

**FOUNDATION GENERAL NOTES:**

- GENERAL:
  - THIS FOUNDATION HAS BEEN DESIGNED AS A SOIL SUPPORTED STIFFENED GRID TYPE BEAM AND SLAB FOUNDATION; AND AS SUCH, WILL MOVE WITH THE SOILS UPON WHICH IT BEARS.
  - CONTRACTOR IS TO VERIFY ALL DIMENSIONS, DROP AREAS, FLOOR PENETRATIONS, AND BLOCK OUT LOCATIONS WITH THE ARCHITECT'S FLOOR PLAN.
  - CONTRACTOR SHALL VERIFY ANY DEVIATION FROM THE INFORMATION ON THIS FOUNDATION DESIGN WITH ENGINEER OF RECORD.
  - THE CONTRACTOR SHALL NOT PLACE ANY CONCRETE UNTIL ENGINEER OF RECORD HAS CONDUCTED A PRE-POUR INSPECTION AND HAS GIVEN APPROVAL TO PLACE THE CONCRETE.
  - CONTRACTOR IS TO CALL ENGINEER OF RECORD IF FOUNDATION REQUIRES MULTIPLE CONCRETE POURS OF THREE (3) OR MORE.
  - CONTRACTOR SHALL FURNISH THE LABOR, MATERIALS, EQUIPMENT AND SUPERVISION NECESSARY TO PERFORM ALL WORK SHOWN ON PLANS AND SPECIFICATIONS.
  - IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO NOTIFY THE HOMEOWNER OF THE IMPORTANCE OF ITEMS 2C AND 2D BELOW AND OF THE LIMITATIONS AS EXPRESSED IN ITEM NO. 1 ABOVE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED.

- FOUNDATION SITE PREPARATION & FINISH:
  - AREA OF FOUNDATION IS TO BE CLEARED AND GRUBBED OF ALL DELETERIOUS AND ORGANIC MATERIALS DOWN TO A SOLID BASE.
  - PROVIDE A VAPOR BARRIER BENEATH THE FLOOR SLAB BY USING A WATERPROOFING MEMBRANE OF 10 MIL POLYETHYLENE. THE MEMBRANE SHALL BE TAPED AT ALL SPLICES AND TEARS. THE MEMBRANE SHALL EXTEND TO WITHIN 6-INCHES OF THE BOTTOM OF THE BEAM TRENCHES.
  - POSITIVE DRAINAGE AWAY FROM THE PERIMETER OF THE FINISHED FOUNDATION MUST BE PROVIDED. THE TOP OF THE FOUNDATION SLAB SHOULD BE A MINIMUM OF 8-INCHES ABOVE THE FINISHED GRADE. THE GROUND ADJACENT TO THE FOUNDATION SHOULD SLOPE AWAY A MINIMUM OF 6-INCHES IN THE FIRST 5-FEET.
  - ANY TREES PLANTED AFTER PLACEMENT OF THE FOUNDATION SHOULD BE PLANTED NO CLOSER TO THE FOUNDATION THAN ONE-HALF THE POTENTIAL HEIGHT OF THE TREE.
  - ALL AIR CONDITIONING CONDENSER DRAIN LINES SHOULD DISCHARGE A MINIMUM OF 5-FEET FROM THE PERIMETER OF THE FOUNDATION.

- CONCRETE:
  - CONCRETE TO BE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, AND SHALL BE IN ACCORDANCE ACI 301. CEMENT SHALL BE TYPE 1 AND FLY ASH (IF USED) SHALL BE MONEK RESOURCES CLASS C. IF FLY ASH IS USED, IT SHALL NOT EXCEED 20% OF THE TOTAL AMOUNT OF FLY ASH AND CEMENT BY WEIGHT. NO AIR ENTRAINMENT OR CALCIUM CHLORIDE SHALL BE USED. CONTRACTOR SHALL SATISFY HIMSELF THAT THE MIX DESIGN IS ACCEPTABLE FOR ITS INTENDED PURPOSE.
  - CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH ACI 302.1R. FINISH TOLERANCE SHALL BE IN ACCORDANCE WITH ACI 117. A MINIMUM SET OF TWO TEST CYLINDERS FOR 28-DAY COMPRESSIVE STRENGTH TESTS ARE RECOMMENDED TO BE PERFORMED IN ACCORDANCE WITH ASTM C42.
  - PLACE 1/2" X 10" EMBEDMENT ANCHOR BOLTS FOR ALL SILL PLATES ON EXTERIOR WALLS NOT EXCEEDING 4'-0" O.C. AND A MINIMUM OF 2 ANCHOR BOLTS PER WALL AND NOT FARTHER THAN 12-INCHES FROM WALL ENDS.

- GRADE BEAMS:
  - ALL GRADE BEAM DEPTHS MAY BE REDUCED WHEN BEARING ON SOLID UNFRAGMENTED ROCK. ROUGHEN THE ROCK SURFACE A MINIMUM OF 3" AND MAINTAIN A MINIMUM OF 8" ABOVE THE GRADE. FOR DOWNSLOPING EXTERIOR BEAMS MORE THAN 5% GRADE, REMOVE A 10" DIAMETER BOULDER EVERY 4' TO PROVIDE ADDITIONAL ROUGHNESS AND ENGAGEMENT TO THE HILL.
  - FOR GRADE BEAMS WITH DEPTHS EQUAL TO OR IN EXCESS OF 36-INCHES, INCREASE THE AMOUNT OF REINFORCING STEEL BY ADDING TWO-#4 BARS HORIZONTALLY EVERY 18-INCHES OF VERTICAL. IF THE EXTERIOR GRADE BEAMS EXCEED 8-FEET IN DEPTH, SEE DETAIL 16 PER THIS DRAWING.

- REINFORCING STEEL:
  - REINFORCING BARS SHALL BE NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A615 GRADE 60.
  - LAPS AND SPLICES PER TABLE 1 THIS SHEET
  - ALL BARS TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS OR WIRE BOLSTERS, AND SHALL BE TIED AT EVERY OTHER INTERSECTION.
  - ALL BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3-INCHES FROM THE BOTTOM AND SIDES OF THE BEAMS. SLAB REINFORCEMENT SHALL BE IN MID PLANE.
  - CORNER REINFORCING BARS: TWO CORNER BARS AT EACH CORNER OF THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 14, AND FOUR CORNER BARS AT THE INTERSECTION OF ALL INTERIOR GRADE BEAMS WITH THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 13.
  - STIRRUP ANCHOR HOOKS SHALL NEVER BE CUT WITHOUT THE AUTHORIZATION OF THE ENGINEER. IF STIRRUPS ARE TOO LONG, THEY MAY BE BENT IN THE DIRECTION OF THE BEAM.

- CONSTRUCTION:
  - FOR ALL SLAB DROPS GREATER THAN 36-INCHES, THE CONTRACTOR SHALL CONSTRUCT A FRENCH DRAIN SYSTEM OF CAPACITY SUFFICIENT TO INTERCEPT AND TRANSPORT WATER FROM BENEATH THE FOUNDATION TO A POINT AWAY FROM THE FOUNDATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE DIRECTION OF FLOW AND POINT OF DISCHARGE TO DAYLIGHT. DISCHARGE OUTLET TO BE A MINIMUM OF 5-FEET AWAY FROM FOUNDATION. SOLID WALL PIPE MAY BE USED OUTSIDE OF FOUNDATION. WRAP ALL PERFORATED PIPE WITH MIRAFI N-SERIES FILTER FABRIC.
  - ALL FOUNDATIONS THAT ARE TO HAVE A FILL DEPTH GREATER THAN 2-FEET BELOW BOTTOM OF INTERIOR GRADE BEAM SHALL MEET ONE OF THE FOLLOWING:
    - INTERIOR GRADE BEAMS MAY BE DEEPEMED TO MAINTAIN 2-FEET MAXIMUM DEPTH OF FILL BELOW BOTTOM OF BEAM. INTERMEDIATE BARS PER NOTE 4-B SHALL BE ADDED IF REQUIRED.
    - IF BEARING ON SOLID ROCK - 14-INCHES DIA. PIERS, FORMED WITH SONO-TUBES, SHALL BE PLACED AT ALL INTERIOR BEAM INTERSECTIONS. PIERS ARE TO BE REINFORCED WITH A MINIMUM OF FOUR-#4 VERTICAL BARS WITH #3 TIES @ 12-INCHES O.C. VERTICALLY. REFER TO DETAIL 15.
    - IF EARTH SUPPORTED - SELECT FILL EQUAL TO TXDOT NO. 2 BASE SHALL BE COMPACTED TO A MINIMUM 95-PERCENT MODIFIED PROCTOR PER ASTM D-1557. FILL IS TO BE PLACED IN 8-INCH LIFTS AND TESTED BY A SOILS TESTING LAB.
    - ALTERNATIVELY, IF EARTH SUPPORTED - CRUSHED LIMESTONE BASE FILL WITH 100% PASSING 1 1/2-INCH SIEVE, AND 0% PASSING NO. 4 SIEVE, CAN BE PLACED WITHOUT COMPACTION. BEFORE INSTALLATION OF BASE FILL, FILTER FABRIC SUCH AS MIRAFI N-SERIES IS TO BE PLACED OVER EXISTING EARTH.
  - WHERE PIPES PASS THROUGH BEAMS, INCREASE BEAM SIZE AT PIPE PENETRATIONS TO MAINTAIN MINIMUM BEAM WIDTH AND HEIGHT. PLACEMENT OF OVERSIZED DIAMETER SLEEVES IS ALSO RECOMMENDED.
  - CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE SLAB PERIMETER DURING CONSTRUCTION.
  - CONCRETE SHALL NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR SEEPAGE, AND ALL BEARING SURFACES SHALL BE FREE OF LOOSE SOIL, PONDED WATER, AND DEBRIS PRIOR TO PLACING THE CONCRETE.

