











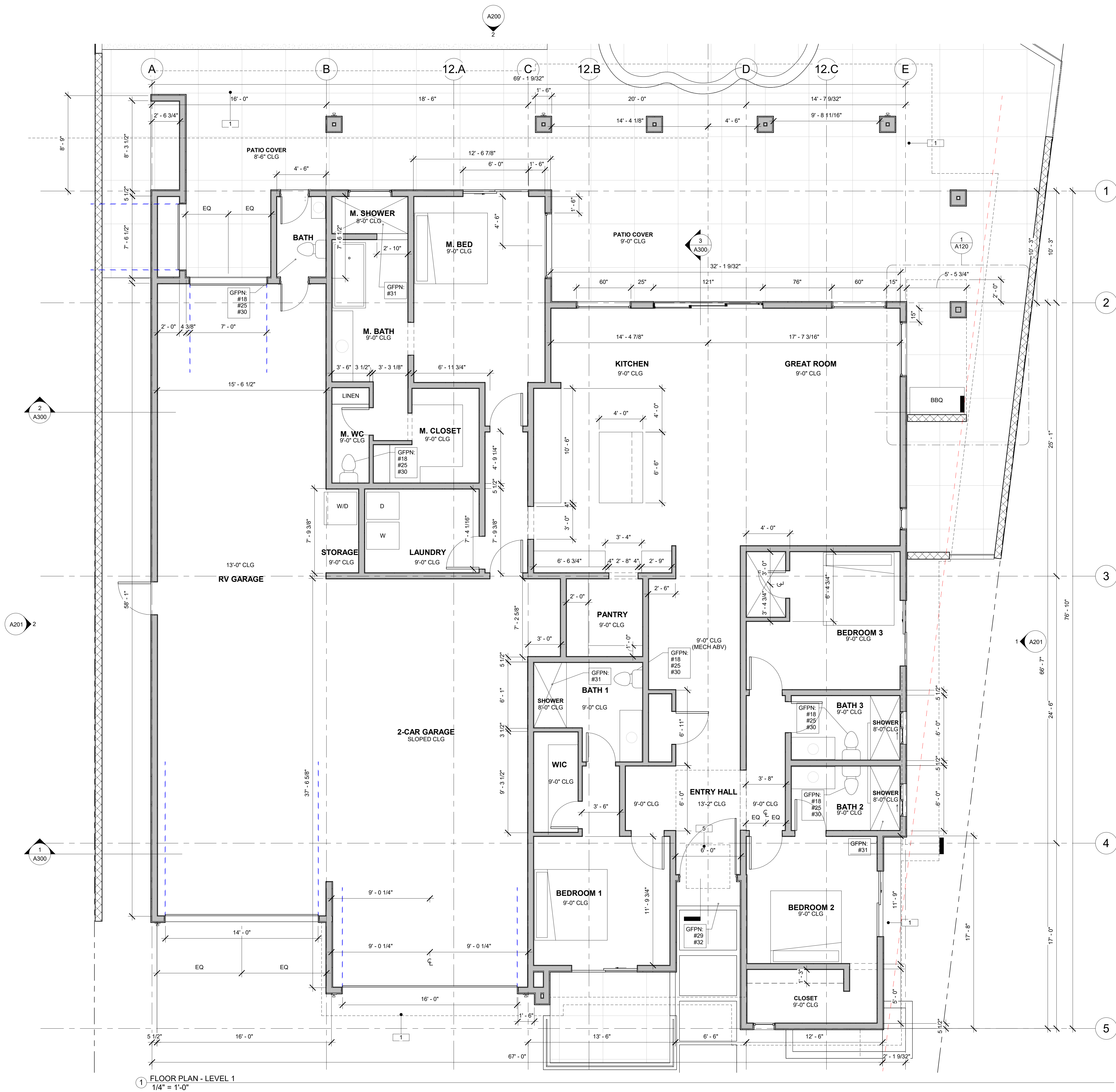


| PLANT LISTED | | | | | | | |
|---|-----------------|-------------|---------------------------|------------------------|------------------------|---------|----------|
| 15'x18' BAYERS | | | | | | | |
| SYMBOL | BOTANICAL NAME | COMMON NAME | FRONT-LAND LANDSCAPE ZONE | PRIVATE LANDSCAPE ZONE | NATURAL LANDSCAPE ZONE | SIZE | QUANTITY |
|  | FICUS RELIGIOSA | PEEPAL | 2 | 0 | 0 | 15'x18' | 2 |
| | | | | | | | 2 |
| TOTAL | | | | | | | |
| 15'x18' SHEDS | | | | | | | |
| SYMBOL | BOTANICAL NAME | COMMON NAME | FRONT-LAND LANDSCAPE ZONE | PRIVATE LANDSCAPE ZONE | NATURAL LANDSCAPE ZONE | SIZE | QUANTITY |
|  | LANTANA | LANTANA | 2 | 0 | 0 | 15'x18' | 2 |
|  | ERYTHRINA | ERYTHRINA | 2 | 0 | 0 | 15'x18' | 2 |
|  | MIMOSA | MIMOSA | 2 | 0 | 0 | 15'x18' | 2 |
| | | | | | | | 2 |
| TOTAL | | | | | | | |
| CATCH BASINS | | | | | | | |
| SYMBOL | BOTANICAL NAME | COMMON NAME | FRONT-LAND LANDSCAPE ZONE | PRIVATE LANDSCAPE ZONE | NATURAL LANDSCAPE ZONE | SIZE | QUANTITY |
|  | ECHINOPS | ECHINOPS | 1 | 0 | 0 | 15'x18' | 1 |
|  | ECHINOPS | ECHINOPS | 2 | 0 | 0 | 20' | 2 |
|  | ECHINOPS | ECHINOPS | 10 | 0 | 0 | 15'x18' | 10 |
|  | ECHINOPS | ECHINOPS | 2 | 0 | 0 | 2 | 2 |
| | | | | | | | 2 |
| TOTAL | | | | | | | |
| TOTAL PLANTING | | | | | | | 47 |

| GRANDCOVER | | | | | | | |
|---|---|-------------------|------------------------------|---------------------------|---------------------------|----------|---------------|
| FINISHES | MATERIAL | COLOR-TYPE | FRONT FACE LANDSCAPE ZONE | PRIVATE LANDSCAPE ZONE | NATURAL LANDSCAPE ZONE | AREA | SIZE |
|  | CONCRETE LIGHT GRAY 1/2" SQUARE STONE TEXTURE JOINTS SEE PLAN | NATURAL CONCRETE | 100 SF | 1750 SF | 0 | 1,810 SF | 4" THICK SLAB |
| | CONCRETE MEDIUM GRAY | NATURAL CONCRETE | 1,121 SF | 0 | 0 | 1,121 SF | 4" THICK SLAB |
|  | DECOMPOSED GRANITE | RIVERSIDE BROWN | 988 SF | 988 SF | 0 | 1,932 SF | 3/4" MINUS |
|  | NATURAL GRAVEL | NA | 121 SF | 1,262 SF | 0 | 1,342 SF | NA |
|  | BRICK (PINK WALLS) | DARK GREY / BROWN | 0 | 63 SF | 0 | 63 SF | NA |
| | | | | | | TOTAL | 6,162 SF |

| | |
|--------------|--------------------|
| PROJECT: | Project Name |
| PROJECT NO: | 2108 |
| REF: | |
| DATE: | 02/05/2023 |
| SHEET TITLE: | |
| | SITE PLAN AND DIAG |

