

STRUCTURAL FRAMING CHECKLIST

The following items list some of the "THINGS TO WATCH OUT FOR". The framing foreman should take note of each item, as this list is comprised from field experience relating to building from our plans and typical detail sheets. This list is provided to help ease the construction process and to help answer typical questions commonly asked from the field personnel.

- Review all lumber grades and note that the use of a nail identification system is **HIGHLY RECOMMENDED**. See DETAIL 215 for all nailing requirements and acceptable nail identification systems. Also, note that both Simpson and cusp hardware are listed as acceptable.
- DETAILS 120 - 124 list all hold down and anchor bolt repair details.
- Anchor bolts (except holddown SSTB bolts) may only be overdrilled 1/16" max.
- All mudsills must have a minimum of (2) anchor bolts per piece, be spaced a min. 7" and max. 12" from each end, and be spaced no more than 6'-0" o.c. At exterior non-shear walls.
- DETAIL 206 - This detail shows typical shear wall and window framing. It also defines staggered nailing at top plates and allowable holes and penetrations in shear walls. Please review this detail for general framing information.
- DETAIL 210 - Requires special attention! note that the full height shear panel must either be cut back or furring added next to the window because the sections of shear above and below the opening "MUST" edge nail to the king post or king stud that the full height shear panel edge nails to.
- DETAILS 207 and 208 - Requires all straps be installed while beams are being set and not later.
- DETAIL 213 - Note 2x end stud and 2 rows of edge nailing at end and edge nailing noted across bottom of header to help reduce height to width ratio.
- DETAIL 203 - Review to help reduce header stock.
- DETAIL 204 - Note requirements for CS14. Also, determine whether the framer or plumber are installing the straps at plumbing pipes.
- DETAIL 215 - highly recommends "EZ CODE" or "TRUE SPEC" nails for all structural connections including the following but not limited to: Floor and Roof sheathing and Shear Wall installations including hold downs and Sole Plate Nailing and all Top Plate splices.
- DETAIL 212 - must be adhered to. Earning over is only a plumb and line issue. Minimizing cuts will minimize the amount of special strapping and nailing required. Note that it is only required at all exterior walls and interior shear walls, also note that all special nailing and strapping noted on the plans and detail must be done just after "plumb and line" to ensure that they are properly installed.
- DETAIL 301 - Note that RBC's nail w/ 10d x 1-1/2" nails. A35's are not acceptable for angled freeze blocking due to gap between block and top plate. Use LTP4's or H1's if vertical blocking is used. Also, at high heel condition, all truss bays must have full height truss panel blocks the entire length of the wall.
- DETAIL 302 - Use LTP4's mostly except near the center of the truss where there may be a gap, then use the RBC's or LTP5's, and make sure that all nails are into the upper top plate and not the framing plate.
- DETAIL 303 - Note for offset condition w/ 2x flat member, 3'o.c. nailing may be used to nail both the offset truss and to nail the member to the shear wall top plate in lieu of framing anchors for shear wall types 6 and 4 only, no exception.
- DETAILS 304 and 305 - do not forget the 4" wide plywood strip between truss panel blocks.
- DETAIL 306 - note that this detail is for an aligned drag truss condition all drag trusses should be aligned with the wall that they are strapped to unless noted otherwise on plans.
- DETAIL 308 - note that at a high heel girder truss condition, a taller 2x block must be used that will still nail at 12" o.c. To the girder truss bottom chord. Use MFR truss block or blocking panel per DTL 201 if height is greater than 12".
- DETAIL 309 - not used very often and is often missed.
- DETAIL 313 - note popout wall on top of low roof sheathing to transfer the shear force. Also, H2.5A must nail to the top of the low roof ledger and not the bottom of the ledger. Also, the "Back Edge Nailing" of the shear panel into the low roof ledger is commonly missed. Also, note that 2x blocking is not required unless for fire stopping.

ADDITIONAL ITEMS TO NOTE:

- At HARDY panels, it is not structurally required to fill the holes at the side of the panels.
- At HTT22 hold downs, it is structurally acceptable to scab at 2x stud to the hold down post to facilitate flush and correct installation of the hold down. The HTT22 shall be mounted flush to the sill plate.
- Where sill plates are broken for plumbing penetrations, no strapping is required to tie the sill plates together.

SHOP DRAWINGS

- The shop drawing submittals from the various trades will be reviewed by the engineer of record and/or architect only after shop drawings have been:
  - Initially reviewed and accepted as conforming with the structural construction drawings by the responsible supervisor and drawings checker with their signatures.
  - Approved and accepted with a stamp from the general contractor as conforming to the construction documents.

GENERAL NOTES

- All construction and workmanship shall conform to the 2018 INTERNATIONAL Building Code (IBC) and Southern Nevada Amendments to the 2018 IBC. Note all references on plans to sections and tables refer to the IBC and Southern Nevada Amendments.
  - These notes shall be used in conjunction with the plans and any discrepancies shall be brought to the attention of the architect and the engineer.
  - Contractor must check dimensions, framing conditions, and site conditions before starting work. Architect and the engineer shall be notified immediately of any discrepancies or possible deficiencies.
  - Conditions not specifically detailed shall be constructed as specified in typical details for the respective materials.
  - These drawings and specifications represent the finished structure. All bracing, temporary supports, shoring, etc. Is the sole responsibility of the contractor. The contractor is solely responsible for all construction methods and for safety conditions at the worksite. Observation visits to the job site by the architect and the engineer do not include inspection of construction procedures. These visits shall be not construed as continuous and detailed inspections.
  - Design materials, equipment, and products other than those described in this drawing set may be considered for use, provided prior approval is obtained from the owner, architect, the engineer, and the applicable governing code authority.
- MANUFACTURED WOOD TRUSSES**
- Manufacturer shall supply to the engineer and the building department calculations and shop drawings for approval prior to fabrication. All calculations and shop drawings shall be signed by a Nevada registered professional engineer. It shall be the responsibility of the manufacturer to obtain building department approval of calculations and shop drawings.
  - Trusses shall be designed in accordance with the latest local adopted building code for all loads imposed, including lateral loads and mechanical equipment loads.
  - All connectors shall be ICC approved and of adequate strength to resist stresses due to the loading involved.
  - Dead load deflections shall be limited to L/240.
  - Cross bridging and/or bracing shall be provided and detailed by the truss manufacturer as required to adequately brace all trusses.
  - Contractor shall have building department approved truss plan on job site prior to foundation inspection and throughout construction phase. These truss plans shall conform to the framing plans prepared by the engineer of record. Truss plans shall bear wet signature of truss design engineer and shall have been reviewed by engineer of record.
  - Approved final truss drawings shall become part of construction documents.

- Each truss shall be legibly branded, marked or otherwise have permanently affixed thereto the following information located within 2 feet of the center of the span on the face of the bottom chord per IRC 2303.4:
  - A. Identity of the company manufacturing the truss.
  - B. The design load.
  - C. The spacing of the trusses.
- Truss manufacturer to design trusses per framing plans with the following requirements:
  - A. Align all tops of truss chords
  - B. At attic access provide 30" truss bay spacing with ladder blocking at 24" o.c. Refer to DETAIL 201 for span nailing.
  - C. Provide additional support at mechanical units, where occurs.
  - D. Provide conventional furring at interior coffered ceiling areas U.N.O.
  - E. Truss hangers to be designed by truss manufacturer.
  - F. Provide solid bearing at multiple girder trusses)
- Where Truss MFR requires a Hardware Connection at the Top Plate to resist uplift exceeding 250#. The following hardware connection shall be used:

STANDARD TRUSSES PERPENDICULAR TO SUPPORT		
REACTIONS TO THE BEARING WALL OR BEAM BELOW:		
UPLIFT VALUE X # (lbs.)	HARDWARE REQUIRED	NAILING REQUIRED
X ≤ 250#	NONE REQUIRED	Uplift is resisted by existing nailed connection of Truss to Plate
250# < X ≤ 400#	H1	(8) 8d x 1 1/2" into Truss (4) 8d x 1 1/2" into Plate
400# < X ≤ 1015#	H10A	(9) 10d x 1 1/2" into Truss (9) 10d x 1 1/2" into Plate
1015# < X ≤ 1265#	H16 or H16-2	(2) 10d x 1 1/2" into Truss (10) 10d x 1 1/2" into Plate
1265# < X ≤ 2490#	CS14 *	(15) 8d x 1 1/2" into Truss Top Chord (15) 8d x 1 1/2" into Aligned Stud or Beam below
2490# < X ≤ 4980#	(2) CS14 *	(15) 8d x 1 1/2" into Truss Top Chord (EA Strap) (15) 8d x 1 1/2" into Aligned Stud or Beam below (EA Strap)
GABLE END WALL TRUSSES PARALLEL TO SUPPORT		
REACTIONS TO THE BEARING WALL OR BEAM BELOW:		
UPLIFT VALUE X # (lbs.)	HARDWARE REQUIRED	NAILING REQUIRED
X ≤ 250#	NONE REQUIRED	Uplift is resisted by existing nailed connection of Truss to Plate
250# < X ≤ 575#	LTP4	(6) 8d x 1 1/2" into Truss (4) 8d x 1 1/2" into Plate
575# < X ≤ 2490#	CS14 *	(15) 8d x 1 1/2" into Truss, Wrap as required (15) 8d x 1 1/2" into Aligned Stud or Beam below
2490# < X ≤ 4980#	(2) CS14 *	(15) 8d x 1 1/2" into Truss, Wrap as required (EA Strap) (15) 8d x 1 1/2" into Aligned Stud or Beam below (EA Strap)
X > 4980#	SPECIAL DESIGN REQUIRED	Notify Engineer of specific location of Uplift on Truss
* CS14 Straps shall extend 16" onto truss and 16" onto aligned Stud or Beam below, and may be Bent and Wrapped Around Truss as needed to achieve required length.		

GLUED LAMINATED LUMBER (GLB)

- All fabrication and workmanship shall conform to the current edition of the standard specifications for structural glued laminated Douglas fir (Coast region) lumber by the West Coast Lumbermen's Association and the current edition of timber construction.
- All simply supported glued-laminated members shall be Douglas fir, combination 24L-V4 with waterproof Resorcinol or Phenol Resorcinol glue conforming to the federal specifications MIL-A-397-B. Use 24F-V8 for all continuous and cantilevered beams.
- Finish of the members shall be industrial appearance grade in conformance with the standard appearance grades of the A.I.T.C., U.N.O.
- A certificate of inspection for each GLU-LAM beam from an approved testing agency shall be submitted to and approved by the local building department and by the engineer prior to erection. All GLU-LAM beams shall be properly identified to the satisfaction of the building department per section 2303.1.3 of the IBC, as follows:
  - GLU-LAM beam shall be marked ANSI/ATC standard A1901.1:
  - 4.1 provide field inspector with approved "Certification of inspection"
  - 4.2 specify stress, exterior grade if exposed.
  - 4.3 provide camber.
- All GLU-LAM beams shall have a standard camber based on a radius of 3500 ft., U.N.O.

NAILS

- To assist in verification of proper nail usage for the project, our office **HIGHLY RECOMMENDS** the use of a nail identification system. Please refer to DETAIL 215.
- All Floor sheathing, Roof sheathing and Shear panels constructed using wood-based structural-use panels shall be fastened with common nails. Hardware shall be nailed per manufacturer's requirements, otherwise short nails may be used. Nailing shall be per Chapter 23 and table 2304.10.1 of the IBC and DETAIL 215 U.N.O. on the plans or details.
- Nail guns must be equipped with a flush nailer attachment for nailing of plywood shear walls, floor sheathing and roof sheathing.
- All nails into pressure treated lumber shall be hot dipped galvanized or other approved coating to resist corrosion unless pressure treated plate is treated with Borate.

WOOD FRAMING

- All structural lumber shall be DOUGLAS FIR - LARCH with 19% maximum moisture content of the following grades, conforming to standard grading rules for West Coast Lumber No. 17, unless noted otherwise. The lumber grades as specified below meet minimum requirements:

LUMBER SIZE	
PLATES, BLOCKING	STD OR BTR
STUDS TO 10'-0" IN HEIGHT	STUD GRADE
STUDS OVER 10'-0" IN HEIGHT	
2x RAFTER, JOISTS	
4x6 THROUGH 4x12 BEAMS, HEADERS AND POSTS	
4x14 BEAMS, HEADERS AND POSTS	
4x4 POSTS, HEADERS	
POSTS AND TIMBERS (6x AND LARGER)	
BEAMS AND STRINGERS (6x AND LARGER)	
- Utility grade lumber is unacceptable for any purpose.
- 2x4 flat headers are acceptable for use in interior non-bearing walls only. Refer to Non-Bearing header schedule on DETAIL 203.
- Where possible all lumber grade stamps shall remain on lumber after installation.
- All wood bearing on concrete or masonry shall be Pressure Treated Fir. All nails to plates treated w/ borate may be standard nails, for all other pressure treated plates, use hot dip galvanized nails.
- Each wood-based structural-use panel used for horizontal diaphragm and/or shear wall construction shall be identified by a registered stamp or brand of an ICC - approved compliance assurance agency.
- Wood-based structural-use panels shall meet the requirements of the latest edition of the voluntary product standard PS-2 "Performance standard for wood-based structural-use panels". All panels shall be glued with exterior type glue meeting APA specification AFG-01.
- All metal connectors shall be those manufactured by U.S.P. Lumber connectors, "ACS" Advanced Connector Systems or Simpson Strong-Tie. The nails for these connectors shall be as specified by the manufacturers for capacity of the hardware. All callouts refer to Simpson product codes and names. Refer to cross reference tables provided by ACS and U.S.P. in their product catalogs.
- Provide fire stops at all intersections of stud walls at floor, ceiling and roof. Fire stops shall be 2x nominal thickness of wood and shall be the full width of the enclosed space. Place fire stops at a maximum spacing of 10'-0" in the vertical direction. Provide 2x fire stops in all turned spaces, vertical and horizontal, and at a maximum spacing of 10'-0" in each direction and at the same lines as fire stops in adjacent stud walls.
- Top plates of all stud walls shall be 2 pieces the same width as studs. Splices to lap 4'-0" minimum and be nailed/strapped per DETAIL 204.
- Boil bolts in wood shall be 1/32" to 1/16" larger than the nominal bolt diameter. All bolts shall have a standard cut washer under head and nut unless noted otherwise.
- All nuts and bolts shall be re-tightened prior to the application of sheathing, plaster, etc.
- Structural members shall not be cut for pipes, etc. Unless specifically detailed. Notching of horizontal structural members shall conform to DETAIL 212.
- Blocking

FLOOR TYPE	BLOCKING REQUIREMENTS
Conventional 2x system	Provide 2x BLKG between conventional joists and rafters at all bearing supports and above all shear walls.
I-Joist system	Provide solid BLKG above all shearwalls and when I-joists are non-continuous over bearing support. For I-joist continuous over bearing support, provide (1) 16d sinker per joist to top plate and omit BLKG at bearing support.
MFR truss system	Provide BLKG panels above all shearwalls per DETAIL 201, match panel sheathing and nailing requirements of shear wall below. U.N.O. Provide type 2x BLKG panel at every other bay when trusses are non-continuous over bearing support. For trusses continuous over bearing support provide (2) 16d sinkers per truss to top plate and omit BLKG panel at bearing support.

- Cross bridging or solid blocking shall be provided at 8'-0" o.c. Maximum for all conventional joists more than 12" deep unless both edges are held in line for their entire length.
- At Non-BRG walls, provide 1/4" to 3/4" gap between top plates and truss or joist bottom chord. Use Simpson DTV C at perpendicular walls.
- No let-in bracing allowed.
- A35, LTP4 or RBC's framing anchors may be substituted for each other for all connections as necessary.
- All beams to be supported with full bearing unless noted otherwise.
- At aligned posts and beams to have Simpson PB's, PC's and/or BC's minimum, U.N.O.
- Provide solid beam or floor girder truss per plans under parallel shearwalls on floor above.
- All foundation hold downs to be fastened to 4x4 post, minimum, U.N.O..
- All conventional framed portions of the structure are to be constructed per section 2308
- If foundation sill plate splits, provide a "BP" bearing plate at all anchor bolts in split sill plate.
- It is structurally acceptable to use structural glued (Finger-Jointed) lumber. All finger-jointed lumber must be "CER EXT JNTS" and conform with the WWP/PA's glued products procedures and quality control. Finger-jointed lumber is to be stamped with "CER EXT JNTS" and may be used interchangeable with any Solid-Sawn lumber product of the same species and grades. Please refer to lumber specification in the structural general notes and calculations.

TYPICAL HANGERS, UNO. PER PLAN

FRAMING	CONDITION	SIMPSON	USP	ALLOWABLE LOAD
MFR ROOF TRUSSES	TO GIRDER	Per MFR LUS26	Per MFR JUS26	1115
	TO BEAM	LUS26	JUS26	1115
	TO 2x LEDGER			
CONV. JOIST	TO BEAM	LUS*	JUS*	VARIES
	TO 2x LEDGER	LUS*	JUS*	VARIES
I-JOIST	TO BEAM	IUS*	THF*	VARIES
	TO 2x LEDGER	IUS*	THF*	VARIES
MFR FLOOR TRUSSES	TO PLR GIRDER	Per MFR MSH413	Per MFR JUS46	1000
	TO 2x LEDGER	LUS46		

Notes:  
1) At USP "THF" hanger; no nails required at bottom

STRUCTURAL STEEL

- All fabrication and erection shall conform to the latest edition of the AISC manual of steel construction.
- Structural steel shall conform to the following ASTM specifications:

STEEL	ASTM#
WT - SHAPES	A592
M. S. HP-SHAPES	A36 OR A572 GRADE 50
CHANNELS	A36 OR A572 GRADE 50
ANGLES	A36
STEEL PIPE	A53 GRADE B
ROUND HSS	A500 GRADE B OR C
SQUARE AND RECT. HSS	A500 GRADE B OR C
MACHINE BOLTS	A307 OR A490
PLATES & BAR	A36
- All steel exposed to weather shall be hot-dip galvanized after fabrication.
- All field welding shall be continuously inspected by a deputy inspector. Qualified in welding.
- All shop welding shall be done in a shop certified by building & safety.
- All full penetration groove welds shall be Ultrasonically Tested (UT) for the extent required per the current edition of the international building code and/or local amendments.
- Anchor bolts and unfinished bolts shall conform to ASTM A307.
- All welding electrodes shall conform to AWS E70XX.

MASONRY

- Concrete masonry units shall conform to ASTM C-90, grade N. All C.M.U. Shall be medium-weight with maximum linear shrinkage of 0.06%, with an allowable compressive strength of 2000 psi and F'm = 1500 psi.
- All vertical reinforcing in masonry walls not retaining earth shall be located in the center of the wall, U.N.O.
- Aggregate shall conform to ASTM C-144 (mortar) and ASTM C-404 (grout).
- Portland cement shall be as specified for concrete.
- Mortar shall be type "S" with a MIN. Compressive strength of 1800 psi.
- Grout shall attain a minimum compressive strength of 2000 psi.
- Masonry veneer shall be as per chapter 14 of the applicable IBC.
- Provide 2-1/2" minimum grout space and 1/2" minimum grout between reinforcing bars and masonry.
- Set bolts, anchors, reglets, sleeves, inserts, or other items necessary for the attachment of subsequent work.
- Refer to architectural drawings for type of units, laying pattern and joint details. Unless specifically noted otherwise, all concrete block and brick shall be laid in running bond.
- All cells with steel and/or cells below grade are to be solid grouted. Retaining walls are to be solid grouted.
- It is structurally acceptable to cut CMU's when constructing intermediate height walls.
- Vertical lap splices in masonry rebar shall be staggered 24 Bar DIA.
- Horizontal CMU wall reinforcing may be replaced w/ DUR-O-WALL truss and ladur systems of equal steel area.

REINFORCING STEEL

- Reinforcing steel shall conform to ASTM#A615, grade 40 for sizes #3 and #4 and grade 60 for sizes #5 and larger.
- Welded wire fabric (mesh) shall conform to the latest revised ASTM A185, lap 1-1/2 spaces, 9" minimum. Smooth wire fabric shall conform to ASTM A85, yield strength 60 ksi.
- Welding of reinforcing steel shall conform to AWS D12-1 using proper low hydrogen electrodes. All bars to be welding shall conform to ASTM A706.
- All bars in masonry shall be lapped a minimum of 40 bar diameters (2'-0" min.) at all splices unless noted otherwise.
- All bars in concrete shall be lapped per DETAIL 115.
- Splices of horizontal rebar in walls and footings shall be staggered 4'-0" minimum.
- Dowels for walls and columns shall be the same size and spacing as the wall/column reinforcing unless noted otherwise.
- All bending of reinforcing steel shall conform to Section 25.3 of ACI 318-14.
- All reinforcing bars shall be accurately and securely placed before pouring concrete, or grouting masonry.
- Vertical lap splices in masonry rebar shall be staggered 24 bar diameters.

CONCRETE

- All concrete shall attain a minimum compressive strength as noted in the project design criteria.
- Cement shall be Portland cement conforming to ASTM C-150, as required to satisfy site soil conditions as determined by the project soils engineer. See project design criteria for requirements.
- Aggregates shall be natural sand and rock conforming to ASTM C33.
- The following minimum clear distances between reinforcing steel and face of concrete shall be maintained unless noted otherwise:

CONCRETE CONDITION	MINIMUM COVER, (IN.)	CONCRETE CONDITION	MINIMUM COVER, (IN.)
SLAB OR GRADE	2"	CONCRETE EXPOSED TO EARTH & WEATHER	1-1/2"
CONCRETE AGAINST & PERMANENTLY EXPOSED TO EARTH (EXCEPT SLABS)	3"	#3 - #6 BARS	2"
		#6 - 18 BARS	1-1/2"
- Pipes may pass through structural concrete in sleeves, but shall not be embedded therein. Pipes or ducts exceeding one-third the slab or wall thickness shall not be placed in the structural concrete unless specifically detailed.
- Provide 3/4" chamfers at all exposed corners.
- Refer to architectural drawings for reveals, areas of textured concrete or special finishes, items required to be cast into the concrete, curbs and slab depressions.
- Drypack shall be composed of one part Portland cement to not more than three parts sand.
- All conventional foundations are designed for soils with "VERY LOW" to "LOW" expansive" potential (Ei ≤ 50) unless specifically noted otherwise on the foundation plans.
- Refer to ACI 318-14 section 19.3 for requirements when concrete is exposed to sulfate containing solutions. See table below for reference.

CONCRETE SPECIFICATIONS w/ SOIL SULFATE CONDITION ACI 318-14 TABLE 19.3.11 & 19.3.2.1

SULFATE EXPOSURE	CLASS	WATER-SOLUBLE SULFATE (AS) IN SOIL PERCENTAGE BY WEIGHT	SULFATE (SO <sub>4</sub> ) IN WATER, ppm	CEMENT TYPE	NORMAL-WEIGHT AGGREGATE	MAXIMUM WATER-REDUCING AGGREGATE CEMENTitious MATERIALS PER 100 LBS OF NORMAL-WEIGHT AGGREGATE CONCRETE
NEG/IGIBLE	S0	0.00-0.10	0-150	-----	-----	-----
MODERATE*	S1	0.10-0.20	150-1500	IL (IPMS), (ISMS)	0.50	4000
SEVERE	S2	0.20-2.00	1500-10000	V	0.45	4500
VERY SEVERE	S3	OVER 2.00	OVER 10000	V PLUS POZZOLAN <sup>1</sup>	0.45	4500

- When both Table 19.3.1.1 and Table 19.3.2.1 are considered, the lowest applicable maximum water-cementitious material ratio and highest applicable minimum F'c shall be used.
- Seawater
- Pozzolan has been determined by test or service record to improve sulfate resistance when used in concrete containing Type V cement.

SPECIAL INSPECTION PROGRAM

ADDRESS OR LEGAL DESCRIPTION: SW/C North Lisbon Street & Athens Avenue (APN #160-33-801-003)

PLAN CHECK NUMBER: \_\_\_\_\_ OWNER'S NAME: South West Enterprise Holdings LLC

I, as the owner, or agent of the owner (contractors MAY NOT employ the special inspector), certify that I, will be responsible for employing the special inspector(s) as required by International Building Code (IBC) SECTION 1701.1 for the construction project located at the site listed above.

SIGNED: \_\_\_\_\_

I, as the engineer of record, certify that I have prepared the following special inspection program as required by IBC SECTION 1701.1 for the construction project located at the site listed above.

SIGNED: \_\_\_\_\_

1. LIST OF WORK REQUIRING SPECIAL INSPECTION:  
☒ SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION  
☒ STRUCTURAL CONCRETE OVER 2500 PSI  
☒ PRESTRESSED/ POSTENSION CONCRETE  
☒ EXPANSION/EPOXY ANCHORS  
☒ STRUCTURAL MASONRY  
☒ DESIGNER SPECIFIED  
☐ OTHER \_\_\_\_\_

2. NAME(S) OF INDIVIDUAL(S) RESPONSIBLE FOR THE SPECIAL INSPECTIONS LISTED ABOVE:  
A. \_\_\_\_\_  
B. \_\_\_\_\_  
C. \_\_\_\_\_

3. DUTIES OF THE SPECIAL INSPECTORS FOR THE WORK LISTED ABOVE:  
A. Special inspection required for soils as required by the Geotechnical Report and 2018 IBC Table 1706.6.  
B. Rebar / Bolt / Threaded rod / Anchors in epoxy grout or expansion anchors shall be reviewed based on the requirements of the products' ICC-ES ESR report and applicable manufacturer's specifications.  
C. \_\_\_\_\_  
D. \_\_\_\_\_

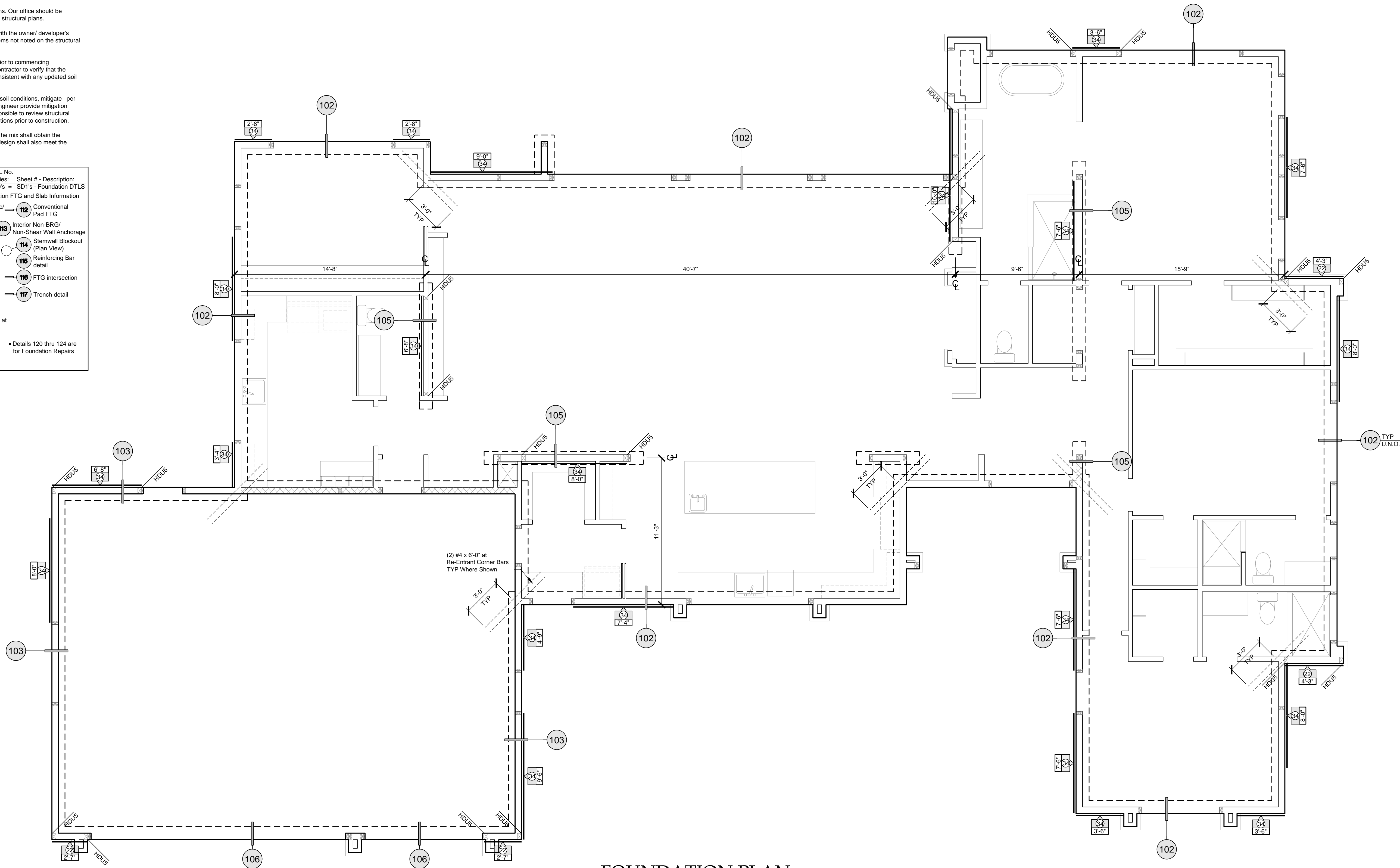
SPECIAL INSPECTORS SHALL CHECK IN WITH THE CITY OR COUNTY AND PRESENT THEIR CREDENTIALS FOR APPROVAL PRIOR TO BEGINNING WORK ON THE JOB.

STRUCTURAL SHEET INDEX									



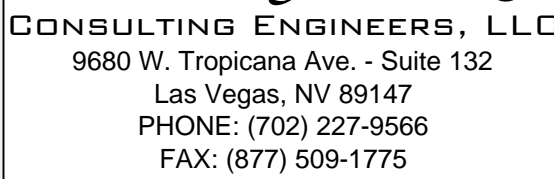
1. All wood stud walls shall be secured to the concrete foundation per DETAIL 107 & 113. Refer to DETAIL 121 for repair of missing or misplaced anchor bolts.
2. All interior bearing and shear walls are to be secured with anchor bolts per DETAIL 107.
3. All interior non-shear, non-bearing walls are to be secured with shot pins installed per manufacturers recommendations, per DETAIL 113.
4. Where occurs install holdown anchor bolts per DETAIL 111. Provide and install all U.S.P. or Simpson lumber connectors (or equal) foundation hardware per manufacturers recommendations. Deepen footing where necessary to provide anchor embedment at holdown locations.
5. Holdown anchors would be placed in place prior to foundation inspections.
6. Refer to DETAIL 107 for anchor bolt installation.
7. Refer to detail package for typical conditions not specifically called out or noted on plans.
8. Refer to the foundation requirements on the foundation plan & DETAIL SHEET SD1 for the "VERY LOW" & "LOW" expansion categories. The foundation design shown is for expansion index (E) ≤ 51 only w/ a total expected settlement not to exceed 1" over a span of 40 feet. The client / owner shall provide an alternate foundation design for lots with an expansion index greater than 50.
9. All dimensions shall be verified with the latest set of architectural plans. Our office should be notified immediately if discrepancies exist between the architectural & structural plans.
10. Foundation sizes, depths, and reinforcement should be coordinated with the owner/ developer's soils engineers report. Soils engineer report may require additional items not noted on the structural plans.
11. Owner/ developer and subcontractors are to review the soils report prior to commencing construction. It is the responsibility of the owner, developer and subcontractor to verify that the report date NOTED ON SNI is current and plan requirements are consistent with any updated soil reports.
12. Client owner shall address corrosive soil conditions. For high sulfate soil conditions, mitigate per ACI 318 tables 4.2.8 & 4.3. The Client Owner shall have a concrete engineer provide mitigation recommendations for all other corrosive soil conditions. Client is responsible to review structural plans and details for compliance to corrosion engineer's recommendations prior to construction.
13. The concrete mix design shall be provided by the concrete supplier. The mix shall obtain the minimum concrete 28-day strengths noted on SHEET SNI, the mix design shall also meet the minimum requirements of ACI 318 tables 4.2.8 & 4.3, & the client.