**SOILS INFORMATION**

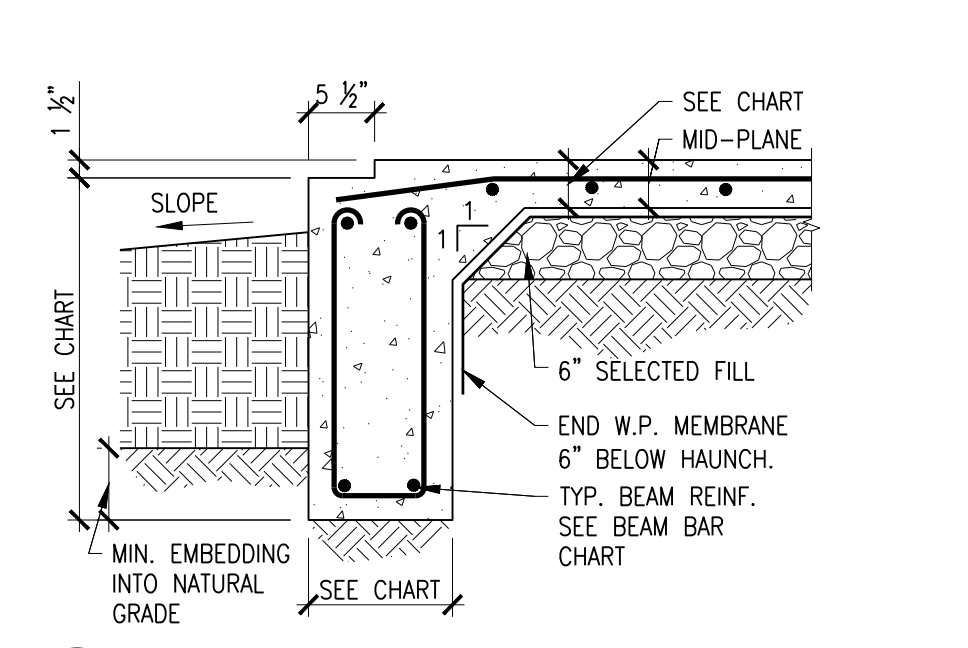
| DESIGN LEVEL | SOIL TYPE | P.I. | BY | DATE |
|--------------|-----------|------|----|------|
| A            | ROCK      | ---  |    |      |

**BEAM AND SLAB INFORMATION**

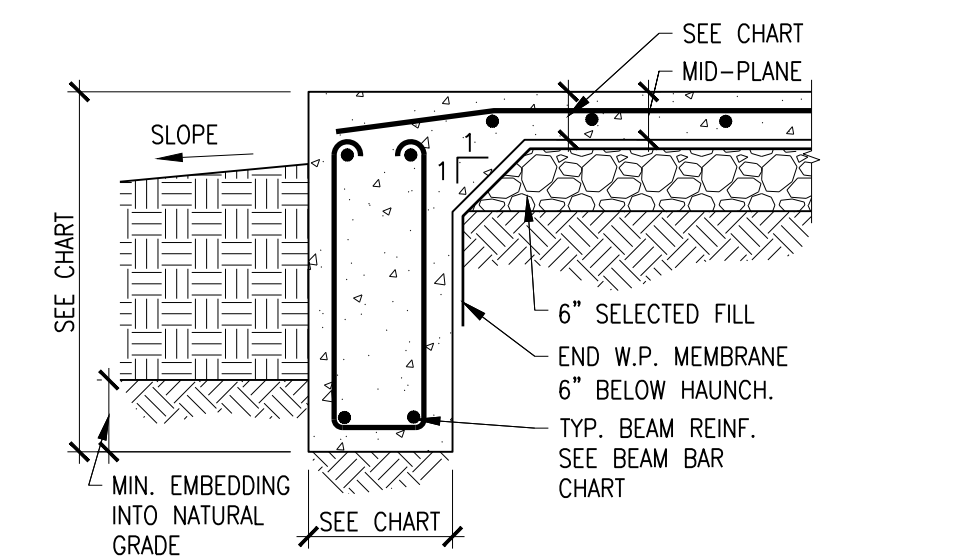
| BEAM WIDTH | EXT. BEAM DEPTH | EXT. BM. DEPTH IN GRADE | INT. BEAM DEPTH | BEAM BARS             | STIRRUP EXT. BEAM | STIRRUP INT. BEAM | PAD BARS      | SLAB THICKNESS |
|------------|-----------------|-------------------------|-----------------|-----------------------|-------------------|-------------------|---------------|----------------|
| 12" MIN.   | 33" MIN.        | 12" MIN.                | 24" MIN.        | 2-#5 TOP<br>2-#5 BOT. | #3 @ 18" O.C.     | #3 @ 18" O.C.     | #3 @ 12" O.C. | 4"             |

TABLE 1 REBAR SPICE DISTANCES (INCHES) FOR 3000 PSI CONCRETE

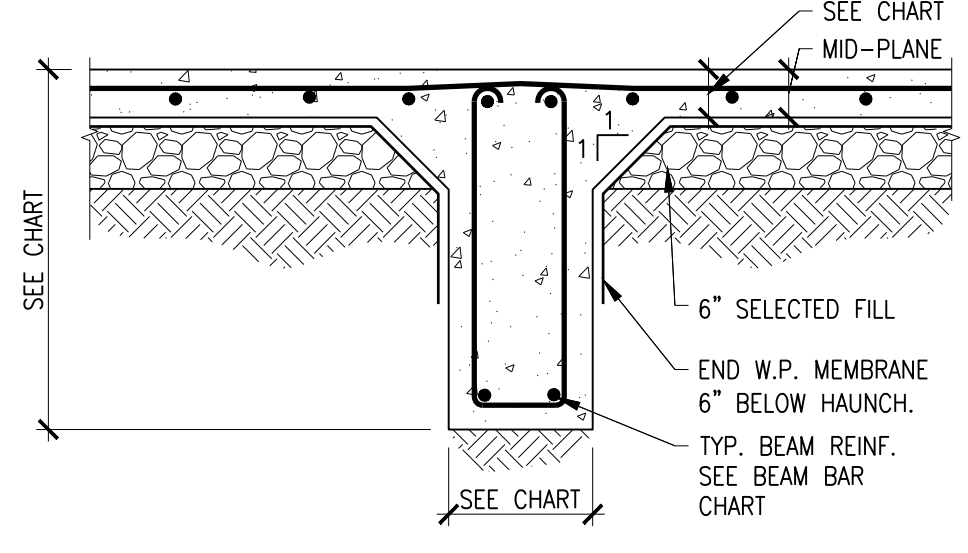
| BAR SIZE | BEAM TOP BARS | OTHER BARS |
|----------|---------------|------------|
| 3        | 22            | 17         |
| 4        | 29            | 22         |
| 5        | 36            | 28         |
| 6        | 43            | 33         |
| 7        | 63            | 48         |
| 8        | 72            | 55         |
| 9        | 81            | 62         |



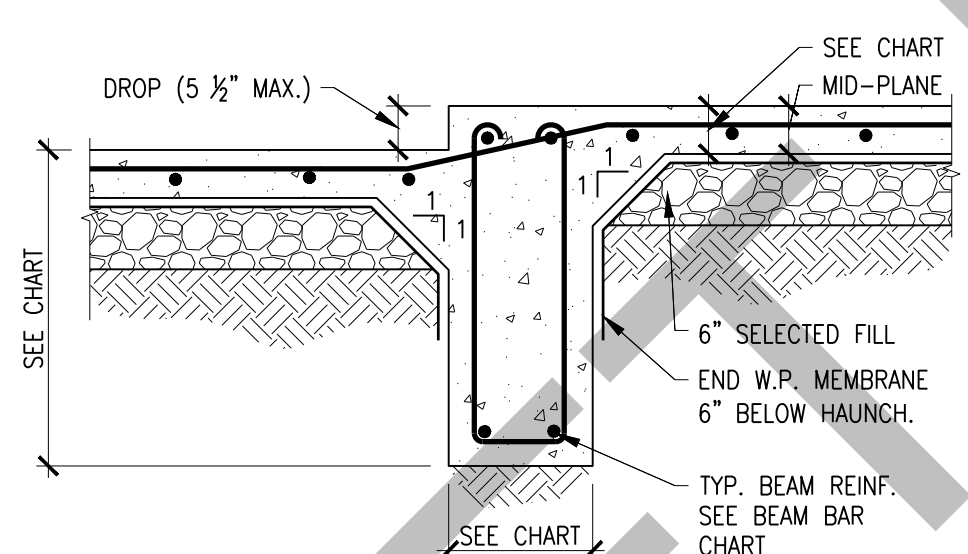
**1 SECTION**  
EXTERIOR BEAM W/BRICK LUG  
SCALE: 3/4"=1'-0"