② LANDSCAPE NOTES AND SCHEDULE
1/8" = 1'-0"



1 FLOOR PLAN - LEVEL 1
1/4" = 1'-0"

GARZA RESIDENCE
DESIGN REVIEW AND BUILDING DEPARTMENT SUBMISSION

GENERAL FLOOR PLAN NOTES

- ALL CONTRUCTION MUST COMPLY WITH THE CURRENT CODES LISTED BELOW, AS LOCALLY AMENDED, AND IS SUBJECT TO FIELD INSPECTION TO VERIFY COMPLIANCE 2018 INTERNATIONAL RESIDENTIAL CODE, 2018 INTERNATIONAL BUILDING CODE, 2018 INTERNATIONAL PLUMBING CODE, 2017 NATIONAL ELECTRIC CODE, 2016 INTERNATIONAL MECHANICAL CODE.
- ALL PLYWOOD, LIGHT FRAMING DIMENSIONAL & ENG. SHALL BE STAMPED WITH THE APPROPRIATE IDENTIFYING MARK OF AN APPROVED INSPECTION AGENCY & OR LUMBER GRADING AGENCY. 2X JOIST & RAFTERS USE STUD GRADE OR BETTER U.N.O. BEAMS & HEADERS USE #2 OR BETTER, PLATES BLOCKING & STUDS USE STUD GRADE ALL HEADERS, JOIST & RAFTERS SHALL BE PLACED ON EDGE WITH CROWNS UP.
- R602.3.2 FRAMING DETAILS JOINT TOP PLATE OFFSET 24" MIN.
- INTERIOR & GARAGE WALLS ARE 3-1/2" WIDE. EXTERIOR HOUSE WALLS ARE 5-1/2" WIDE, U.N.O.
- ALL PLUMBING FIXTURES TO COMPLY WITH WATER CONSERVATION REQUIREMENTS.
- 12" MIN. WEATHER PROTECTION REQUIRED W/ SOFFIT BOARD OUT SIDE CLG.
- ALL AUTOMATIC GARAGE DOOR OPENERS ARE TO COMPLY WITH FEDERAL BILL HR 4852.
- ALL PLUMBING, ELECTRICAL, MECHANICAL, EXHAUST FANS AND DUCTS PENETRATING FIRE-RESISTIVE CONSTRUCTION MUST BE IN ACCORDANCE IRC R302.4
- USE STC. TIE DOWNS FOR INTERIOR WALLS ROOF TRUSSES.
- PROVIDE ROOF VENTING PER I.R.C. R806
- SKYLIGHTS TO BE INSTALLED PER I.R.C. R308.6 & ICC 4063.
- GABLE END TRUSS TO HAVE VERTICAL BRACING UNDER EACH LOOK-OUT. GABLE END TRUSS ALT. VAPOR BARRIER PYROKURE FILE # 3783 VOL. 1 SEC. L.
- PROVIDE TRUSS CALC. @ HIAC UNIT BEARING
- PROVIDE BEARING POST UNDER ALL GRIDERS, BEAMS, & HEADERS PER CODE.
- WALL CONSTRUCTION I.R.C. CHAPTER 6 USE NAILING TABLE R602.3(1)
- PROVIDE FIRE STOPPING & DRAFT STOPS PER I.R.C. R302.11 & R302.12
- PROVIDE POST OFFICE-APPROVED ADDRESS NUMBERS ON THE DWELLING. ADDRESS SHALL BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE DWELLING.
- EXHAUST AIR FROM BATHROOMS, TOILET ROOMS AND KITCHENS SHALL NOT DISCHARGE INTO AN ATTIC, CRAWL SPACE OR OTHER AREAS INSIDE THE BUILDING PER I.R.C. R302.5.1.
- FIRE SEPARATION COMMON WALLS TO HOUSE & GARAGE (A) WALLS TO ROOF OR SHEATHING OR (B) ALL GARAGE SUPPORTING WALLS & CEILING USE 5/8" OR 1/2" SAG RESISTANT DRYWALL I.R.C. R302.6 @ GARAGE USE DBL 5/8" TYP. (X) @ AIA LID.
- HOUSE / GARAGE MIN. 1-3/8" SOLID WOOD DOOR OR 20 MIN. FIRE-RATED DOOR, SELF CLOSING. PER I.R.C. R302.5.1.
- WATER HEATER & EXPANSION TANK PRESSURE RELIEF I.R.C. P2804.3
- APPLIANCE PROTECTION FOR IMPACT. I.R.C. M1307.3.1.
- BACK DRAFT DAMPER REQUIRED IN EXHAUST DUCT TERMINATION. I.R.C. M1502.3
- CLOTHES DRYER EXHAUST. I.R.C. M1307.3.1.
- ACCESS TO WATER CLOSET SHALL BE 21" CLEAR SPACE. PER TABLE I.R.C. R307.1
- WHERE THE ATTIC ACCESS IS LOCATED IN A CEILING, MIN UNOBSTRUCTED AREA SHALL BE 30". PER I.R.C. R807.1.
- N/A
- I.R.C. R302.5.2 DUCT PENETRATION: DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OTHER OPENINGS INTO THE GARAGE.
- EXTERIOR MAN DOOR TO A MAX. 1-1/2" FROM TOP OF THRESHOLD ADJACENT TO CONCRETE PAD.
- PER TABLE I.R.C. R307.1P2705.1 THE CENTERLINE OF WATER CLOSET SINKS OR BIDETS SHALL NOT BE LESS THAN 15" FROM THE ADJACENT WALLS OR PARTITIONS OR NOT LESS THAN 15" FROM THE CENTERLINE OF A BIDET TO THE OUTERMOST RIM OF AN ADJACENT WATER CLOSET. THERE SHALL BE AT LEAST 21" CLEARANCE IN FRONT OF THE WATER CLOSET, BIDET OR LAVATORY TO ANY WALL, FIXTURE OR DOOR.
- MATERIALS USED AS BACKERS FOR WALL TILE IN TUBE AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS SHALL BE OF MATERIALS LISTED IN IRC TABLE R702.4.2.
- IRC R311.2 AT LEAST ONE EGRESS DOOR SHALL BE PROVIDED FOR EACH DWELLING UNIT. THE EGRESS DOOR SHALL BE SIDE-HINGED, AND SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 32" (813 MM) WHEN MEASURED BETWEEN THE FACE OF THE DOOR AND THE STOP, WITH THE DOOR OPEN 90 DEGREES (1.57 rad), THE MINIMUM CLEAR HEIGHT OF THE DOOR OPENING SHALL NOT BE LESS THAN 78" (1981MM) IN.