	Indicates Post Tension tendon identification number		100's = SD1's - Foundation DTI
	Indicates Anchor bolt spacing in "Inches on center" at muddsil		102 Conventional Slab/Exterior FTG
	Indicates Length of anchor bolts spacing at muddsil.		103 Exterior FTG w/ Stem
	Indicates Bolted type holdown connectors		104 Step in Slab FTG
	Indicates Strip type holdown connectors		105 Interior BRG or Shear Wall Slab FTG at Garage Door
	Change in drawing since last submittal.		106 Anchor bolt specifications
			107 Box Column FTG w/ Tie Beams
			108 Box Column FTG at isolated Pad FTG Post Pedestal
			109 Connection
			110 Trench detail
			111 Reinforcing Bar detail
			112 FTG intersection
			113 FTG intersection
			114 FTG intersection
			115 FTG intersection
			116 FTG intersection
			117 FTG intersection
			118 FTG intersection
			119 FTG intersection
			120 FTG intersection
			121 FTG intersection
			122 FTG intersection
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			126 FTG intersection
			127 FTG intersection
			128 FTG intersection
			129 FTG intersection
			130 FTG intersection
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			147 FTG intersection
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			150 FTG intersection
			151 FTG intersection
			152 FTG intersection
			153 FTG intersection
			154 FTG intersection
			155 FTG intersection
			156 FTG intersection
			157 FTG intersection
			158 FTG intersection
			159 FTG intersection
			160 FTG intersection



# FOUNDATION PLAN

SCALE : 1/4" = 1'-0"



Drawn By: EDM
---------------

[illegible]

No:	Revision:	Date:
SUBMITTAL FEBRUARY 20, 2019		

2-20-2019

Owner/Developer: SOUTH WEST ENTERPRISE HOLDINGS LLC

Sheet Description:

FOUNDATION  
PLAN

File Name: S1-1-FD

Job No: 056-001

SHEET NUMBER

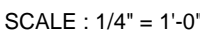
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2018 IBC

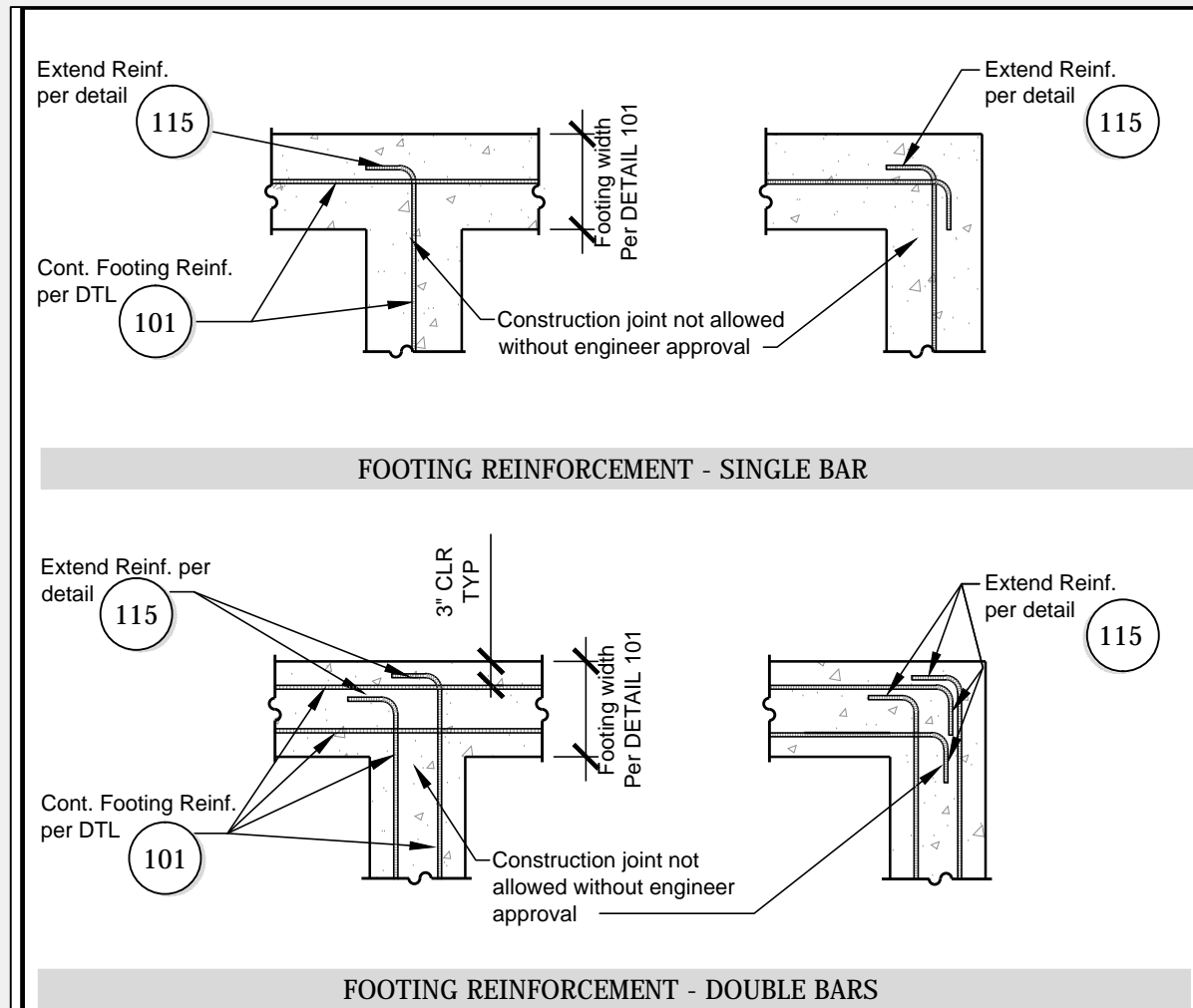




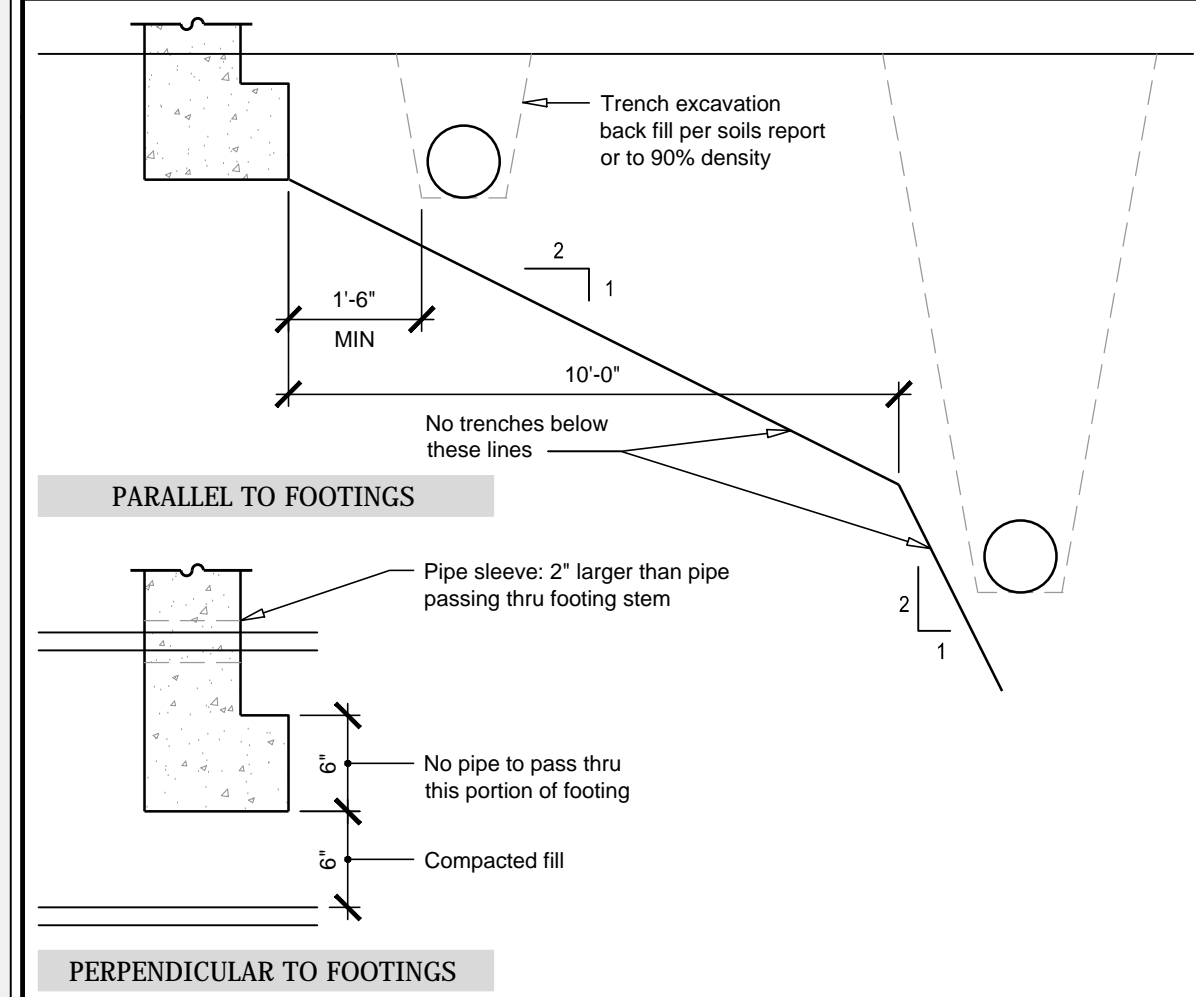








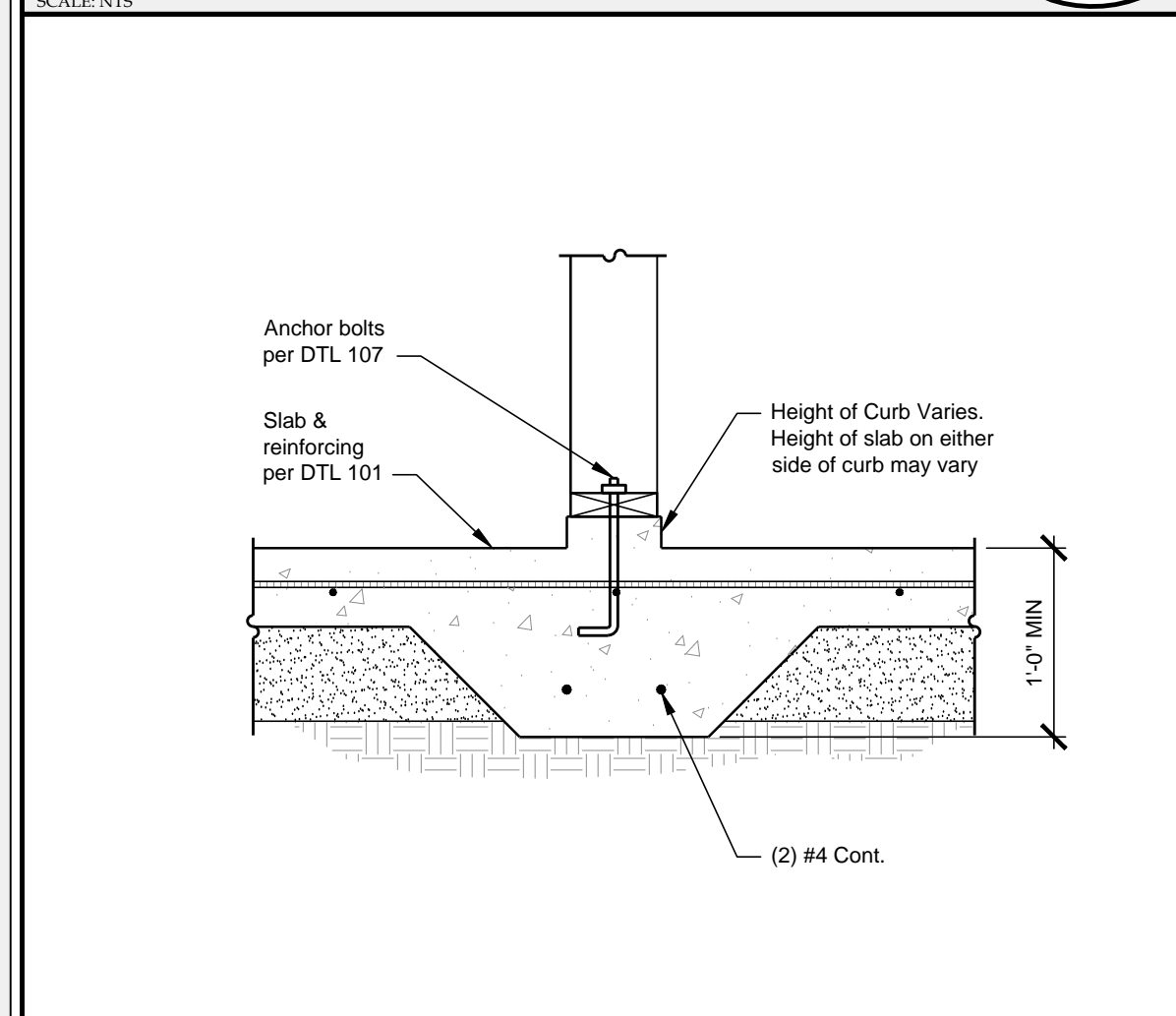
## FOOTING INTERSECTION



## TRENCH DETAIL

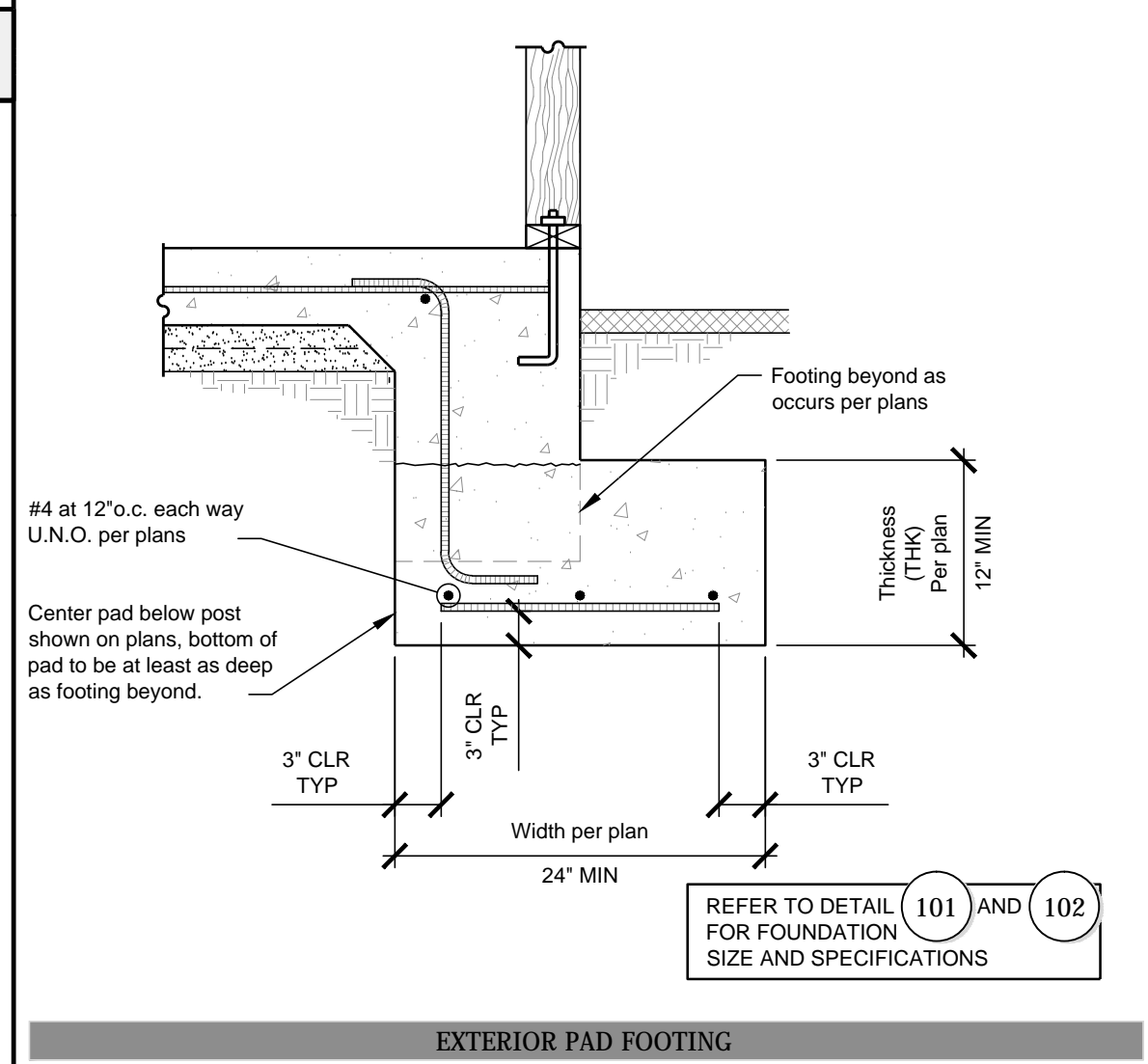
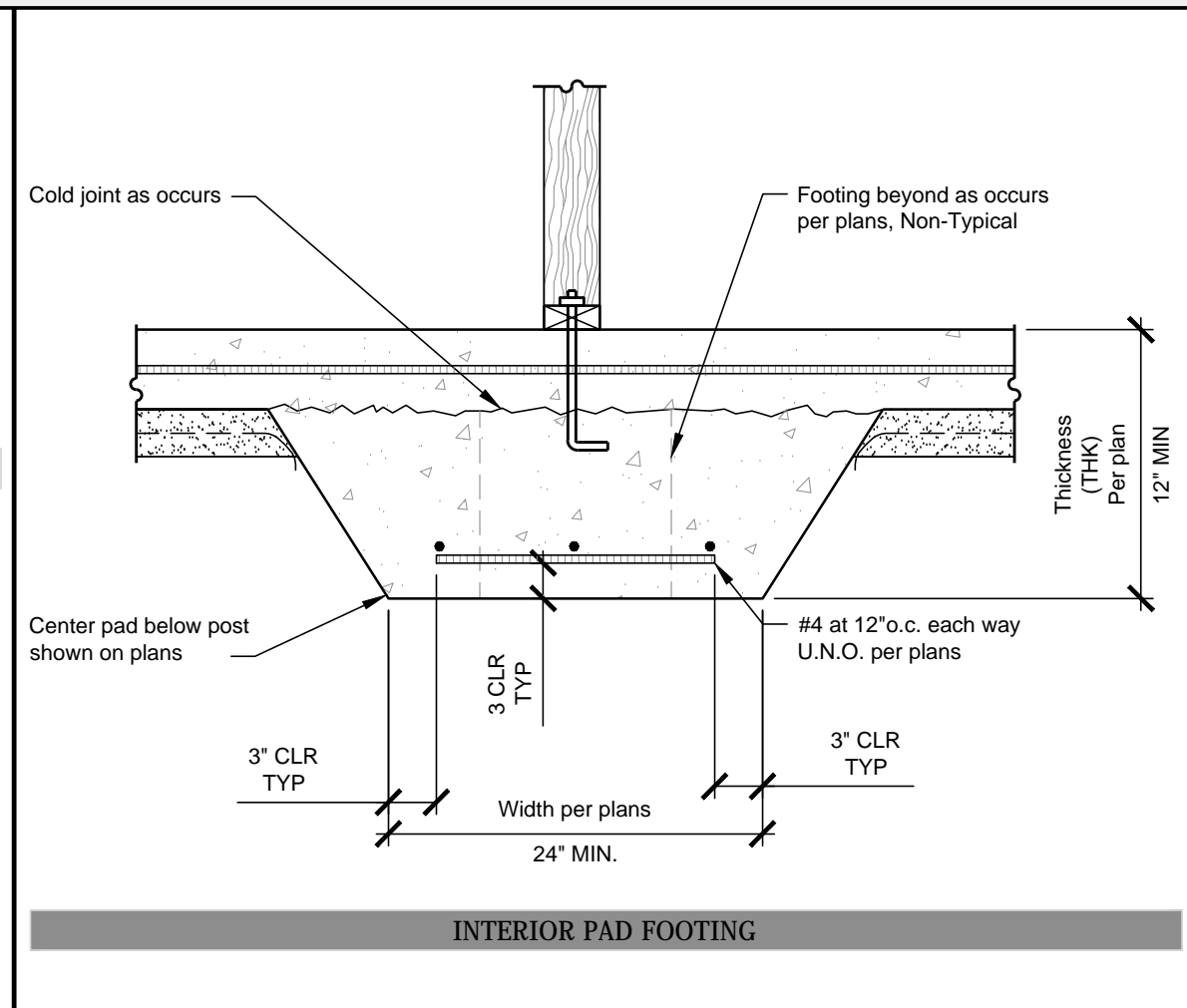


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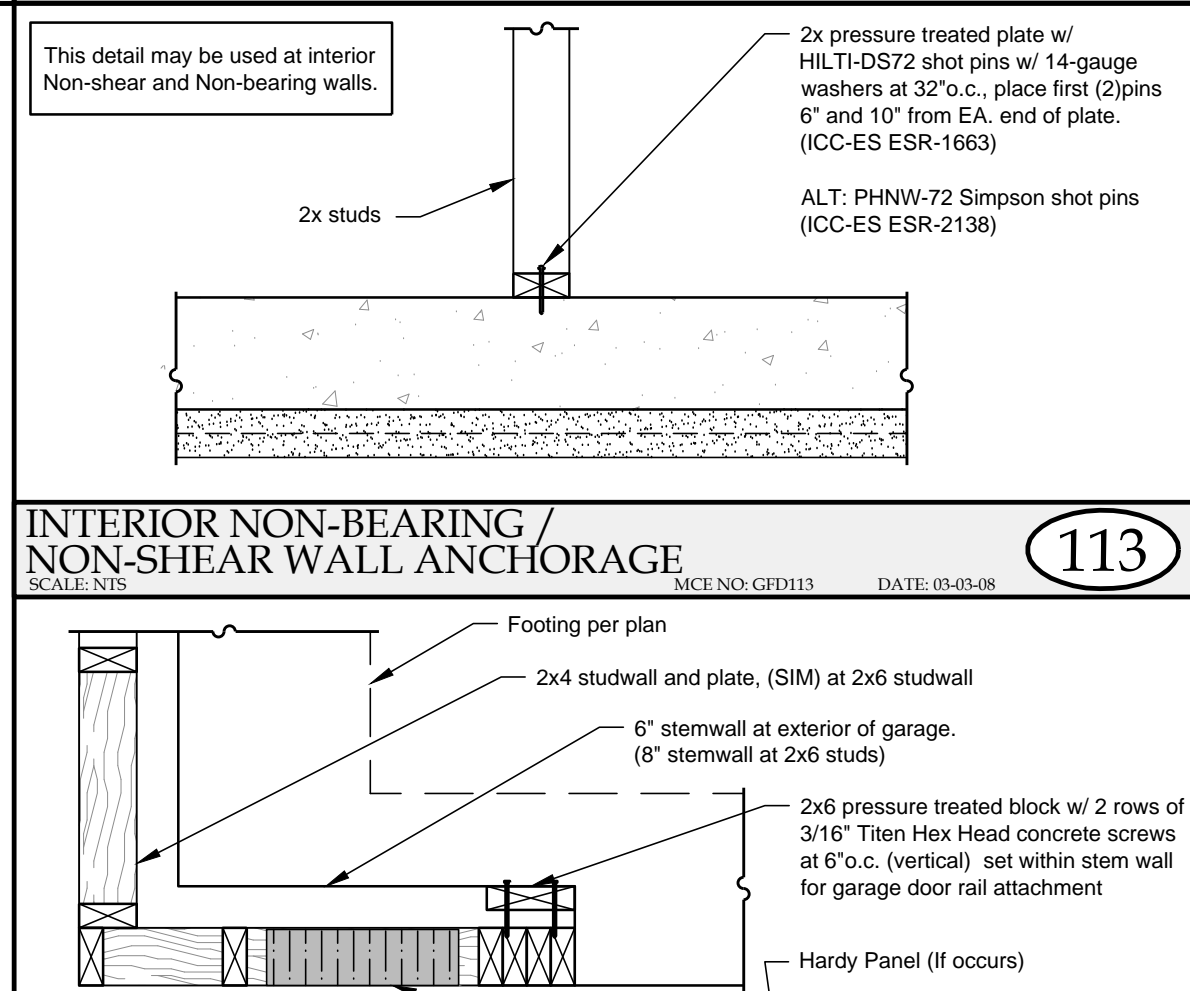


## CURB AT INTERIOR WALL

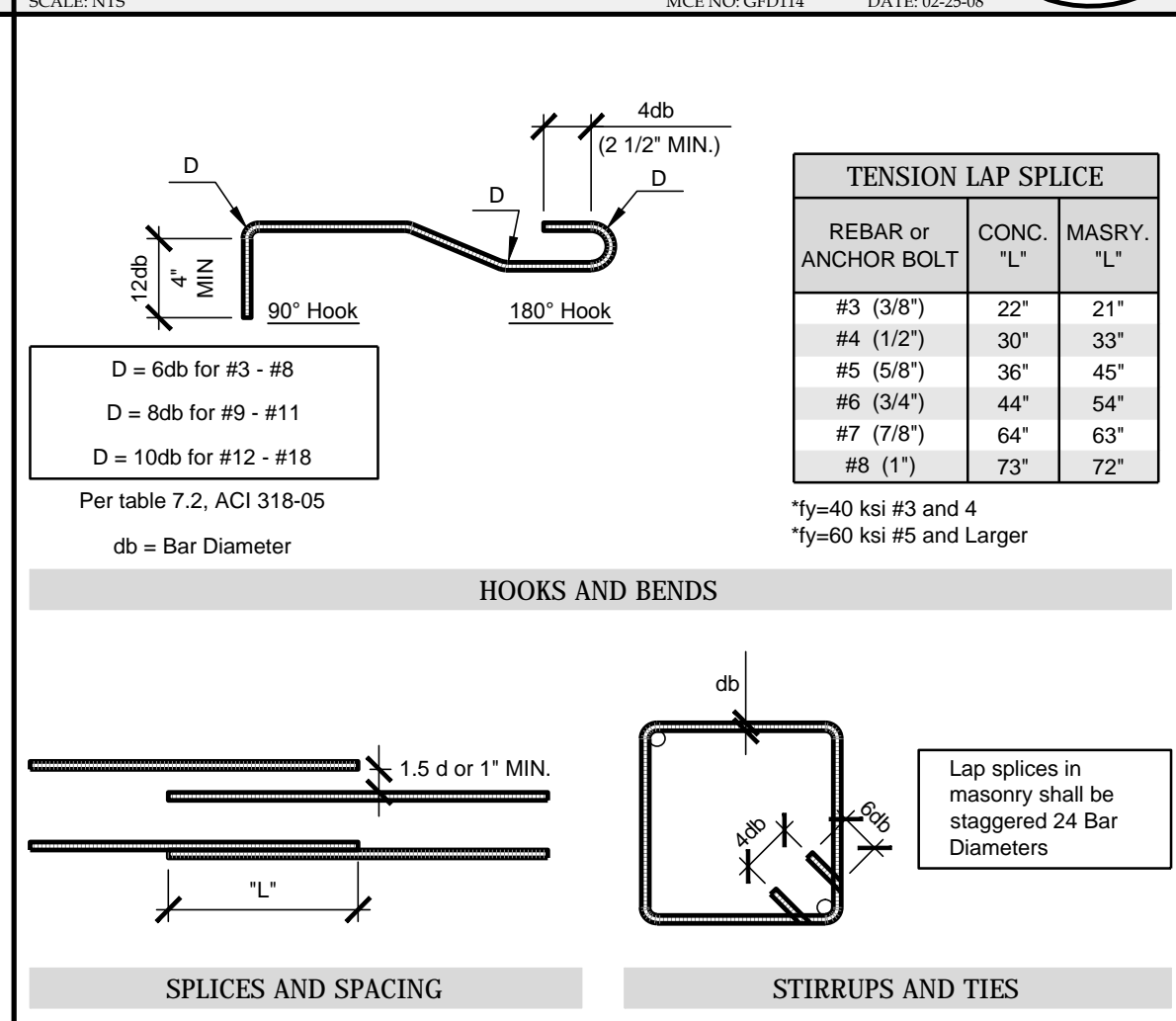
SCALE: NTS MCE NO. GFD116 DATE: 05-05-08



## CONVENTIONAL PAD FOOTING DETAIL

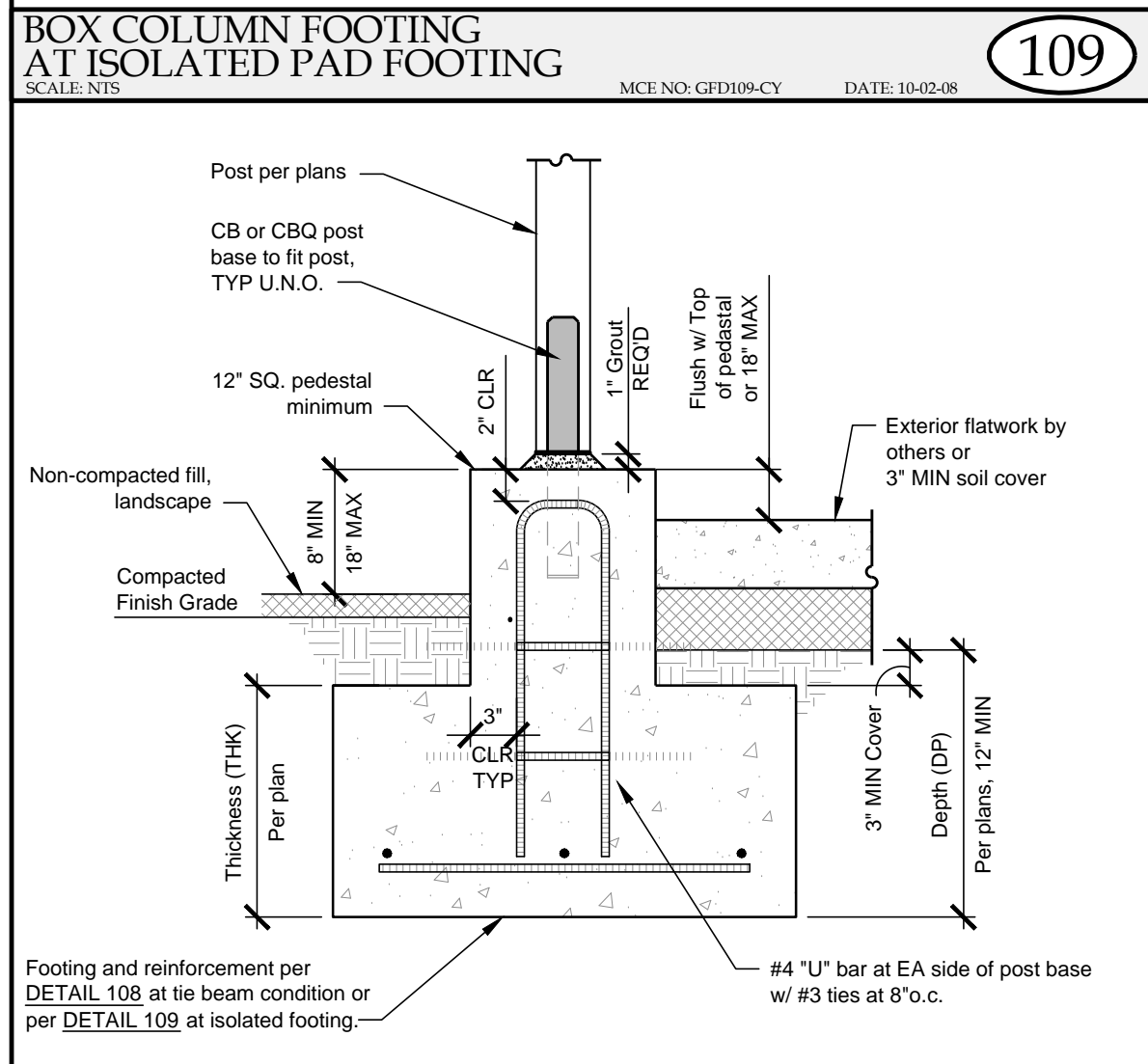
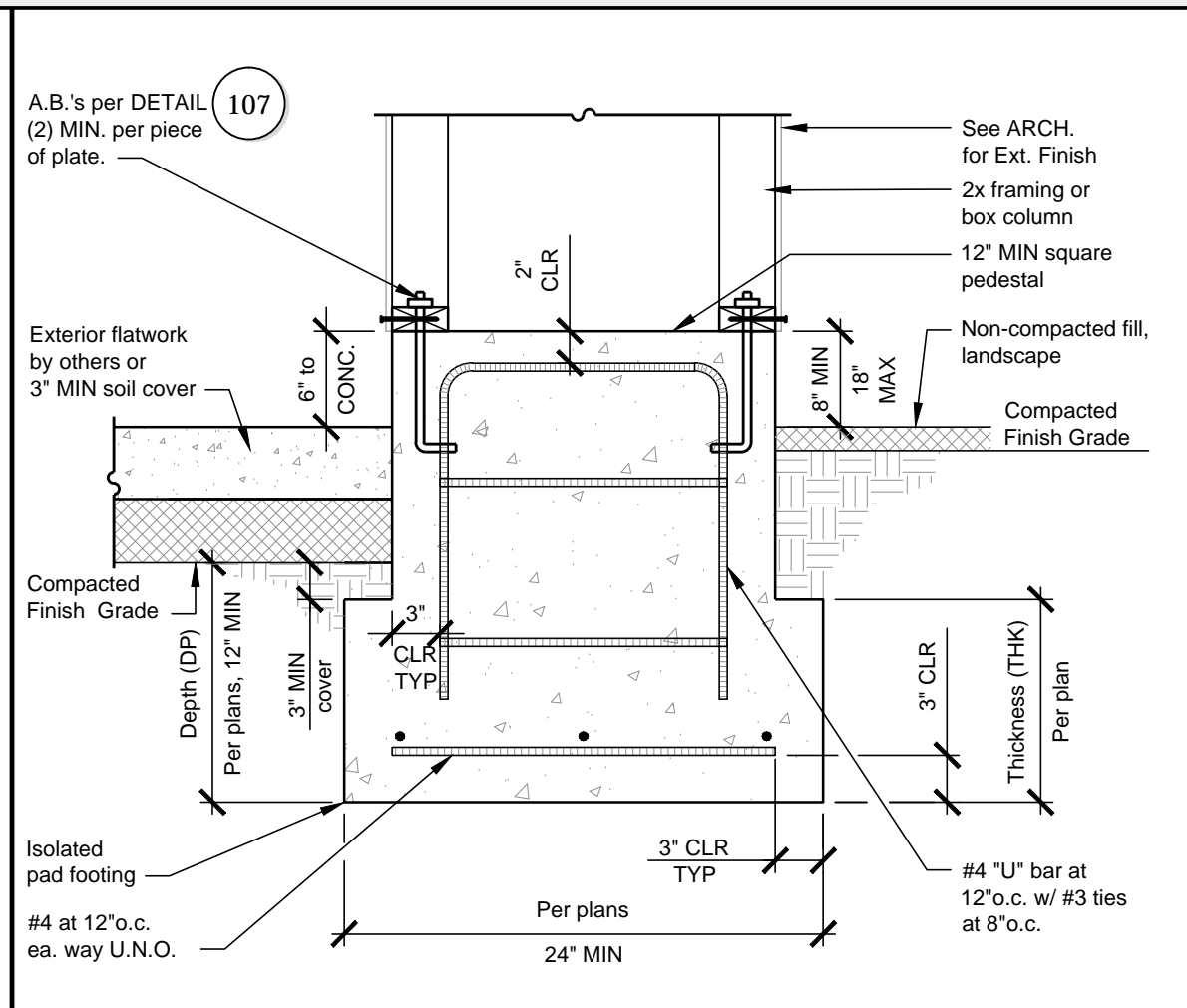