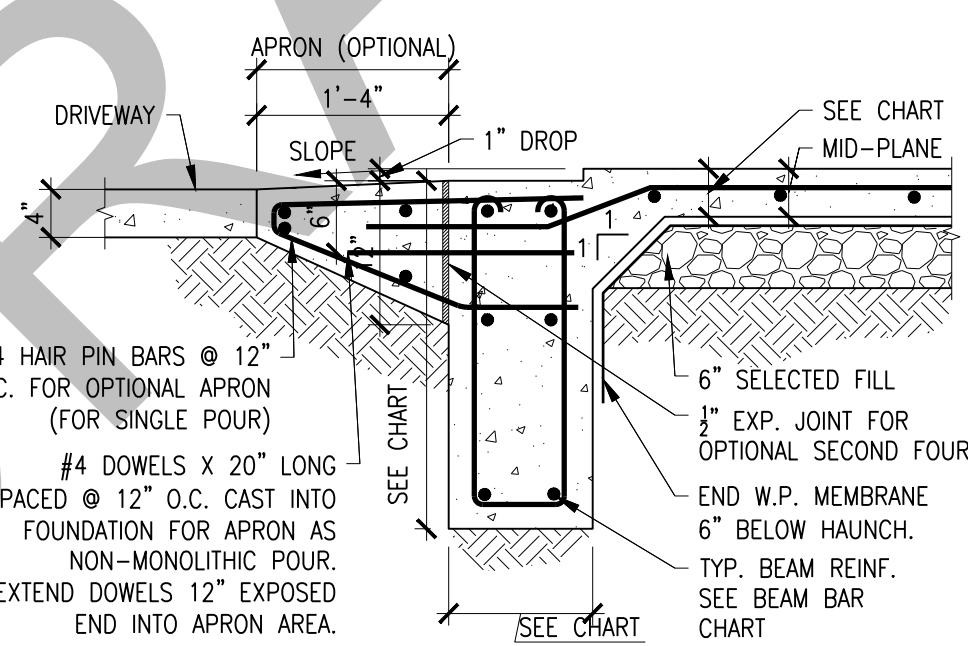
**2 SECTION**  
EXTERIOR BEAM - NO BRICK LUG  
SCALE: 3/4"=1'-0"



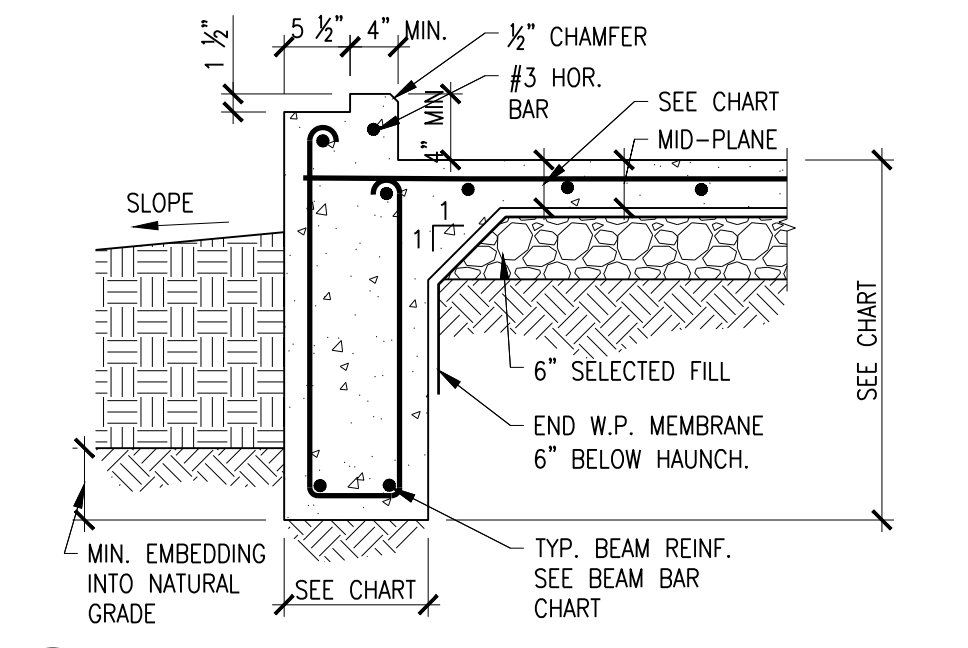
**3 SECTION**  
TYPICAL INTERIOR BEAM DETAIL  
SCALE: 3/4"=1'-0"



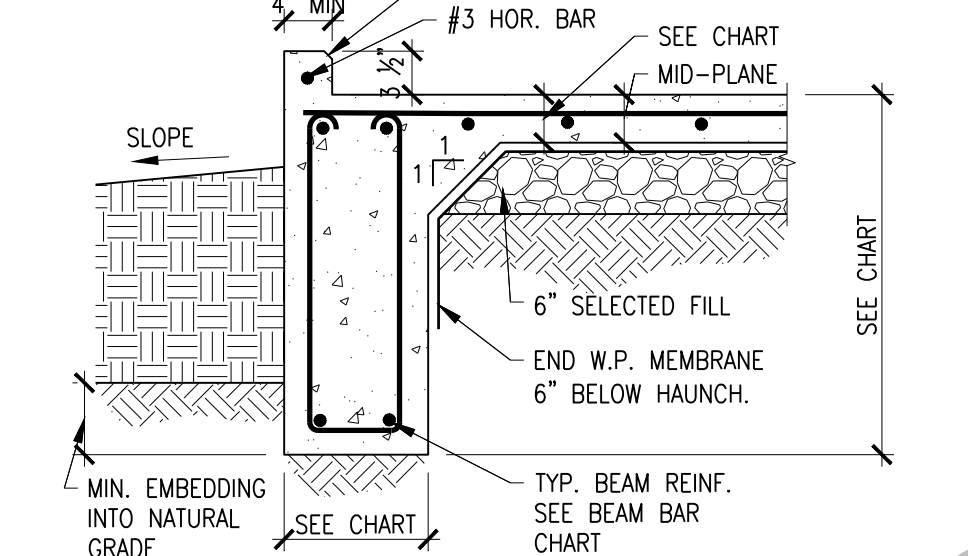
**4 SECTION**  
DROPS 5 1/2" OR SMALLER  
SCALE: 3/4"=1'-0"



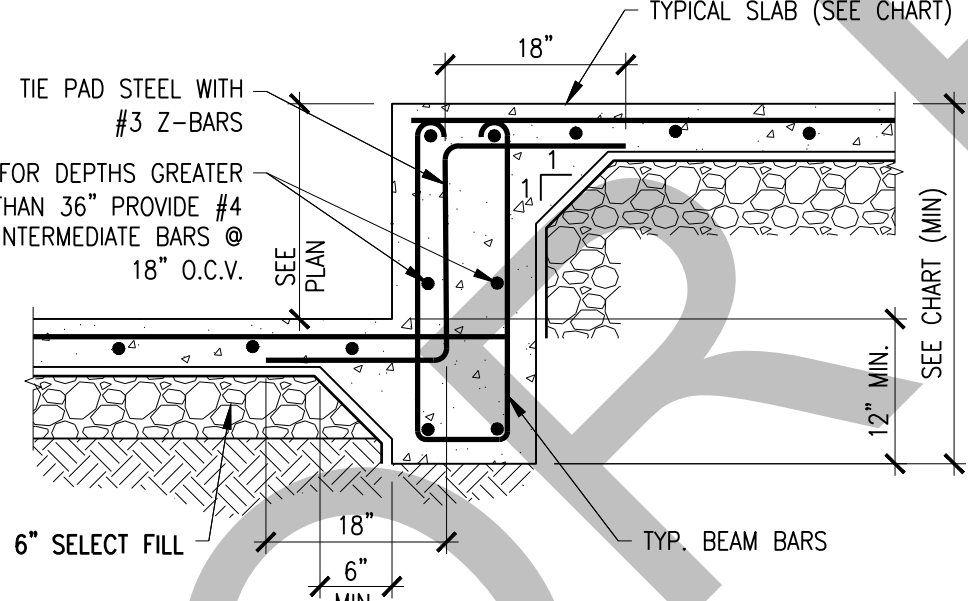
**5 SECTION**  
GARAGE RAMP DETAIL  
SCALE: 3/4"=1'-0"



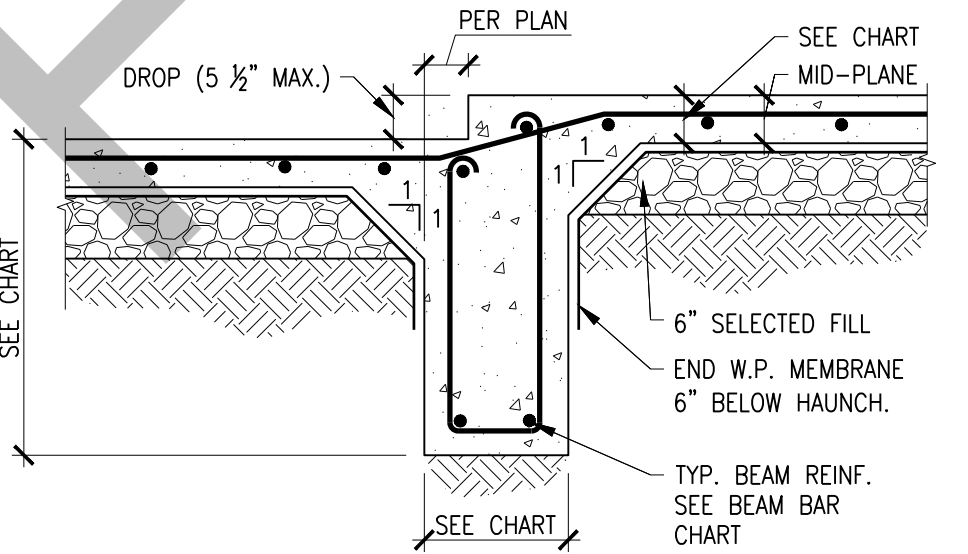
**6 SECTION**  
EXTERIOR BEAM W/BRICK LUG  
SCALE: 3/4"=1'-0"