SQUARE FOOTAGE

ROOM SQUARE FOOTAGE

| | |
|---------------|----------|
| LIVING | 2,827 SF |
| GARAGE | 1,887 SF |
| COVERED PATIO | 868 SF |
| UNDER ROOF | |
| TOTAL | 5,582 SF |

KEYNOTE LEGEND

| | |
|---|--|
| 1 | OUTLINE OF BUILDING PROFILE/CANOPY ABOVE, SEE ROOF PLAN. |
| 2 | PROVIDE PRIMARY AND SECONDARY SCUPPER AT ALL FLAT ROOFS OR THROUGH WALL TRANSFER SCUPPER BETWEEN HIGH AND LOW ROOFS. |
| 3 | PROVIDE CEILING ACCESS PANEL SERVING MECHANICAL UNIT ABOVE. |
| 5 | SKYLIGHT ABOVE. |
| 6 | CONCRETE SITE PAVING. LIGHT BROWN FINISH WITH 48" SAWCUT CONTROL JOINTS. SEE SITE PLAN FOR SCORING PATTERN. |

PREPARED FOR
PAT AND ROBERT GARZA
RIVIERA RIDGE COURT
LAKE HAVASU, AZ

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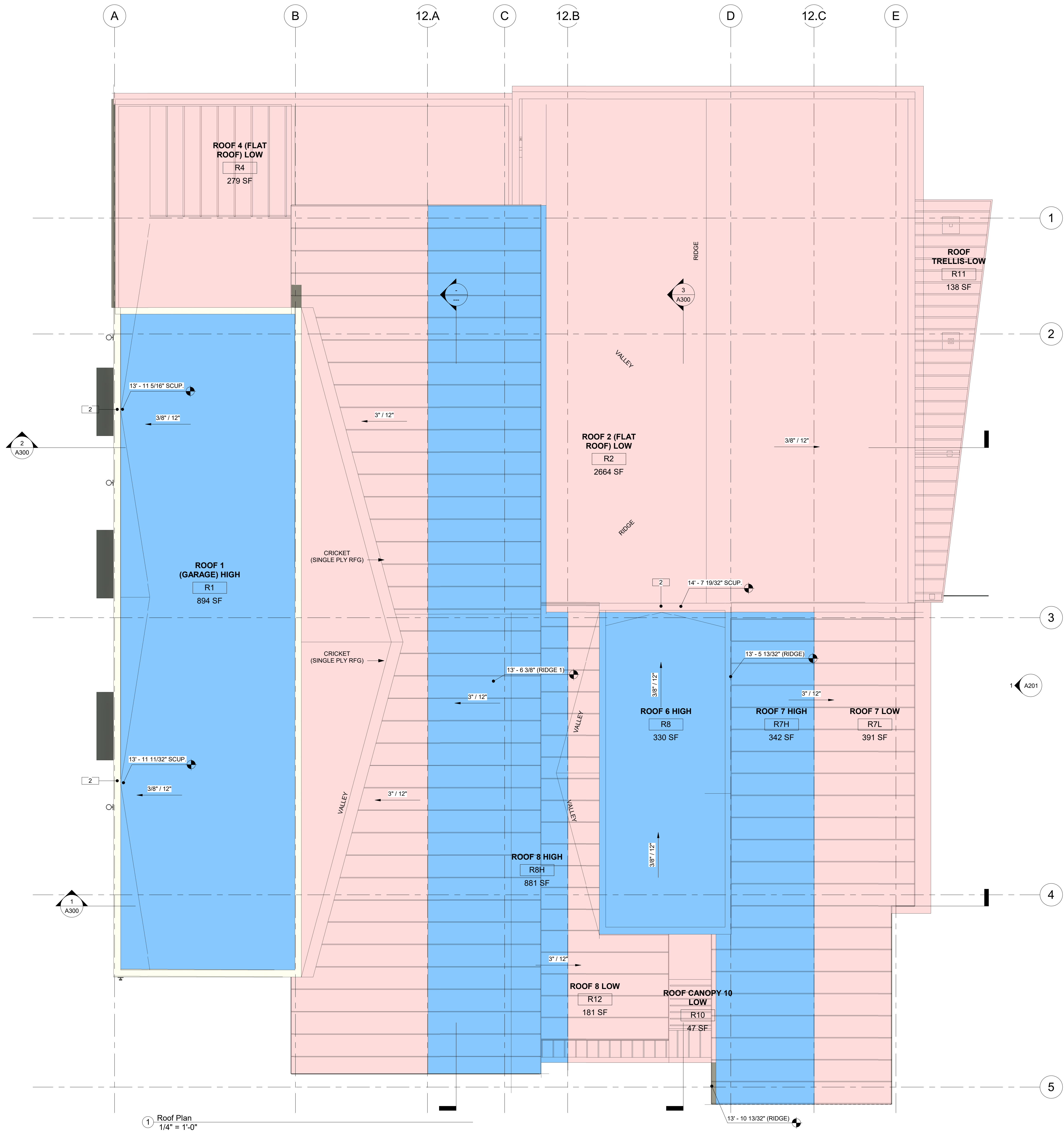
GARZA RESIDENCE
2426 W RIVIERA RIDGE COURT
LAKE HAVASU, AZ

| DATE | DRAWING ISSUANCE |
|----------|---------------------------|
| 01.05.23 | HOA AND BLDG DEPT PACKAGE |
| 02.05.23 | HOA AND BLDG DEPT PACKAGE |

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PROJECT:
Project Name
PROJECT NO: 2108
REF:
DATE: 02/05/2023
SHEET TITLE:
FLOOR PLAN - LEVEL 1

SHEET NUMBER:
A110



ROOF PLAN AREAS

- ROOF 1 (GARAGE) HIGH
- ROOF 2 (FLAT ROOF) LOW
- ROOF 4 (FLAT ROOF) LOW
- ROOF 6 HIGH
- ROOF 7 HIGH
- ROOF 7 LOW
- ROOF 8 HIGH
- ROOF 8 LOW
- ROOF 9 LOW
- ROOF CANOPY 10 LOW
- ROOF TRELLIS-LOW

KEYNOTE LEGEND

| | |
|---|---|
| 1 | OUTLINE OF BUILDING PROFILE/CANOPY ABOVE, SEE ROOF PLAN. |
| 2 | PROVIDE PRIMARY AND SECONDARY SCUPPER AT ALL FLAT ROOFS OR THROUGH WALL. TRANSFER SCUPPER BETWEEN HIGH AND LOW ROOFS. |
| 3 | PROVIDE CEILING ACCESS PANEL SERVING MECHANICAL UNIT ABOVE. |
| 5 | SKYLIGHT ABOVE. |
| 6 | CONCRETE SITE PAVING. LIGHT BROWN FINISH WITH 1/8" SAWCUT CONTROL JOINTS. SEE SITE PLAN FOR SCORING PATTERN. |

