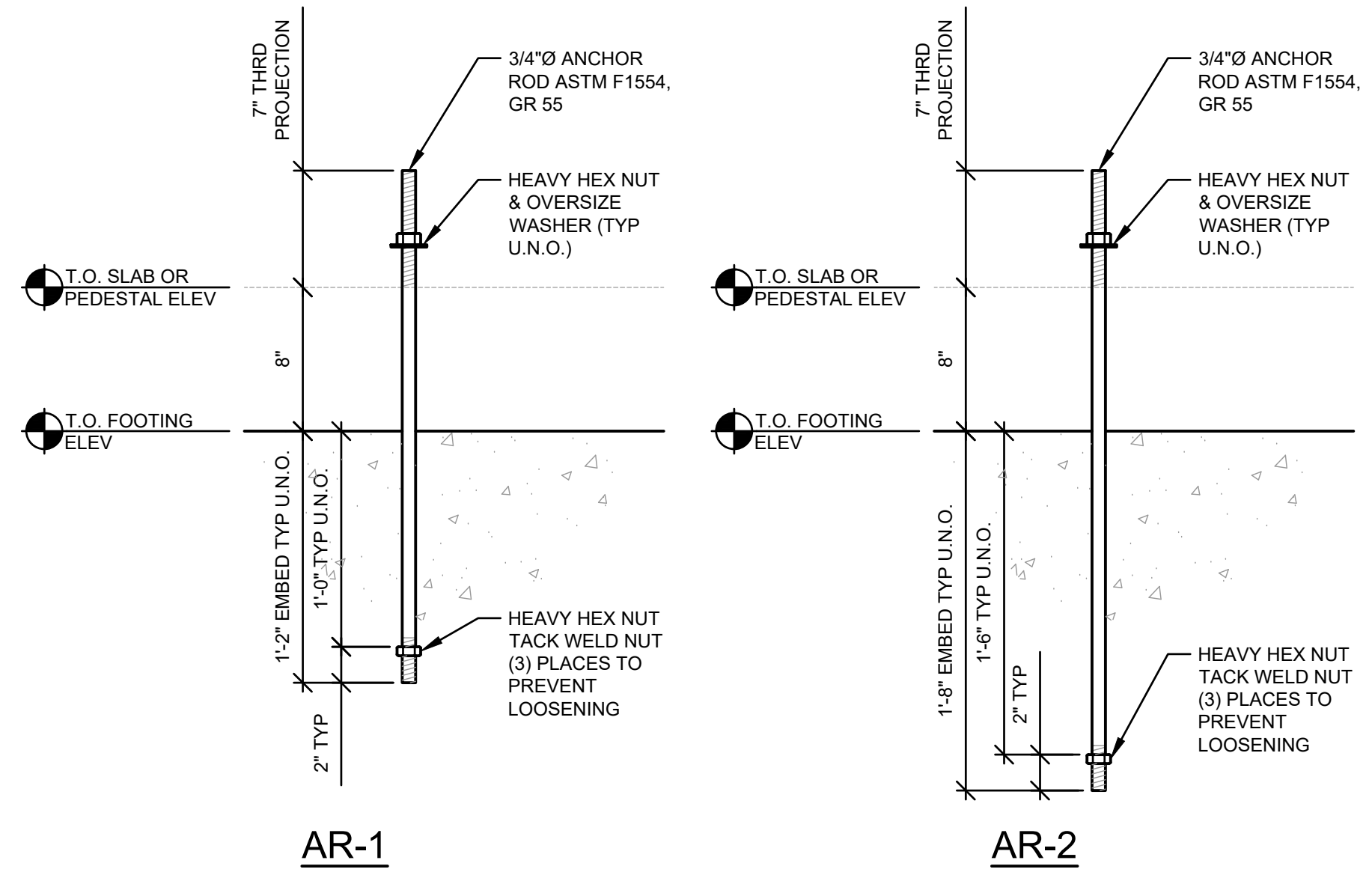
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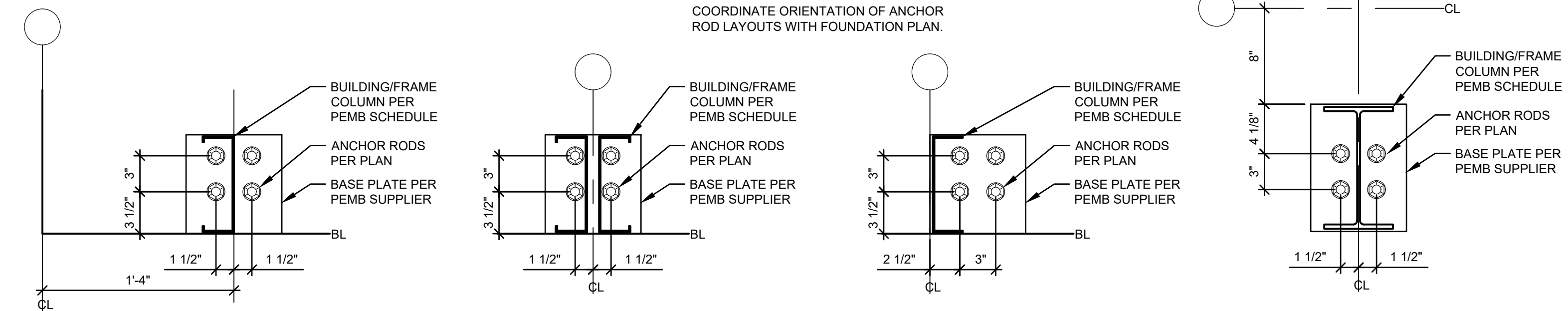
GENERAL NOTES