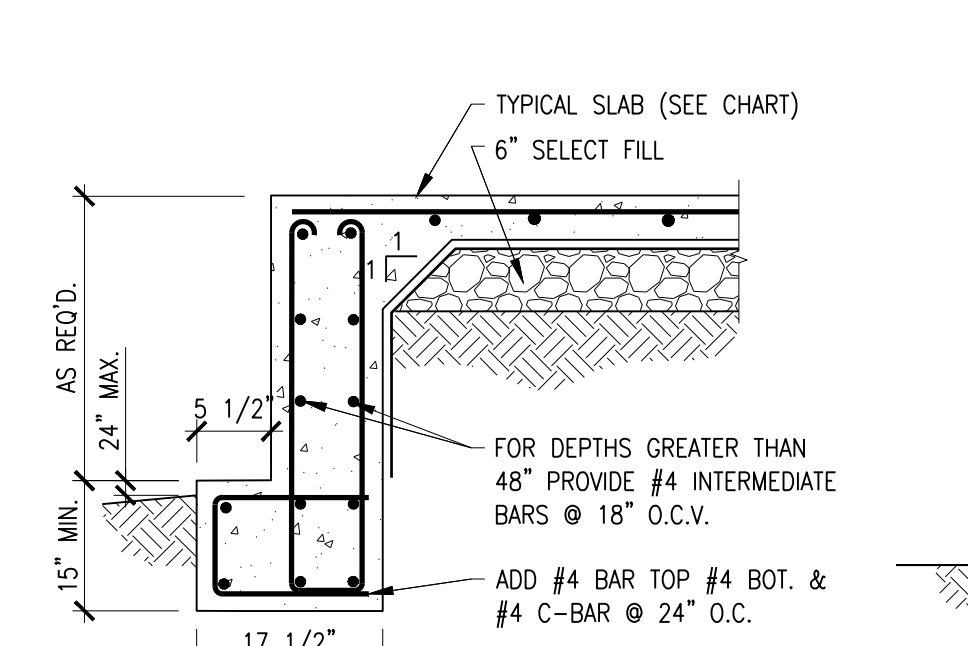
**7 SECTION**  
EXTERIOR BEAM W/BRICK LUG  
SCALE: 3/4"=1'-0"



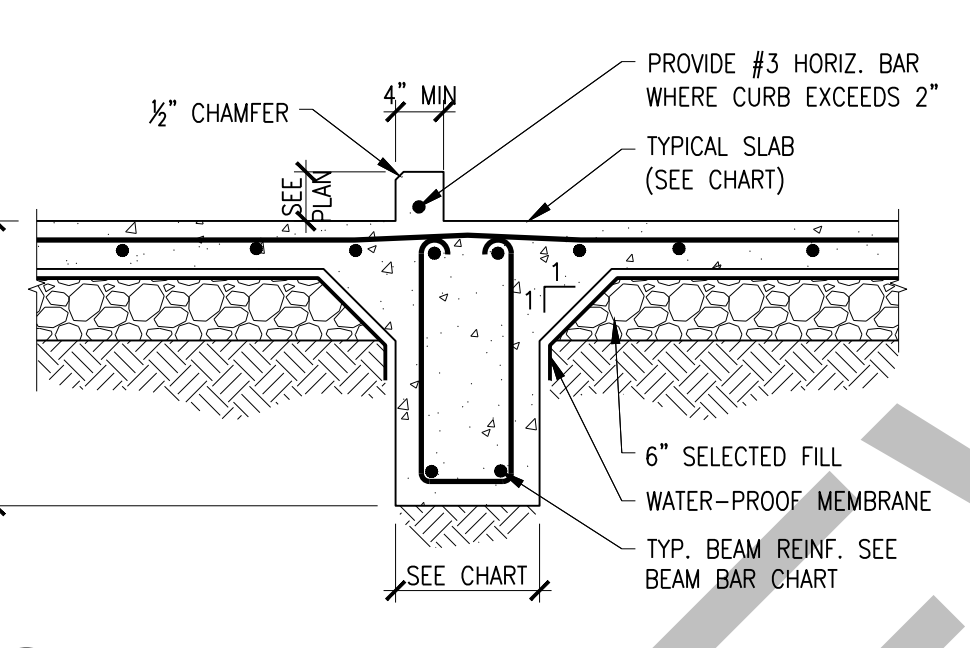
**8 SECTION**  
FOR DROPS 6" - 35 1/2"  
SCALE: 3/4"=1'-0"



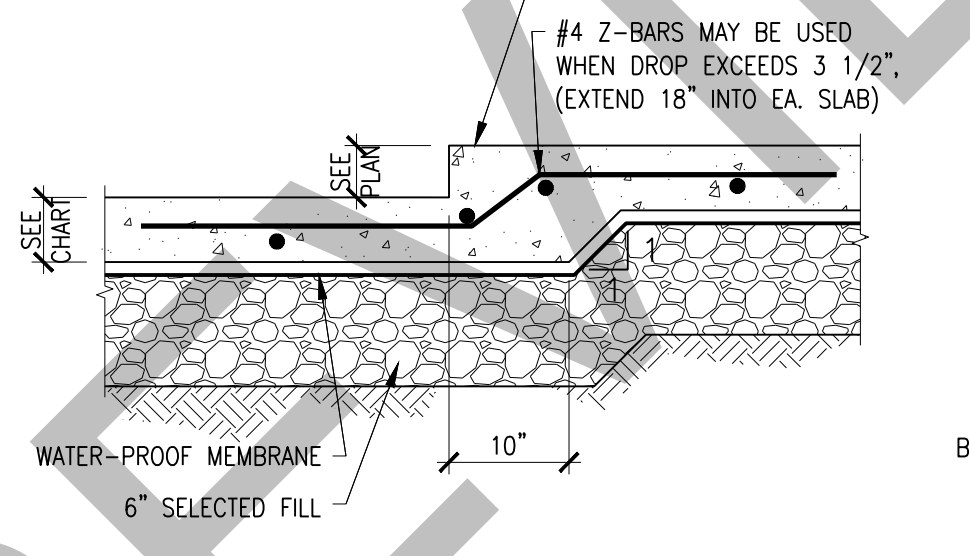
**9 SECTION**  
DROPS IN BEAM AREA UP TO 5 1/2" OR SMALLER  
SCALE: 3/4"=1'-0"



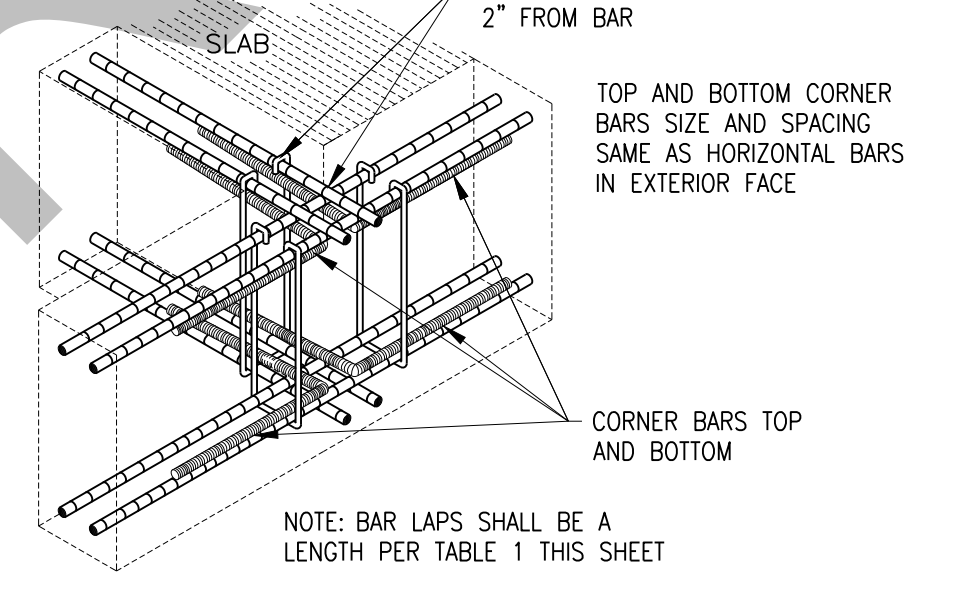
**10 TYP. DROP LUG**  
EXTERIOR DROP BRICK/ROCK LUGS  
SCALE: 3/4"=1'-0"