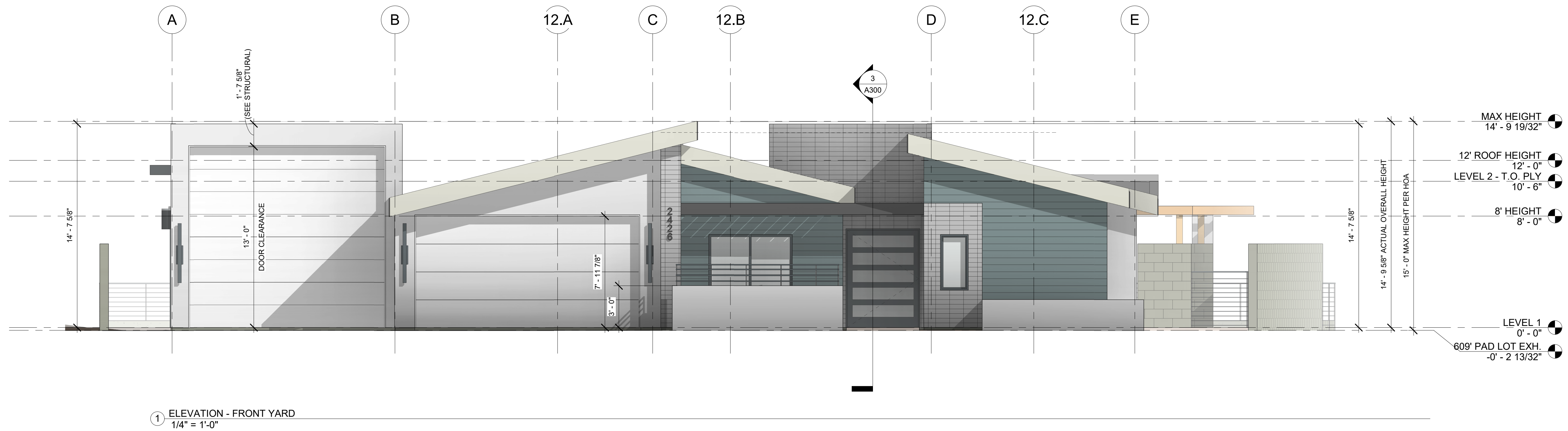
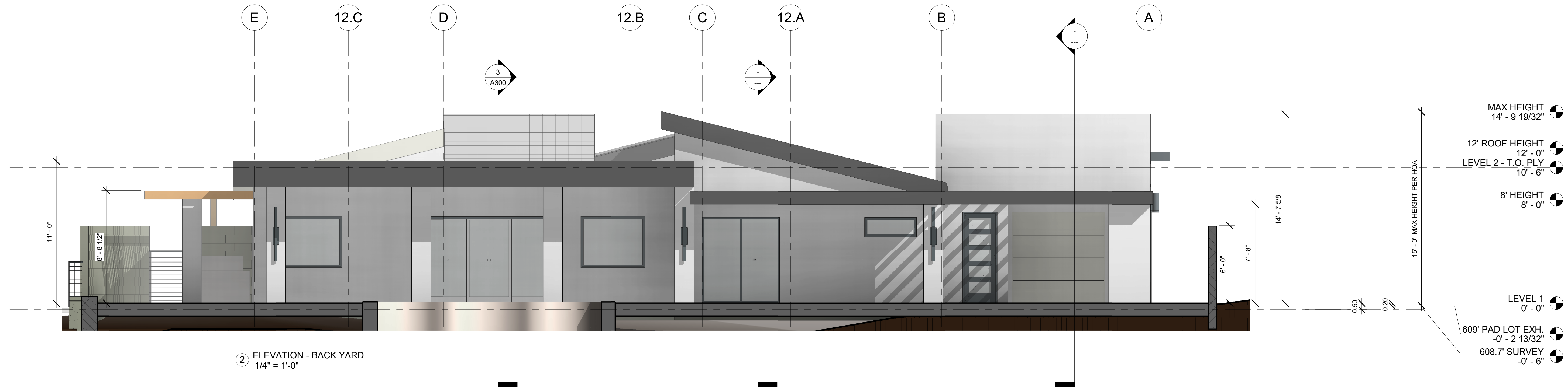
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|----------------------|---------|------------------|
| GREATER THAN 12' | | |
| ROOF 1 (GARAGE) HIGH | 894 SF | GREATER THAN 12' |
| ROOF 7 HIGH | 342 SF | GREATER THAN 12' |
| ROOF 6 HIGH | 330 SF | GREATER THAN 12' |
| ROOF 8 HIGH | 881 SF | GREATER THAN 12' |
| GREATER THAN 12' | 2448 SF | GREATER THAN 12' |

| | | |
|------------------------|----------------|---------------|
| LESS THAN 12' | | |
| ROOF 2 (FLAT ROOF) LOW | 2664 SF | LESS THAN 12' |
| ROOF 4 (FLAT ROOF) LOW | 279 SF | LESS THAN 12' |
| ROOF 7 LOW | 391 SF | LESS THAN 12' |
| ROOF 9 LOW | Redundant Room | LESS THAN 12' |
| ROOF CANOPY 10 LOW | 47 SF | LESS THAN 12' |
| ROOF TRELLIS-LOW | 138 SF | LESS THAN 12' |
| ROOF 8 LOW | 181 SF | LESS THAN 12' |
| LESS THAN 12' | 3700 SF | LESS THAN 12' |
| | 6148 SF | |