S001

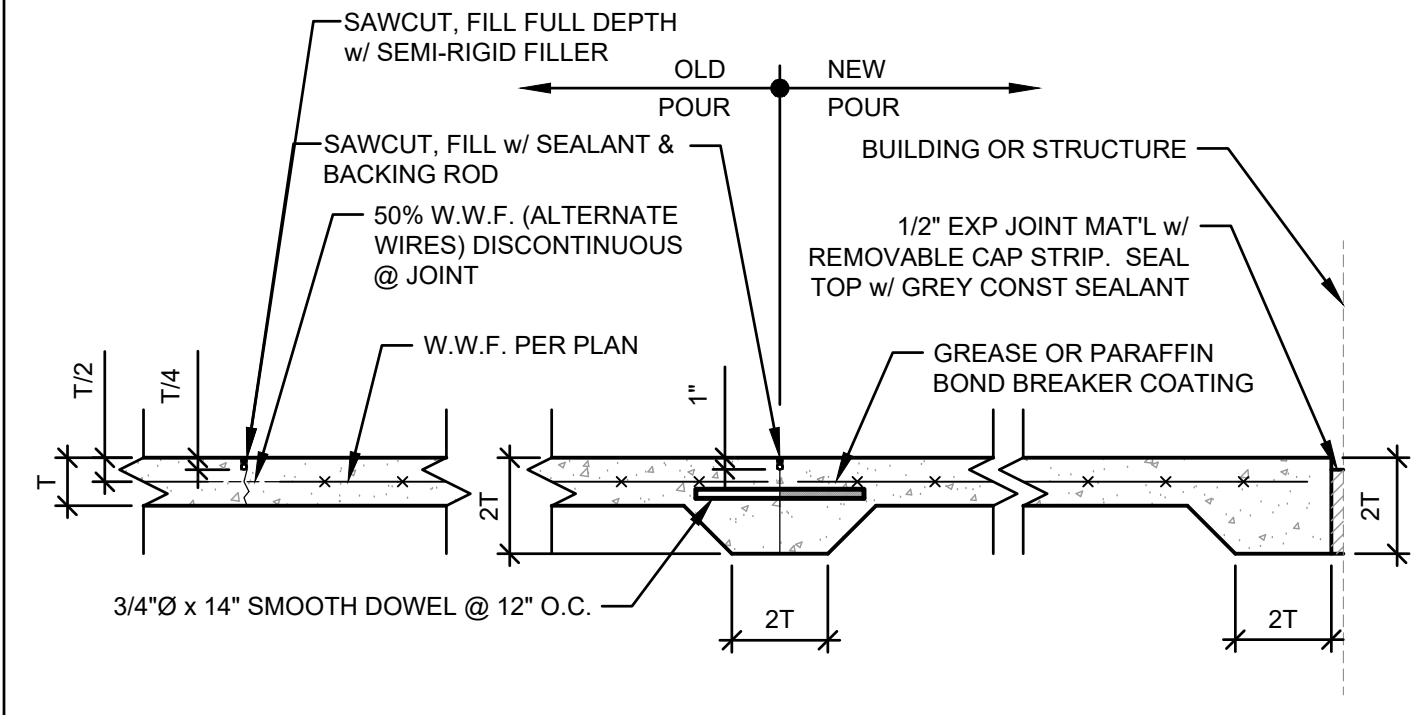
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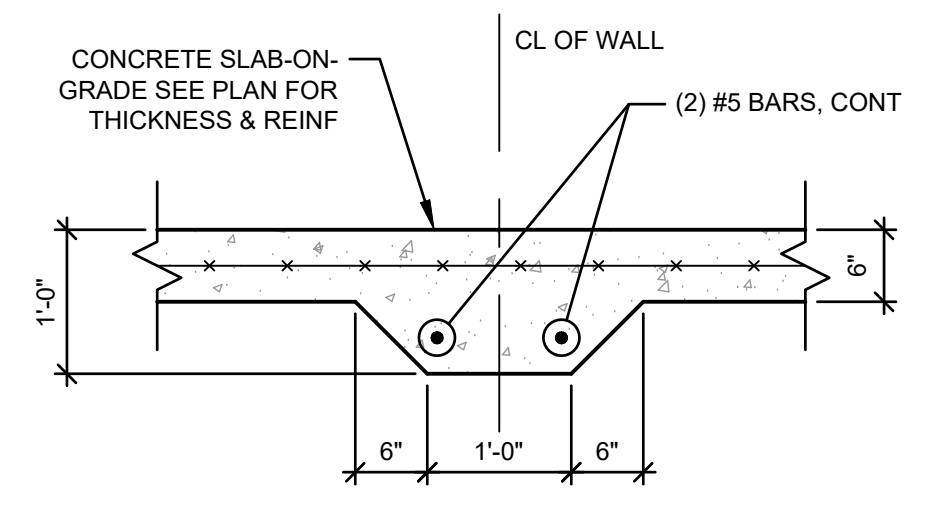
ANCHOR ROD DETAILS
 N.T.S. 1 S002



ANCHOR ROD LAYOUTS
 N.T.S. 2 S002



CONTRACTION CONSTRUCTION ISOLATION
 N.T.S. 3 S002



INTERIOR THICKENED SLAB DETAIL
 N.T.S. 4 S002

REINF. BAR SPLICE LENGTH

CONCRETE STRENGTH F'c, PSI	#6 AND SMALLER	#7 AND LARGER
3000	57db	72db
4000	49db	61db
4500	47db	58db
5000	44db	55db
6000	40db	51db

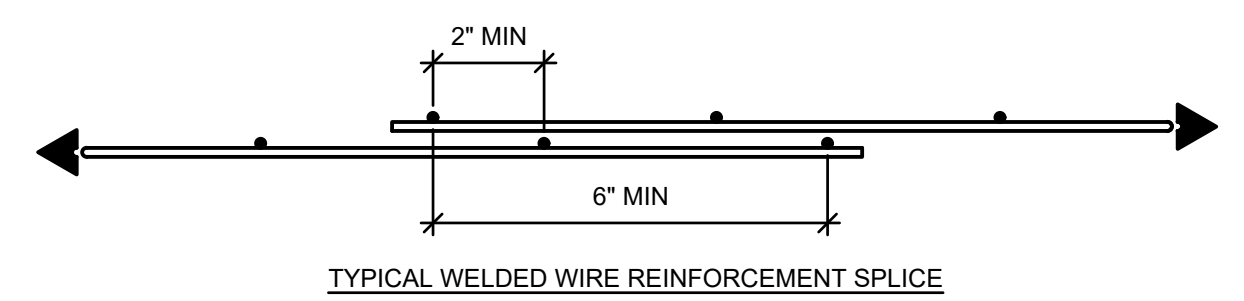
db = DIAMETER OF BAR (INCHES)