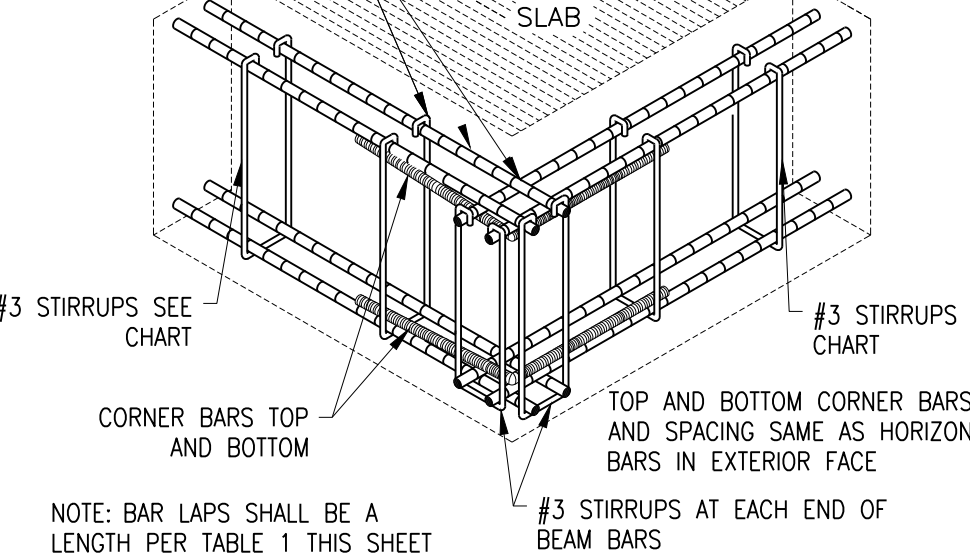
**11 SECTION**  
CURB @ BEAM  
SCALE: 3/4"=1'-0"



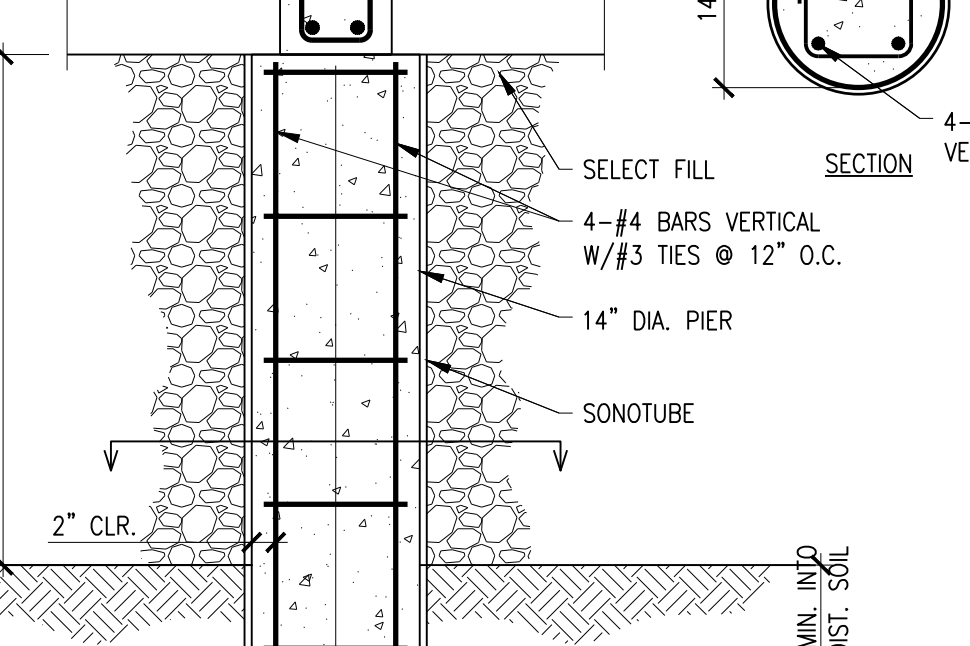
**12 SECTION**  
DROPS IN BEAM AREA UP TO 5 1/2" OR SMALLER  
SCALE: 3/4"=1'-0"



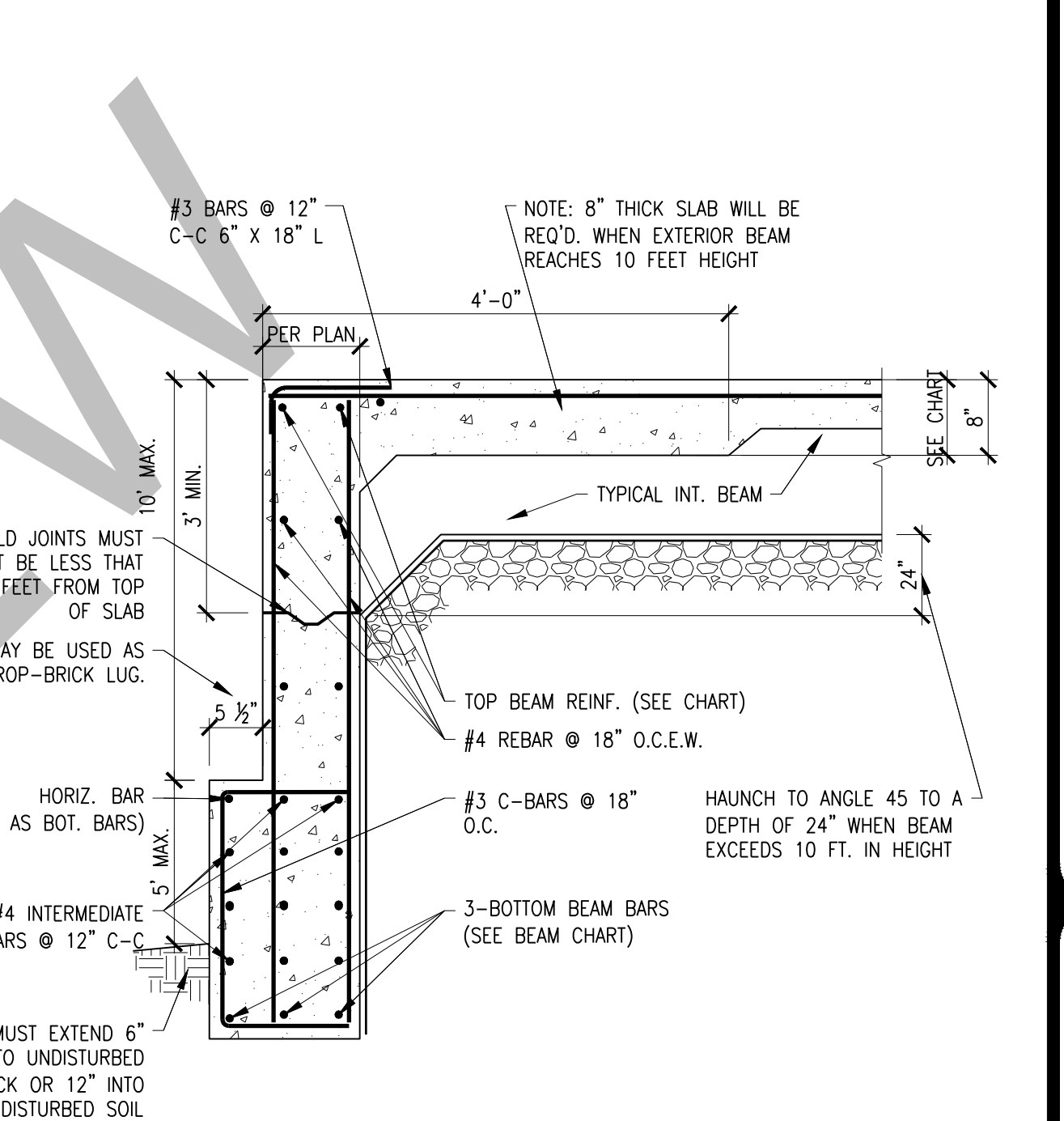
**13 DETAIL**  
FOR DROPS 6" - 35 1/2"  
SCALE: 3/4"=1'-0"