ROOF AREA ABOVE 12' ABOVE GRADE MAY NOT EXCEED 40% TOTAL ROOF AREA
TOTAL ROOF AREA: 6,148 SF

MINIMUM LOW ROOF AREA, 60% OF 6,148 SF = 3,688 SF
ACTUAL LOW ROOF AREA PROVIDED = 3,700 SF

GARZA RESIDENCE
2426 W RIVIERA RIDGE COURT
LAKE HAVASU, AZ



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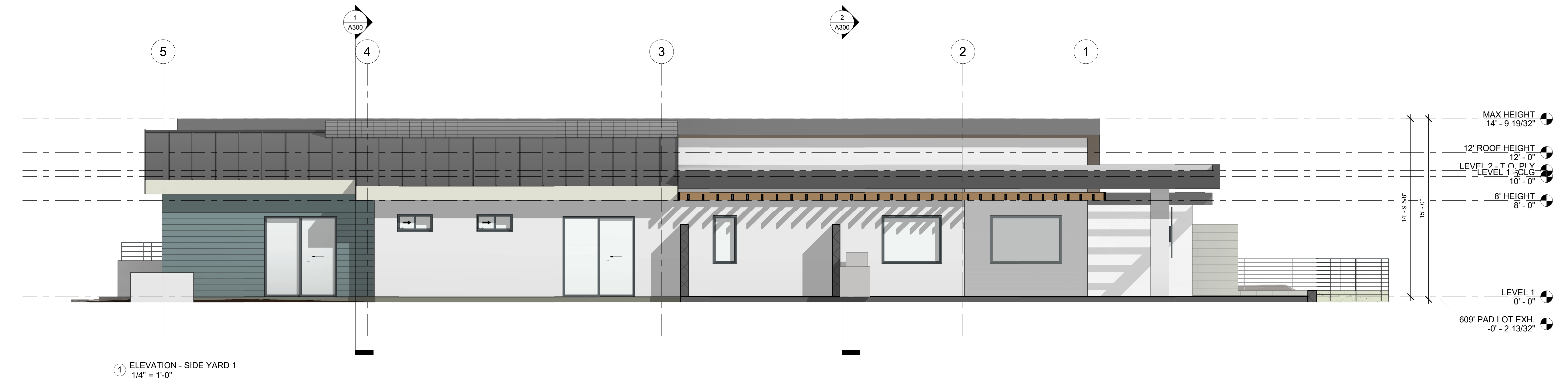
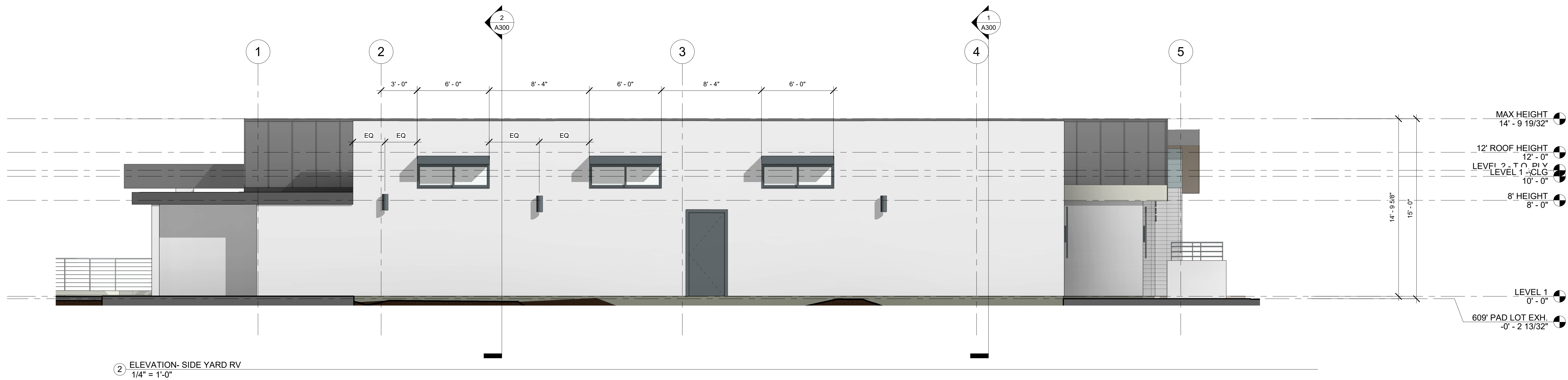
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| Project Name |
| PROJECT NO: 2108 |
| REF: |
| DATE: 02/05/2023 |
| SHEET TITLE: |
| ELEVATIONS |

| |
|---------------|
| SHEET NUMBER: |
| A200 |



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LAKE HAVASU, AZ



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Project Name
PROJECT NO: 2108
REF:
DATE: 02/05/2023
SHEET TITLE:
ELEVATIONS

SHEET NUMBER:
A201

PREPARED FOR

PAT AND ROBERT GARZA
RIVIERA RIDGE COURT
LAKE HAVASU, AZ

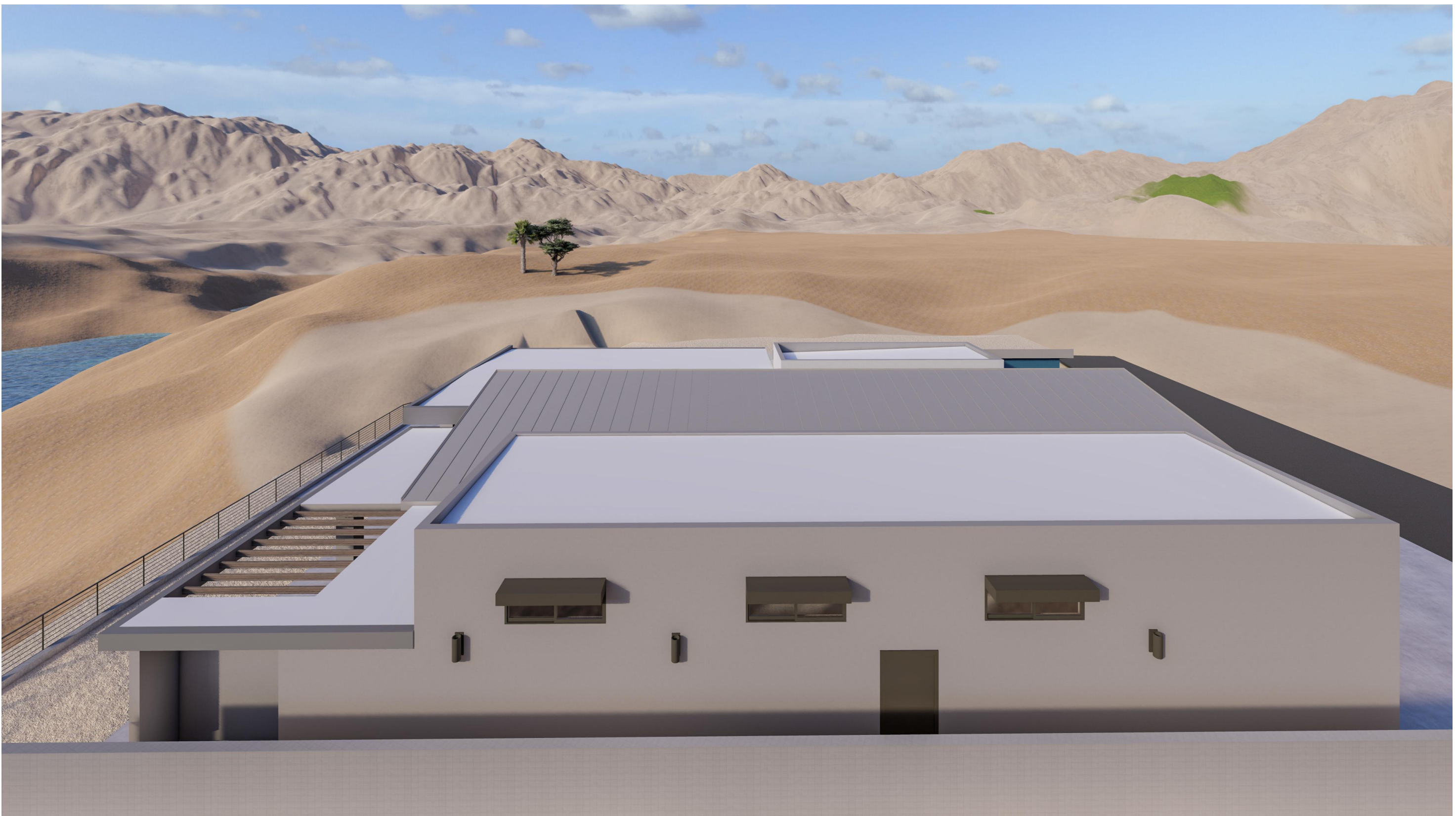
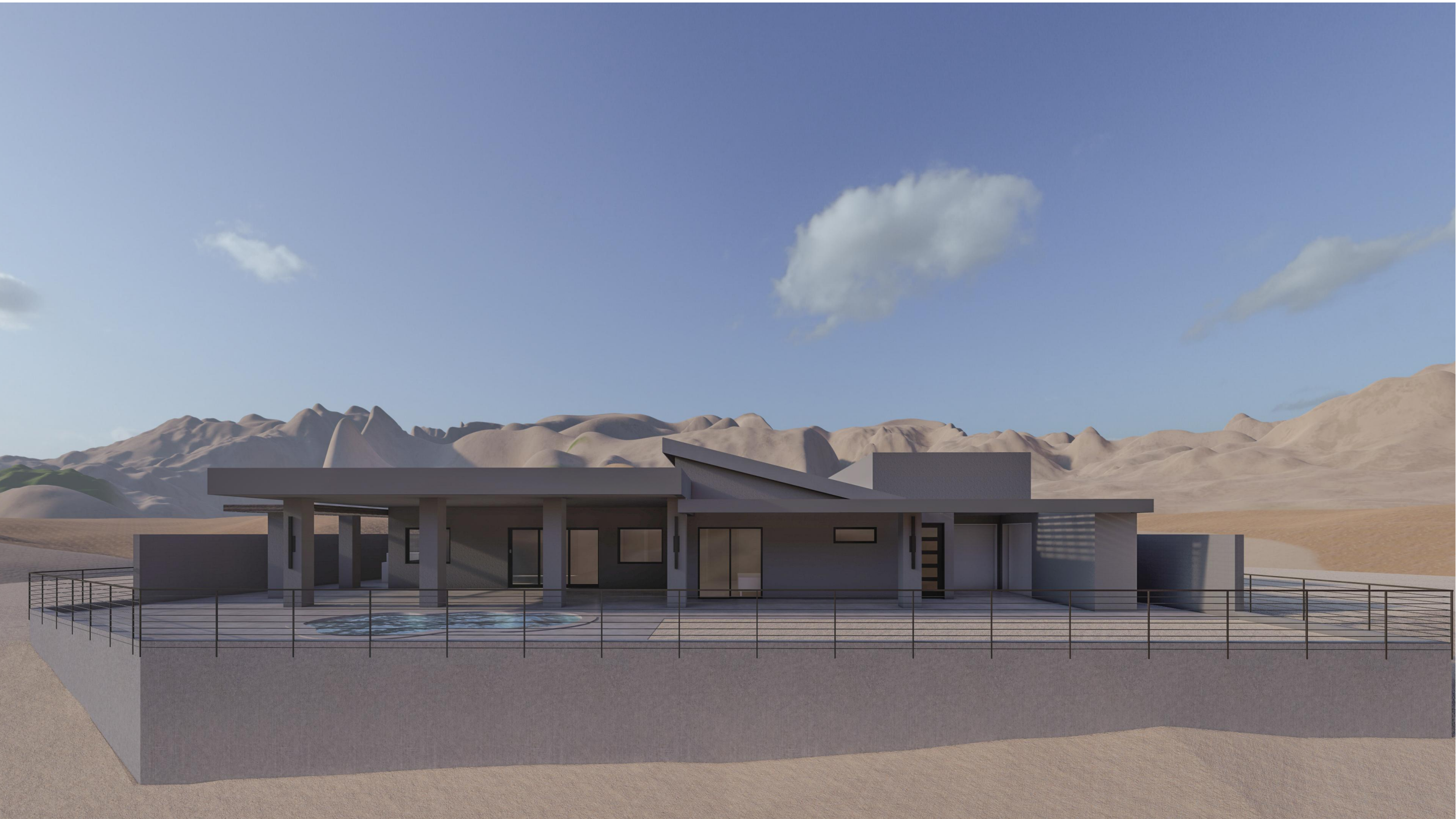
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| | |
|------------------|--|
| DATE | DRAWING ISSUANCE |
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| PROJECT: | |
| Project Name | |
| PROJECT NO: 2108 | |
| REF: | |
| DATE: 02/05/2023 | |
| SHEET TITLE: | |
| SECTIONS | |