- NOTES:**
- BAR LAP SPLICE LENGTH SHALL BE AS NOTED IN THE DOCUMENTS AND AS REQUIRED IN NOTE 4 BELOW.
 - TABULATED SPLICE LENGTH VALUES ARE BASED ON:
 - A. UNCOATED BARS
 - B. Fy = 60 ksi.
 - C. BAR SPACING AND COVER AS NOTED:

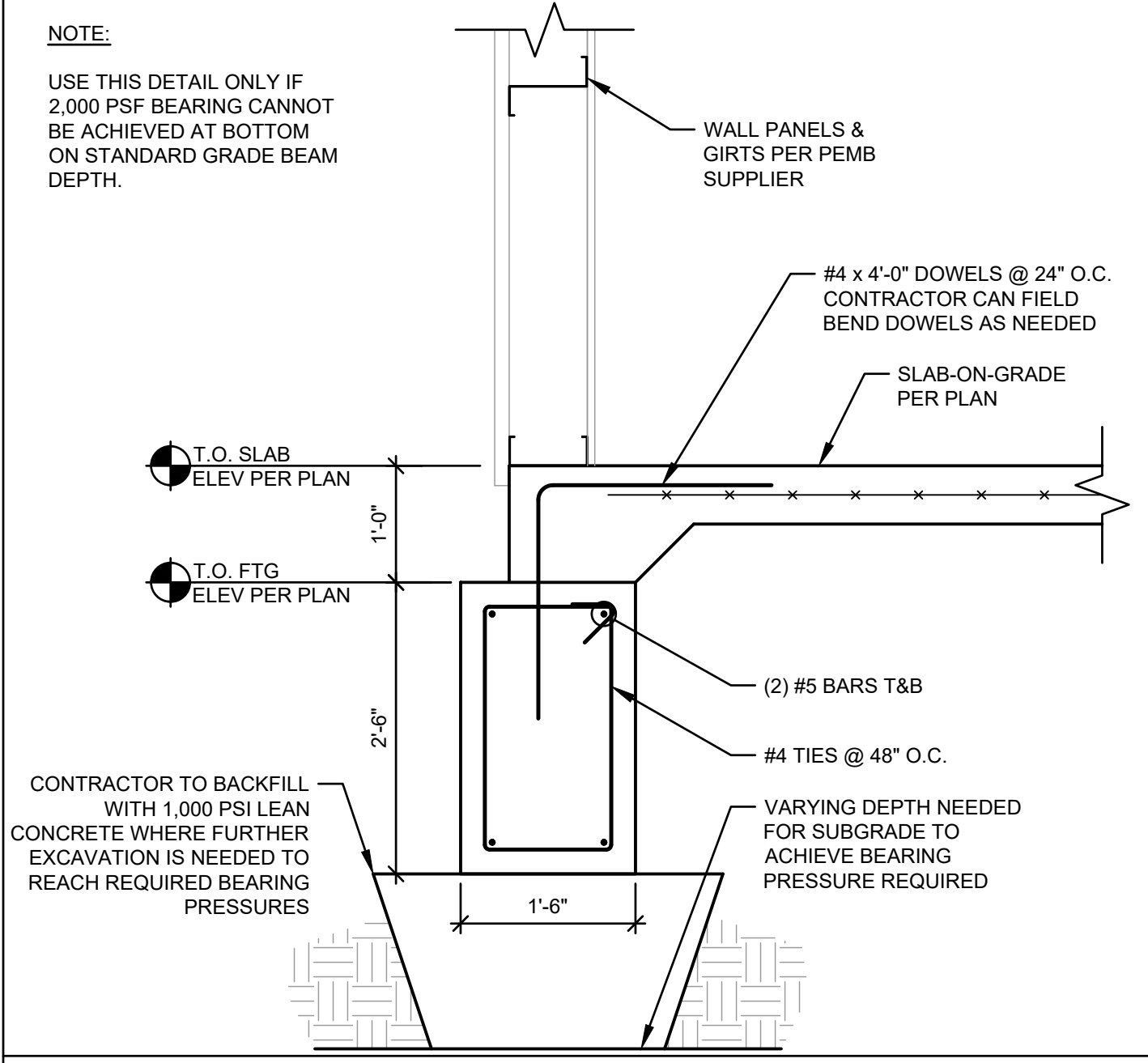
BARS WITH CLEAR SPACING AND CLEAR COVER NOT LESS THAN db AND STIRRUPS OR TIES THROUGHOUT THE SPLICE LENGTH NOT LESS THAN CODE MINIMUM

OR

BARS WITH CLEAR SPACING NOT LESS THAN 2db AND CLEAR COVER NOT LESS THAN db
 - REQUIRED LAP SPLICE LENGTH = TABULATED SPLICE LENGTH MULTIPLIED BY ALL APPLICABLE ADJUSTMENT FACTORS BELOW.
 - A. FOR CLASS A SPLICE = 0.769
 - B. FOR LIGHTWEIGHT CONCRETE = 1.3
 - C. FOR EPOXY COATED BARS = 1.2
 - 1. FOR EPOXY COATED BARS w/ COVER LESS THAN 3db OR CLEAR SPACING LESS THAN 6db = 1.5
 - D. FOR Fy OTHER THAN 60ksi = Fy (ACTUAL)/60
 - E. FOR BARS NOT MEETING REQUIREMENTS OF BAR SPACING AND COVER IN NOTE 2.C = 1.5
 - F. HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE BELOW THE SPLICE = 1.3
 - REQUIRED LAP SPLICE LENGTH SHALL, UNDER NO CIRCUMSTANCES, BE LESS THAN 12".
 - REQUIRED SPLICES OF PLAIN WIRE WELDED WIRE REINFORCEMENT (W.W.F.) SHALL BE AS SHOWN BELOW U.N.O. ON THE DOCUMENTS.