## INTERIOR NON-BEARING / NON-SHEAR WALL ANCHORAGE

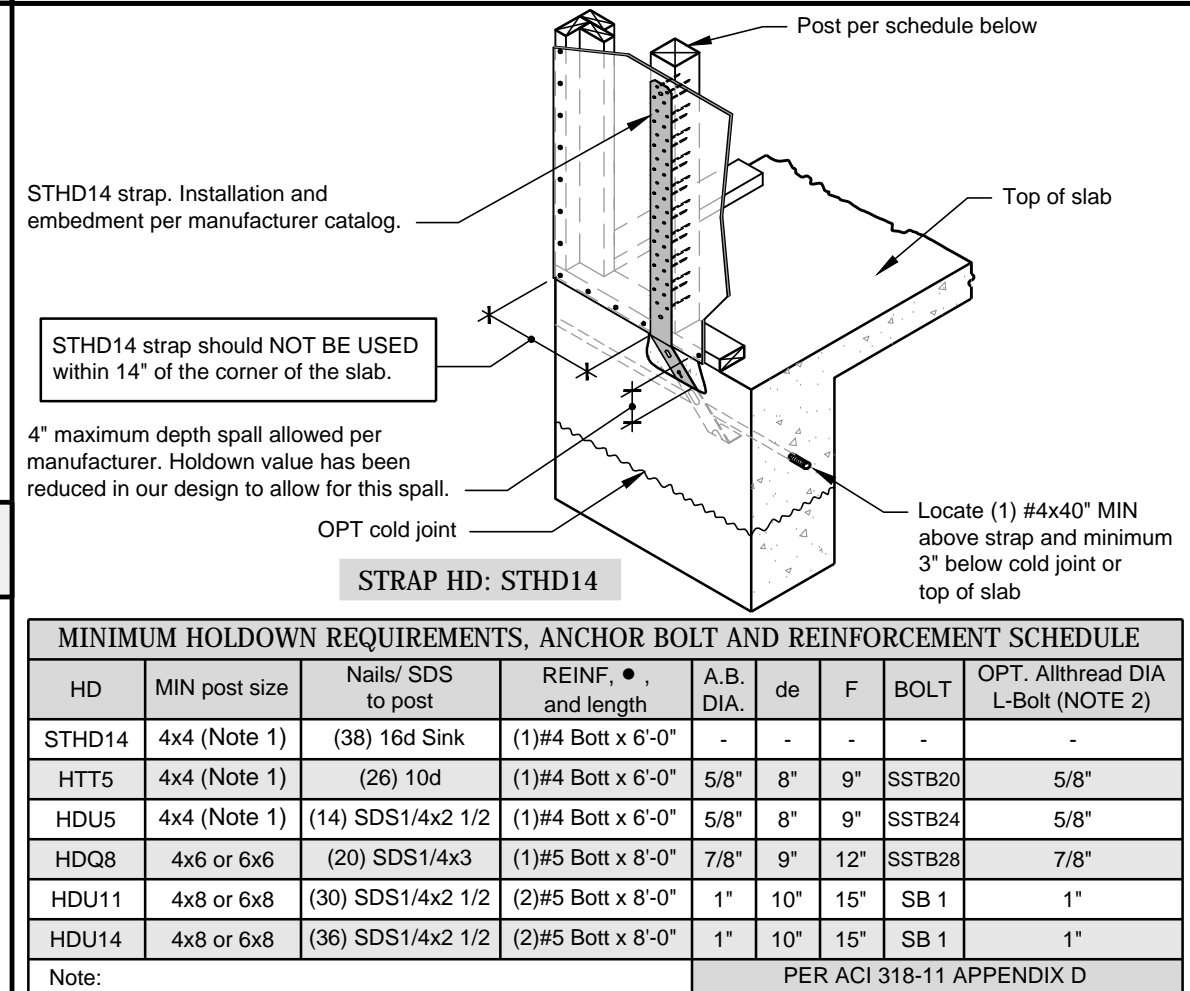


## STEMWALL BLOCKOUT (PLAN VIEW)

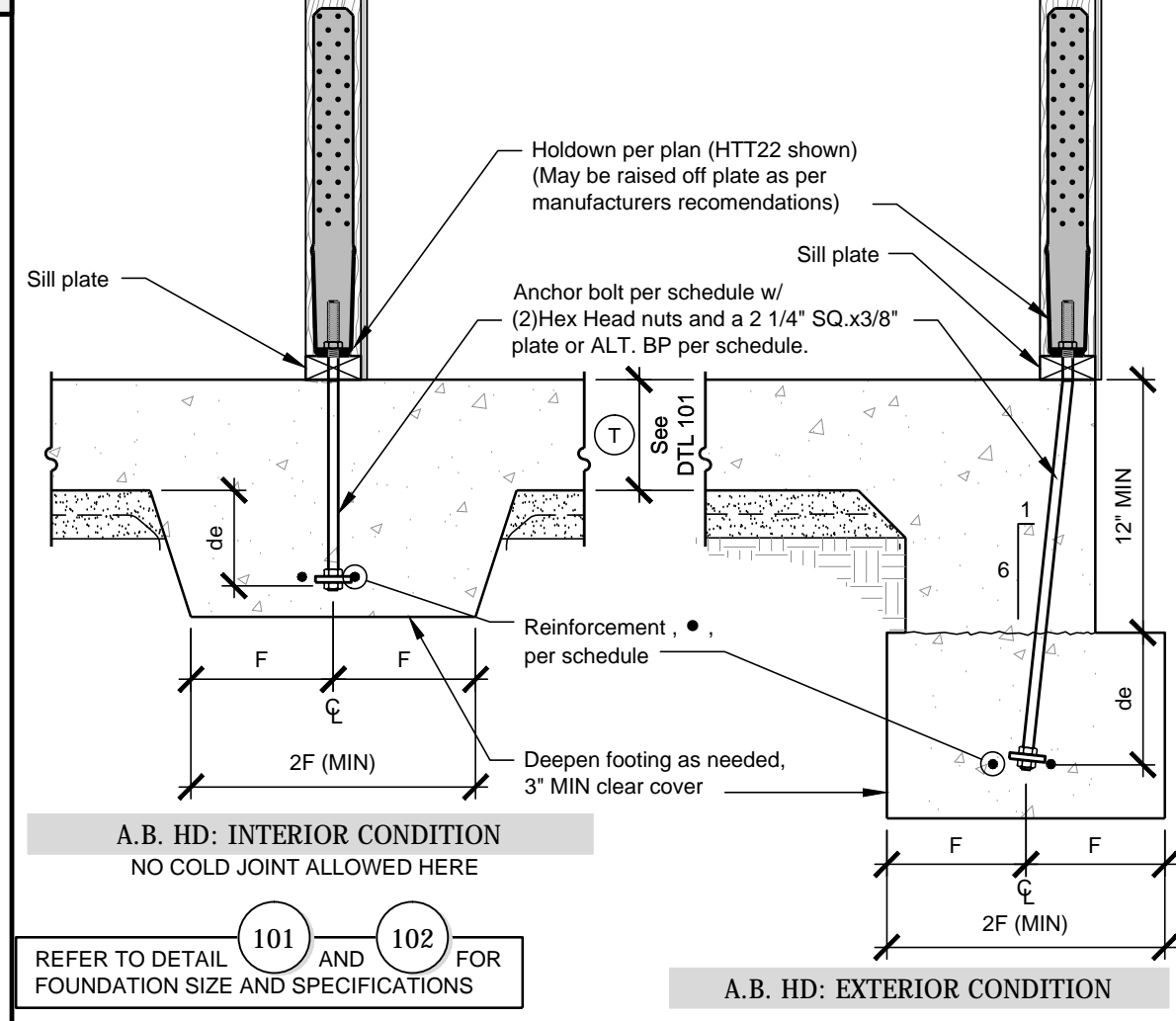
SCALE: NTS MCE NO. GFD114 DATE: 02-23-08



## CONVENTIONAL SLAB FOOTING AT GARAGE DOOR

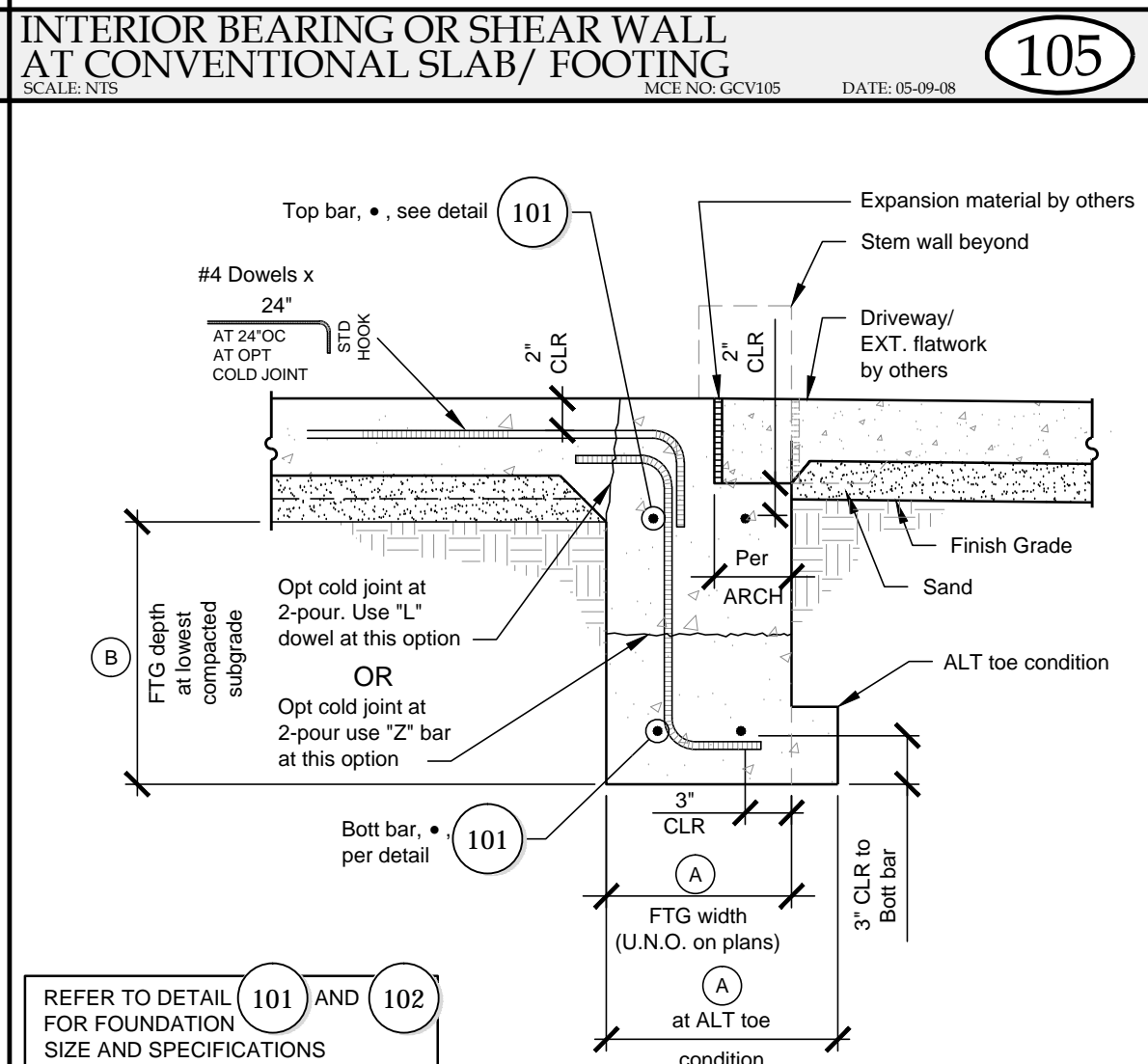
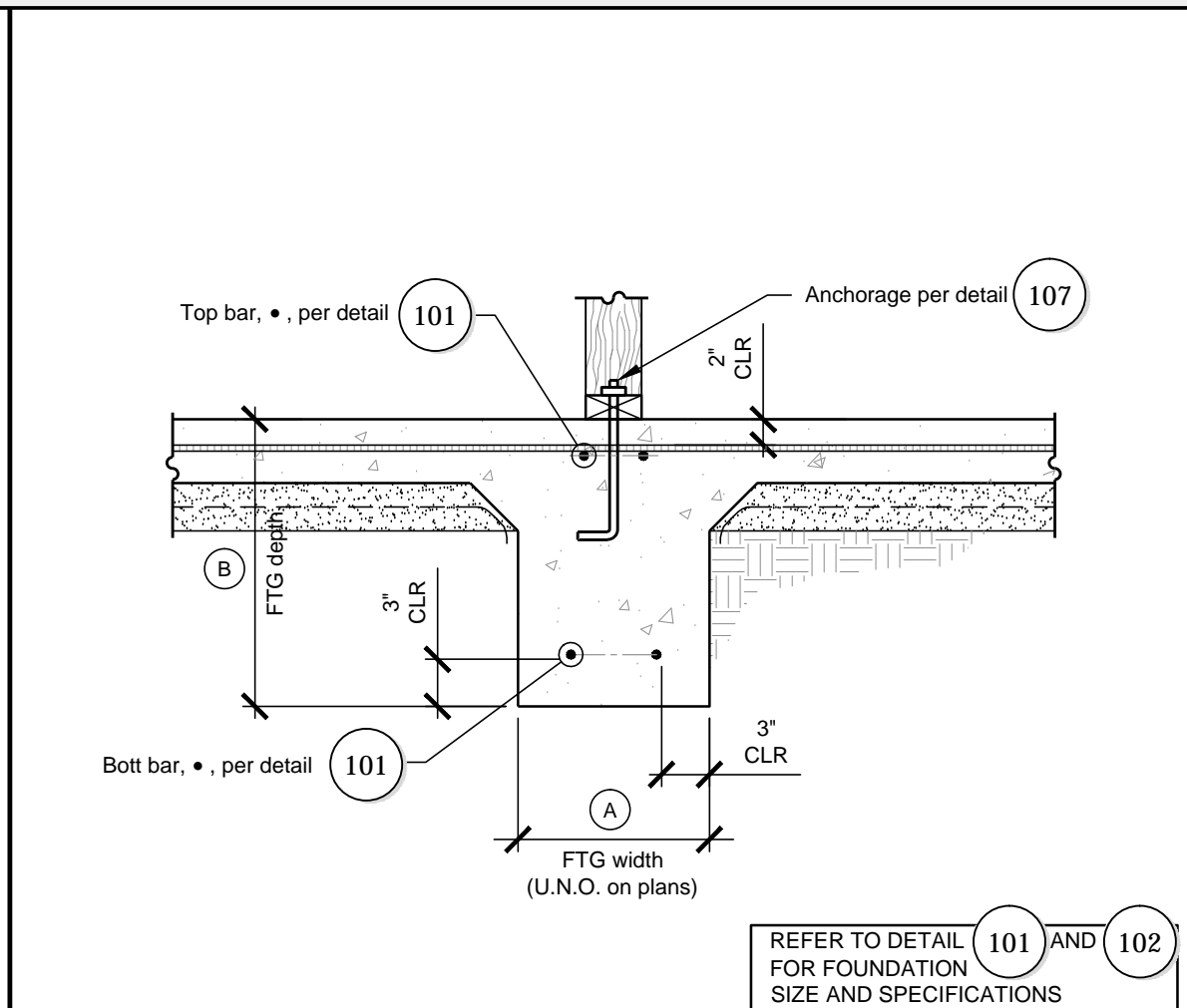


## ANCHOR BOLT SPECIFICATIONS

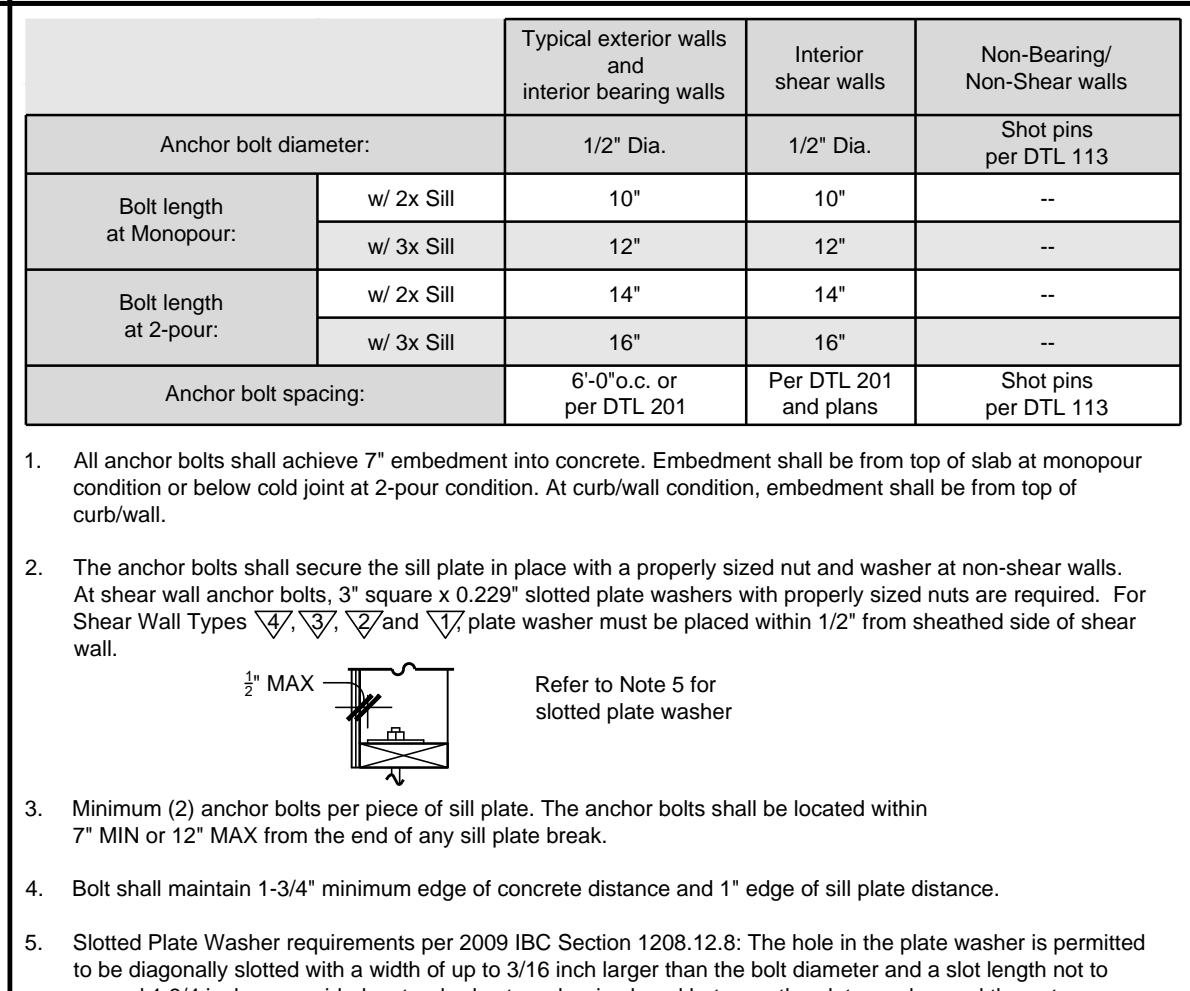


## BOX COLUMN FOOTING W/ TIE BEAMS

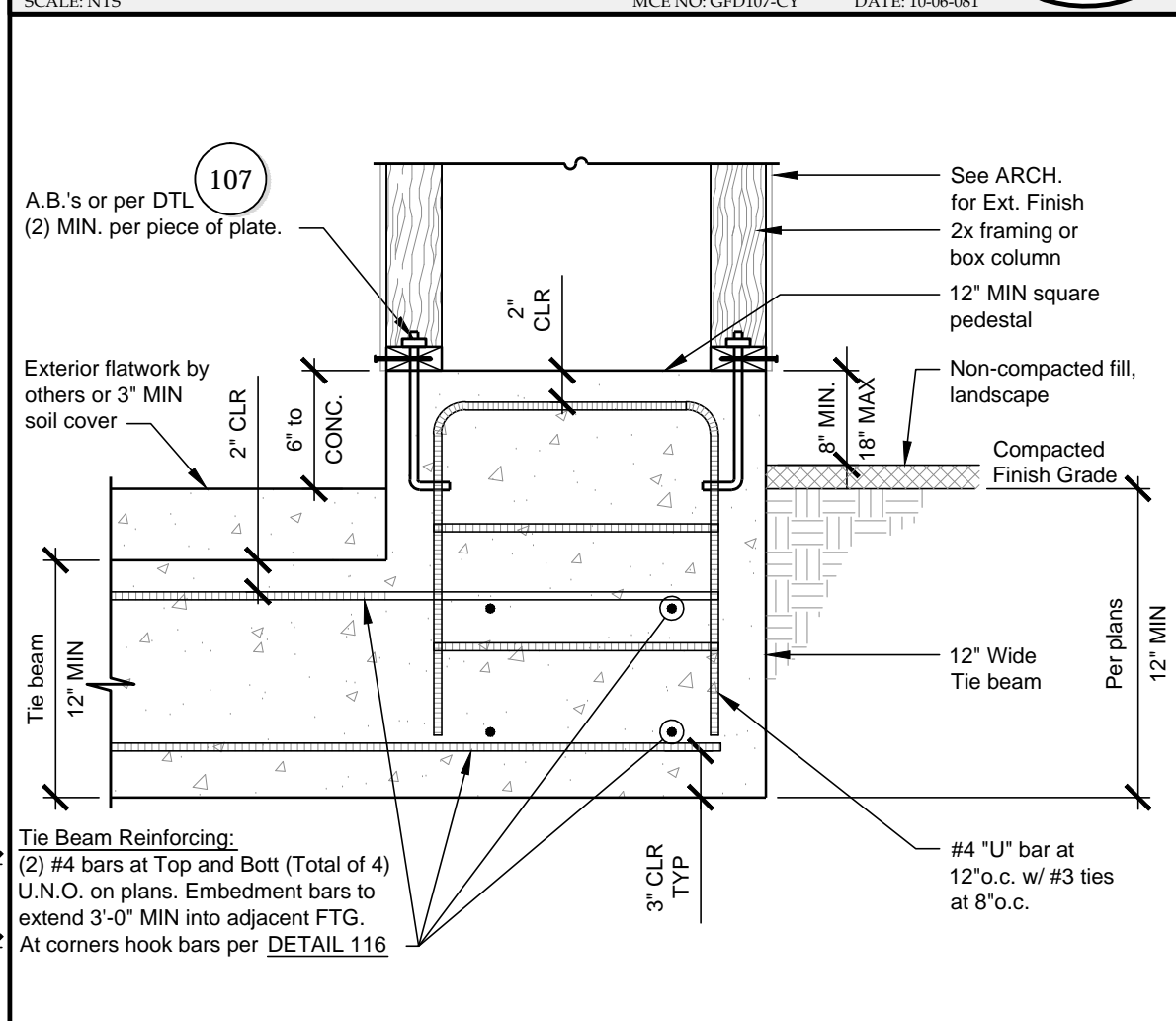
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## TYPICAL CONVENTIONAL SLAB/ EXTERIOR FOOTING

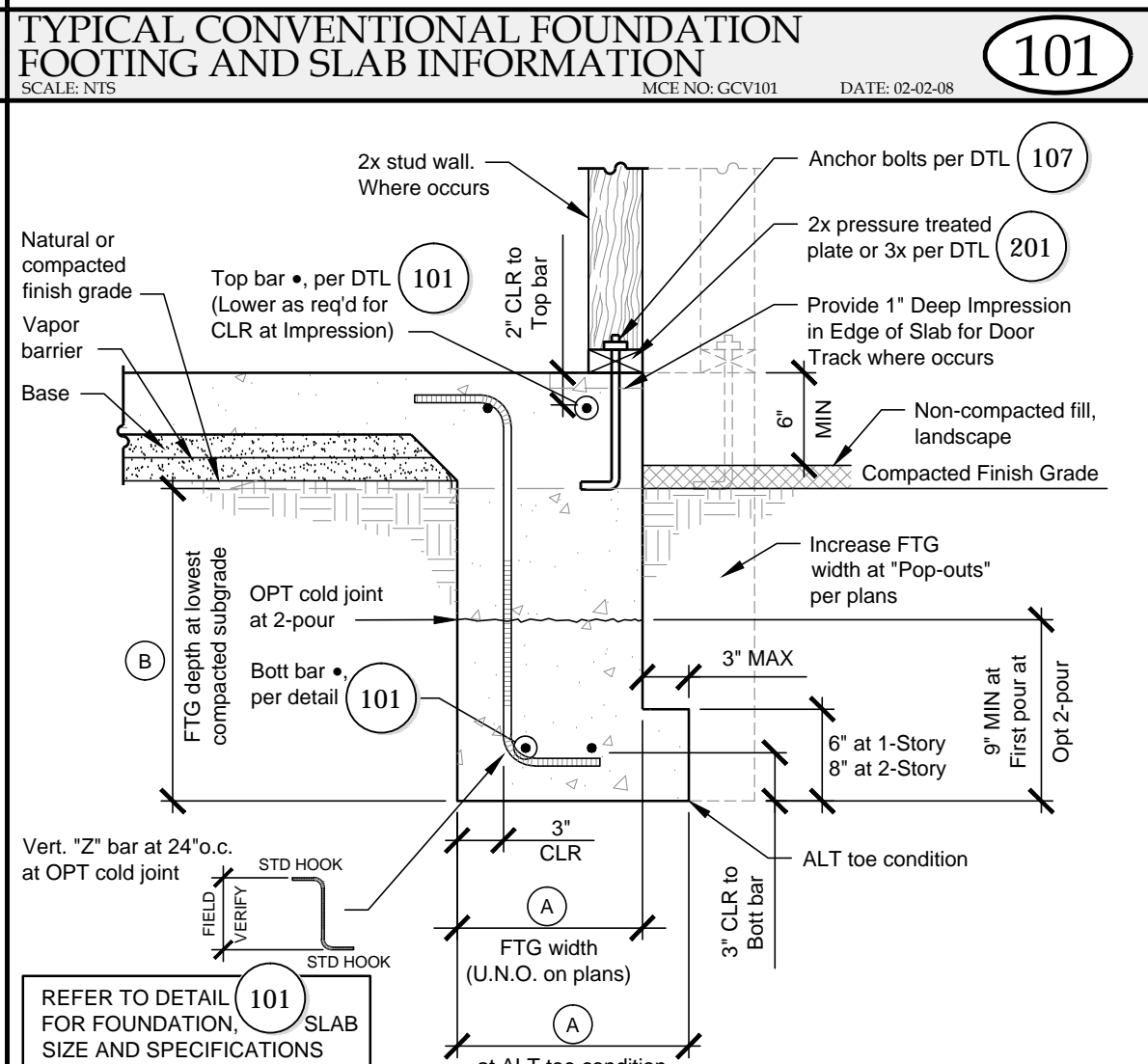
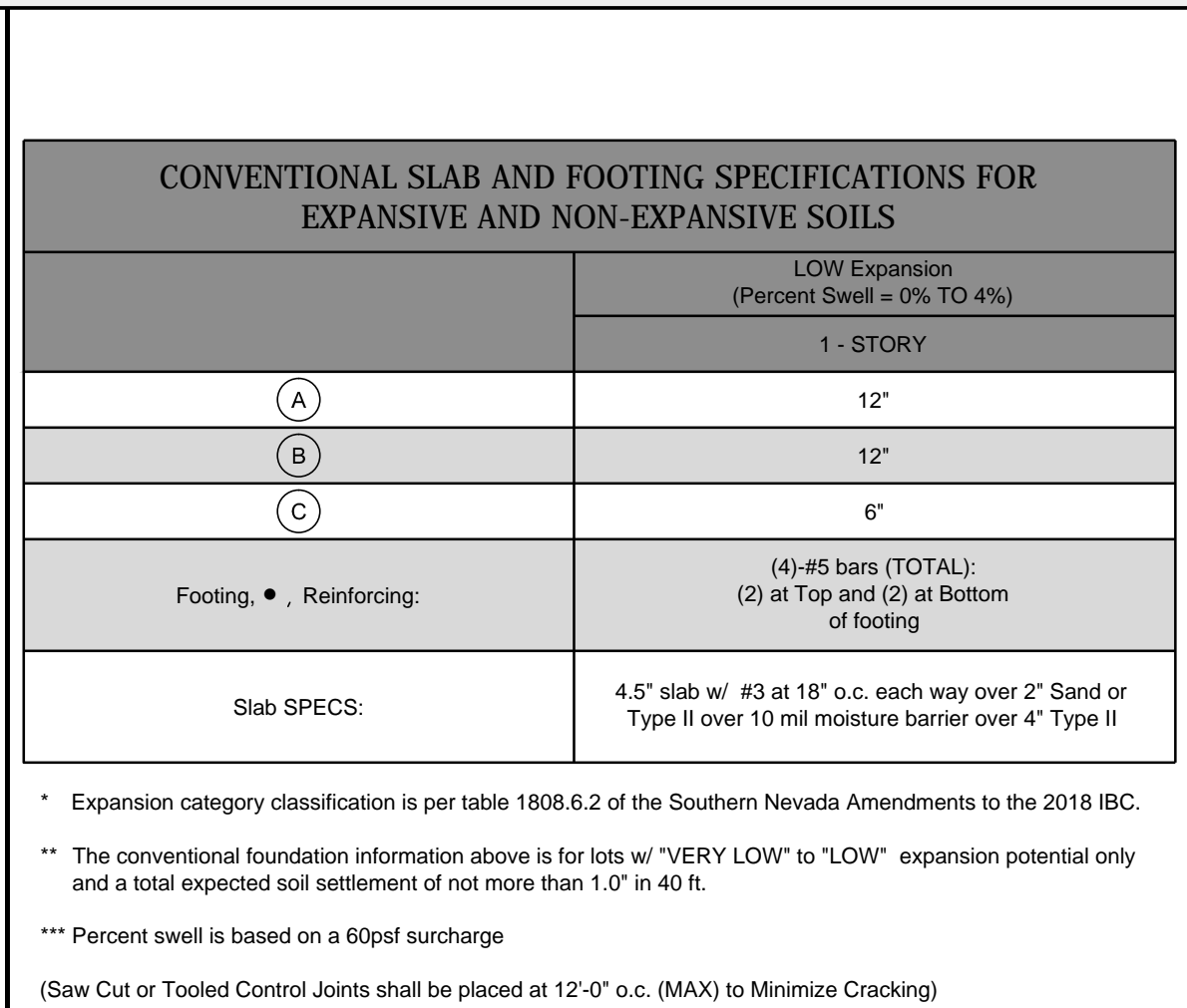