GARZA RESIDENCE
DESIGN REVIEW AND BUILDING DEPARTMENT SUBMISSION



GARZA RESIDENCE
DESIGN REVIEW AND BUILDING DEPARTMENT SUBMISSION

PREPARED FOR
PAT AND ROBERT GARZA
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LAKE HAVASU, AZ

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GARZA RESIDENCE
2426 W RIVIERA RIDGE COURT
LAKE HAVASU, AZ

| DATE | DRAWING ISSUANCE |
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PROJECT:
Project Name
PROJECT NO: 2108
REF:
DATE: 01/31/2023
SHEET TITLE:
EXTERIOR RENDINGS

SHEET NUMBER:
A400

| MOUNTING: SEMI-FLUSH/UG 120/208V 1PH 3W | | | | | | | | | | PANEL #: "A" METER MAIN | | | | | MAIN BREAKER BUS | | YES 400 | |
|--|-------|-------------------------|-----|-------|------|--------|---|------|-------|-------------------------|--------------------|-------|-------|---|---------------------|--|------------|--|
| WATTS | | ITEM | CIR | | BKRS | PHASES | | BKRS | POLES | CIR | ITEM | WATTS | | | | | | |
| A | B | | # | POLES | | SIZE | A | | | | | B | SIZE | A | B | | | |
| 4320 | | MB & GREAT ROOM AC HP-1 | 1 | 2 | 60 | | | 125 | 2 | 2 | PANEL B | 22665 | | | | | | |
| | 4320 | MB & GREAT ROOM AC HP-1 | 3 | 2 | 60 | | | 125 | 2 | 4 | PANEL B | | 25101 | | | | | |
| 696 | | GD OPENER #1 | 5 | 1 | 20 | | | 20 | 1 | 6 | GARAGE OUTLETS | 1260 | | | | | | |
| | 696 | GD OPENER #2 | 7 | 1 | 20 | | | 50 | 2 | 8 | POOL PANEL | | 5485 | | | | | |
| 2520 | | WATER HEATER | 9 | 2 | 30 | | | 50 | 2 | 10 | POOL PANEL | 5515 | | | | | | |
| | 2520 | WATER HEATER | 11 | 2 | 30 | | | 20 | 2 | 12 | PATIO HEATER | | 4000 | | | | | |
| 960 | | WASHER GARAGE | 13 | 1 | 20 | | | 20 | 2 | 14 | PATIO HEATER | 3000 | | | | | | |
| | 960 | WASHER LAUNDRY ROOM | 15 | 1 | 20 | | | 30 | 2 | 16 | DRYER GARAGE | | 3000 | | | | | |
| 3120 | | DRYER LAUNDRY ROOM | 17 | 2 | 30 | | | 30 | 2 | 18 | DRYER GARAGE | 3120 | | | | | | |
| | 3120 | DRYER LAUNDRY ROOM | 19 | 2 | 30 | | | 15 | 1 | 20 | GARAGE EXHAUST FAN | | 432 | | | | | |
| 3480 | | GUEST ROOMS HP-2 | 21 | 2 | 60 | | | 20 | 2 | 22 | PATIO HEATER | 3000 | | | | | | |
| | 3480 | GUEST ROOMS AC HP-2 | 23 | 2 | 60 | | | 20 | 2 | 24 | PATIO HEATER | | 3000 | | | | | |
| | | | 25 | | | | | | | 26 | | | | | | | | |
| | | | 27 | | | | | | | 28 | | | | | | | | |
| | | | 29 | | | | | | | 30 | | | | | | | | |
| | | | 31 | | | | | | | 32 | | | | | | | | |
| | | | 33 | | | | | | | 34 | | | | | | | | |
| | | | 35 | | | | | | | 36 | | | | | | | | |
| | | | 37 | | | | | | | 38 | | | | | | | | |
| | | | 39 | | | | | | | 40 | | | | | | | | |
| | | | 41 | | | | | | | 42 | | | | | | | | |
| 15096 | 15096 | | | | | | | | | | | 38560 | 41018 | | | | | |