REINFORCING BAR SPLICE LENGTH SCHEDULE & DETAIL
 N.T.S. 5 S002



LEAN CONCRETE BACKFILL DETAIL
 N.T.S. 6 S002

NOT USED 7 S002

NOT USED 8 S002

NOT USED 9 S002

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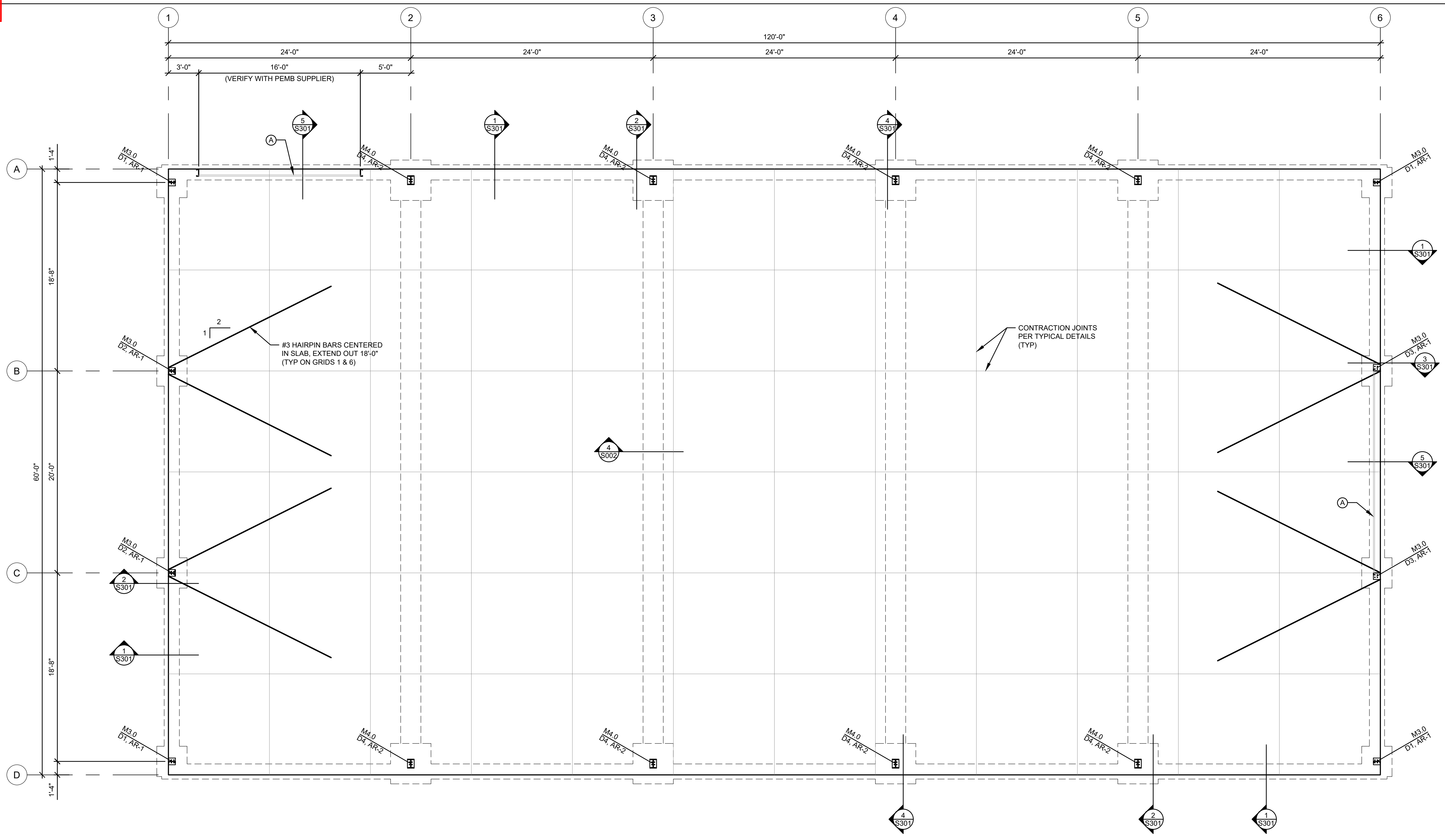
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TYPICAL DETAILS