## TYPICAL EXTERIOR FOOTING WITH STEM

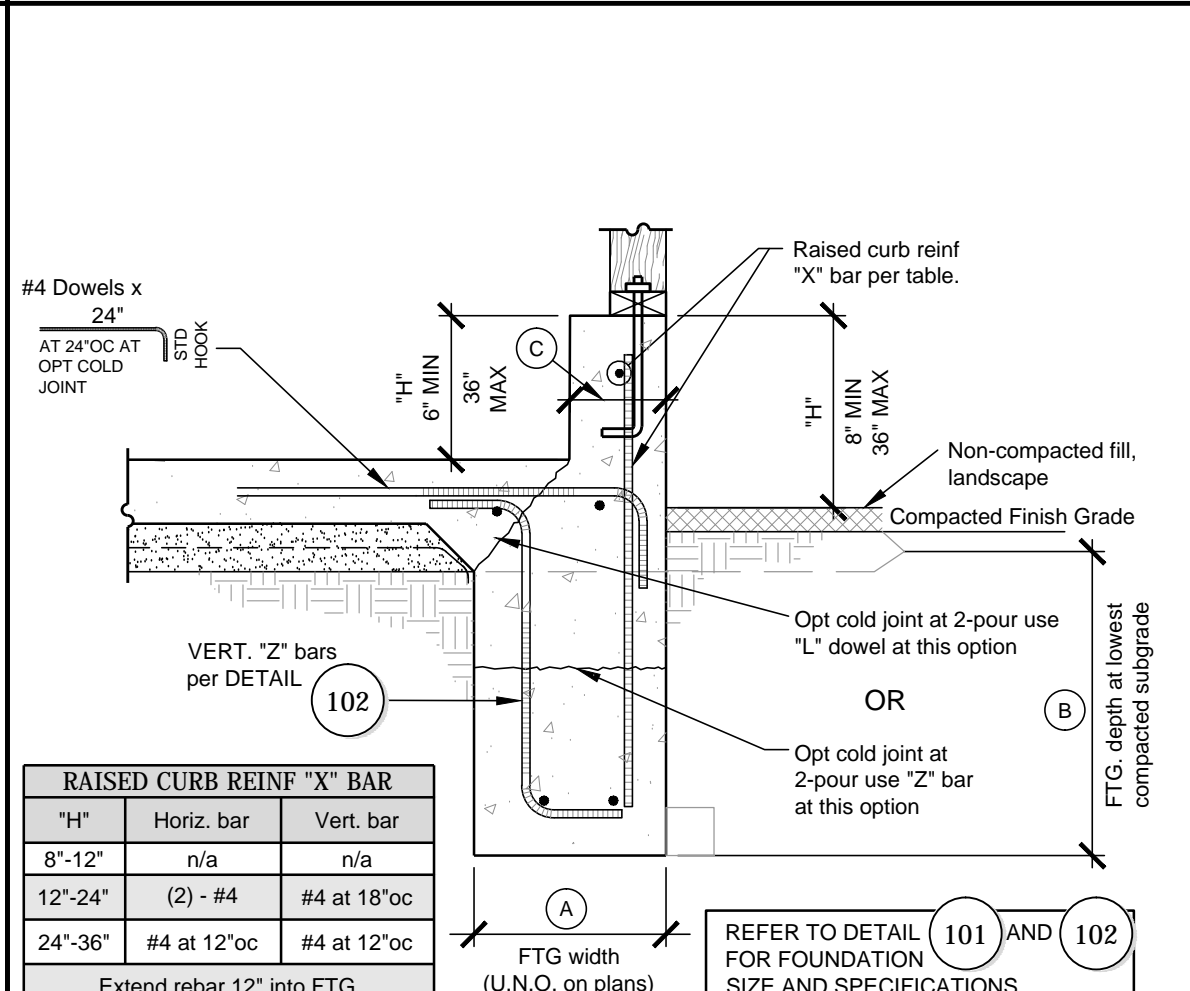


## CONVENTIONAL FOUNDATION DETAILS

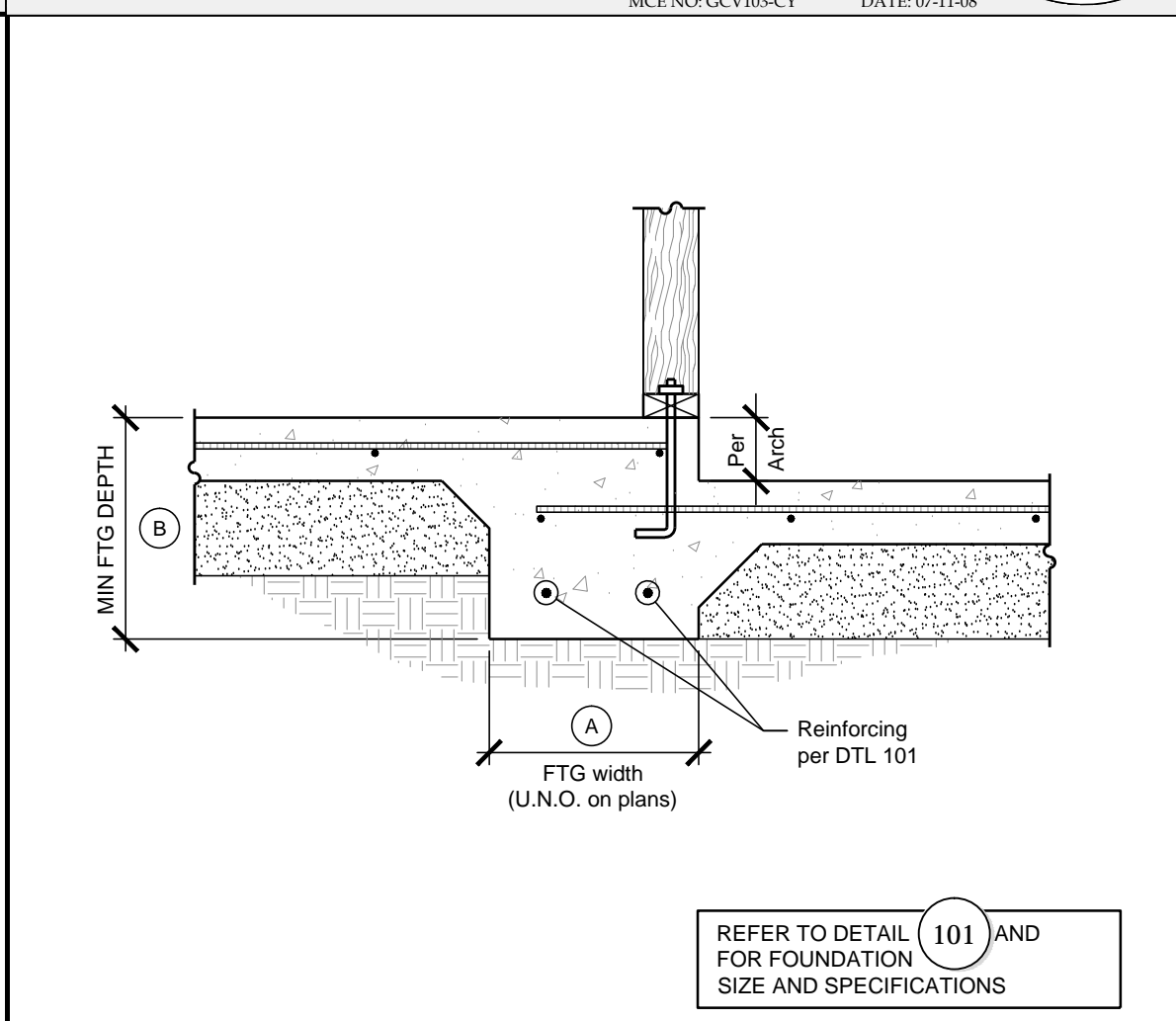
SCALE: NTS MCE NO. GCV103-CY DATE: 07-31-08



## TYPICAL CONVENTIONAL SLAB/ EXTERIOR FOOTING



## TYPICAL EXTERIOR FOOTING WITH STEM



## CONVENTIONAL FOUNDATION DETAILS

SCALE: NTS MCE NO. GCV104-CY DATE: 07-31-08

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9680 W. Tropicana Ave. - Suite 132  
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Project Engineer: EDM  
Contact: Elicia Montgomery  
email: elicia@montgomeryengineers.com  
cell: (702) 219-5656

Drawn By: EDM

No: Revision: Date:

SUBMITTAL FEBRUARY 20, 2019

Stamp:

ATHENS AVE CUSTOM HOME

Parcel Number: 160-33-801-003

Project Jurisdiction: HENDERSON, NEVADA

Owner/Developer: SOUTH WEST ENTERPRISE HOLDINGS LLC

Sheet Description: CONVENTIONAL FOUNDATION DETAILS

100 SERIES

File Name: SD1 FD-COUNTY

Job No: 056-001

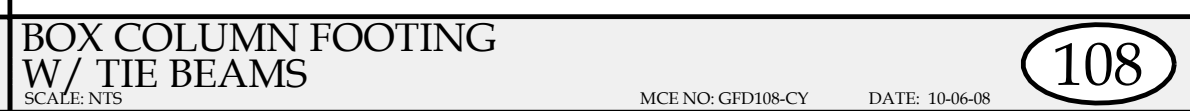
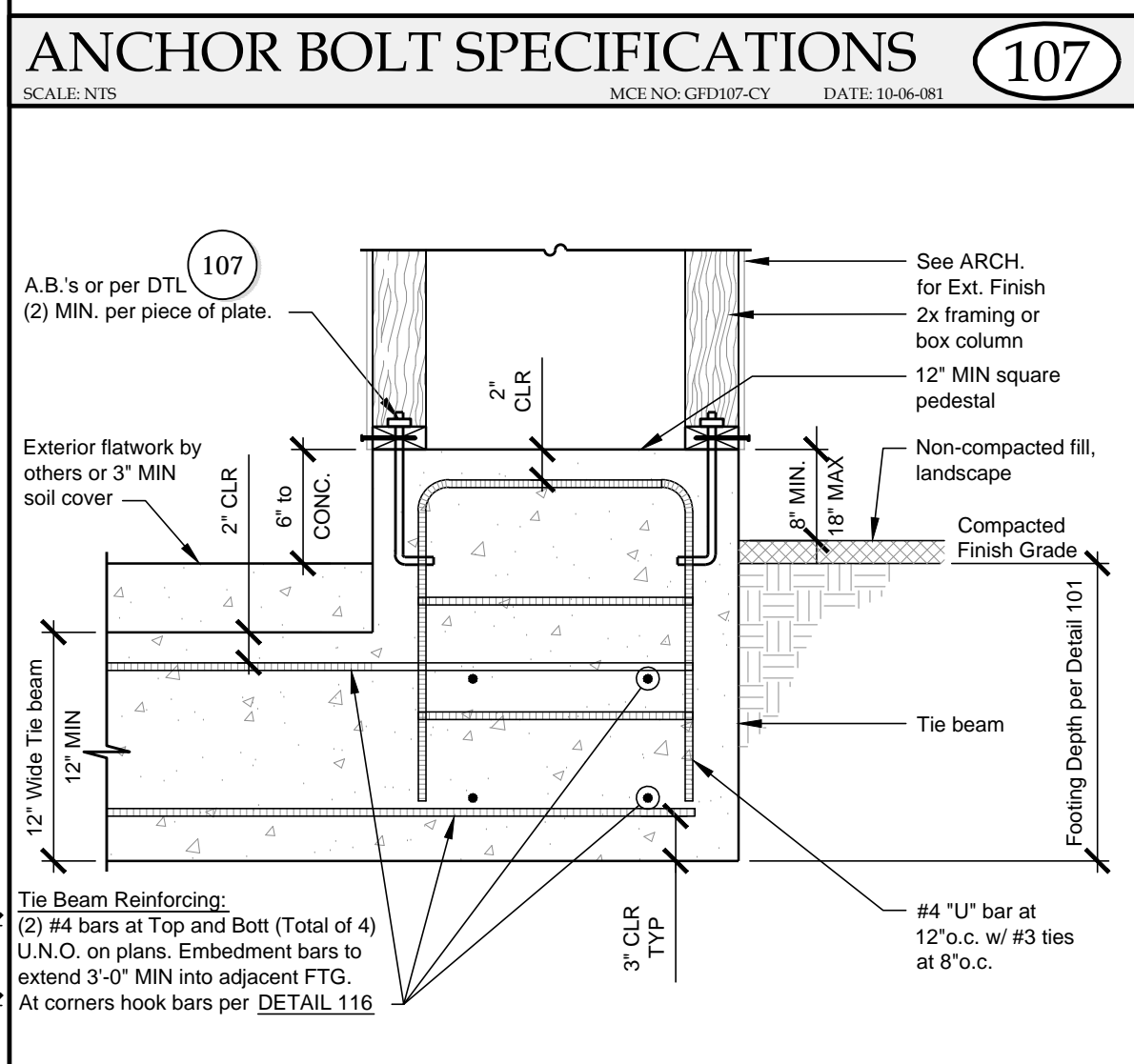
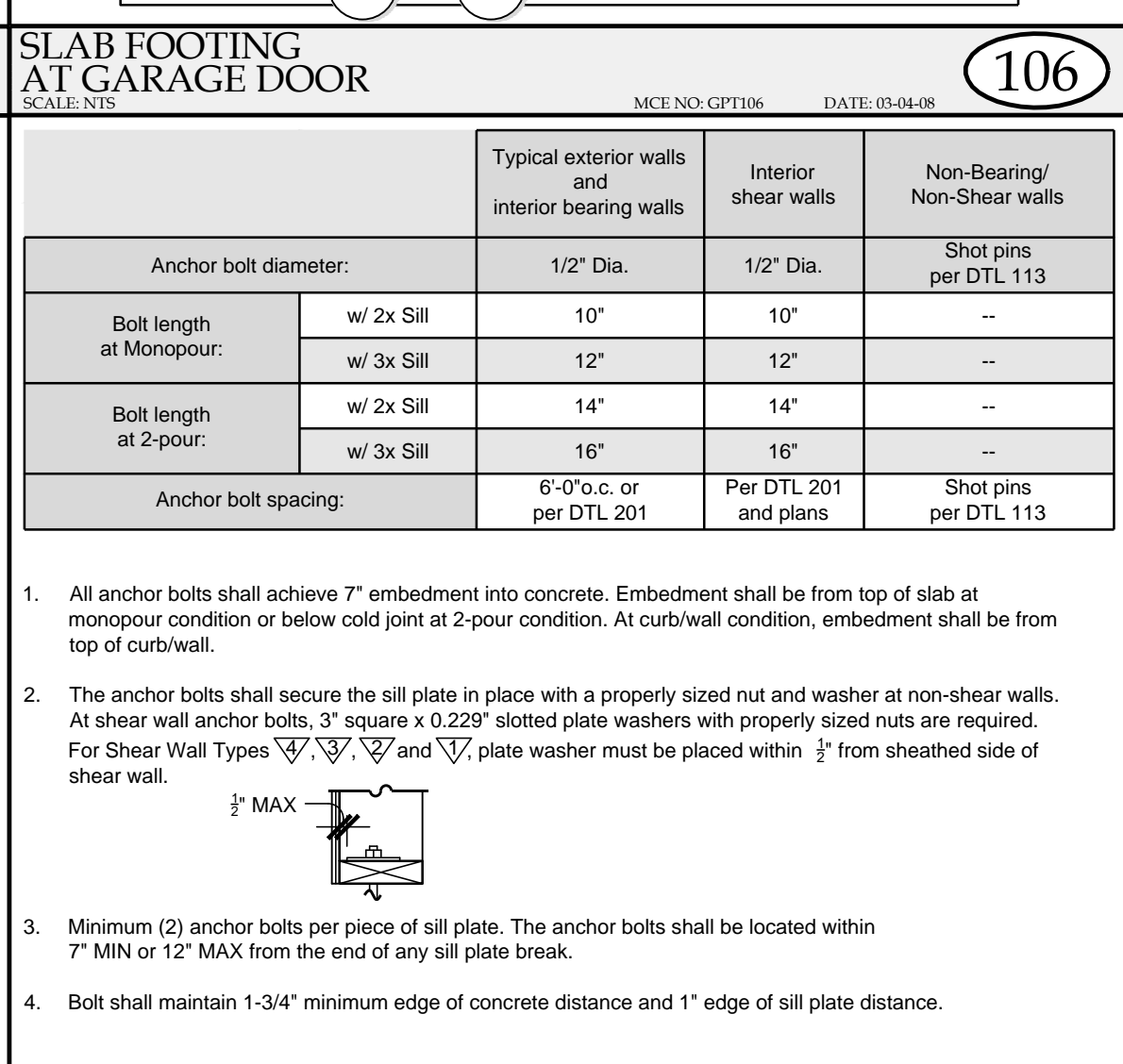
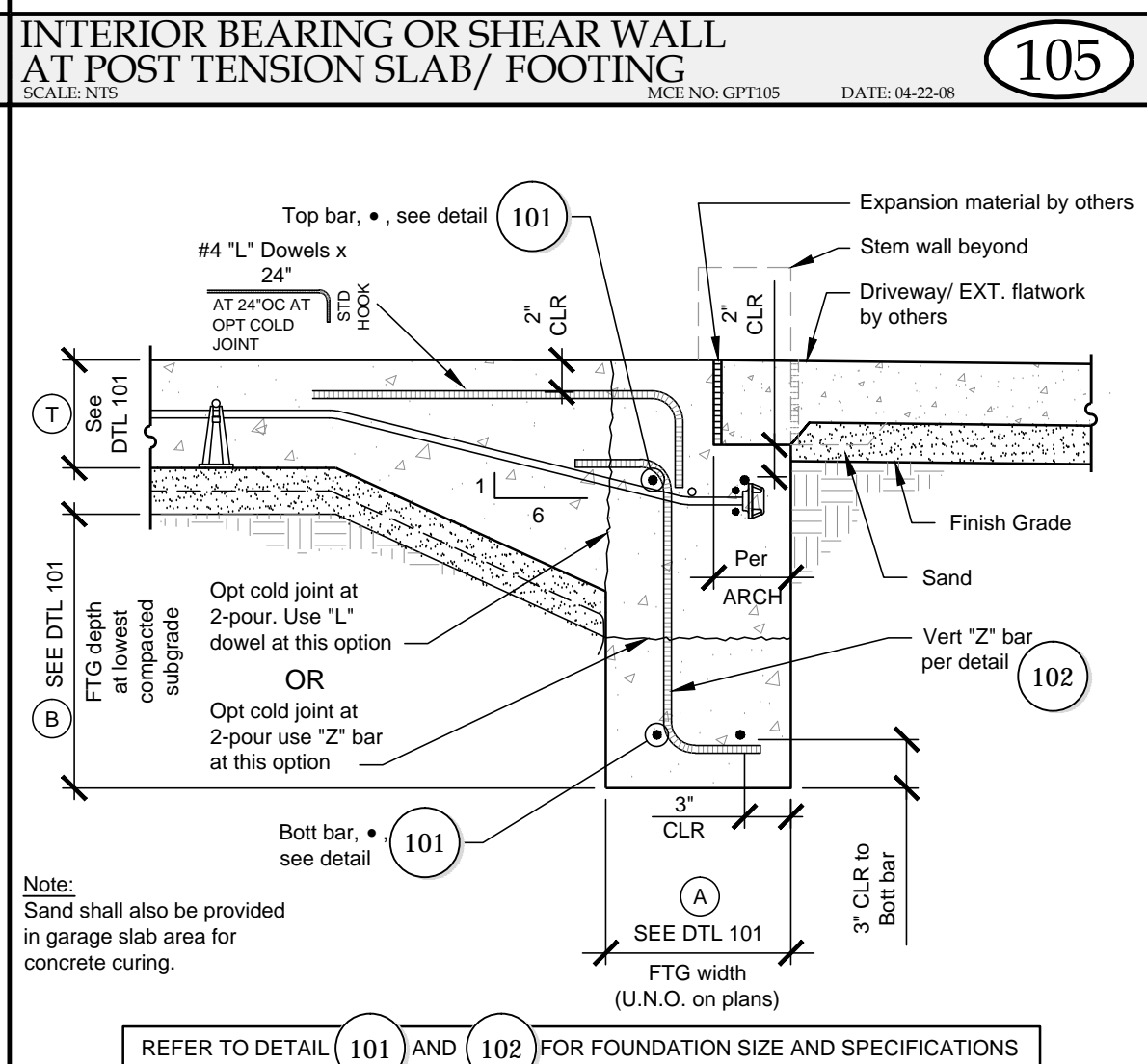
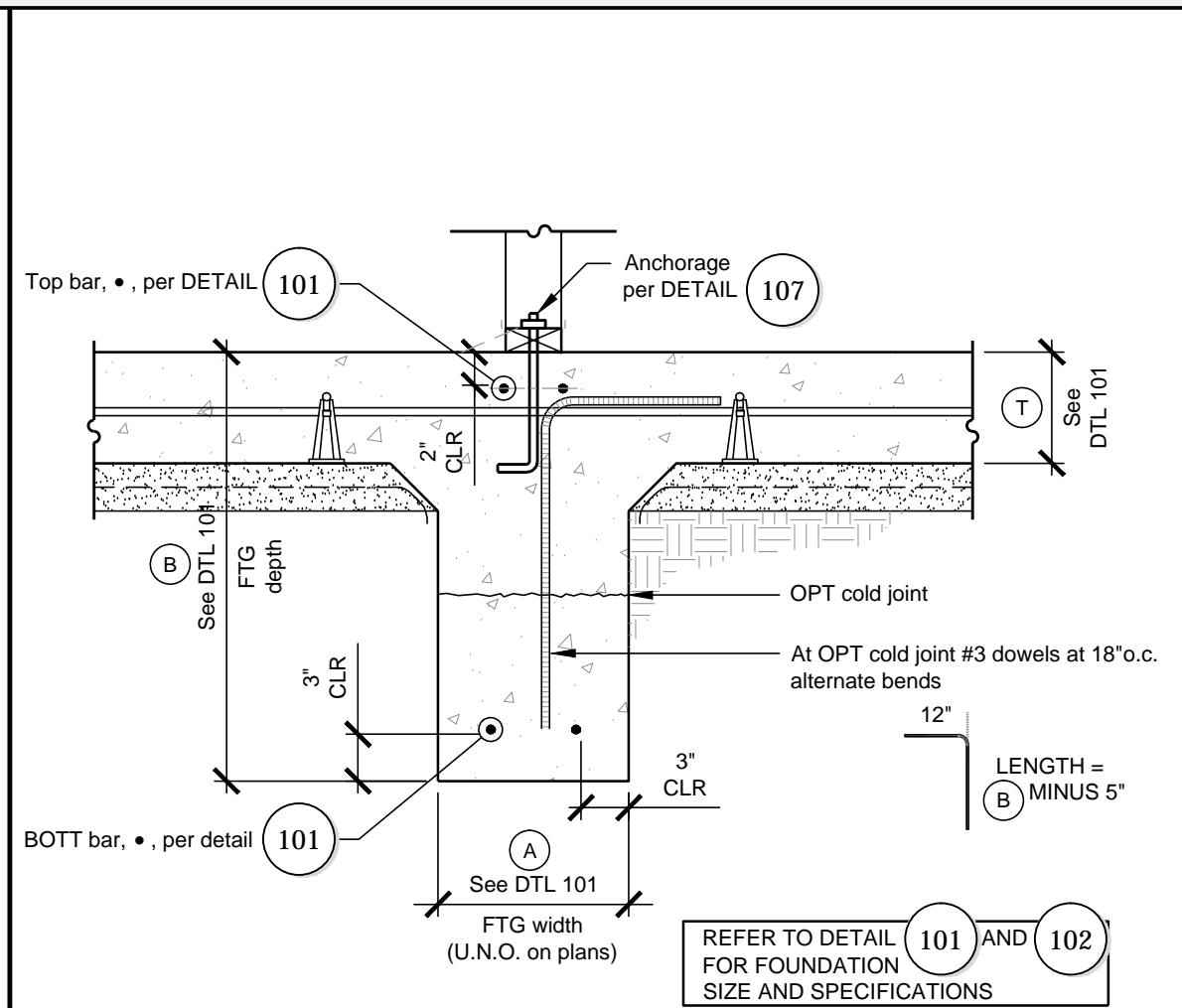
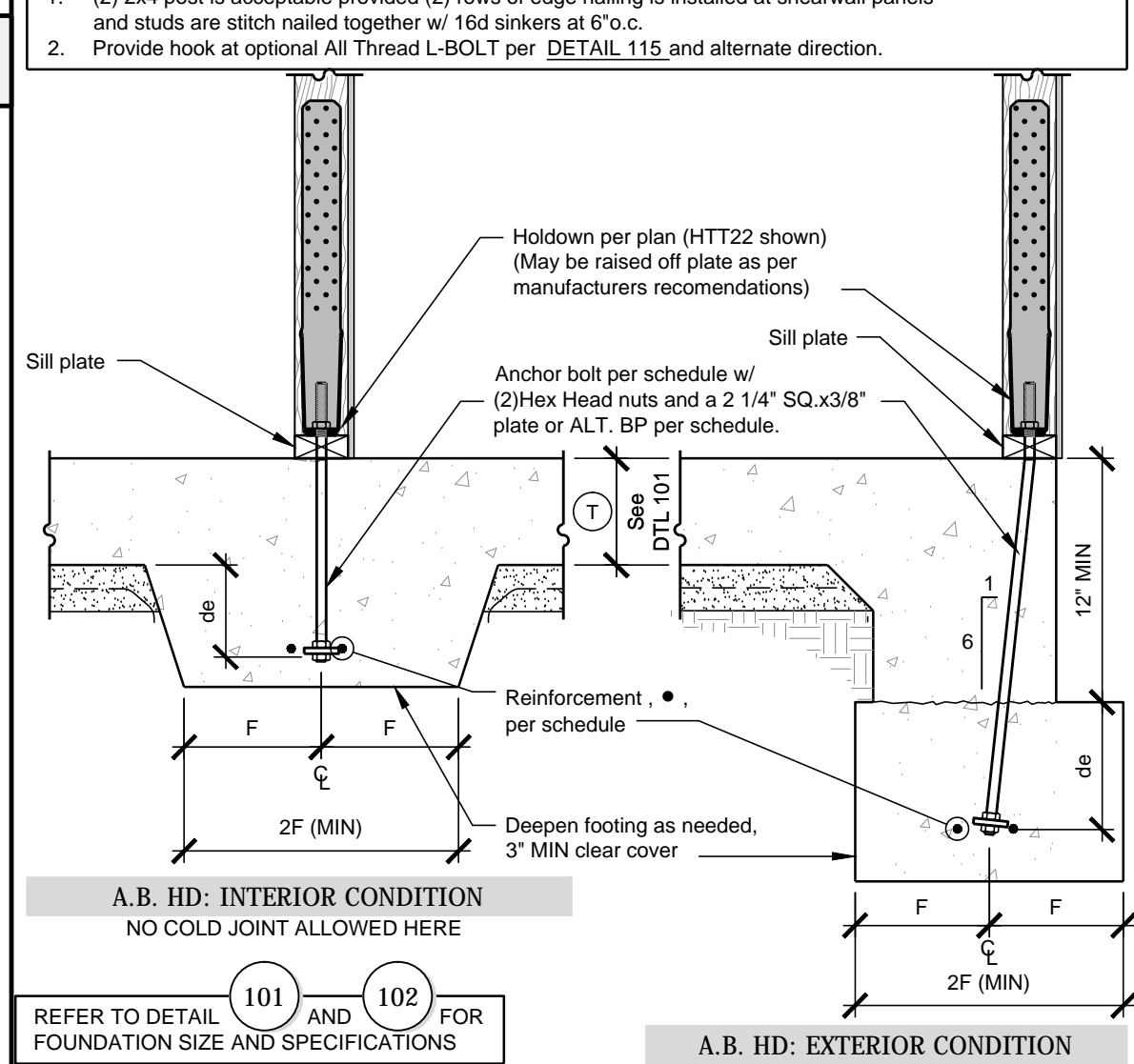
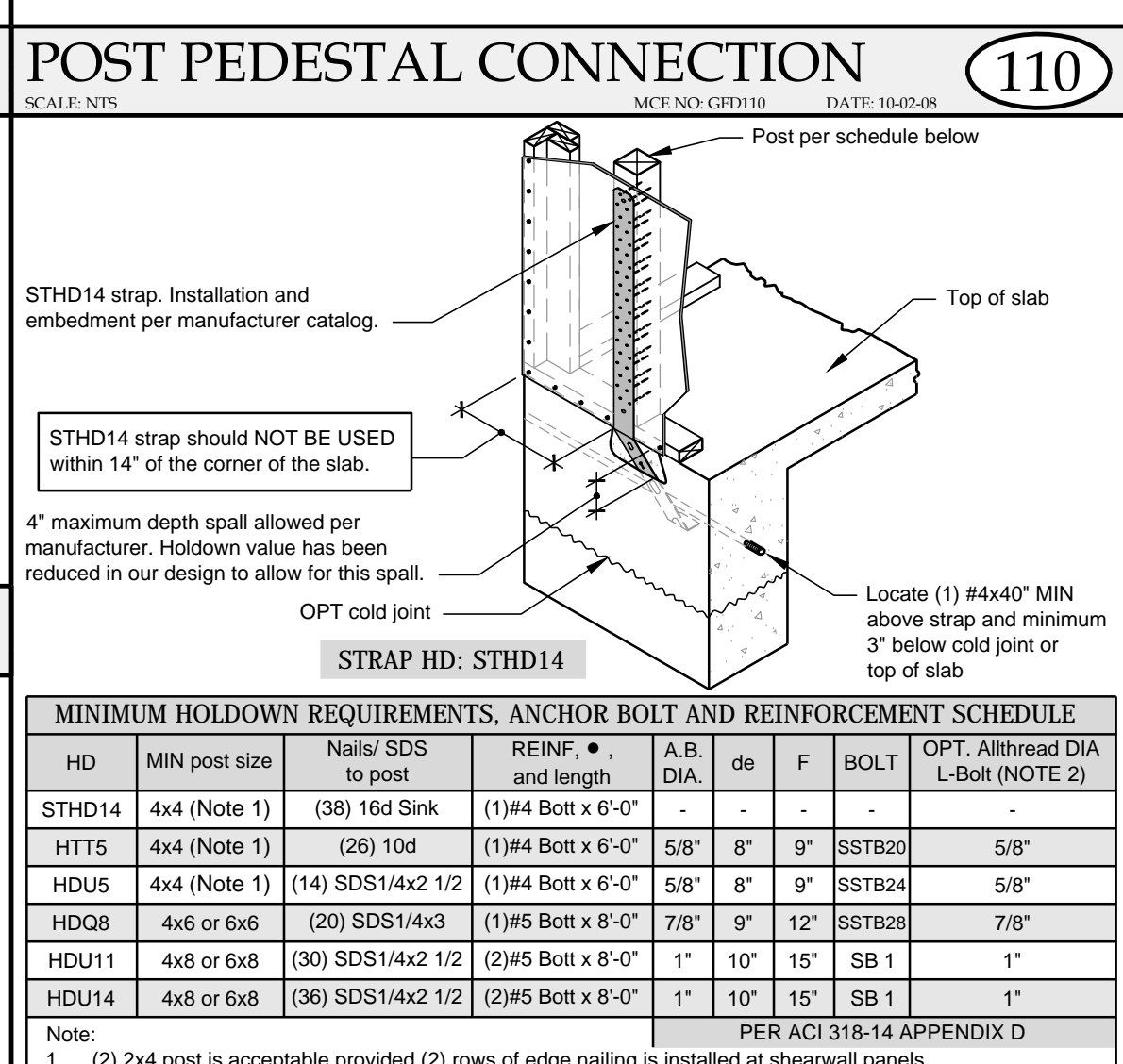
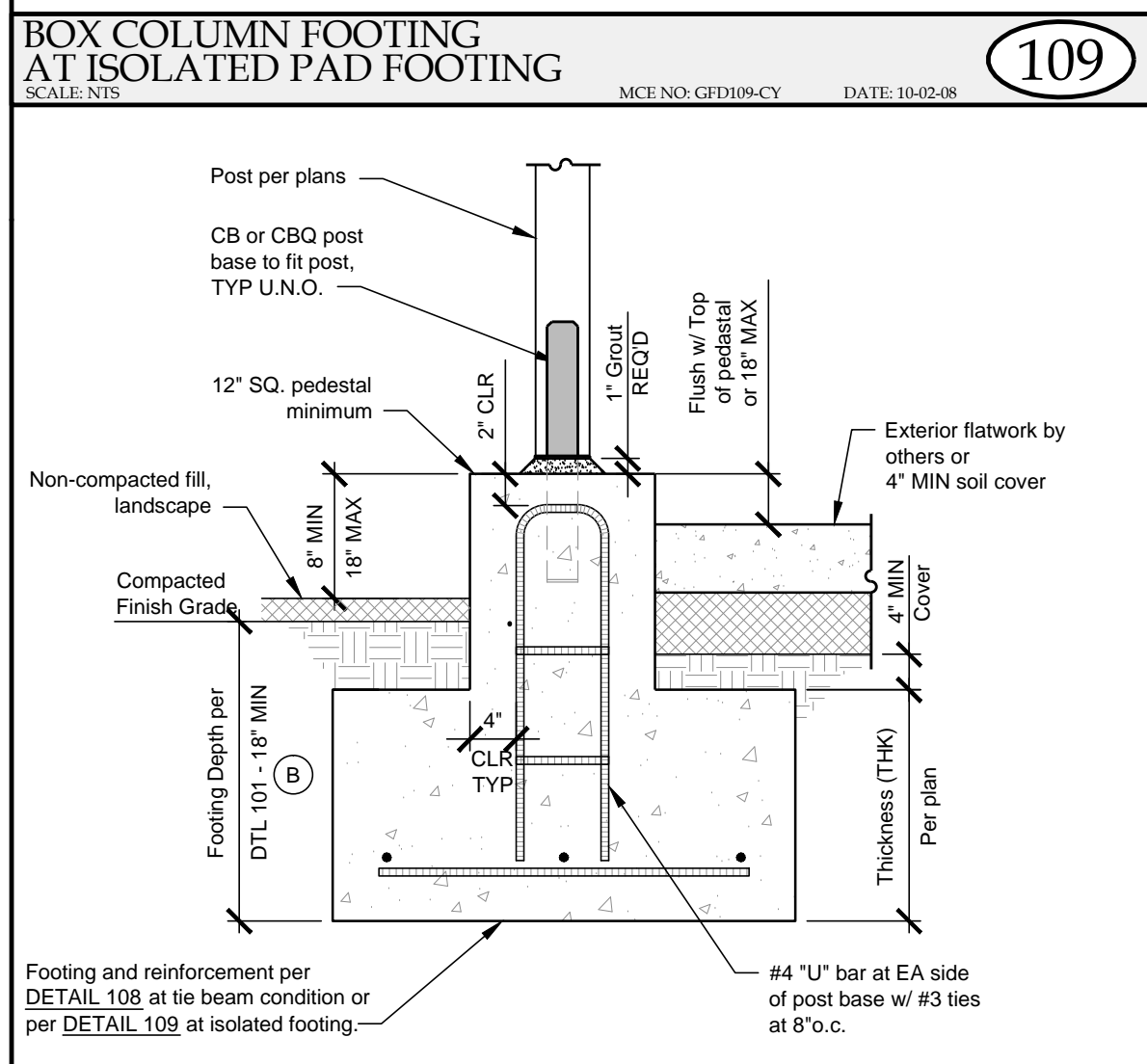
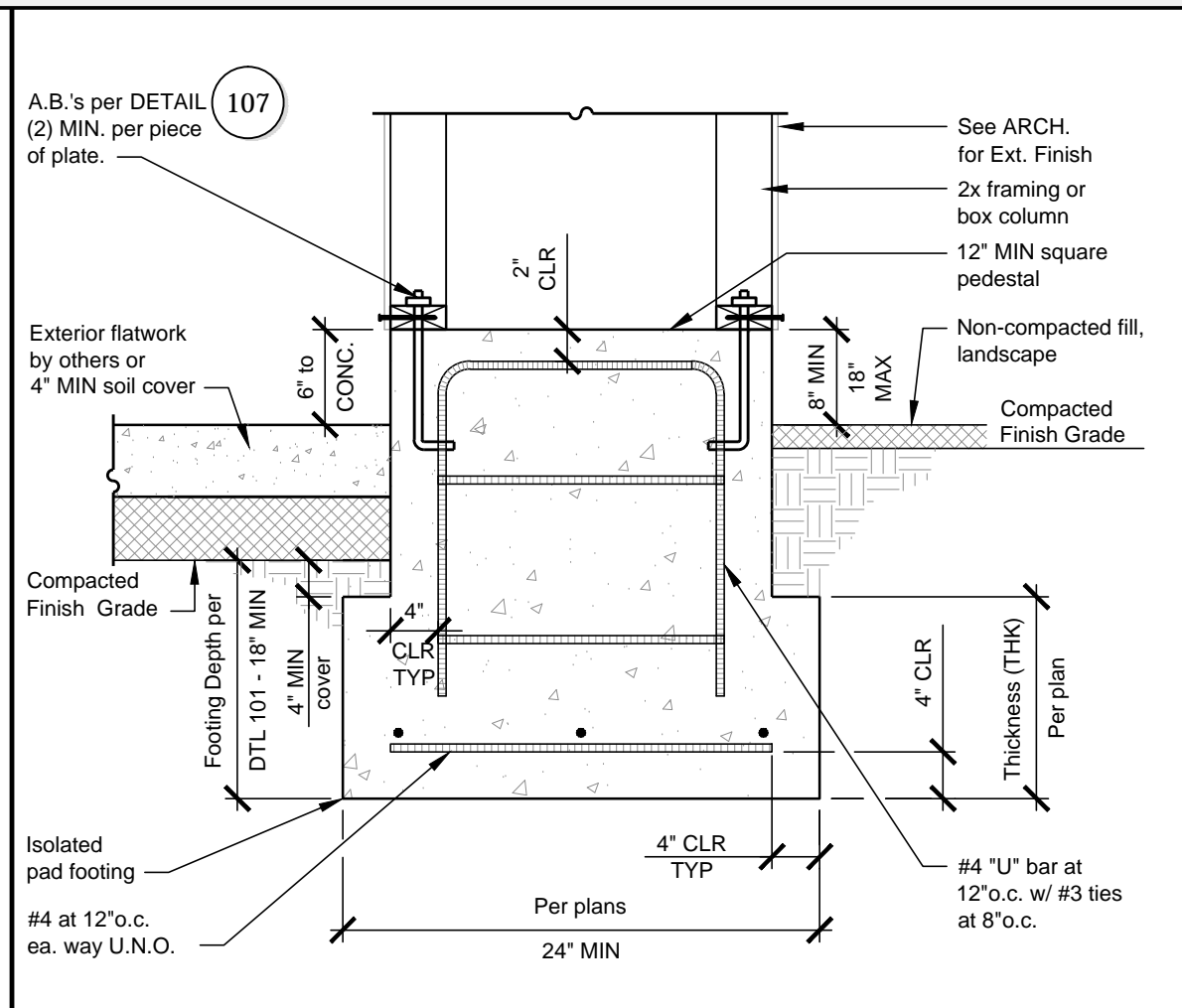
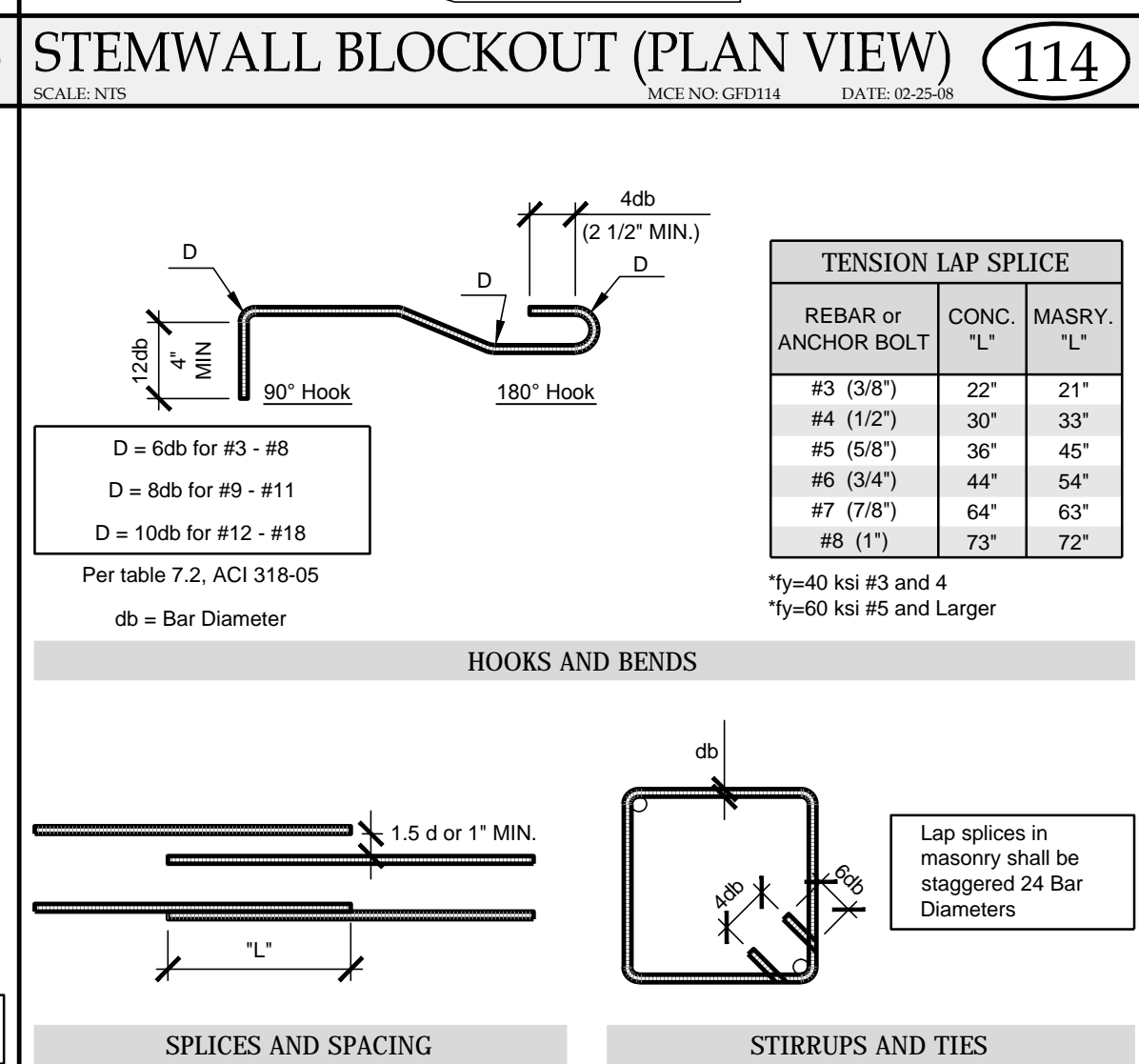
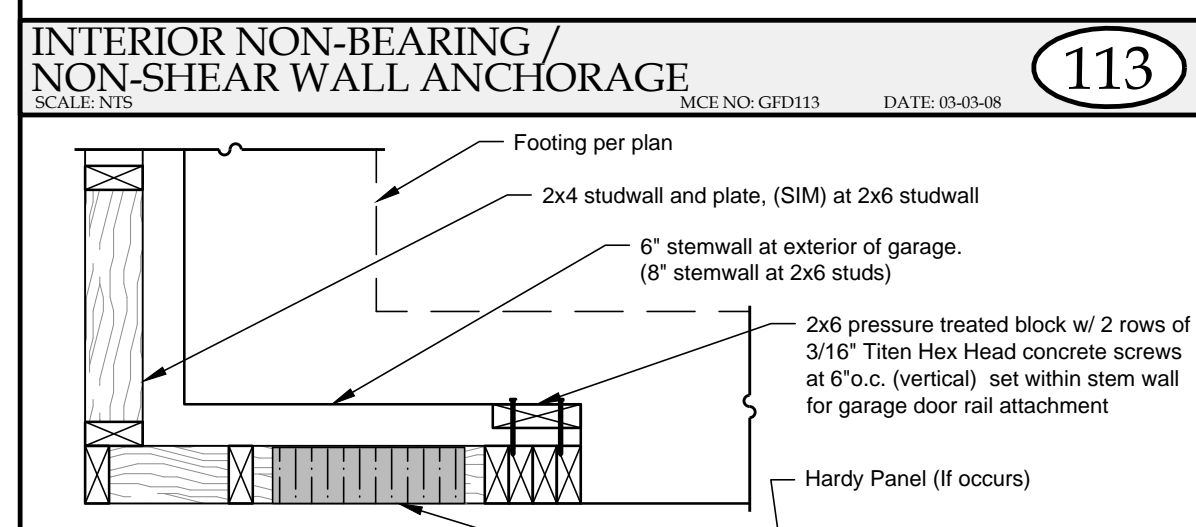
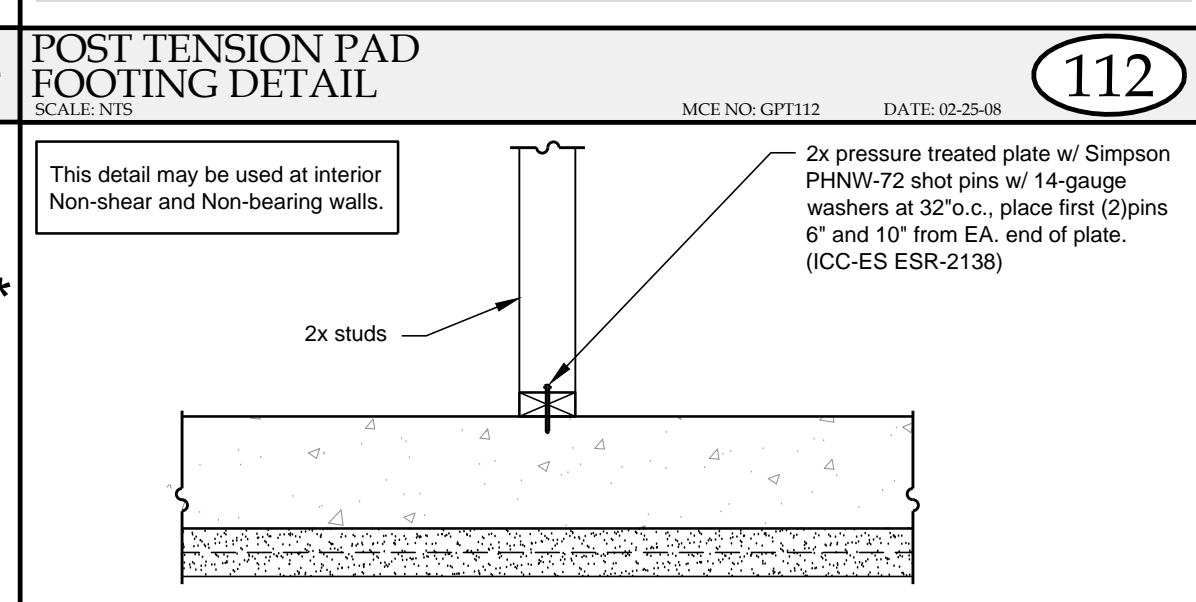
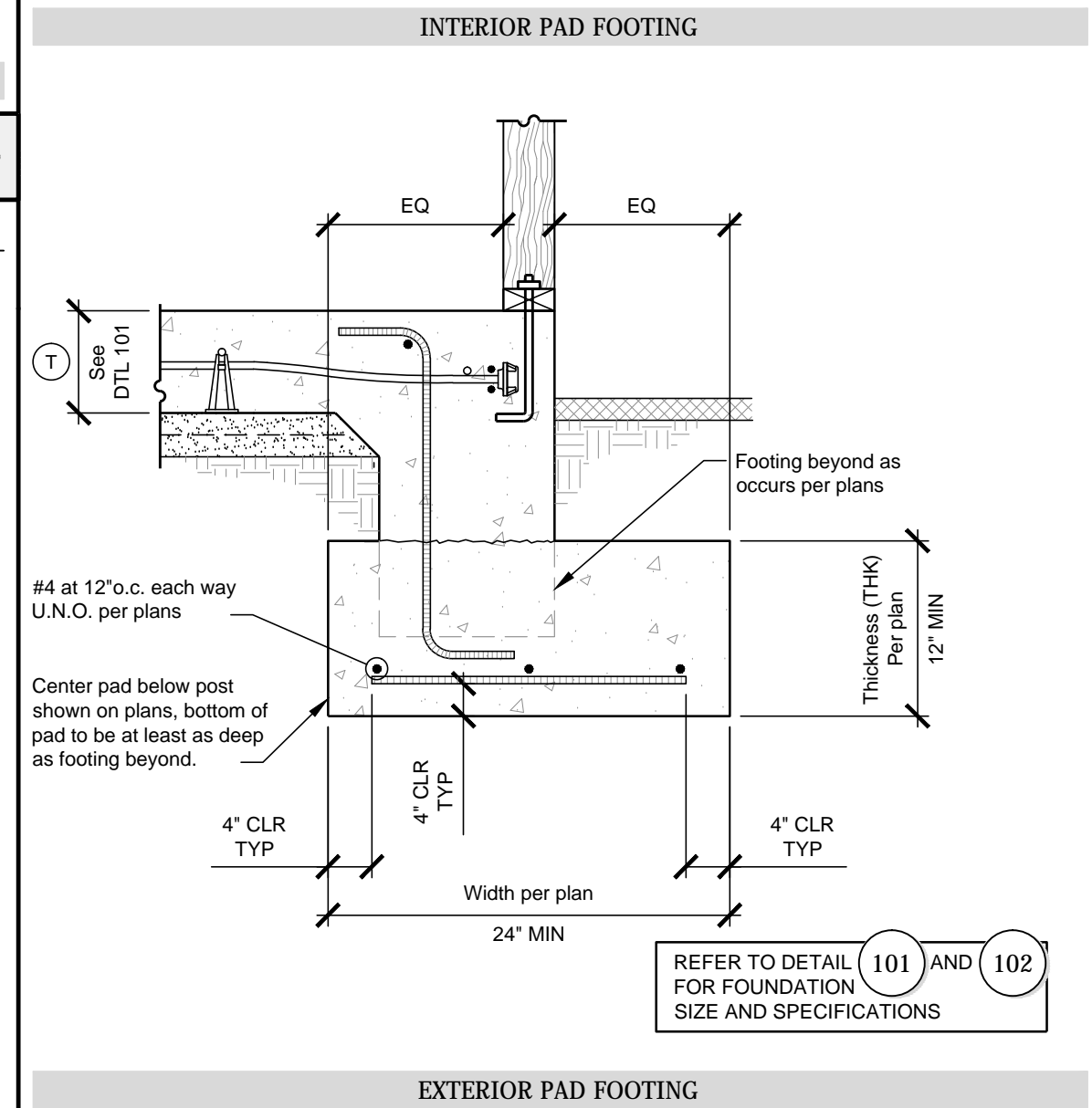
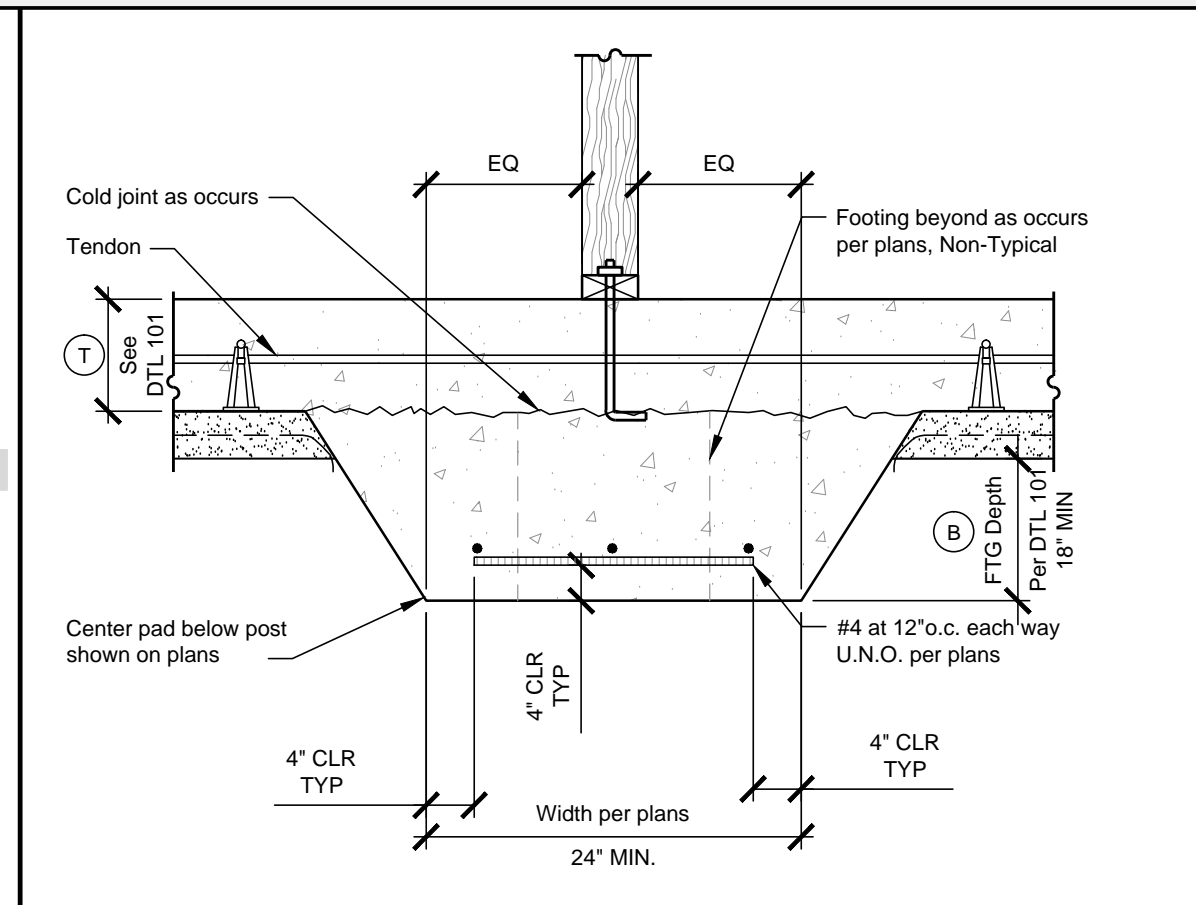
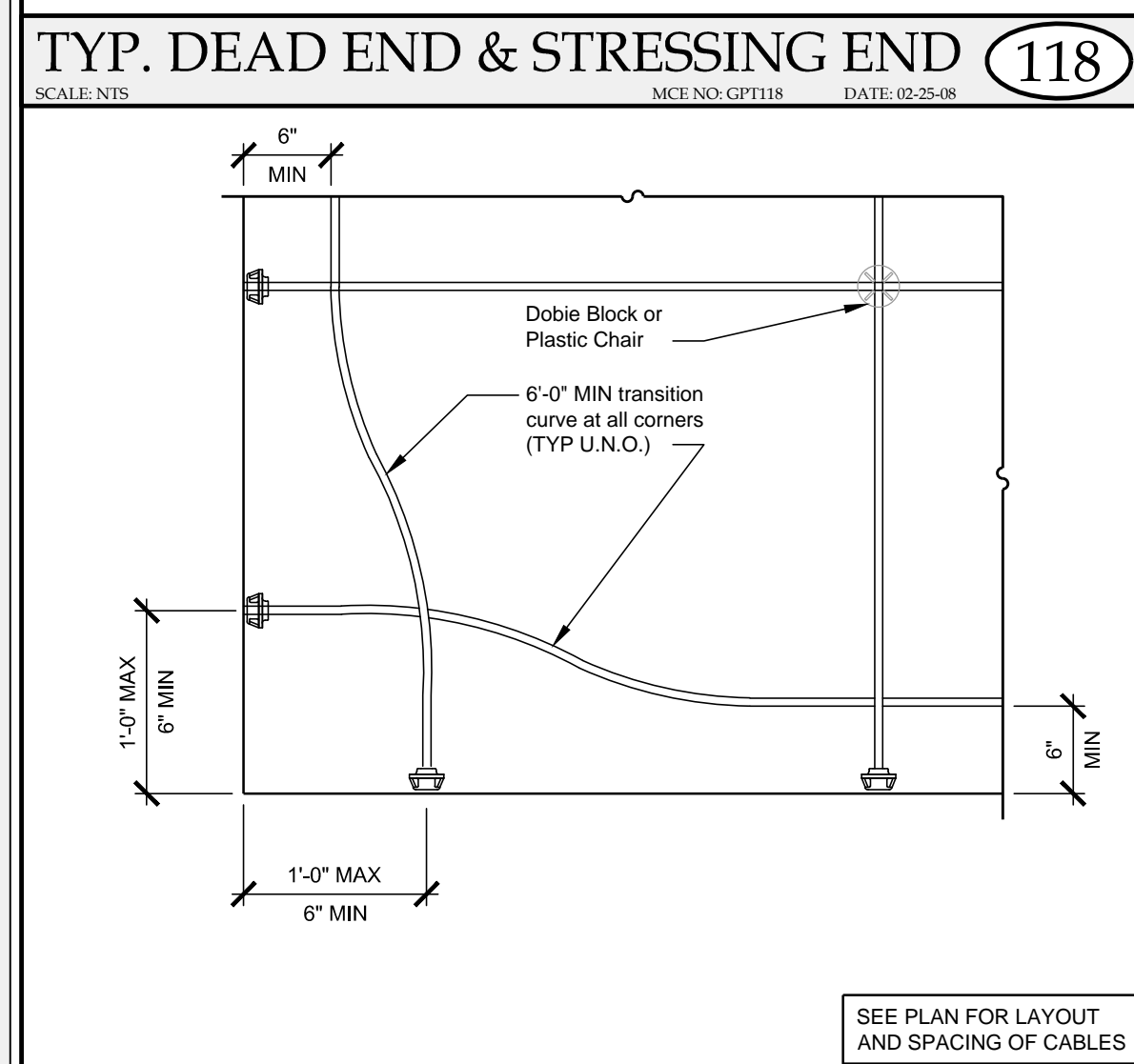
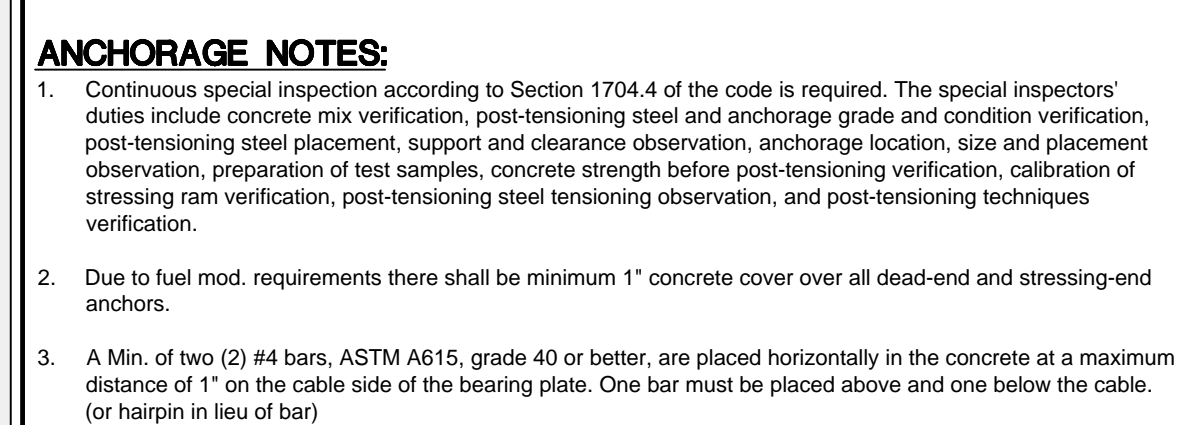
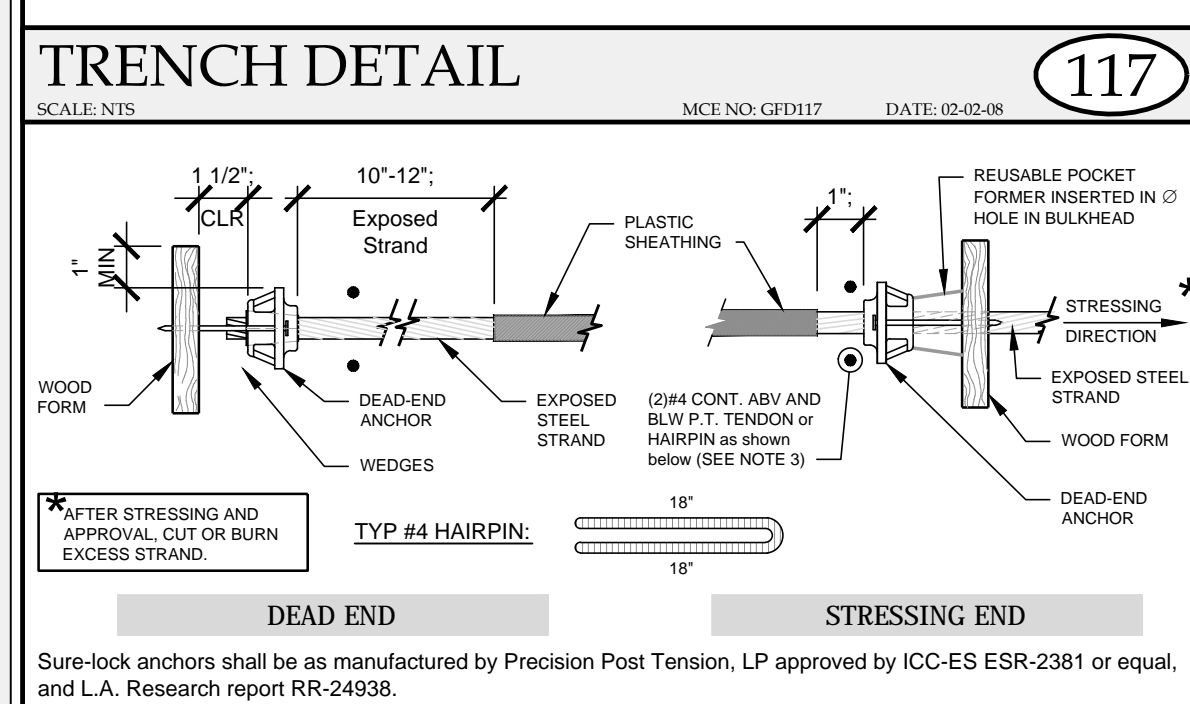
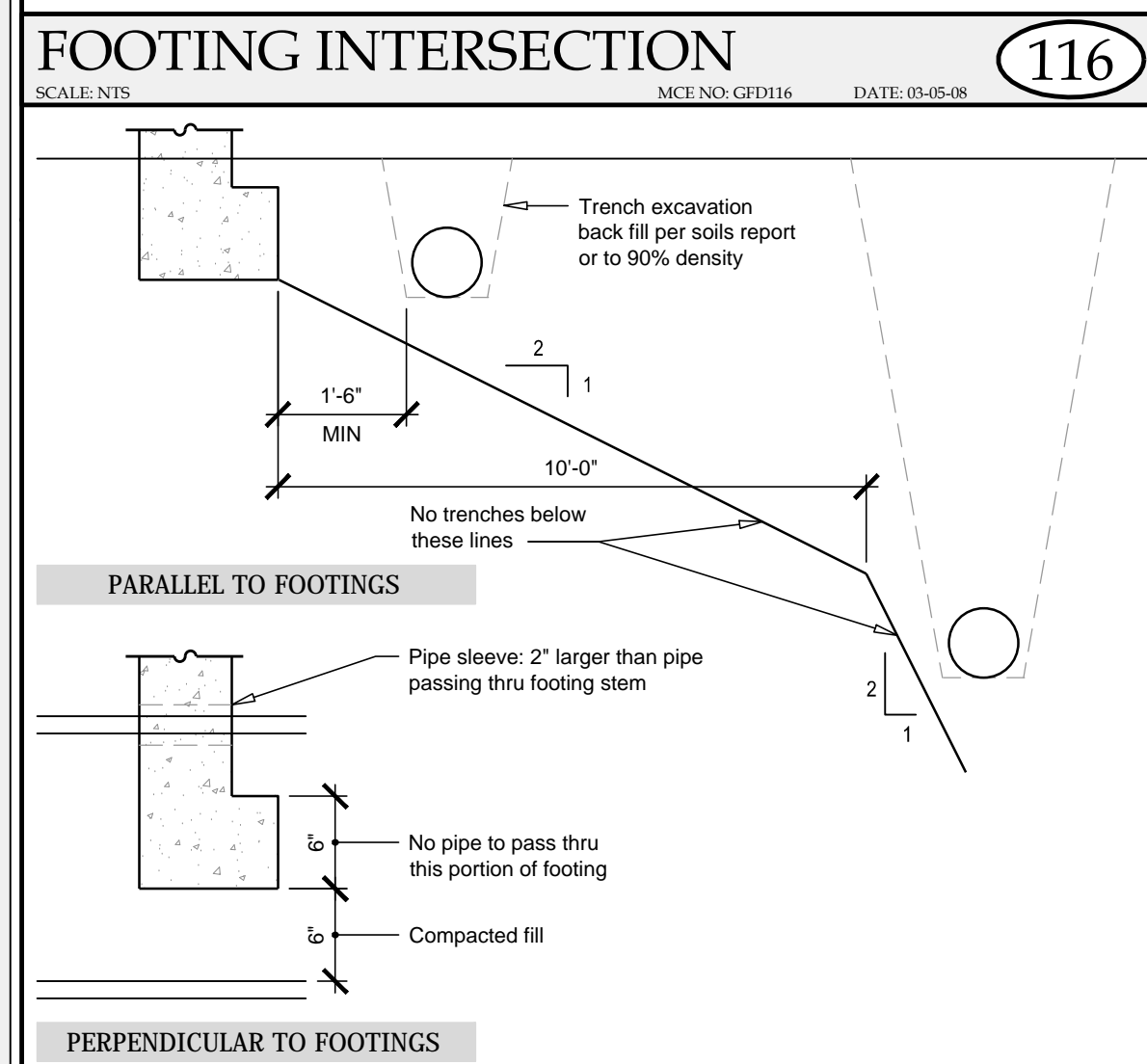
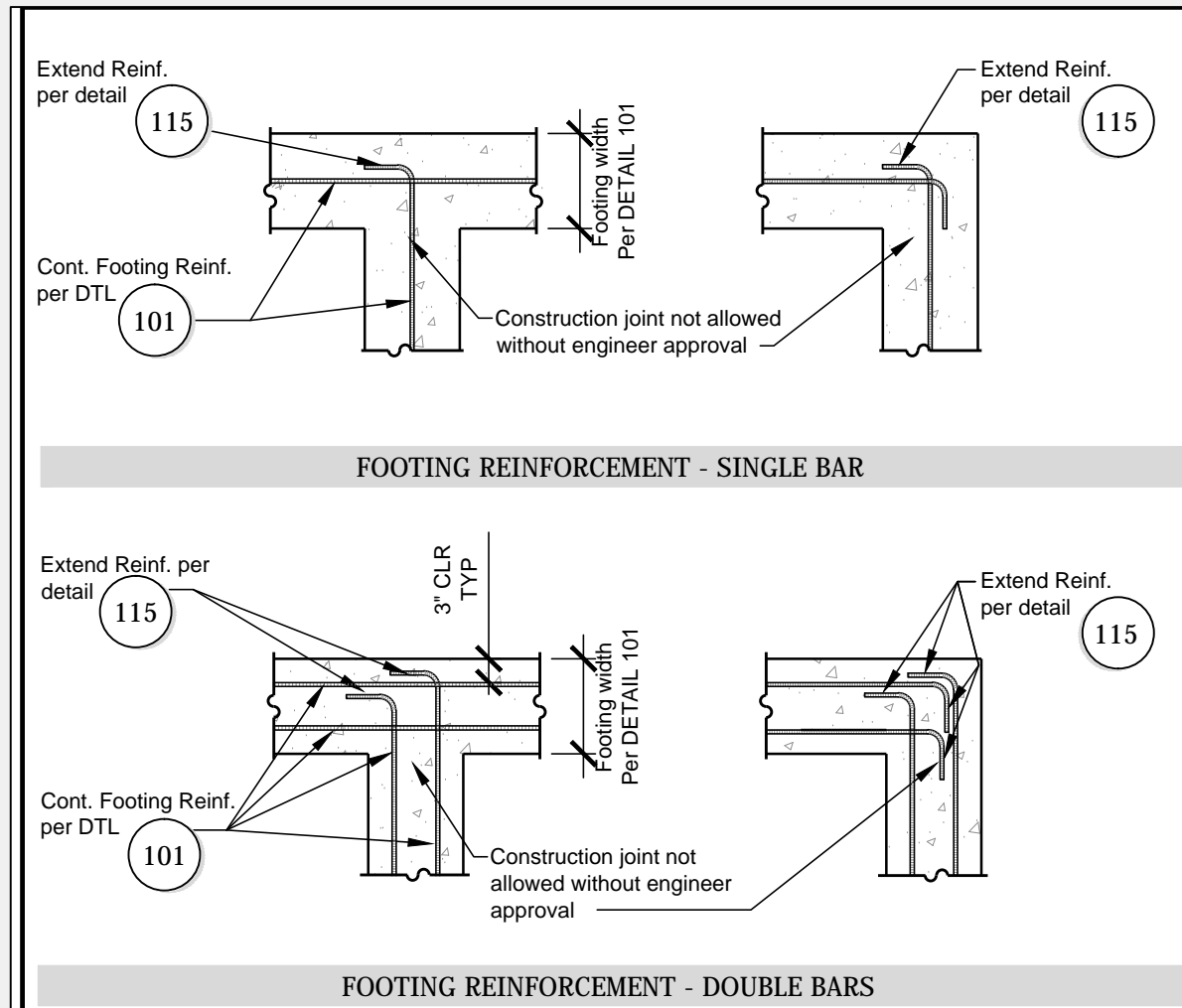
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SD1.0