| PH | WATTS PER PH |
|----|--------------|
| A | 53656 |
| B | 56114 |

| MOUNTING: FLUSH 120/208V 1PH 3W | | | PANEL #: | | | | B | | | | BUSS/ CIRCUITS FEEDERS SIZE: | | 200 | 42 |
|------------------------------------|-------|----------------------------|----------|----------|-------|--------------|--------|---|--------------|-------|---------------------------------|----------------------------|-------|------|
| WATTS | | | ITEM | CIR # | POLES | BKRS SIZE | PHASES | | BKRS SIZE | POLES | CIR # | ITEM | WATTS | |
| A | B | A | | | | | B | A | | | | | B | |
| 4800 | | WALL OVEN | 1 | 2 | 40 | | | | 20 | 1 | 2 | MICROWAVE OVEN | 950 | |
| | 4800 | WALL OVEN | 3 | 2 | 40 | | | | 20 | 1 | 4 | MASTER BATH GFIs (3) | | 540 |
| 540 | | GUEST TOILET GFI PROTECTED | 5 | 1 | 20 | | | | 20 | 1 | 6 | GARAGE LIGHTS | 500 | |
| | 1260 | BEDROOM #2 OUTLETS (8) | 7 | 1 | 20 | | | | 20 | 1 | 8 | BEDROOM #3 OUTLETS (9) | | 1620 |
| 600 | | PANTRY OUTLETS (3) | 9 | 1 | 20 | | | | 20 | 1 | 10 | BEDROOM #1 OUTLETS (9) | 1620 | |
| | 1200 | ENTRY BAR OUTLETS (3) | 11 | 1 | 20 | | | | 20 | 1 | 12 | MASTER BEDROOM OUTLETS (8) | | 1440 |
| 840 | | GARBAGE DISPOSAL | 13 | 1 | 20 | | | | 20 | 1 | 14 | STOVE COUNTER OUTLETS (4) | 720 | |
| | 1100 | DISH WASHER | 15 | 1 | 20 | | | | 20 | 1 | 16 | REFRIG/COUNTER OUTLETS | | 800 |
| 864 | | TRASH COMPACTOR | 17 | 1 | 20 | | | | 20 | 1 | 18 | KIT COUNTER OUTLETS (3) | 600 | |
| | 800 | KITCHEN ISLAND OUTLETS (2) | 19 | 1 | 20 | | | | 20 | 1 | 20 | LAUNDRY OUTLETS (3) | | 360 |
| 4800 | | RANGE | 21 | 2 | 30 | | | | 20 | 1 | 22 | GREAT ROOM OUTLETS (7) | 1000 | |
| | 4800 | RANGE | 23 | 2 | 30 | | | | 20 | 1 | 24 | BR #1 & ENTRY EXT LIGHTS | | 800 |
| 1000 | | GREAT ROOM & PATIO LIGHTS | 25 | 1 | 20 | | | | 20 | 2 | 26 | BDR #1 FAN COIL | 437 | |
| | 1035 | MB FAN COIL POWER | 27 | 2 | 20 | | | | 20 | 2 | 28 | BDR #1 FAN COIL | | 437 |
| 1035 | | MB FAN COIL POWER | 29 | 2 | 20 | | | | 15 | 1 | 30 | EQUIP. SPACE EXHAUST FAN | 450 | |
| | 400 | PANTRY OUTLETS (2) | 31 | 1 | 20 | | | | 20 | 1 | 32 | ICE MACHINE | | 1800 |
| 1035 | | GREAT ROOM FAN COIL | 33 | 2 | 15 | | | | 15 | 2 | 34 | BDR #2 FAN COIL | 437 | |
| | 1035 | GREAT ROOM FAN COIL | 35 | 2 | 15 | | | | 15 | 2 | 36 | BDR #2 FAN COIL | | 437 |
| | | | 37 | | | | | | | | 38 | BDR #3 FAN COIL | 437 | |
| | | | 39 | | | | | | | | 40 | BDR #3 FAN COIL | | 437 |
| | | | 41 | | | | | | | | 42 | | | |
| 15514 | 16430 | | | | | | | | | | | | 7151 | 8671 |

| PH | WATTS PER PH |
|----|--------------|
| A | 22665 |
| B | 25101 |

| MOUNTING: SEMI-FLUSH/UG 120/208V 1PH 3W | | | | | | | | | | PANEL #: | | POOL PANEL | | | | MAIN BREAKER BUS | | NO 100 | |
|--|-----|------------|----------|-------|--------------|--------|---|--------------|-------|----------|------|-------------|------|------|---|---------------------|--|-----------|--|
| WATTS | | ITEM | CIR # | POLES | BKRS SIZE | PHASES | | BKRS SIZE | POLES | CIR # | ITEM | WATTS | | | | | | | |
| A | B | | | | | A | B | | | | | A | B | A | B | | | | |
| 745 | | POOL PUMP | 1 | 2 | 15 | | | | | 2 | 2 | POOL HEATER | 1260 | | | | | | |
| | 745 | POOL PUMP | 3 | 2 | 15 | | | | | 2 | 4 | POOL HEATER | | 1260 | | | | | |
| 30 | | POOL LIGHT | 5 | 1 | 15 | | | | | 1 | 6 | GARAGE AC | 3480 | | | | | | |
| | | | 7 | 1 | | | | | | 2 | 8 | GARAGE AC | | 3480 | | | | | |
| | | | 9 | 2 | | | | | | 2 | 10 | | | | | | | | |
| | | | 11 | 2 | | | | | | 2 | 12 | | | | | | | | |
| 775 | 745 | | | | | | | | | | | | 4740 | 4740 | | | | | |

| PH | WATTS PER PH |
|----|--------------|
| A | 5515 |
| B | 5485 |

| ELECTRICAL LEGEND | | | |
|-------------------|-------------------------------------|------------|-------|
| SYMBOL | ITEM | CONTRACTOR | OWNER |
| | DUPLEX OUTLET | X | |
| | DOUBLE DUPLEX | X | |
| | POWER OUTLET SIZE AS NOTED | X | |
| | SPLIT OUTLET | X | |
| | GFI OUTLET W/ WP COVER | X | |
| | FLOOR OUTLET | X | |
| | J-BOX | X | |
| | 1 POLE SWITCH | X | |
| | SWITCH W/ WP COVER | X | |
| | 3 WAY SWITCH | X | |
| | DIMMER SWITCH | X | |
| | 4 WAY SWITCH | X | |
| | DATA OUTLET HGT AS NOTED | X | |
| | LED LOW BAY FIXTURES | | X |
| | WALL FIXTURE | | X |
| | DOWNLIGHT AS NOTED ON SCHEDULE | X | |
| | J-BOX FOR PENDANT FIXTURE | X | |
| | ATTIC SPACE LIGHT | | |
| | METER MAIN PNL | X | |
| | SUBPANEL | X | |
| | WEATHER PROOF DISCONNECT SIZE NOTED | X | |