S002

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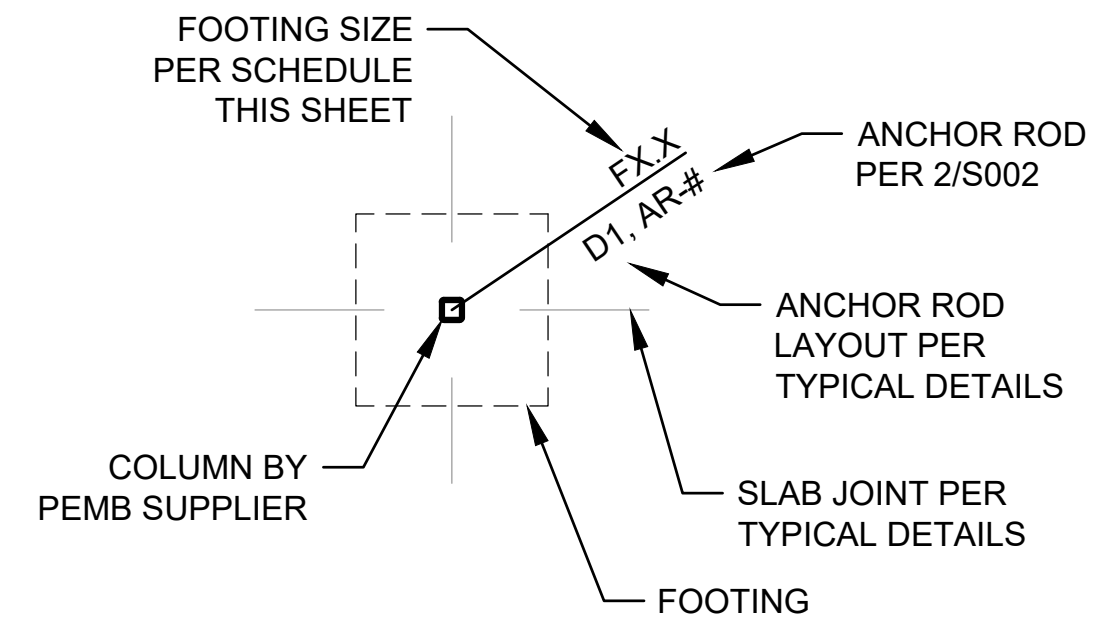
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FOOTING SCHEDULE - 2000 PSF SOIL BEARING

MARK	SIZE	REINFORCING	NET LOAD CAPACITY (kips)
M3.0	3'-0" x 3'-0" x 30"	-	18.0
M4.0	4'-0" x 4'-0" x 30"	-	32.0

*CONTINUE GRADE BEAM REINFORCING THROUGH ALL EXTERIOR M.X. FOOTINGS



FOOTING LEGEND

PLAN NOTES:

1. THE CONCRETE SLAB-ON-GRADE HAS BEEN DESIGNED FOR ITS FINAL USE AND NOT FOR CONSTRUCTION CONSIDERATIONS. CONTRACTOR SHALL COORDINATE SLAB DESIGN WITH CONSTRUCTION NEEDS. THE SLAB DESIGN INDICATED ON THESE DRAWINGS IS TO BE CONSIDERED A MINIMUM. SUBMIT CHANGES TO THE SLAB DESIGN TO THE E.O.R. FOR REVIEW.
2. 6" CONCRETE SLAB-ON-GRADE w/ (1) LAYER 6x6-W4.0xW4.0 W.W.F. CENTERED IN SLAB OVER ASTM E 1745 CLASS A VAPOR BARRIER, OVER 4" GRANULAR LEVELING COURSE OVER PROPERLY PREPARED SUBGRADE. COORDINATE T.O. SLAB ELEVATION WITH ARCH / CIVIL DRAWINGS.
3. PROVIDE #4 x 4'-0" SLAB DOWELS @ 24" O.C. AROUND ENTIRE BUILDING. CONTRACTOR MAY FIELD BEND DOWELS IF NEEDED.

PLAN REFERENCE NOTES:

- (A) PROVIDE #4 DOWELS INTO EXTERIOR SLAB AT 12" O.C. AT DOORS. PROVIDE (3) DOWELS, MINIMUM. CONTRACTOR SHALL COORDINATE FINAL DOOR LOCATIONS WITH ARCHITECTURAL DRAWINGS.