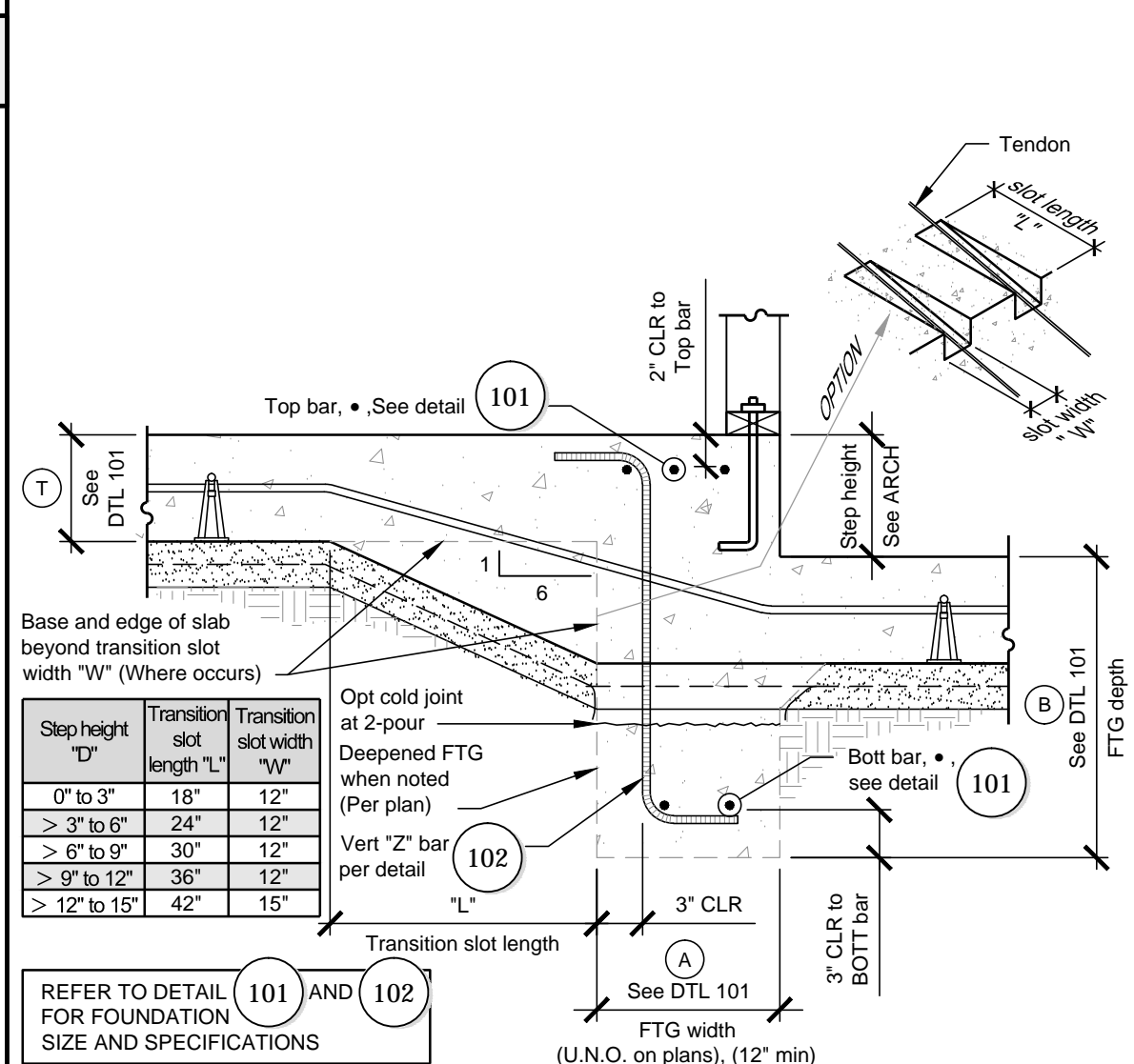
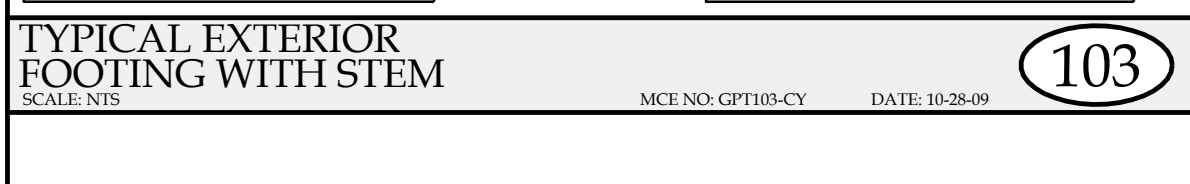
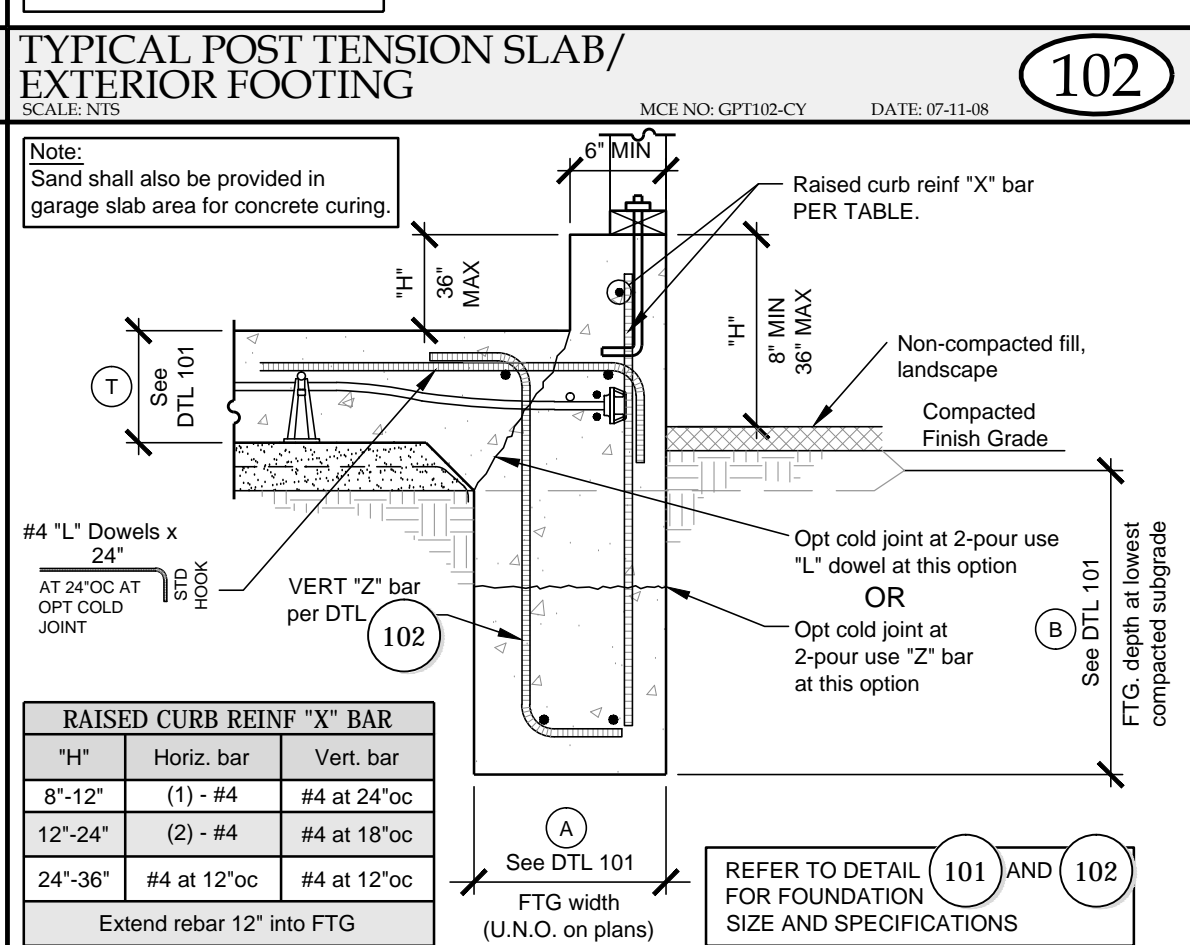
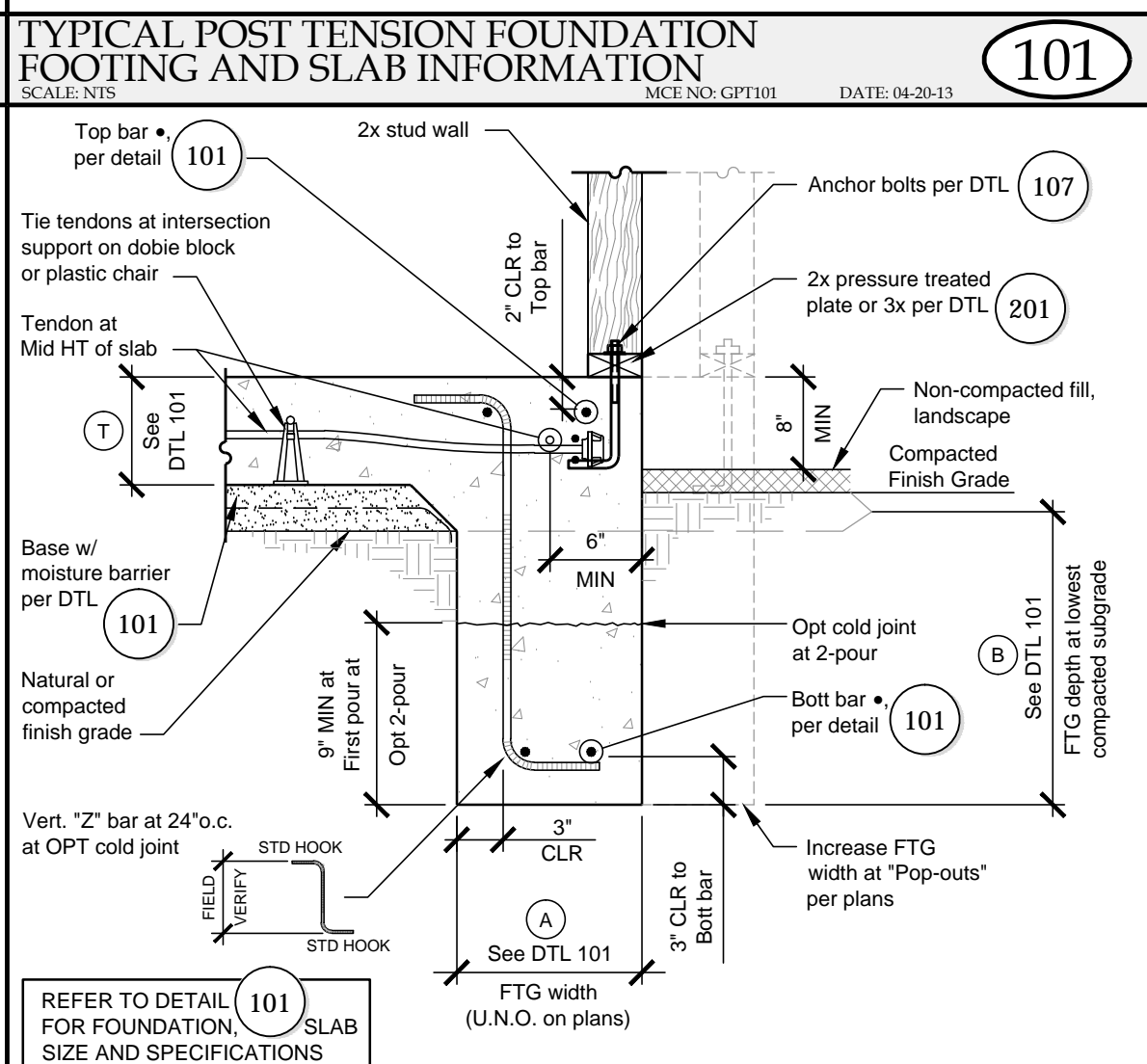


FOOTINGS							
SOIL EXPANSION CATEGORY DESCRIPTION	EXTERIOR FOOTINGS				INTERIOR FOOTINGS		
	FOUNDATION EDGE			ISOLATED  MIN embed per soils			
	Width	MIN embed per soils	TYPICAL • REINFORCEMENT		Width	MIN embed per soils	TYPICAL • REINFORCEMENT
(A)	(B)	(B)					
MODERATELY EXPANSIVE	12"	15"	(1)#4 Top and Bott	18"	(A)	18"	(1)#4 Top and Bott
HIGHLY EXPANSIVE	12"	18"	(2) #4 Top and Bott	24"	12"	18"	(2) #4 Top and Bott

FLOOR SLABS				
SOIL EXPANSION CATEGORY DESCRIPTION	SLAB THICKNESS (T)	BASE		
		UPPER BASE LAYER	MOISTURE BARRIER	LOWER BASE LAYER
MODERATELY EXPANSIVE	7.5"	2" Select Sand or Type II	10 mil	4" Type II
HIGHLY EXPANSIVE	8.5"	2" Select Sand or Type II	10 mil	4" Type II
CONCRETE STRENGTH AND SPECIFICATIONS	SEE SHEET SN1		NON-ENCAPSULATED POST-TENSION SYSTEM	

**Note:** The soils engineer shall verify these design parameters and footing depths prior to construction.

- Expansion category classification is per table 1808.6.2 of the Southern Nevada Amendments to the 2018 IBC.
- Percent swell is based on a 60psf surcharge
- Refer to SN1 sheet for Project Criteria Data, Geotechnical Report w/ Update Letter (if applicable), or soils engineer information








Project Engineer: EDM  
Contact: Elicia Montgomery  
email: elicia@montgomeryengineers.com  
cell: (702) 219-5656

Drawn By: EDM

[illegible]

Stamp:



2-20-2019

ATHENS AVE CUSTOM HOME

160-33-801-003

HENDERSON, NEVADA

Developer: SOUTH WEST ENTERPRISE HOLDINGS LLC

Sheet Description:

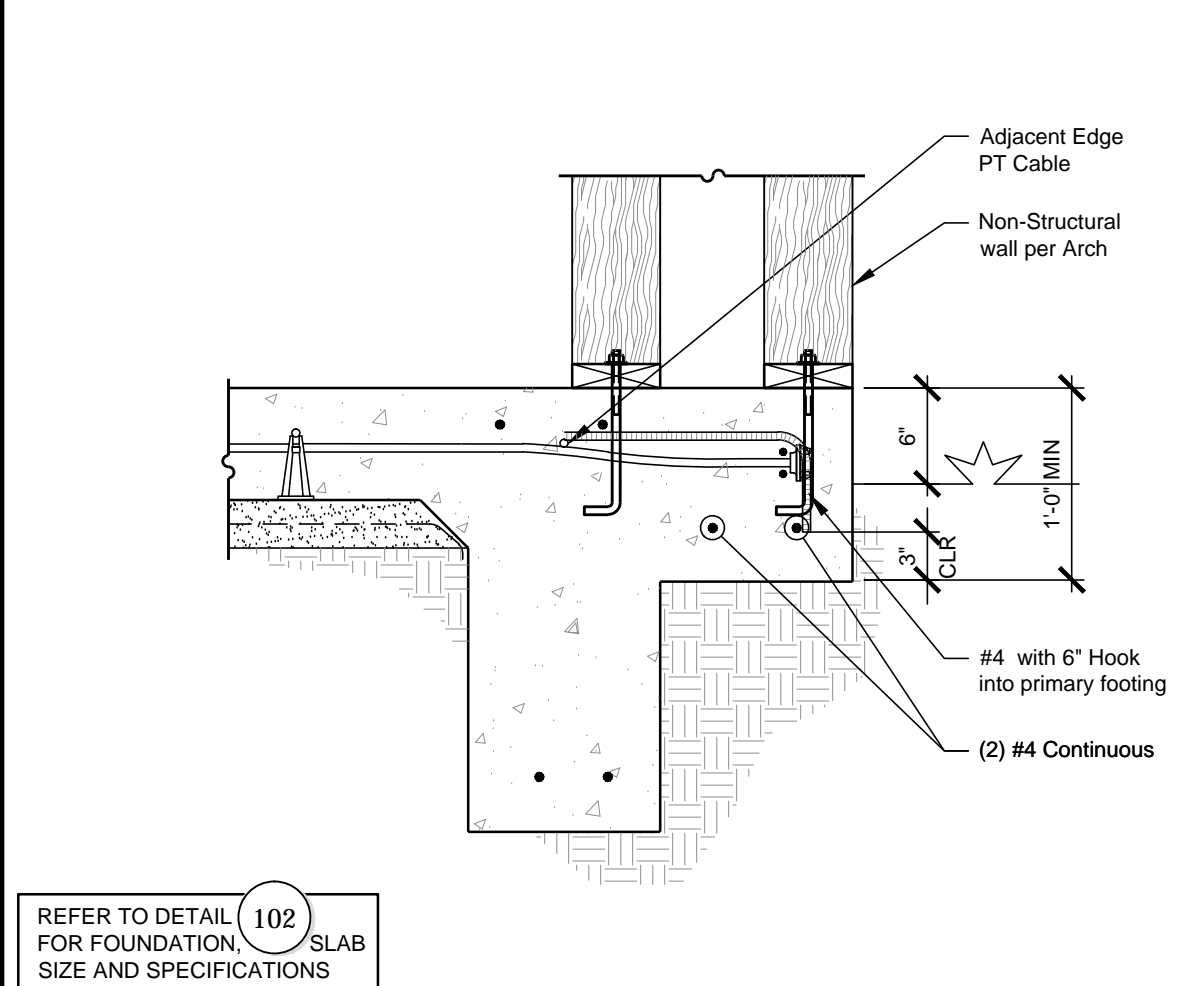
FOUNDATION  
REPAIR DETAILS

100's SERIES

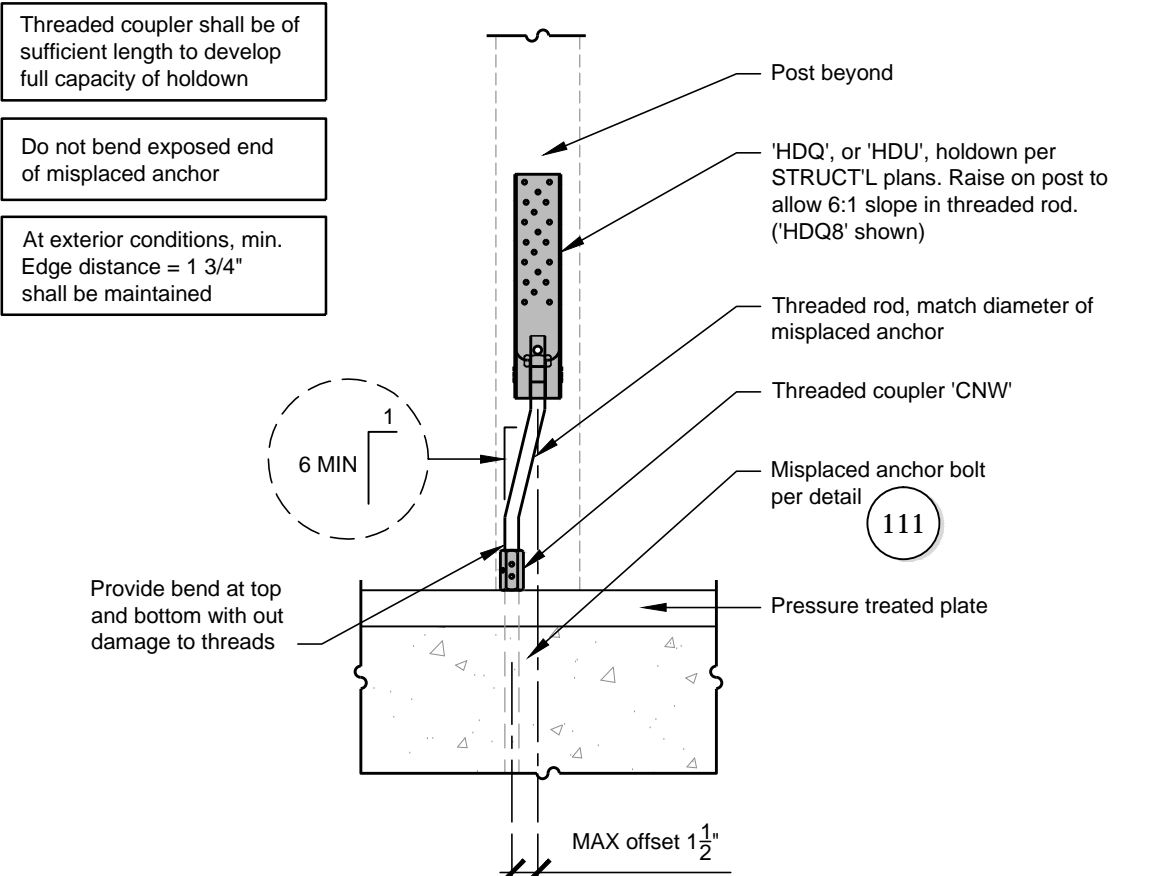
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Job No: 056-001