**14 DETAIL**  
DROPS IN BEAM AREA UP TO 5 1/2" OR SMALLER  
SCALE: 3/4"=1'-0"



**15 TYP. BEAM INTERSECT PIER**  
RECOMMENDED WHEN DEPTH EXCEEDS 2'-0"  
SCALE: 3/4"=1'-0"



**16 TYP. DEEP BEAM**  
DEEP BEAMS 10-15 FEET DEEP  
SCALE: 3/4"=1'-0"

REVISIONS

| NO. | DESCRIPTION | DATE | APPR. |
|-----|-------------|------|-------|
|     |             |      |       |



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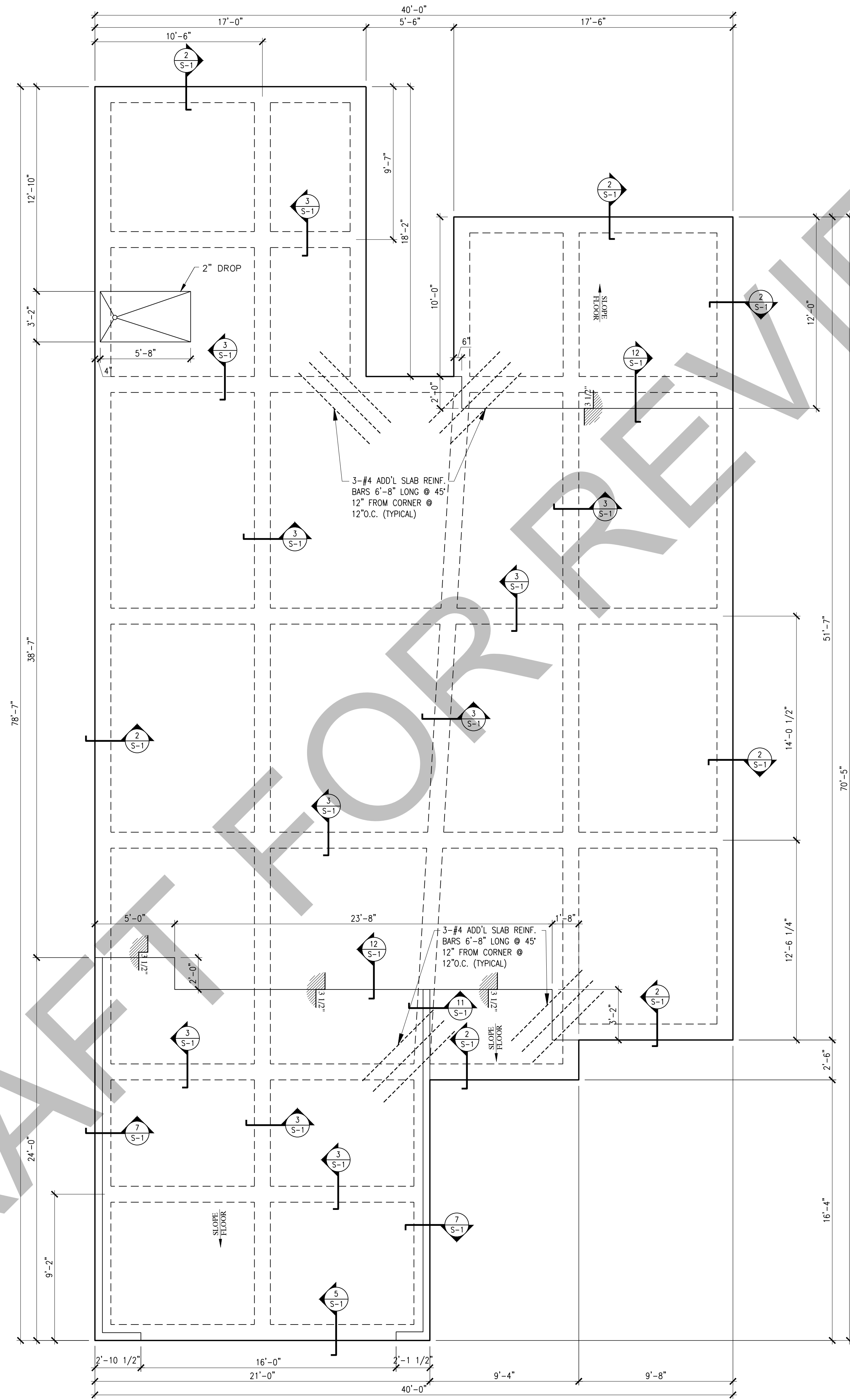
**FOUNDATION DETAILS**

**MODEL "A" SINGLE HOME**  
8880 HEATH CIRCLE  
SAN ANTONIO, TX 78250

SHEET TITLE:

|           |         |
|-----------|---------|
| JOB NO:   | 23-180  |
| DATE:     | 4/21/23 |
| DESIGNER: | MR      |
| CHECKED:  | JIV, PE |
| DRAWN:    | MR      |

DRAFT FOR REVIEW



FOUNDATION PLAN  
Scale: 1/4" = 1'-0"

| NO. | DESCRIPTION | DATE | APPR. |
|-----|-------------|------|-------|
|     |             |      |       |
|     |             |      |       |
|     |             |      |       |
|     |             |      |       |
|     |             |      |       |



**Villarreal Design Group, LLC**  
 Jose@VillarrealDesign.com  
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 (210) 725-6100

SHEET TITLE:  
**FOUNDATION PLAN**  
 MODEL "A" SINGLE HOME  
 8880 HEATH CIRCLE  
 SAN ANTONIO, TX 78250

|           |         |
|-----------|---------|
| JOB NO:   | 23-180  |
| DATE:     | 4/21/23 |
| DESIGNER: | MR      |
| CHECKED:  | JIV, PE |
| DRAWN:    | MR      |