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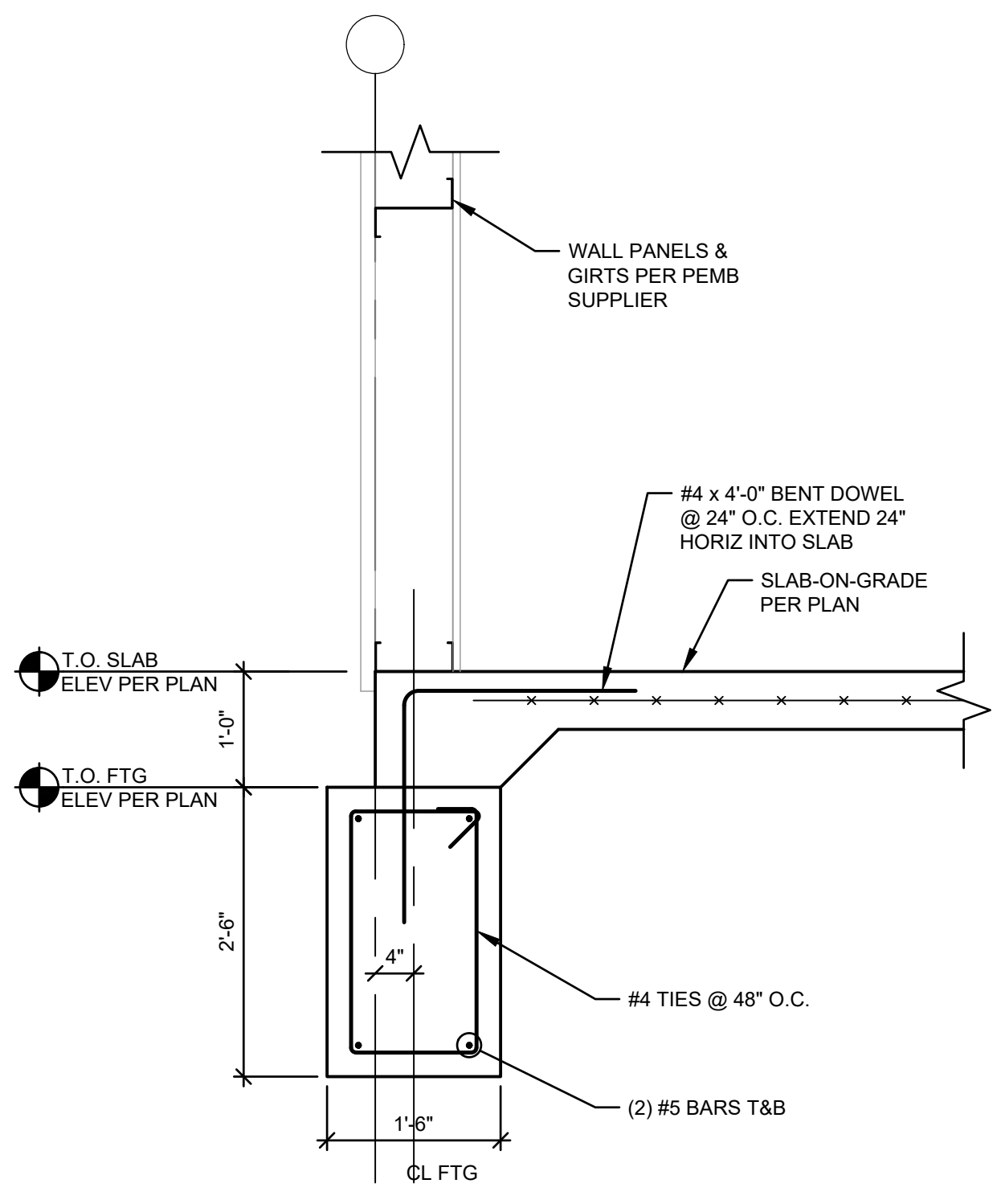
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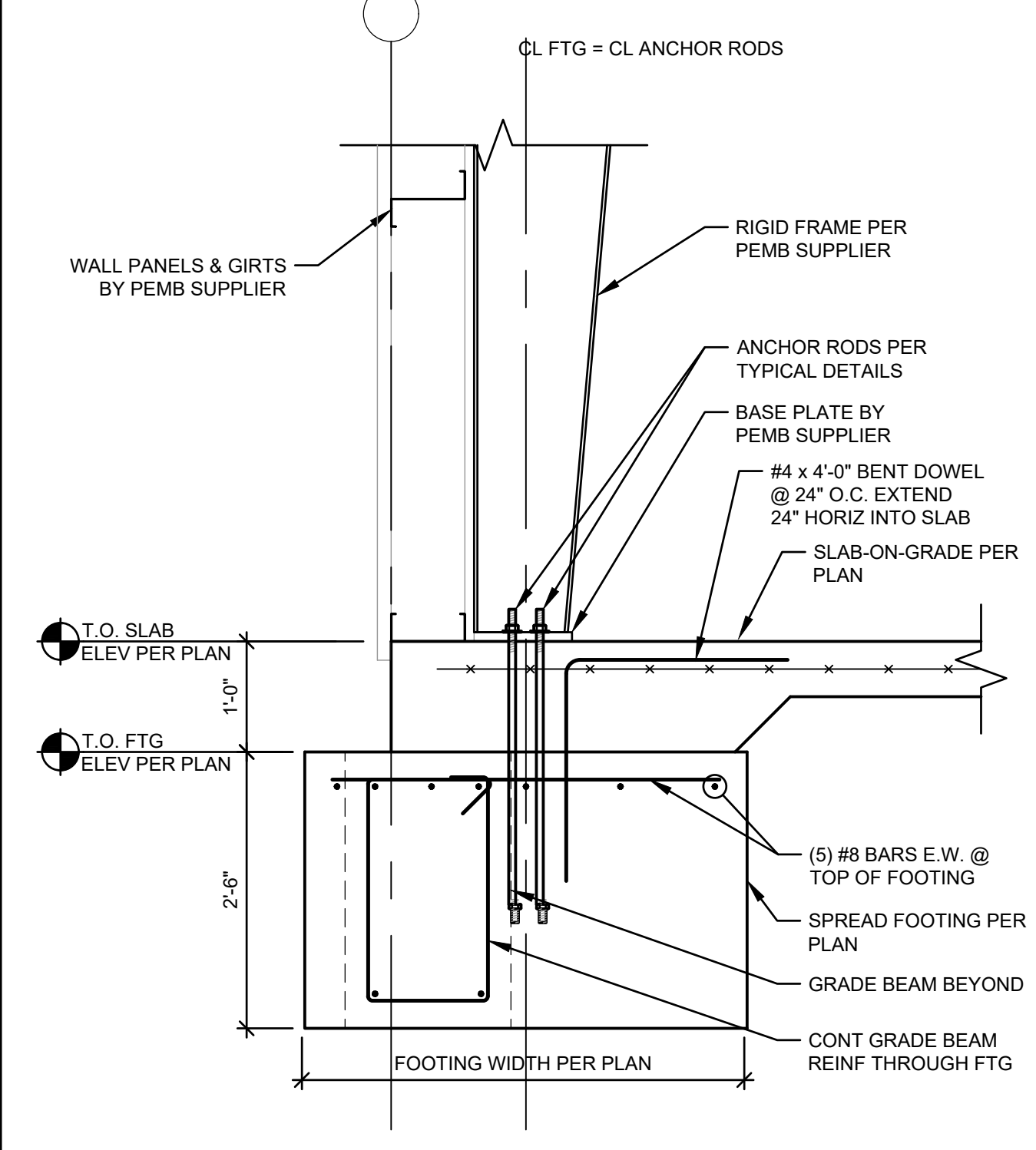
FOUNDATION PLAN