SHEET NUMBER  
SD1.1

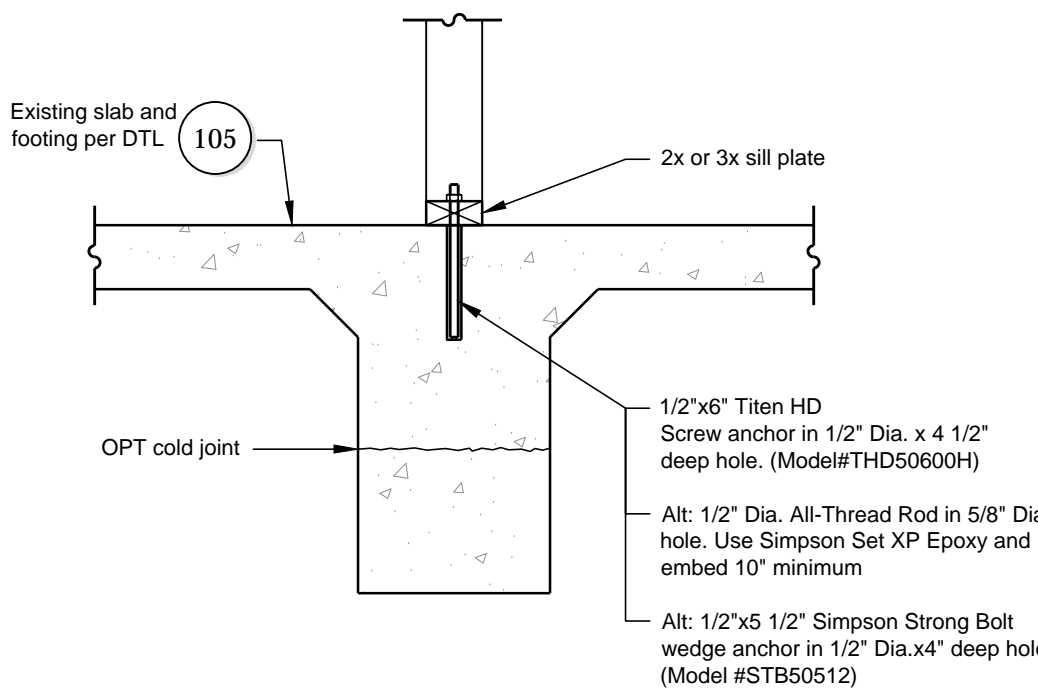


TYPICAL POST TENSION SLAB/  
EXTERIOR FOOTING AT POP-OUT

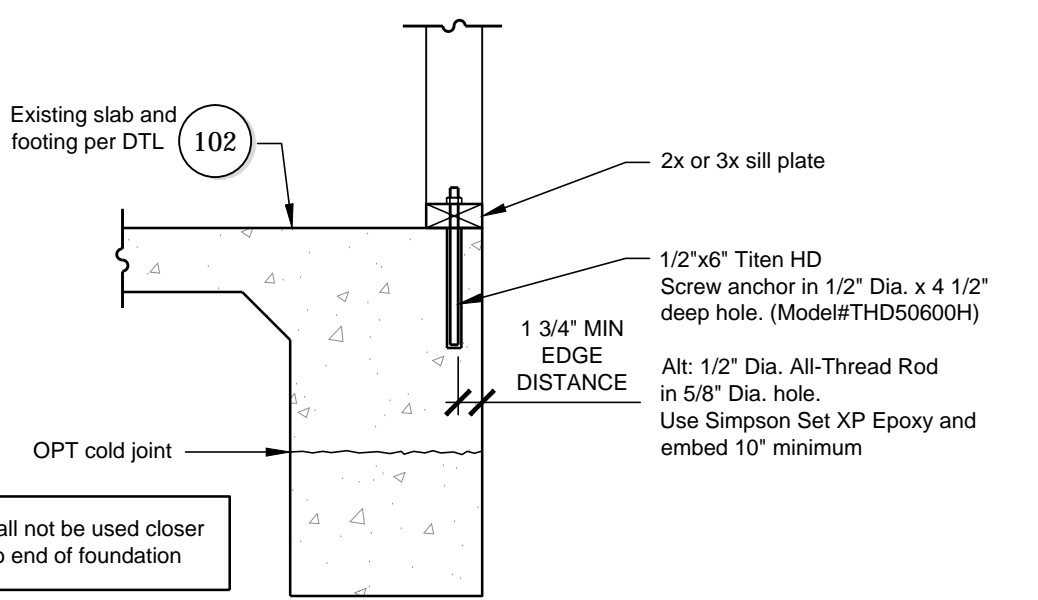


**MISPLACED HOLDOWN REPAIR** 120

NOT USED

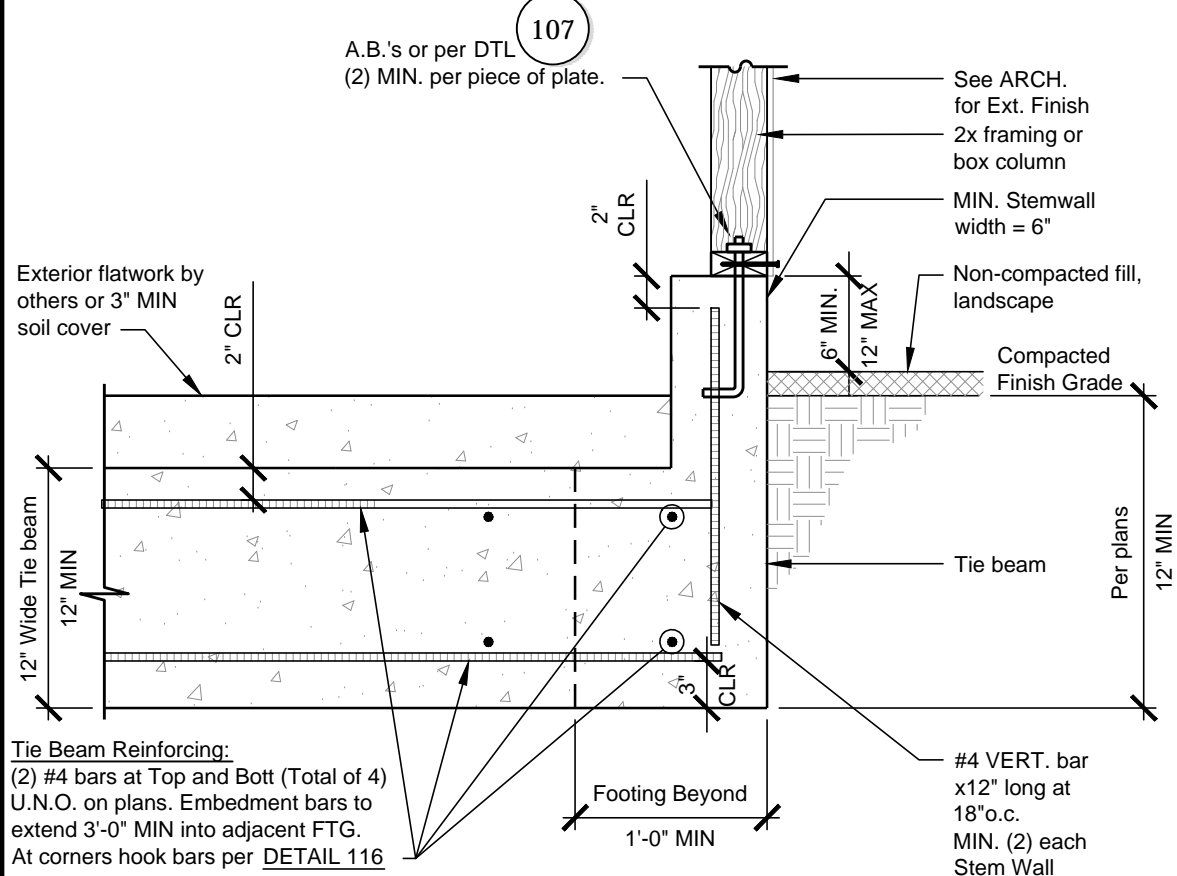


INTERIOR REPAIR/REPLACE (Edge Distance > 6")

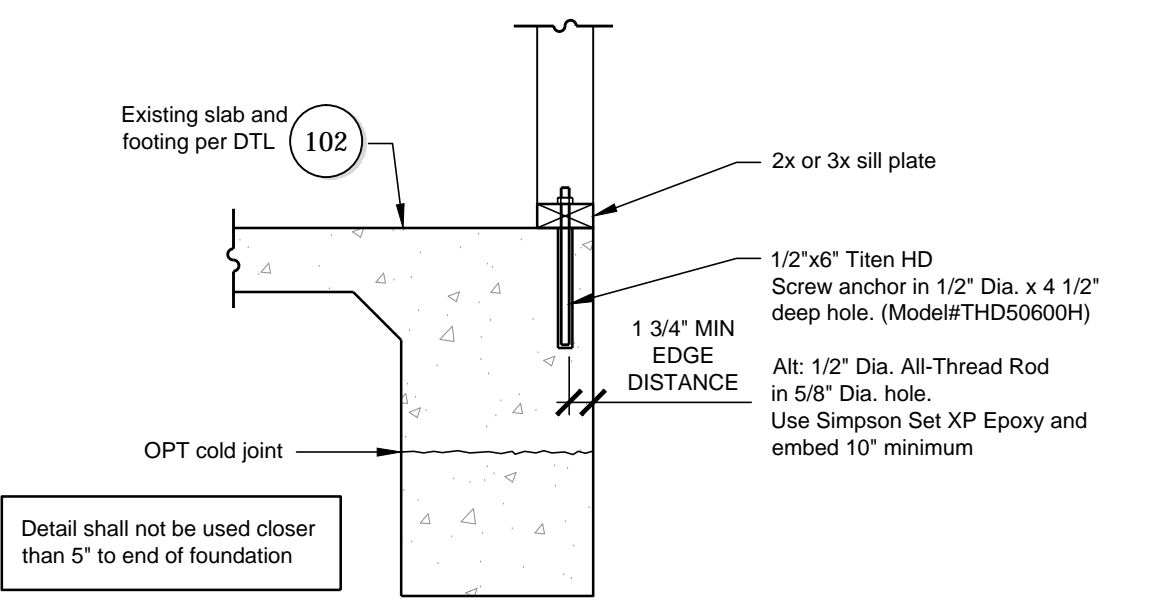


EXTERIOR REPAIR/REPLACE (Edge Distance = 1 3/4" MIN)

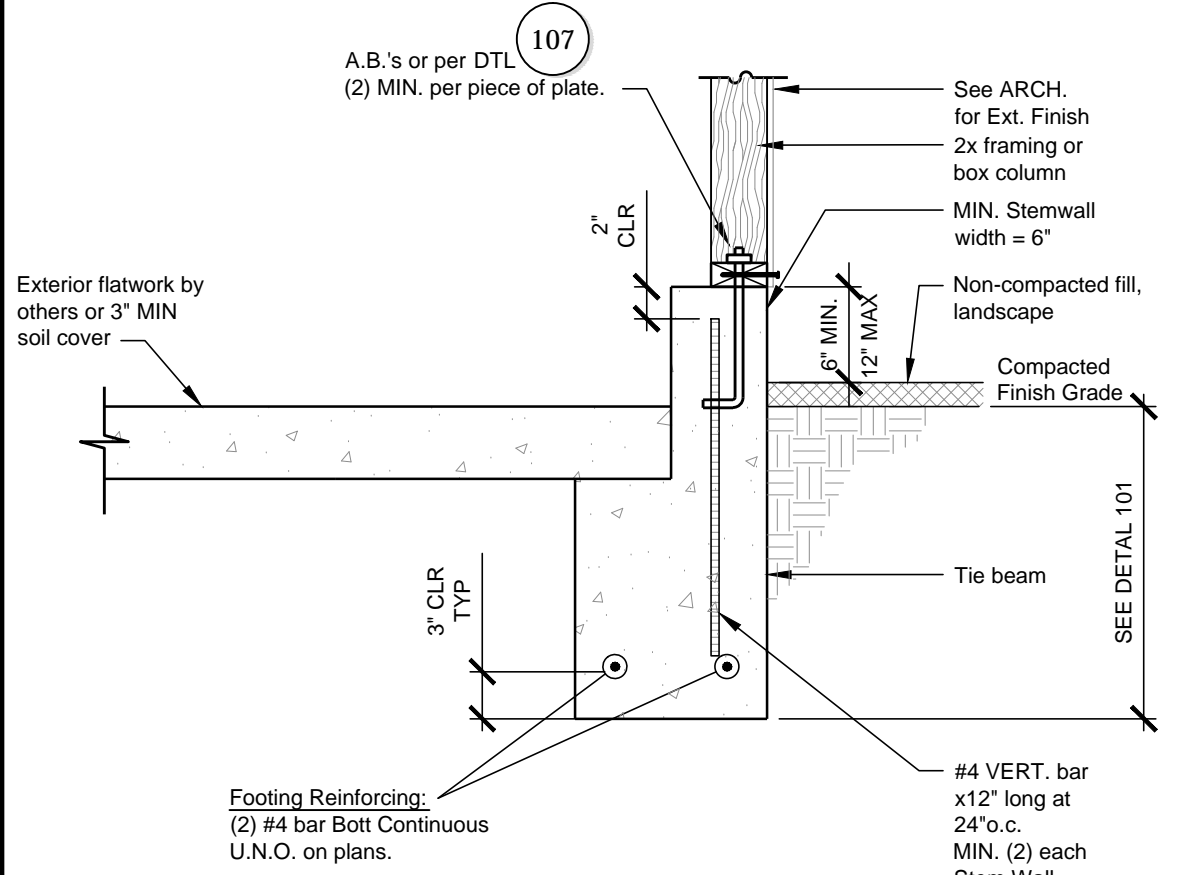
ICC-ES REPORTS		SPECIAL INSPECTION
TITEN HD	ESR-2713	REQUIRED
SET-XP EPOXY	ESR-2508	REQUIRED
STRONG BOLT	ESR-1771	REQUIRED



EXTERIOR STEM WALL FOOTING  
W/ TIE BEAMS  
SCALE: NTS  
MCF NO: 070-009-007  
DATE: 08-20-09



ANCHOR BOLT REPAIR



EXTERIOR STEM WALL FOOTING 126

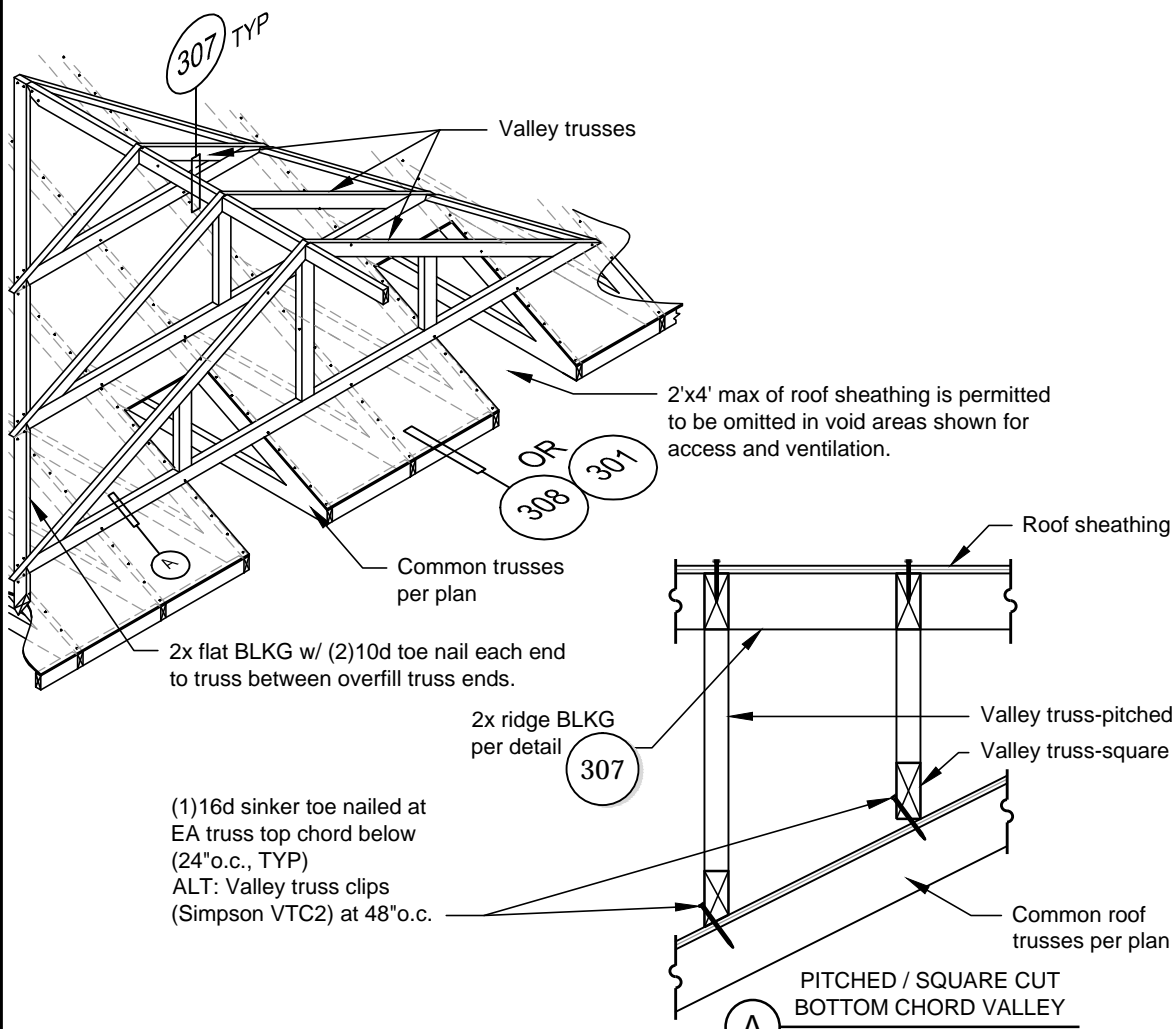
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SCALE: NTS MCE NO: GEDRPR172.CY DATE: 10/29/08 122

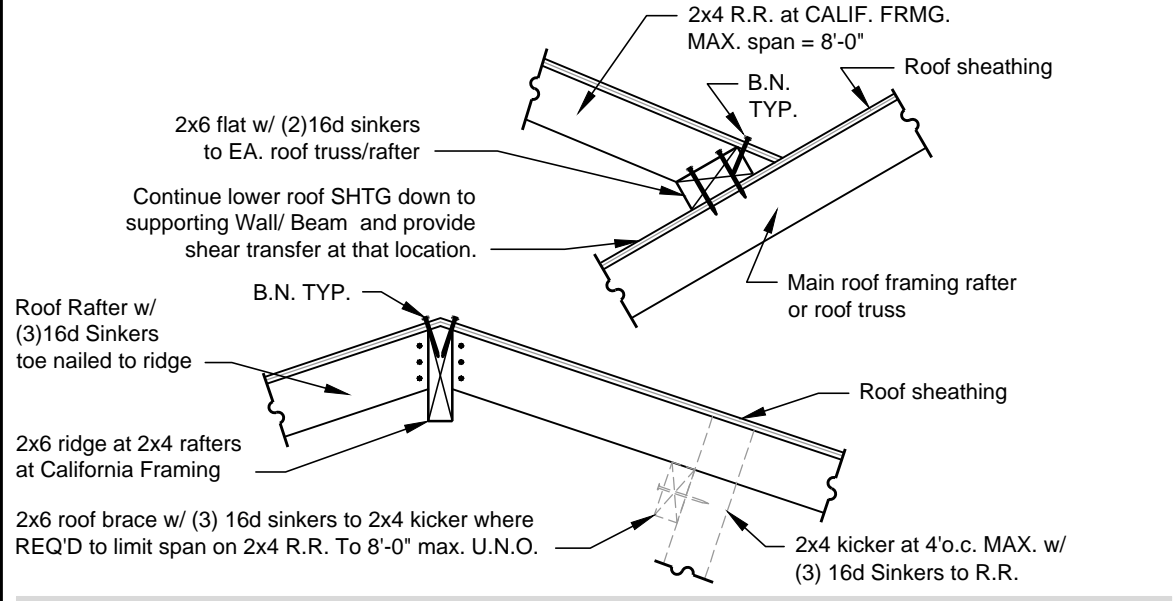




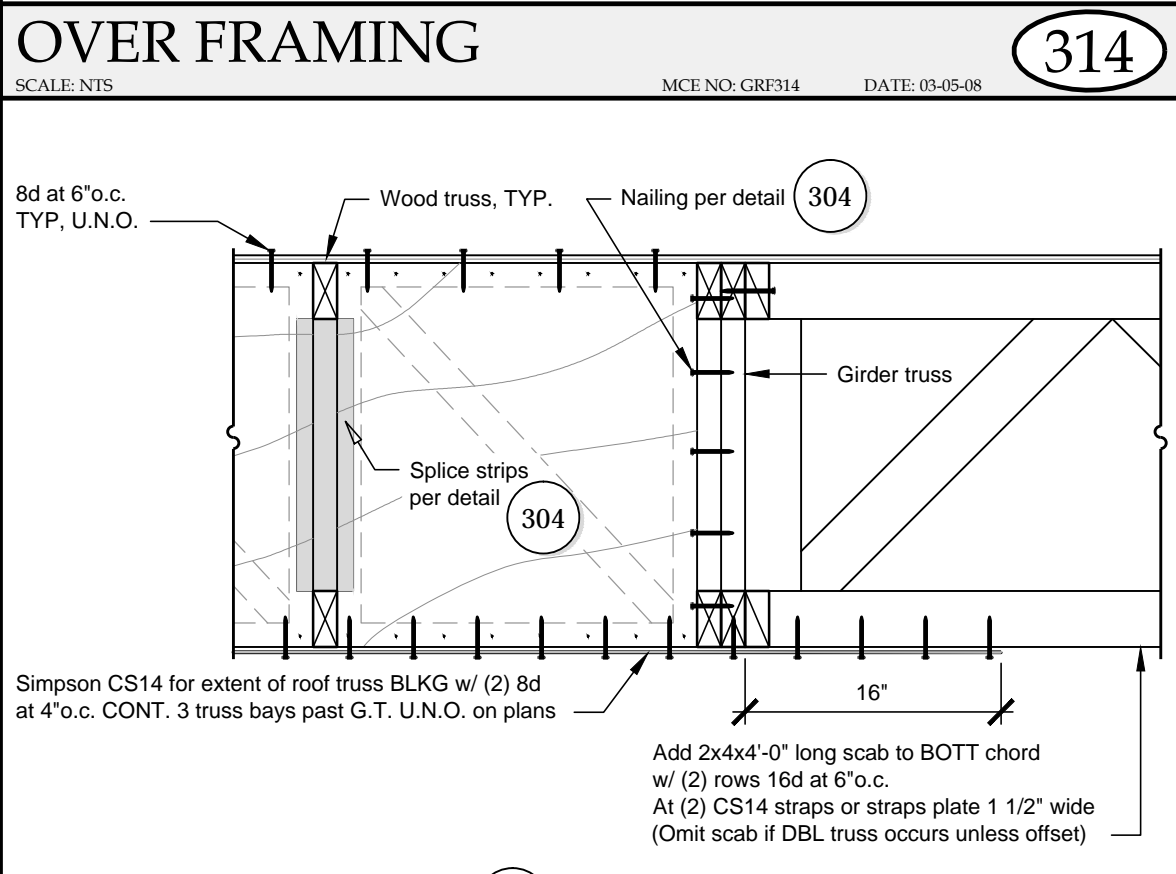




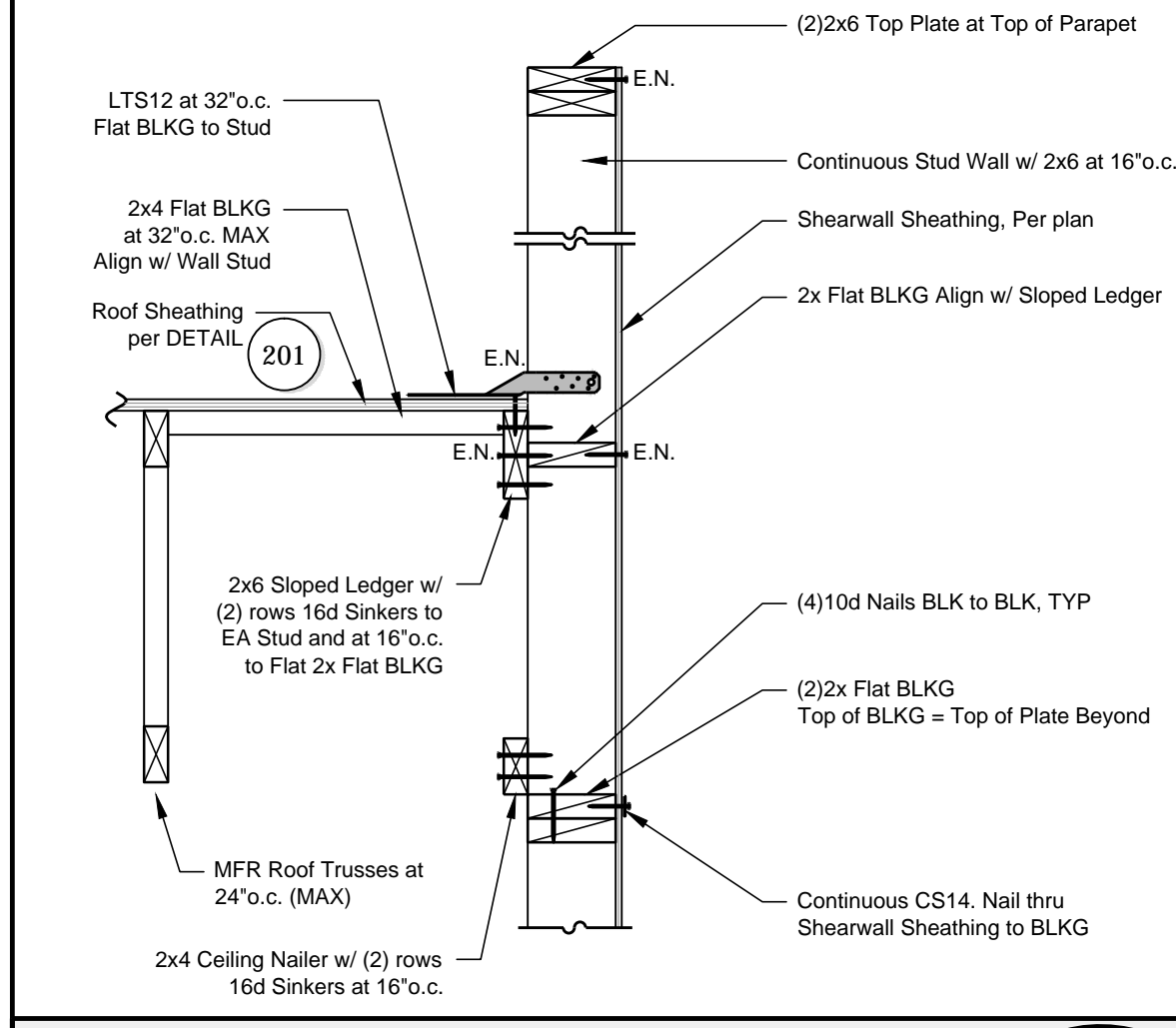
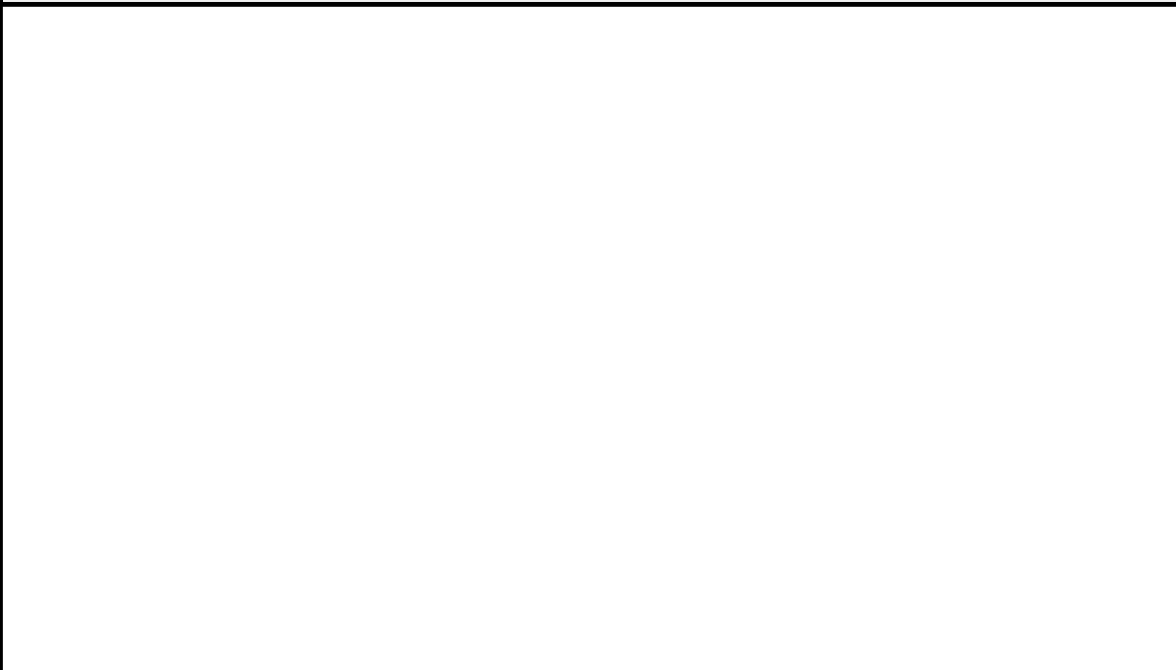
VALLEY TRUSS FRAMING