SHEET:  
**S-2**  
 OF 5





DESIGN CRITERIA NOTES

1. THE INTENDED DESIGN STANDARDS (LATEST EDITION) AND/OR CRITERIA ARE AS FOLLOWS:

GENERAL INTERNATIONAL RESIDENTIAL/BUILDING CODE 2021 EDITION  
WOOD AITC  
WOOD TRUSSES TPI

2. DESIGN LOADS

DEAD LOADS  
ROOF 10 PSF - COMPOSITION SHINGLE OR METAL

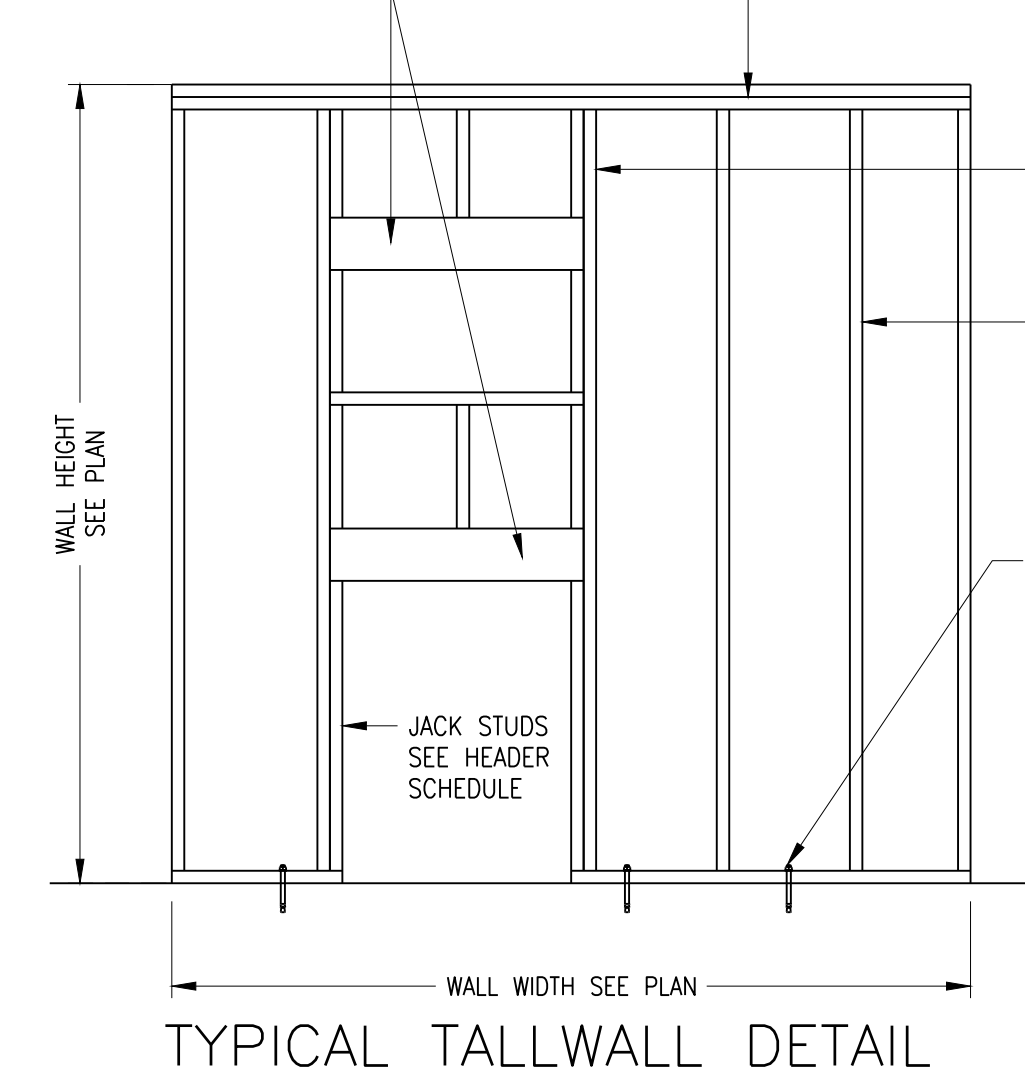
LIVE LOADS  
FLOORS 40 PSF  
ROOF 20 PSF  
CEILING JOIST 10 PSF

3. SNOW LOAD : 5PSF  
4. WIND LOAD : 115MPH APPLIED PER (B/R)C I = 1.0 EXPOSURE "B"  
5. SEISMIC : SEISMIC CATEGORY "A"

ROUGH CARPENTRY

- ALL WOOD FRAMING MATERIAL SHALL BE SURFACE DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALL FRAMING LUMBER SHALL BE NO. 2 SOUTHERN YELLOW PINE (SYP) OR BETTER.
- ALL LOAD BEARING PARTITIONS SHALL RECEIVE A DOUBLE 2X TOP PLATE AND LAPPED AT CORNERS.
- ALL EXTERIOR AND LOAD BEARING WALLS SHALL BE 2X4 @ 16" O.C. UNLESS ARCHITECTURAL DRAWINGS ARE SHOWING 2X6 STUD WALLS OR IT IS 3 STORY BUILDING. FOR 3 STORY BUILDING EXTERIOR AND LOAD BEARING WALLS ON THE FIRST FLOOR SHALL BE 2X6 @ 16" O.C. OR DOUBLE 2X4 STUDS @ 16" O.C.
- ALL PARTITIONS SHALL BE BRACED ON THE TOP AT INTERVALS NOT EXCEEDING 6 FEET ON CENTER.
- ALL MULTIPLE GIRDERS, BEAMS AND JOISTS SHALL BE GANG NAILED.
- ALL FRAMING EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.
- PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS, AND OTHER ACCESSORIES SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUAL.
- PREFABRICATED LVL'S, GLULAMS, AND PSL HEADERS AND BEAMS SHALL BE MANUFACTURED BY "TRUS JOIST MacMILLAN CORP." OR APPROVED EQUAL. MINIMUM BENDING STRESSES SHALL BE AS FOLLOWS:  
LVL'S = 2,600 PSI  
PSL'S = 2,900 PSI  
GLULAMS = 2,400 PSI
- ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS AND OTHER HARDWARE EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.
- INSTALL ALL BLOCKING NECESSARY FOR ATTACHING ALL FINISHES, GYPSUM WALLBOARD, CABINERY, ETC.
- ATTACH WOOD SILL PLATES FOR EXTERIOR WALLS AND SHEAR WALLS TO FOUNDATIONS WITH 1/2" ANCHOR BOLTS AT 5'-0" O.C. MAXIMUM SPACING WITH AT LEAST 2 BOLTS PER PLATE.
- INSTALL COLUMNS AT ALL LINTELS, BEAMS, HEADERS EQUAL TO THE WIDTH OF THE BEAM. ALL MEMBERS WITH SPANS LESS THAN 5 FOOT SHALL HAVE SINGLE JACK STUDS.
- ATTACH WALL AND ROOF SHEATHING TO FRAMING WITH 8d NAILS AT 12" O.C. INTERMEDIATE SUPPORTS AND 6" O.C. EDGE SUPPORTS.
- THE CONTRACTOR SHALL INSURE THAT ALL LOADS AND REACTIONS FROM BEAMS, BEARINGS WALLS, COLUMNS, ETC. ARE CONTINUOUSLY SUPPORTED TO THE FOUNDATION.
- ALL FLOOR SHEATHING SHALL BE A MINIMUM 3/4" TONGUE AND GROOVE SHEATHING GLUED AND NAILED AT 6" O.C. WITH 8d NAILS.
- FLOOR DECK SHALL BE 3/4" T&G APA RATED SHEATHING WITH MINIMUM SPAN INDEX OD 48/24. NAIL PLYWOOD TO FRAMING MEMBERS WITH 10d NAILS AS FOLLOWS:  
FLOOR ZONE: FIRST 8' FROM SHEARWALLS - OTHERS  
PANEL EDGES 4" O.C. 6" O.C.  
PANEL FIELD 6" O.C. 6" O.C.
- FOR METAL AND COMPOSITE SHINGLE ROOFING PLYWOOD ROOF DECKING SHALL BE 1/2" OSB AND FOR CLAY AND CONCRETE ROOFING PLYWOOD ROOF DECKING SHALL BE 5/8" OSB APA RATED CD INTERIOR WITH EXTERIOR GLUE. NAIL PLYWOOD TO FRAMING WITH 6d NAILS AS FOLLOWS:  
ROOF ZONE: FIRST 5' FROM END - FIRST 4' FROM EDGE & RIDGE - OTHERS & SHEAR WALLS  
PANEL EDGES 4" O.C. 6" O.C. 6" O.C.  
PANEL FIELD 6" O.C. 6" O.C. 6" O.C.
- TAPERED END CUTS SHALL MEET MANUFACTURERS REQUIREMENTS.
- NOTCHING OF PREFABRICATED LUMBER SHALL NOT BE PERMITTED. WEB HOLES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- PORCH COLUMNS TO BE ANCHORED IN GALVANIZED POST BASES BEAMS TO BE CONNECTED TO POSTS WITH METAL STRAPS ALL RAFTERS AT OPEN PORCH TO RECEIVE WIND CLIPS, 1 PER RAFTER.

SEE HEADER SCHEDULE



| SECTION | SPACING  | MAX HEIGHT |
|---------|----------|------------|
| 2X6     | 16" O.C. | 10'-0"     |
| 2X6     | 12" O.C. | 12'-0"     |
| 2X6     | 8" O.C.  | 14'-0"     |
| 2X6     | 4" O.C.  | 21'-0"     |
| 2X8     | 16" O.C. | 15'-0"     |
| 2X8     | 12" O.C. | 16'-5"     |
| 2X8     | 8" O.C.  | 15'-5"     |

\* BASED ON ALLOWABLE DEFLECTION OF H/240 PER IRC TABLE R301.7. USE NON BRITTLE FINISHES

| OPENING SIZES | LINTEL SIZE                           | MIN. END BEARING |
|---------------|---------------------------------------|------------------|
| UP TO 5'      | L6X4X <sup>3</sup> / <sub>8</sub> LLV | 6"               |
| 5' - 7'       | L6X4X3/8 LLV                          | 6"               |
| 7' - 8'       | L6X4X7/16 LLV                         | 6"               |
| 8' - 10'      | L6X4X7/16 LLV                         | 6"               |
| 10' - 12'     | L6X4X7/16 LLV                         | 6"               |
| 12' - 14'     | L6X4X7/16 LLV                         | 6"               |
| 14' - 16'     | L6X4X7/16 LLV                         | 6"               |
| 16' - 18'     | L6X4X7/16 LLV                         | 6"               |

| MEMBER      | HANGER     | REACTION (LBS) |
|-------------|------------|----------------|
| (1) 2x'S    | HU SERIES  | 500 MIN.       |
| (2) 2x10    | HU210-2    | 1,650          |
| (2) 2x12    | HU212-2    | 2,145          |
| (3) 2x10    | HU210-3    | 1,875          |
| (3) 2x12    | HU212-3    | 2,145          |
| 3.5X9.25    | HUS410     | 1,860          |
| 3.5X11.875  | HUS412     | 2,510          |
| 3.5X14      | HU416      | 2,680          |
| 3.5X16      | HHUS410    | 5,190          |
| 3.5X18      | HGUS414    | 11,180         |
| 5.25X9.25   | HUS.31/9   | 1,875          |
| 5.25X11.875 | HHUS5.5/10 | 5,190          |
| 5.25X14     | HHUS5.5/10 | 5,190          |
| 5.25X16     | HHUS5.5/10 | 5,190          |
| 5.25X18     | HGUS5.5/14 | 11,180         |
| TJ'S        | JUT SERIES | 730 MIN        |
| TRUSSES     | H SERIES   |                |

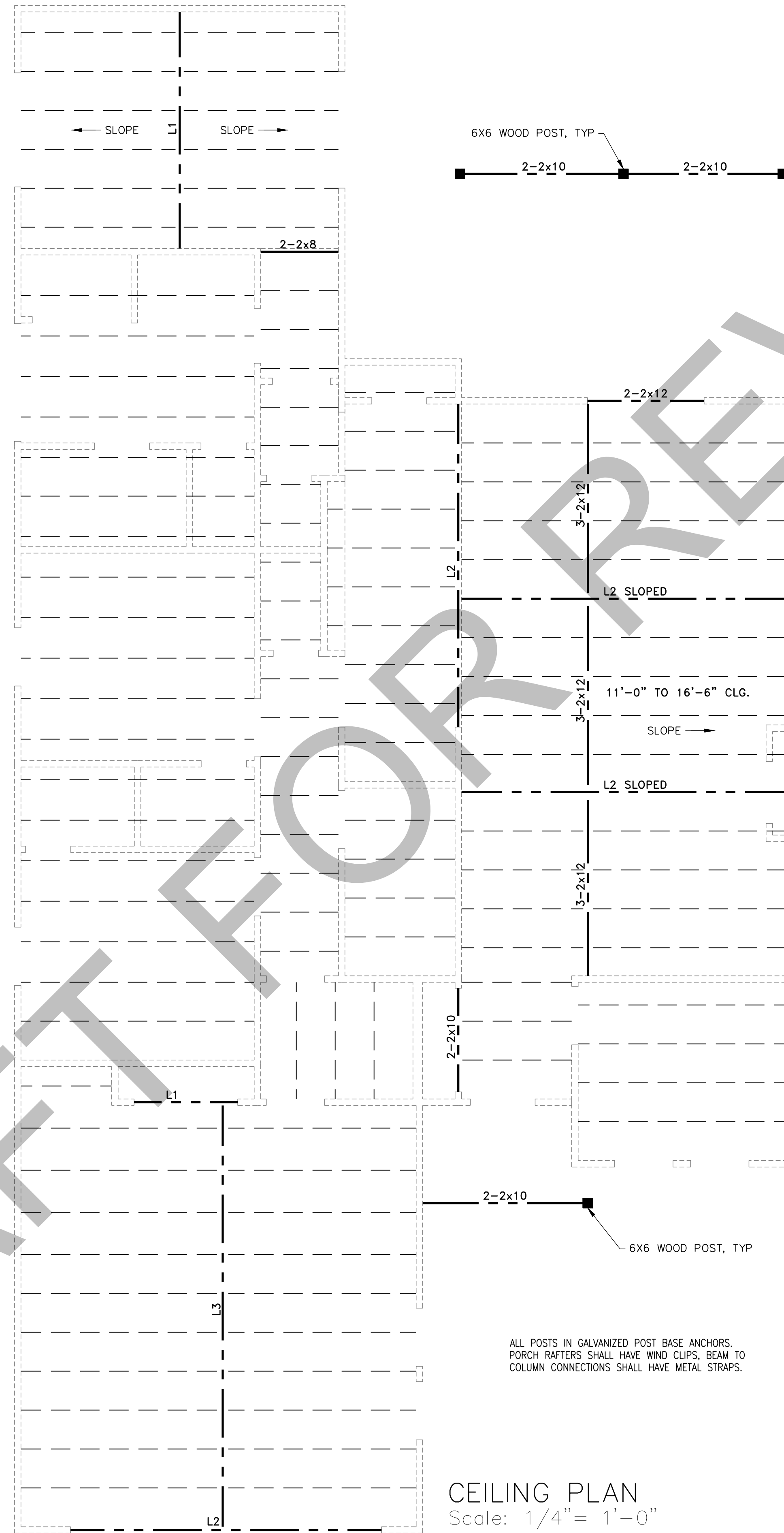
\* THESE HANGERS ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN  
\* ALL HANGERS ARE SIMPSON STRONG TIE.