S101

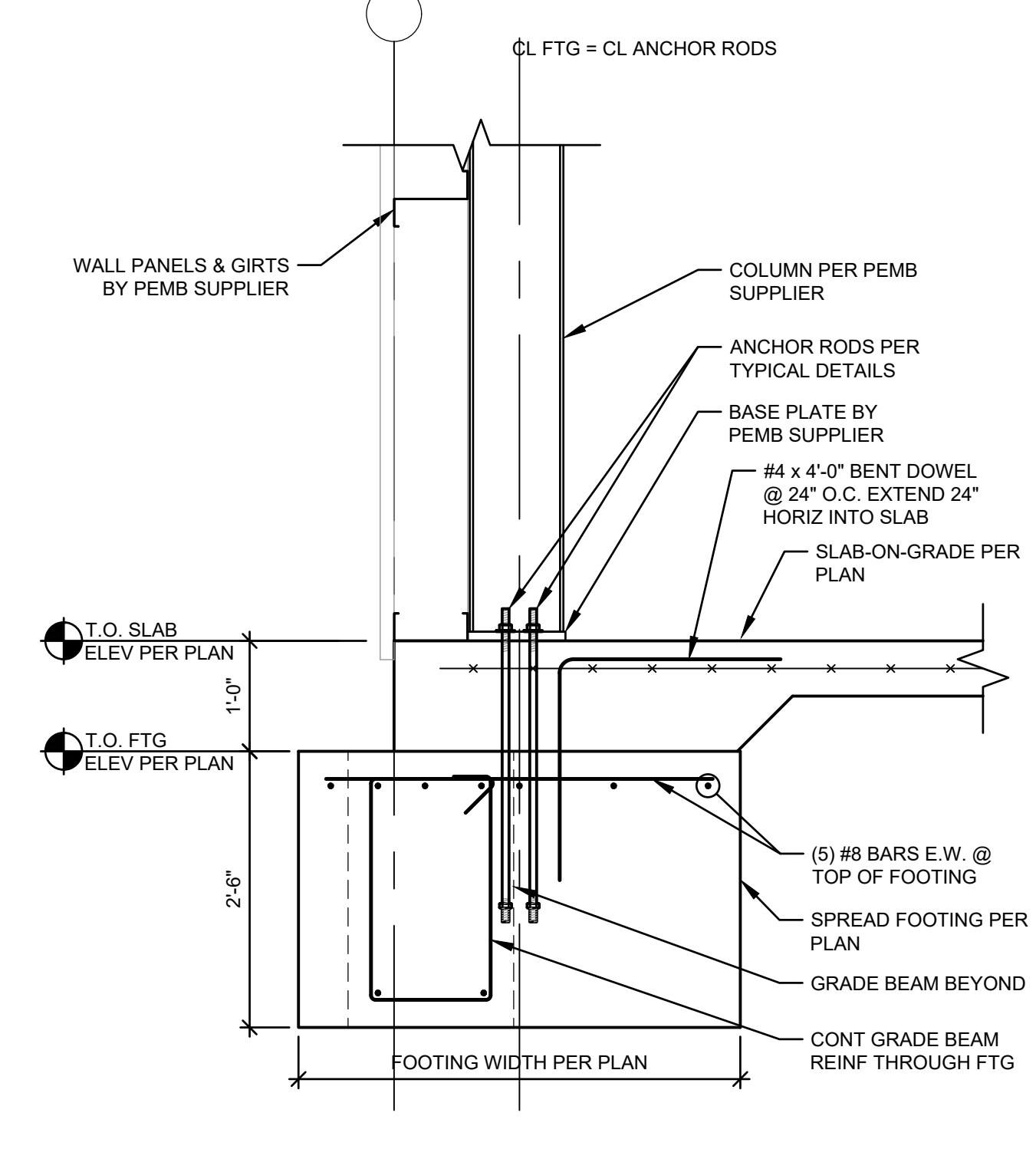
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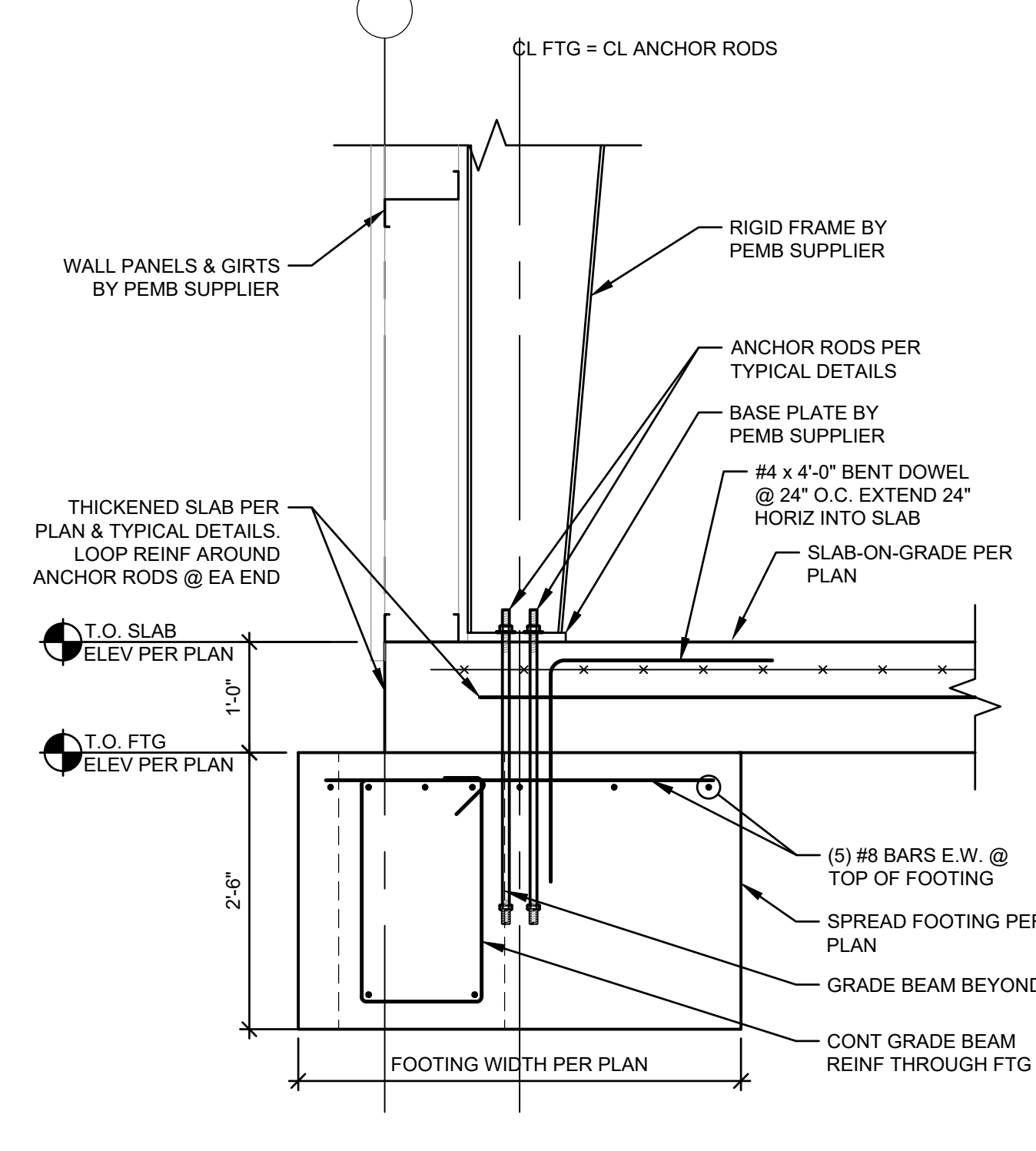
TYPICAL SECTION @ PERIMETER 1
 3/4" = 1'-0" S301