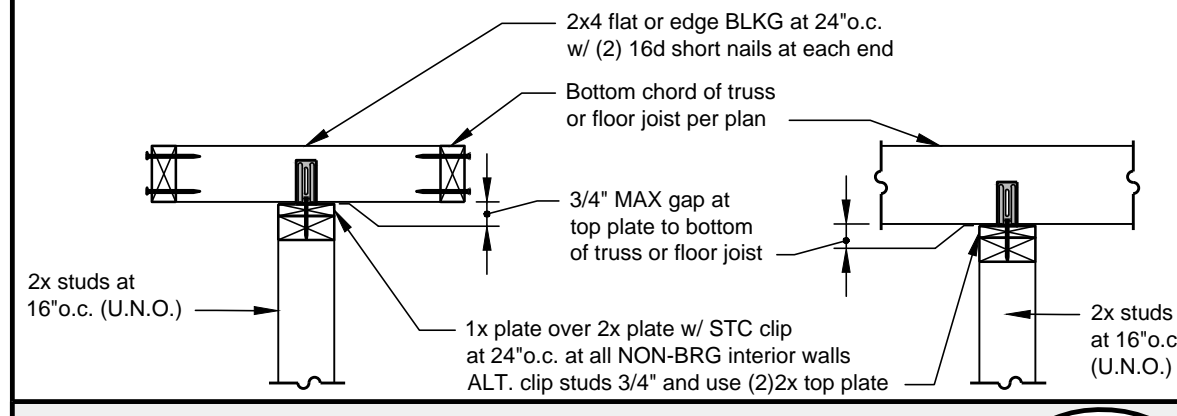
CALIFORNIA FRAMING



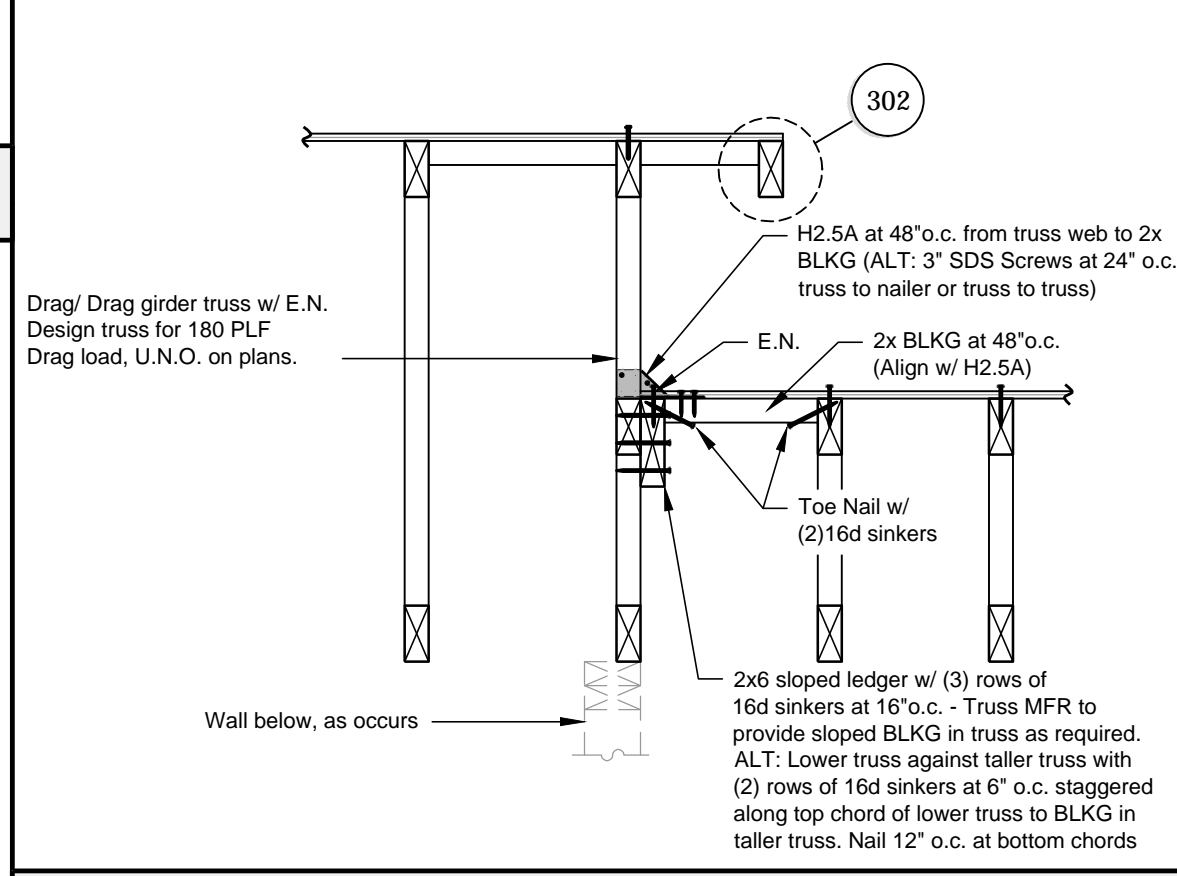
DRAG CONNECTION AT TRUSSES PERPENDICULAR TO DRAG TRUSS



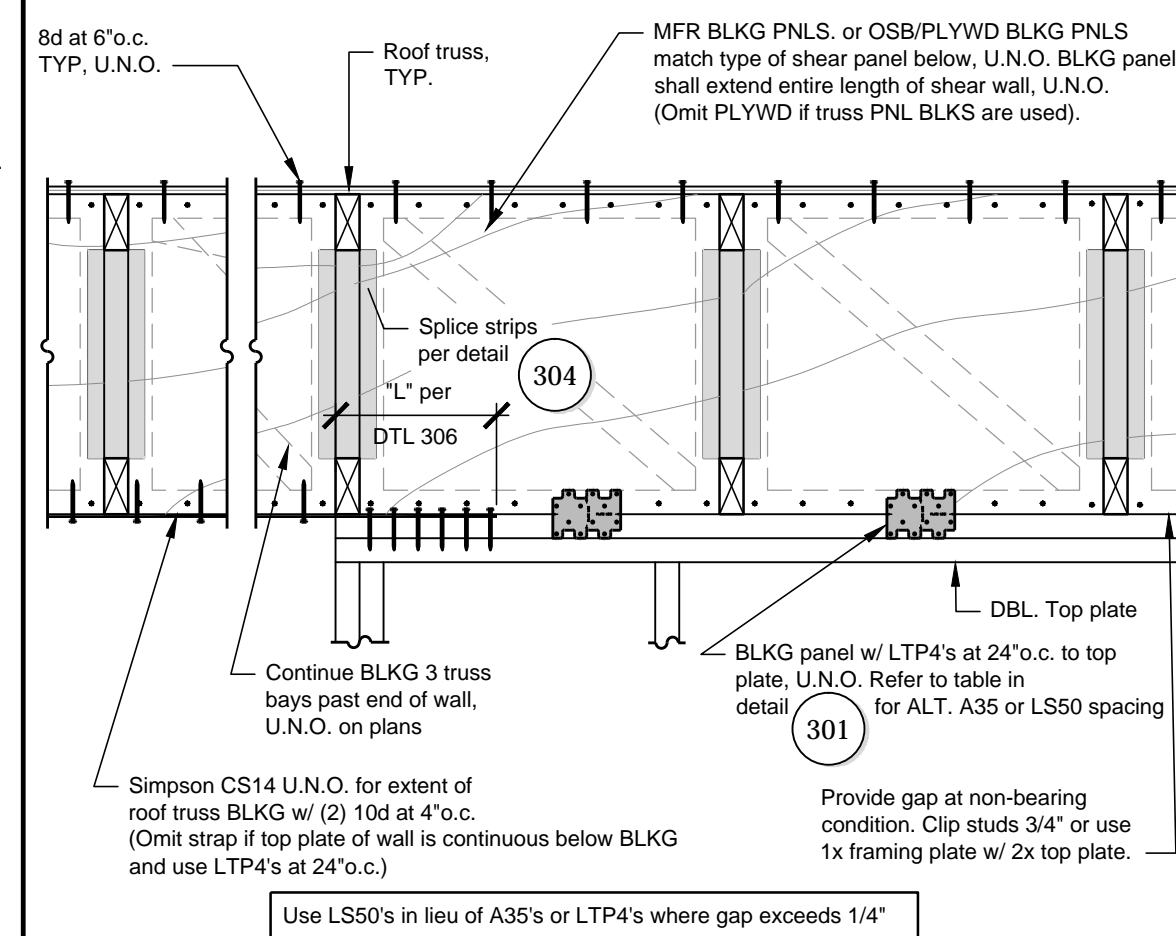
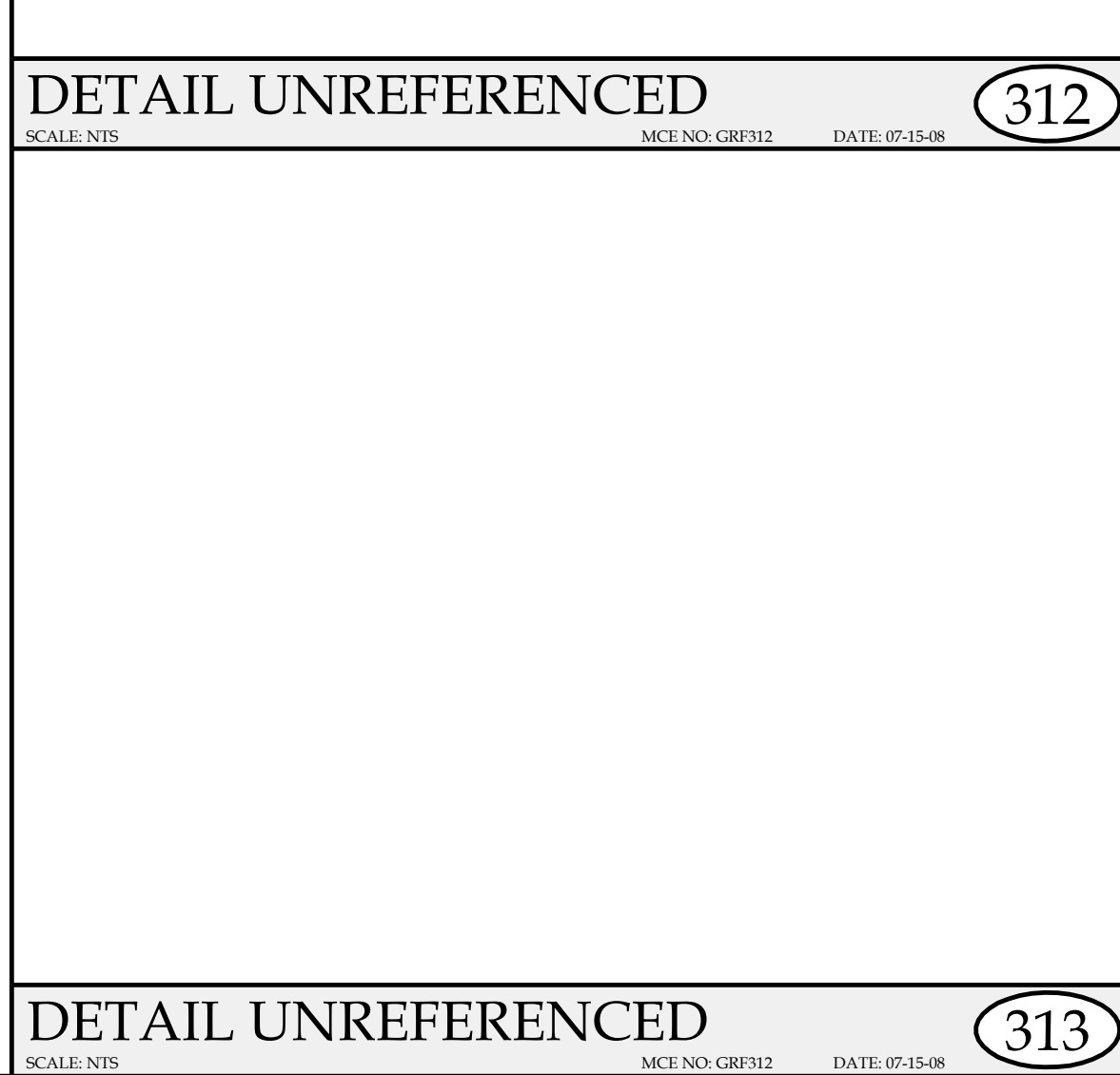
PARAPET WALL FRAMING



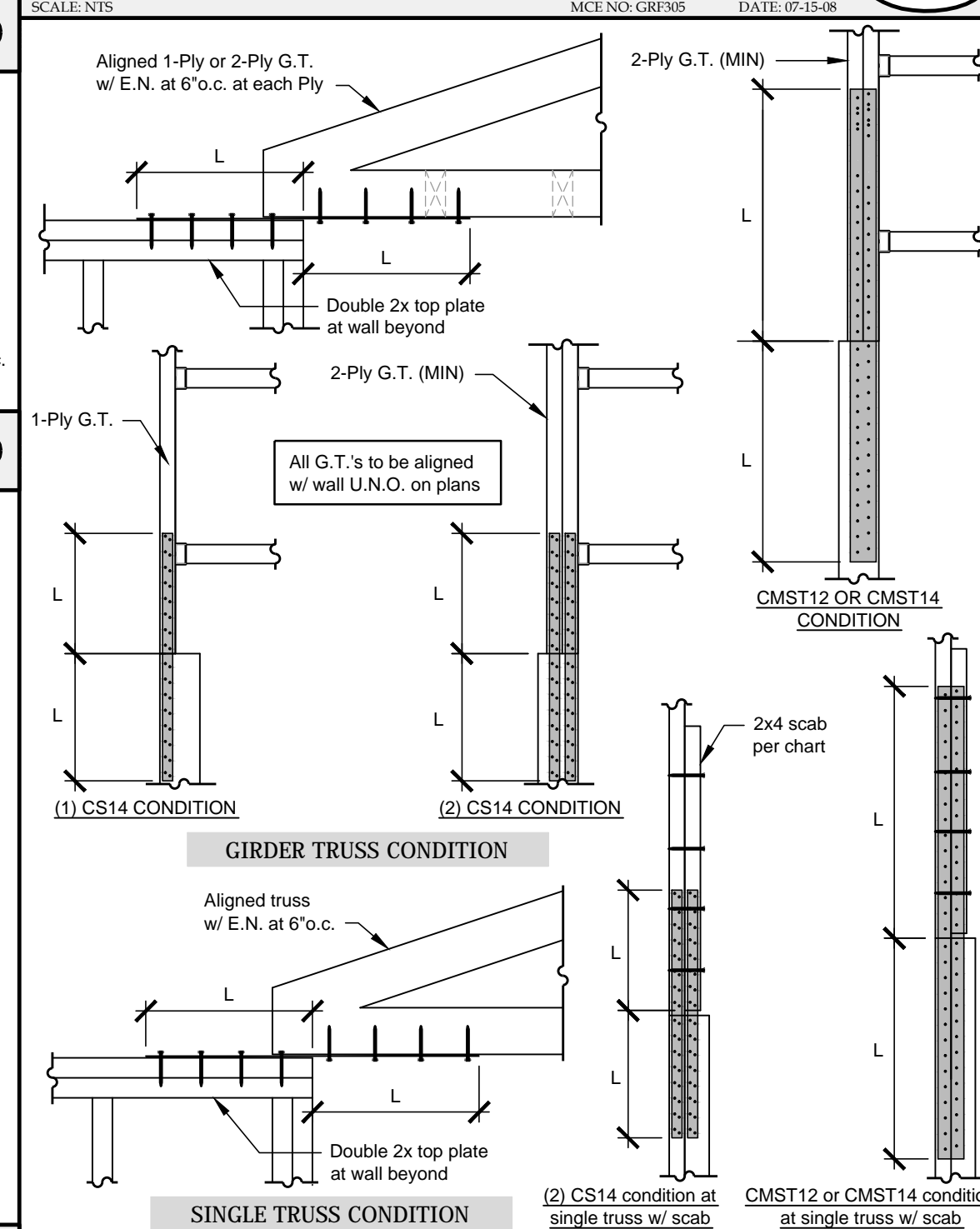
INTERIOR NON-BEARING WALLCLIP



ROOF CONNECTION

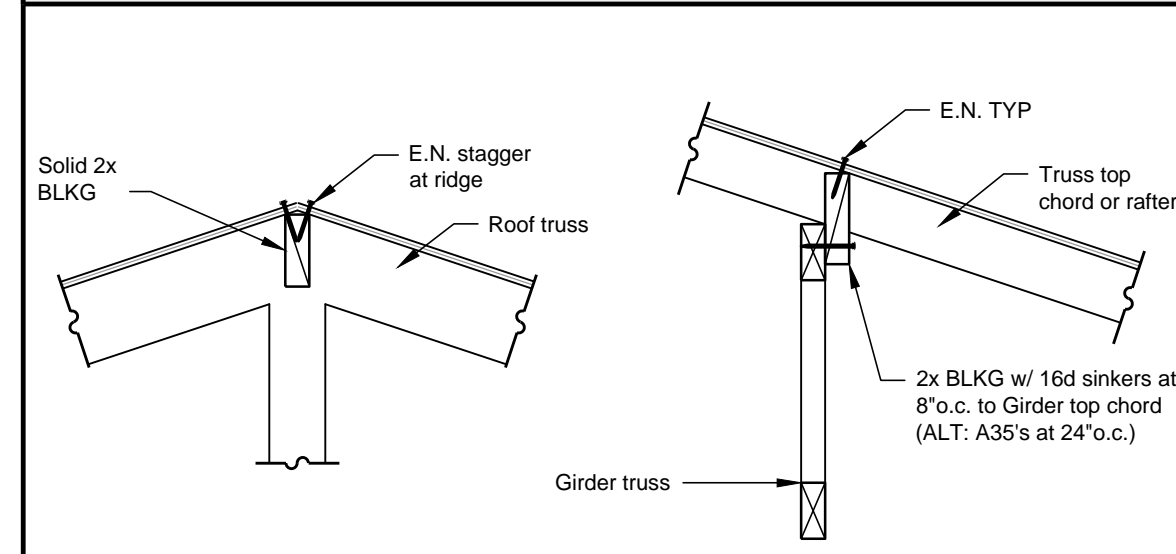


DRAG CONNECTION AT TRUSSES PERPENDICULAR TO INTERIOR WALL

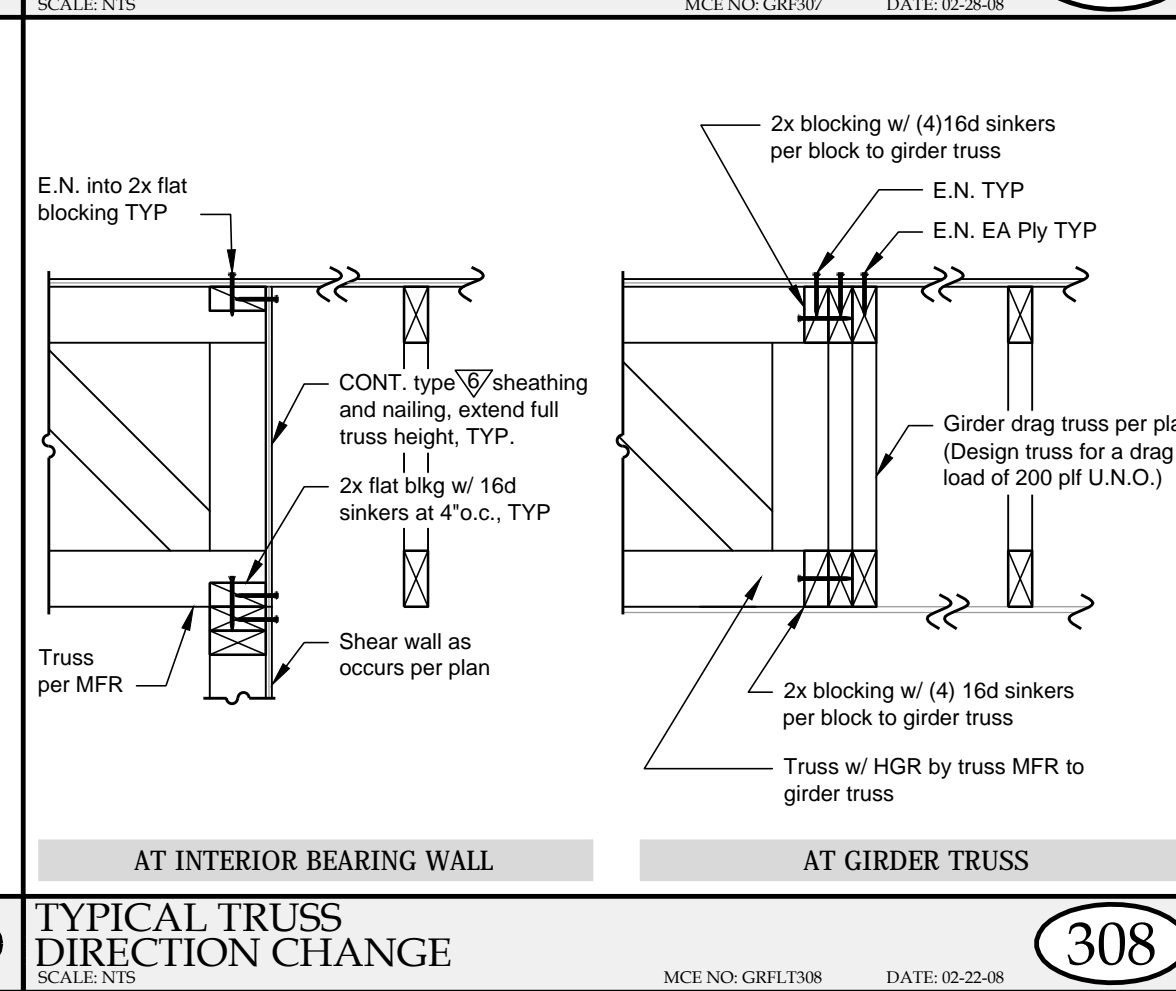


Strap	"L"	Scab length w/ (2) rows 16d sinkers at 6' o.c. ST/G.D.	Nailing in "L"	Drag capacity pounds
(1) CS14	16"	N/A	(15) 10ds	2400
(2) CS14	16"	4'-0"	(19) 10ds EA Strap	4800
CMST14	36"	6'-0"	(39) 10ds	6400
CMST12	44"	8'-0"	(49) 10ds	9215

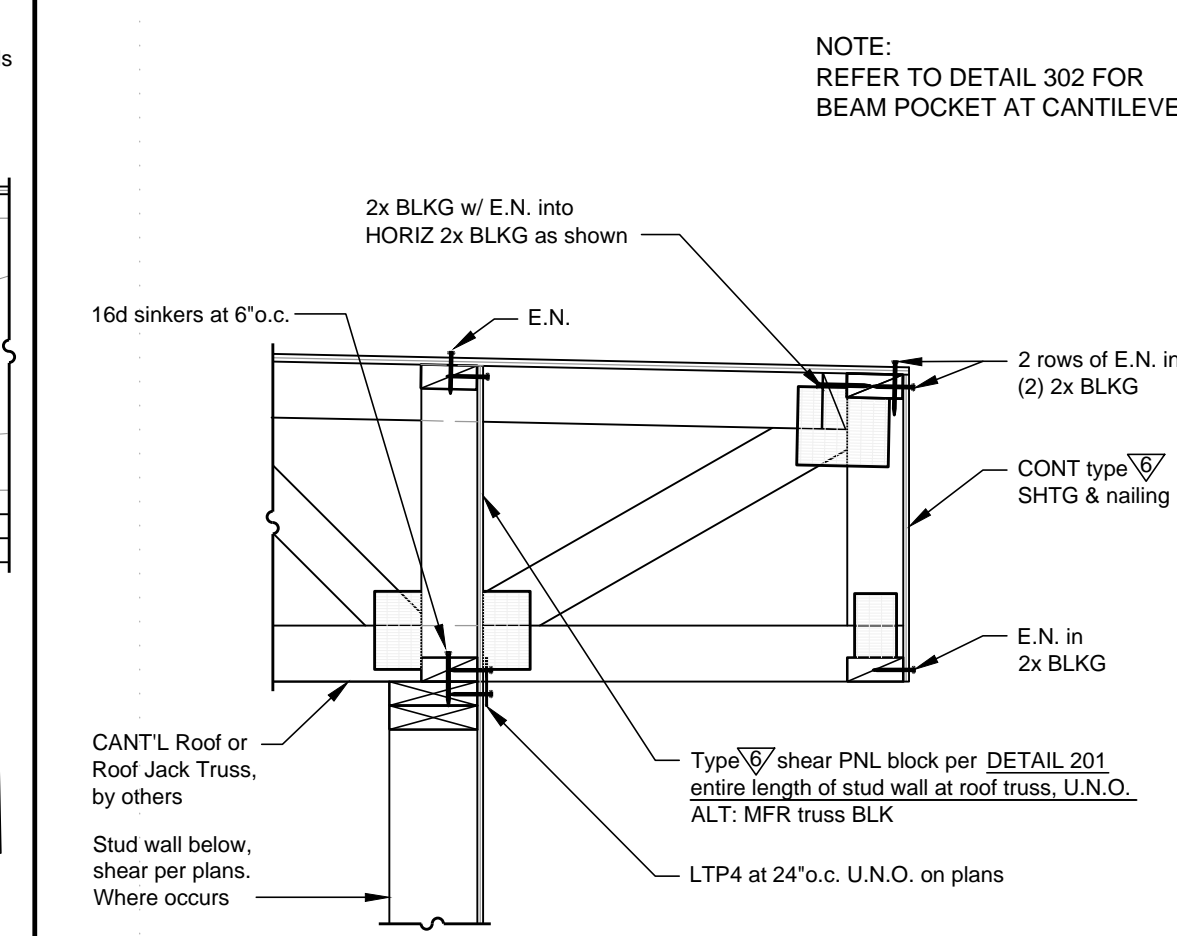
DRAG TRUSS CONNECTION



TRUSS RIDGE BLOCKING AND SHEAR TRANSFER



TYPICAL TRUSS DIRECTION CHANGE

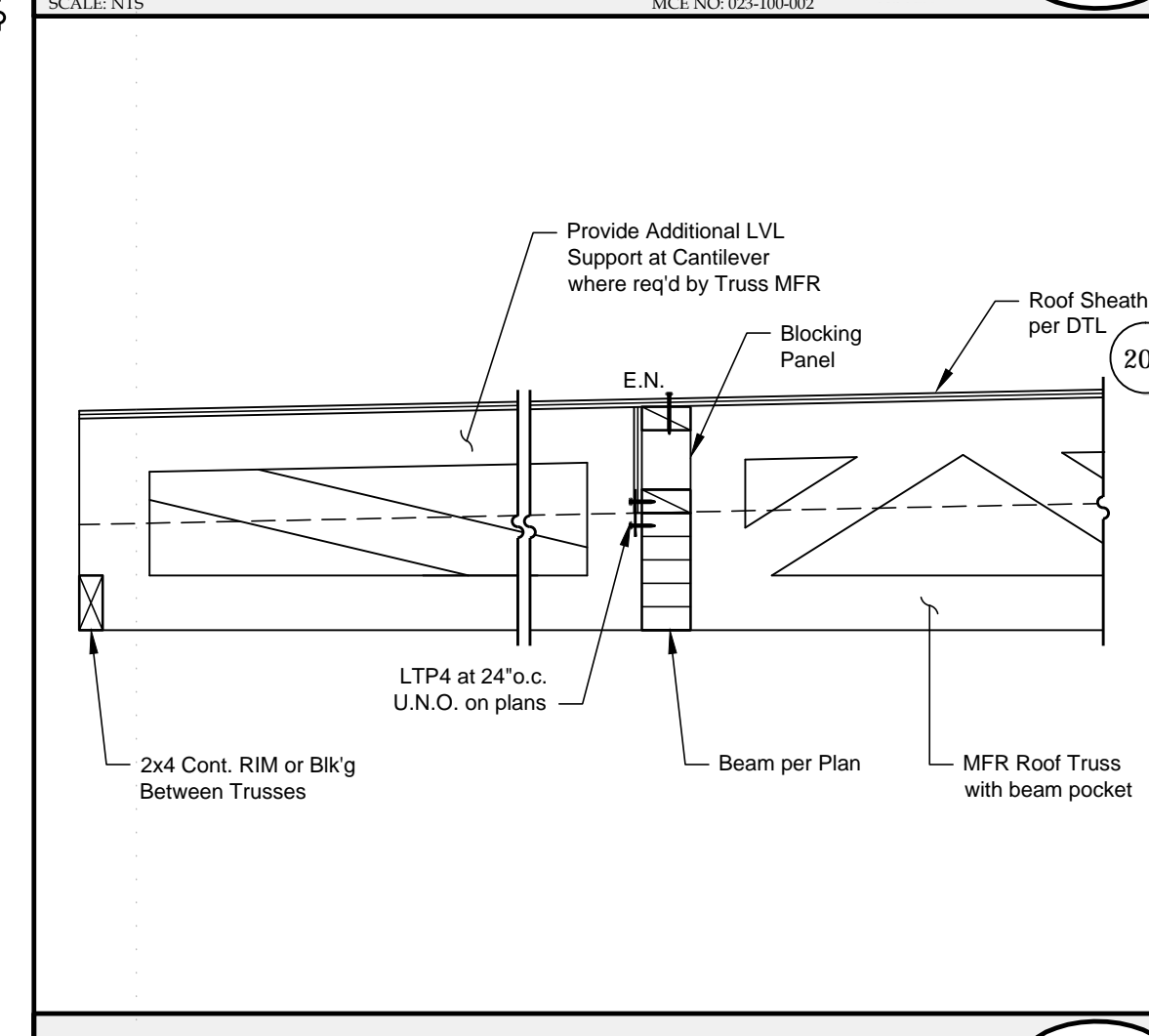


SHEAR TRANSFER

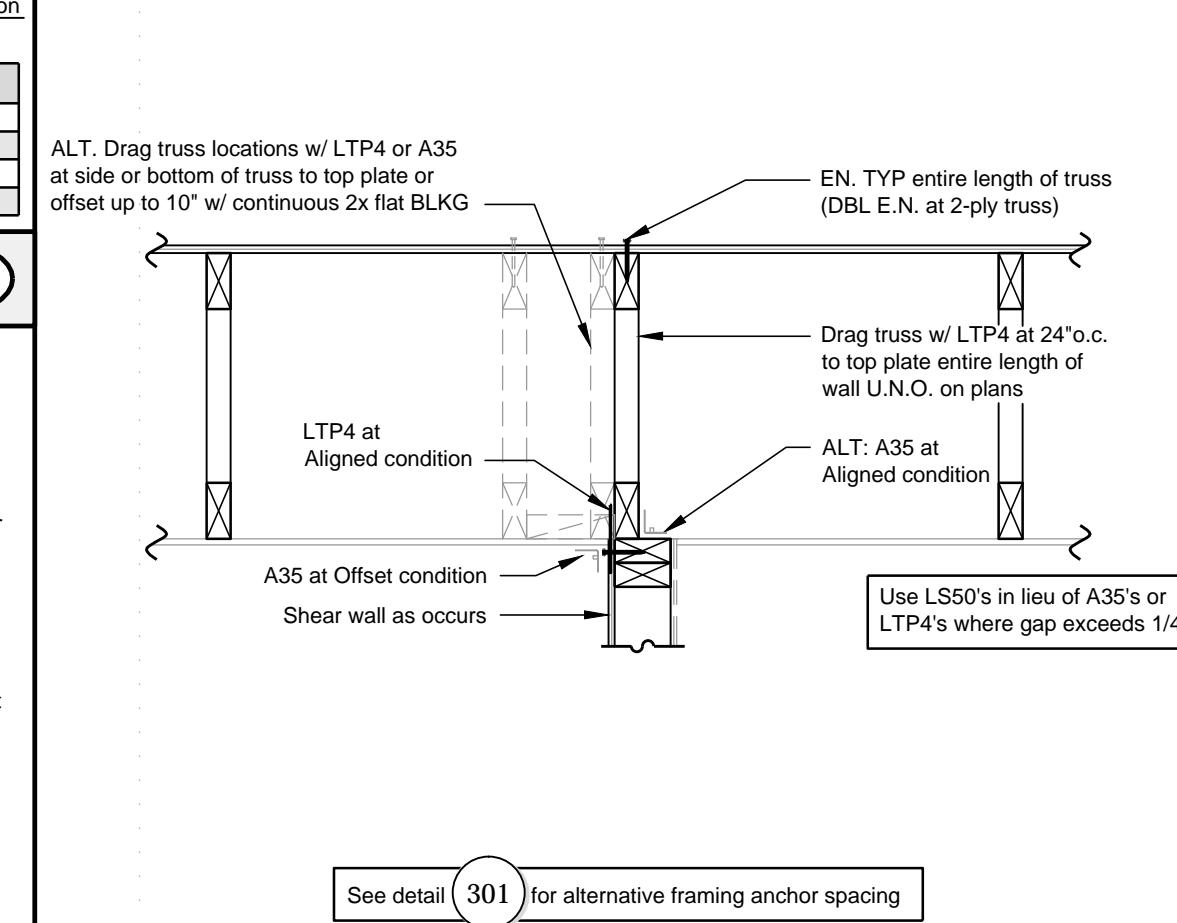
ALLOWABLE FRAMING ANCHOR SUBSTITUTIONS

Framing Anchor	Spacing at	Spacing at	Spacing at	Spacing at	Spacing at	Spacing at
LTP4 (w/ 8dx1-1/2")	48" o.c.	36" o.c.	32" o.c.	24" o.c.	18" o.c.	12" o.c.
A35 (w/ 8dx1-1/2")	44" o.c.	33" o.c.	29" o.c.	22" o.c.	14" o.c.	11" o.c.
LS50 (w/ 10dx1-1/2")	43" o.c.	32" o.c.	28" o.c.	21" o.c.	14" o.c.	10" o.c.

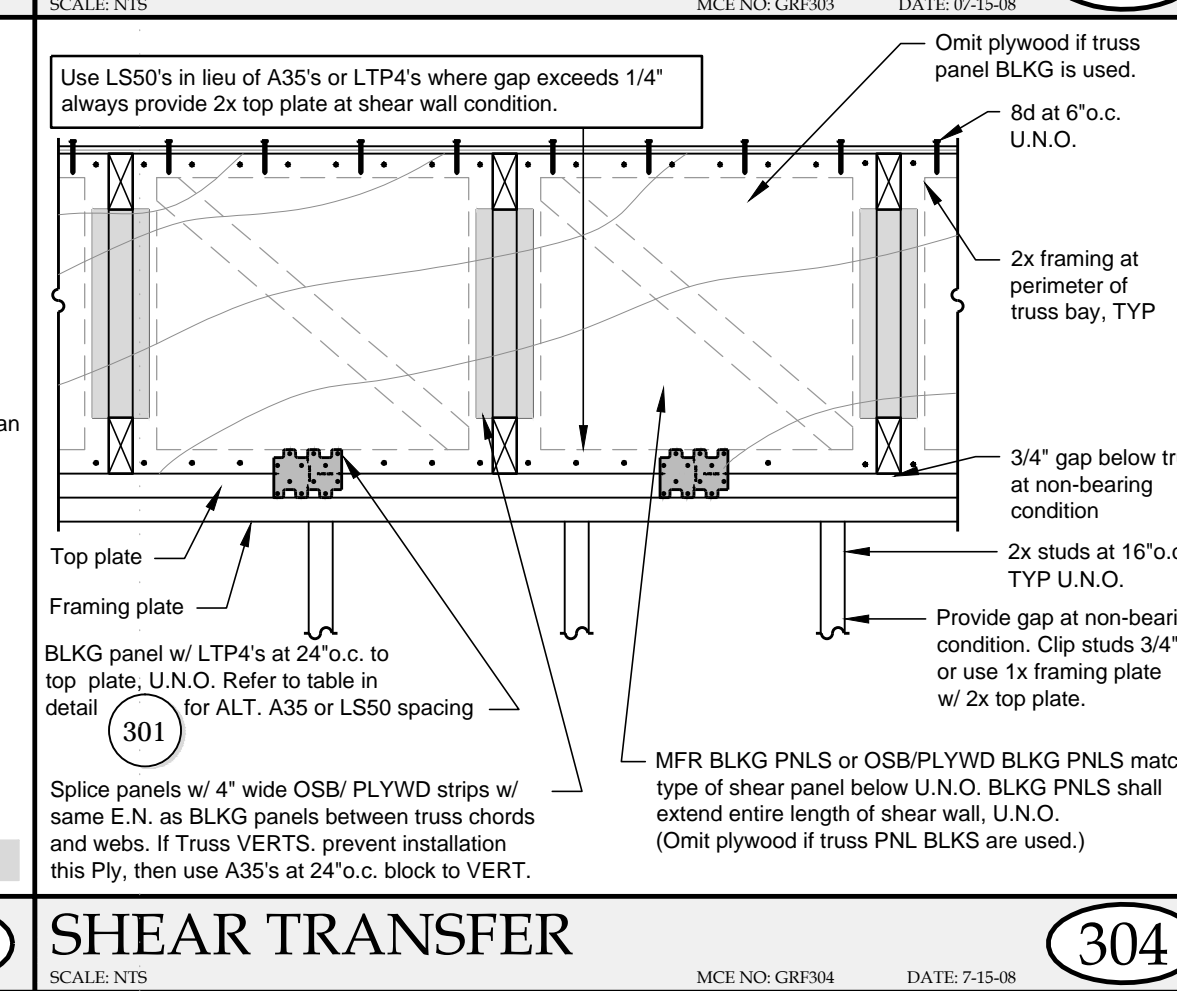
TYPICAL CANTILEVER ROOF TRUSS TO EXTERIOR WALL



BEAM POCKET AT CANTILEVERED ROOF TRUSS



TRUSSES PARALLEL TO INTERIOR SHEAR WALL



Empty space for detail 304.

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Drawn By: EDM

No.	Revision:	Date:
SUBMITTAL	FEBRUARY 20, 2019	

Stamp: **BID SET**  
Elicia Montgomery  
160-33-801-003  
2-20-2019

**A THENS AVE CUSTOM HOME**  
Parcel Number: 160-33-801-003  
Project Jurisdiction: HENDERSON, NEVADA  
Owner/ Developer: SOUTH WEST ENTERPRISE HOLDINGS LLC

Sheet Description:  
**ROOF FRAMING DETAILS**  
**300 SERIES**  
File Name: SD1-0 PT  
Job No: 056-001  
SHEET NUMBER  
**SD3.0**