| SIZE   | MAXIMUM SPAN   |                |
|--------|----------------|----------------|
|        | ONE STORY B.R. | TWO STORY B.R. |
| 2-2x6  | 3'-6"          | 2'-5"          |
| 2-2x8  | 4'-5"          | 3'-2"          |
| 2-2x10 | 5'-5"          | 3'-10"         |
| 2-2x12 | 6'-3"          | 4'-5"          |

\* THESE HEADER SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN  
\* ALL MATERIAL TO BE NO.2 S.P.  
\* NUMBER OF STORIES BELOW ROOF LEVEL (B.R.)  
\* USE (2) JACK STUDS FOR 2X12 (1) JACK STUD FOR OTHERS. KING STUDS NO. EQUALS JACK STUD

| MARK | SIZE                     | JACK STUDS  |
|------|--------------------------|-------------|
| L1   | (2) 1 3/4" X 11 1/4" LVL | (2) 2 X 4/6 |
| L2   | (2) 1 3/4" X 14" LVL     | (2) 2 X 4/6 |
| L3   | (2) 1 3/4" X 16" LVL     | (2) 2 X 4/6 |
| L4   | (2) 1 3/4" X 18" LVL     | (3) 2 X 4/6 |
| L5   | (3) 1 3/4" X 11 1/4" LVL | (2) 2 X 6   |
| L6   | (3) 1 3/4" X 14" LVL     | (2) 2 X 6   |
| L7   | (3) 1 3/4" X 16" LVL     | (2) 2 X 6   |
| L8   | (3) 1 3/4" X 18" LVL     | (3) 2 X 6   |
| L9   | (3) 1 3/4" X 20" LVL     | (4) 2 X 6   |

| CONNECTIONS   | NAILING   |
|---|---|
| 1. JOIST TO SILL OR GIRDER, TOENAIL                     | 3-8D  |
| 2. BRIDGING TO JOIST, TOENAIL EA END                    | 2-8D  |
| 3. 1"X6" SUBFLOOR OR LESS TO EA JOIST, FACE NAIL        | 2-8D  |
| 4. WIDER THAN 1"X6" SUBFLOOR TO EA JOIST, FACE NAIL     | 3-8D  |
| 5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL  | 2-16D   |
| 6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL           | 16D @ 16" OC  |
| 7. TOP PLATE TO STUD, END NAIL                          | 2-16D   |
| 8. STUD TO SOLE PLATE                                   | 4-8, TOENAIL OR 2-16D, END NAIL   |
| 9. DOUBLE STUDS, FACE NAIL                              | 16D @ 24" OC  |
| 10. DOUBLE TOP PLATES, FACE NAIL                        | 16D @ 16" OC  |
| 11. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL       | 2-16D   |
| 12. CONTINUOUS HEADER, TWO PIECES                       | 16D @ 16" OC ALONG EA EDGE  |
| 13. CEILING JOIST TO PLATE, TOENAIL                     | 3-8D  |
| 14. CONTINUOUS HEADER TO STUD, TOENAIL                  | 4-8D  |
| 15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL     | 3-16D   |
| 16. CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL        | 3-16D   |
| 17. RAFTER TO PLATE, TOENAIL                            | 3-8D  |
| 18. 1" BRACE TO EA STUD AND PLATE, FACE NAIL            | 2-8D  |
| 19. 1"X8" SHEATHING OR LESS TO EA BEARING, FACE NAIL    | 2-8D  |
| 20. WIDER THAN 1"X8" SHEATHING TO EA BEARING, FACE NAIL | 3-8D  |
| 21. BUILT-UP CORNER STUDS                               | 16D @ 24" OC  |
| 22. BUILT-UP GIRDER AND BEAMS                           | 20D @ 32" OC AT TOP AND BOTTOM AND STAGGERED 2-20D @ EA ENDS AND AT EA SPLICE |
| 23. TRUSS TO PLATE, TOENAIL                             | 3-16D   |



CEILING PLAN  
Scale: 1/4" = 1'-0"

ALL CEILING JOISTS TO BE 2X6 @ 24" O.C.  
ALL CEILING TO BE 9'-0" HIGH U.O.N. ON DRAWINGS

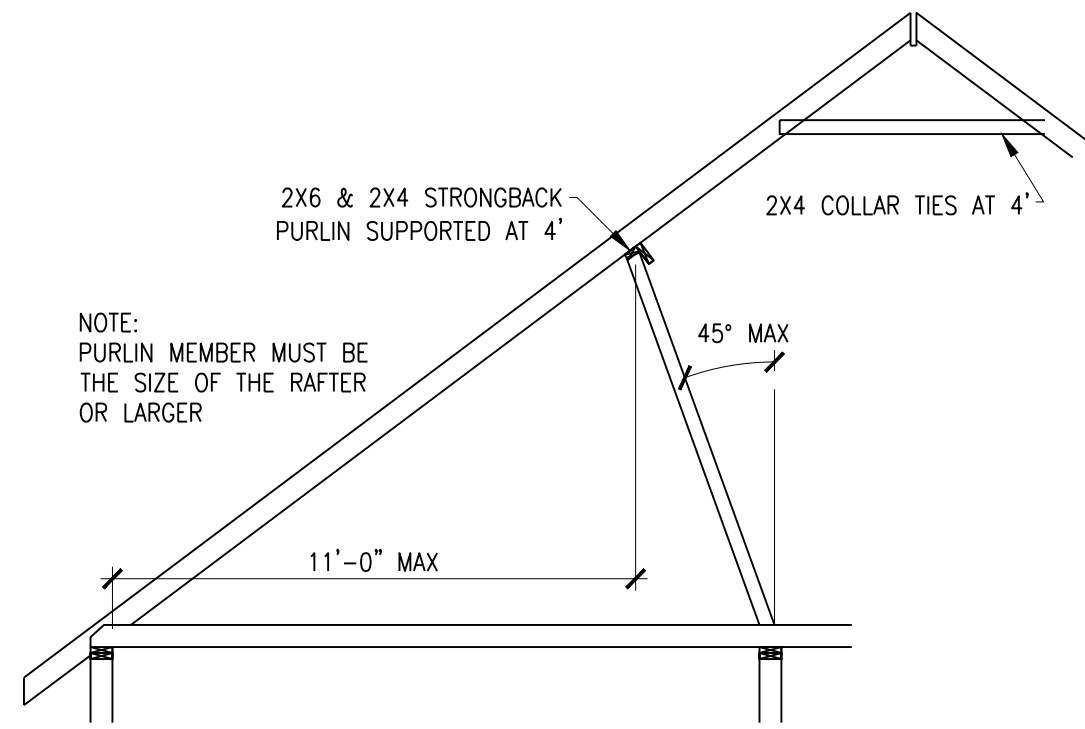
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CEILING PLAN  
MODEL "A" SINGLE HOME  
8880 HEATH CIRCLE  
SAN ANTONIO, TX 78250

JOB NO: 23-180  
DATE: 4/21/23  
DESIGNER: MR  
CHECKED: JIV, PE  
DRAWN: MR  
SHEET: S-4 OF 5



**PURLIN SUPPORT FOR  
2X6 RAFTERS @ 24"**

SIMILAR CONFIGURATION FOR LARGER RAFTERS WITH THE  
SUPPORT DISTANCE EQUAL TO ALLOWABLE SPAN



**ROOF FRAMING PLAN**

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

ALL RAFTERS TO BE 2X6 @ 24" O.C. U.O.N  
ALL VALLEY BEAMS TO BE (2) 2X8 U.O.N

| NO. | DESCRIPTION | DATE | APPR. |
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**ROOF FRAMING PLAN**  
  
**MODEL "A" SINGLE HOME**  
8880 HEATH CIRCLE  
SAN ANTONIO, TX 78250

|           |         |
|-----------|---------|
| JOB NO:   | 23-180  |
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| DRAWN:    | MR      |

SHEET:  
**S-5**  
OF 5