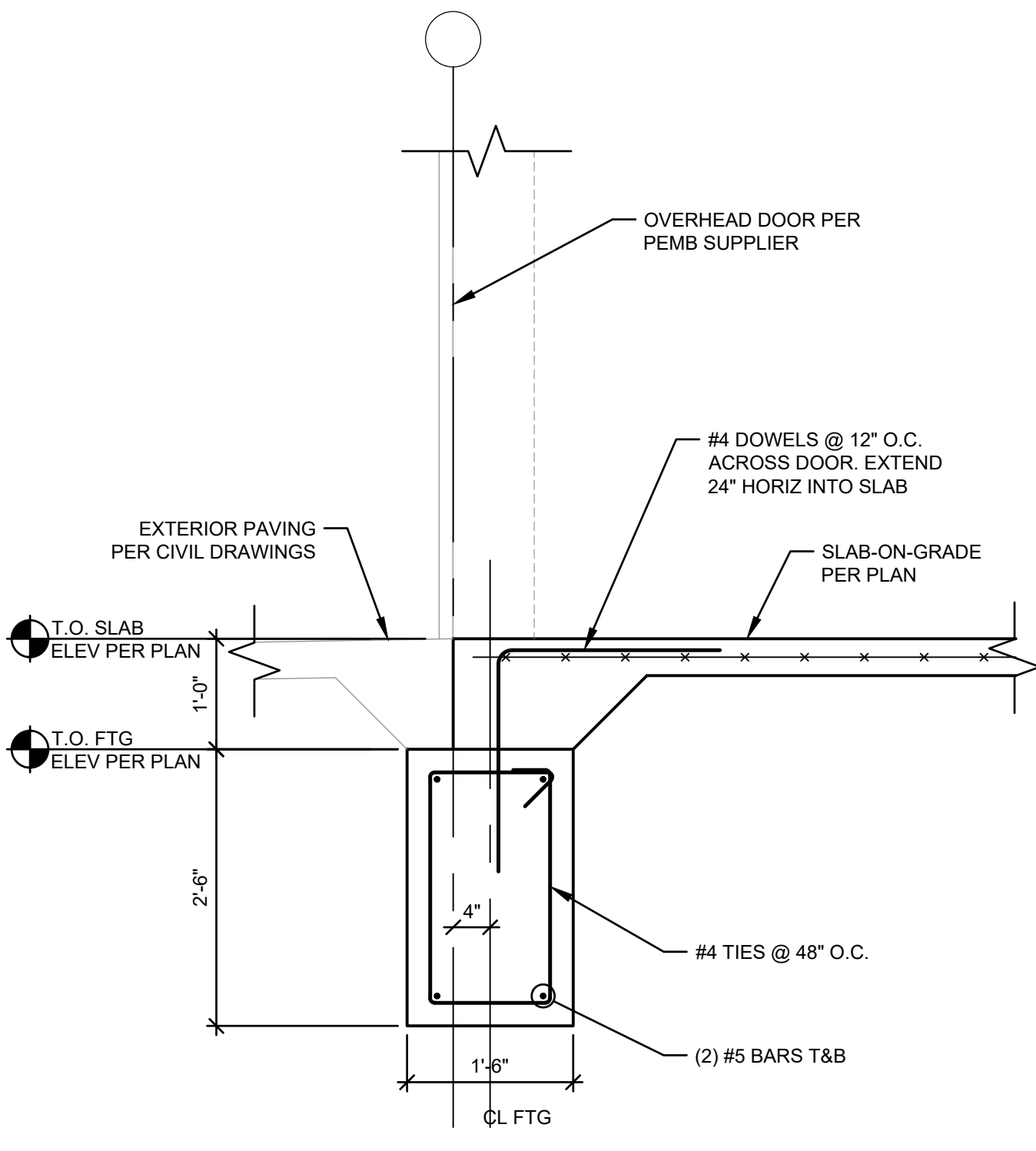
SECTION @ FRAME COLUMN 2
 3/4" = 1'-0" S301



SECTION @ ENDWALL COLUMN 3
 3/4" = 1'-0" S301



SECTION @ TIE BEAM 4
 3/4" = 1'-0" S301



SECTION @ OVERHEAD DOOR 5
 3/4" = 1'-0" S301

NOT USED 6
 S301

NOT USED 7
 S301

NOT USED 8
 S301

PAGE McNAGHTEN ASSOC. INC.
 PROFESSIONAL ENGINEERING CORP
 d/b/a PMA ENGINEERING
 * MO CERT. OF AUTHORITY # 001400



12.02.2022
 DAVID MARK McNAGHTEN P.E.
 MO# E-23021

REVISIONS	
DESCRIPTION	DATE

DATE: 12/2/2022	PROJECT #: P22221
DRAWN BY: TDP	CHECKED BY: CAW

ISSUE: **PERMIT**

FOUNDATION SECTIONS

S301