| FIXTURE SCHEDULE | | | | | | | | |
|------------------|----------------|--------------------------|------------------------|-------|-------|-----------|--------|--------------------|
| I.D | LOCATION | MANUFACTURE | MFG.# | VOLTS | WATTS | LAMP TYPE | LUMENS | TRIM # |
| F-1 | LIVING ROOM | HALO | H750ICAT | 120 | 9.8 | LED | 900 | RSQ6 |
| F-2 | GARAGE | HALO/ FEIT | H750ICAT | 120 | 10.2 | LED | 925 | LEDR56B/927CA/MP/6 |
| F-3 | GARAGE | LITHONIA | CPHB 7LM 120 40K CPSBW | 120 | 49 | LED | 7493 | NA |
| F-4 | ENTRY | ONWER SUPPLIED CHANDLIER | | 120 | | | | |
| F-5 | EXTERIOR FRONT | ONWER SUPPLIED CHANDLIER | | 120 | | | | |
| F-6 | EXTERIOR REAR | ONWER SUPPLIED CHANDLIER | | 120 | | | | |

| MOUNTING TYPE | |
|---------------|------------------|
| 1 | GYP. BD RECESSED |
| 2 | PENDANT |
| 3 | SURFACE |
| 4 | WALL MOUNT |
| 5 | CHAIN |



REVISIONS:
△ - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

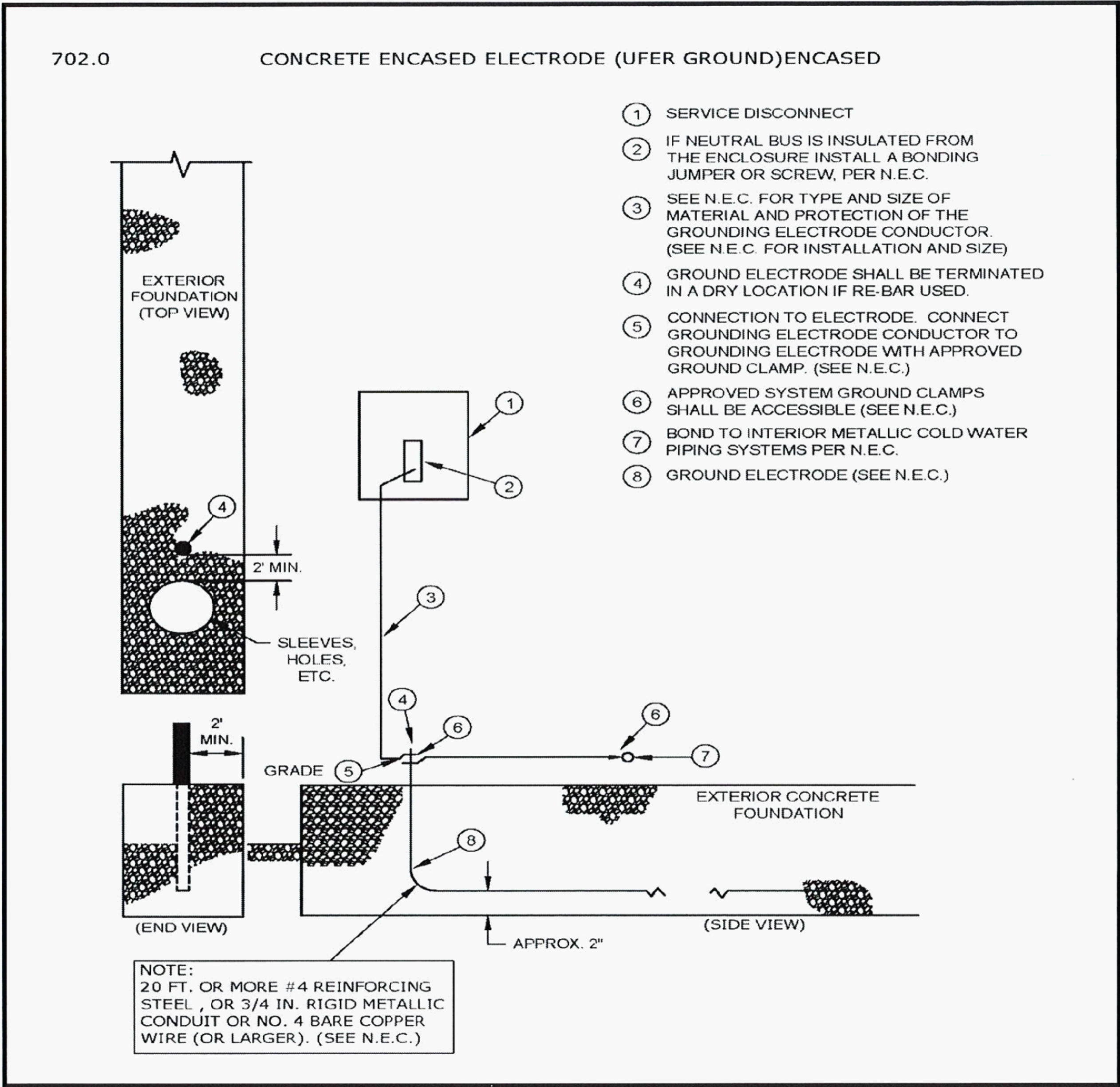
Garza Residence at the Riviera
2426 Riviera Ridge Court W
Lake Havasu, Arizona



DRAWN: ZV
CHECKED: -
DATE: 6 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

ELECTRICAL/POWER
NOTES & SCHEDULES

SHEET NO.:
E100



- 1 SERVICE DISCONNECT
- 2 IF NEUTRAL BUS IS INSULATED FROM THE ENCLOSURE INSTALL A BONDING JUMPER OR SCREW, PER N.E.C.
- 3 SEE N.E.C. FOR TYPE AND SIZE OF MATERIAL AND PROTECTION OF THE GROUNDING ELECTRODE CONDUCTOR (SEE N.E.C. FOR INSTALLATION AND SIZE)
- 4 GROUND ELECTRODE SHALL BE TERMINATED IN A DRY LOCATION IF RE-BAR USED.
- 5 CONNECTION TO ELECTRODE. CONNECT GROUNDING ELECTRODE CONDUCTOR TO GROUNDING ELECTRODE WITH APPROVED GROUND CLAMP. (SEE N.E.C.)
- 6 APPROVED SYSTEM GROUND CLAMPS SHALL BE ACCESSIBLE (SEE N.E.C.)
- 7 BOND TO INTERIOR METALLIC COLD WATER PIPING SYSTEMS PER N.E.C.
- 8 GROUND ELECTRODE (SEE N.E.C.)

NOTE:
20 FT. OR MORE #4 REINFORCING STEEL , OR 3/4 IN. RIGID METALLIC CONDUIT OR NO. 4 BARE COPPER WIRE (OR LARGER). (SEE N.E.C.)

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POWER FLOOR PLAN

$\frac{3}{16}'' = 1'-0''$

1

GENERAL ELECTRICAL NOTES

- City adopted codes: 2018 International Building Code, 2018 International Residential Code, 2017 NEC
 - Installation shall comply with all national, State and Local codes as noted above.
 - Owner to participate in a "box walk" with electrical contractor prior to installation of and boxes and or wiring. It is the contractor's responsibility to provide 2 weeks' notice to owners for coordination walk.
 - Contractor to provide for all electrical inspections
- E3703.5 Garage branch circuits: Not less than one 120-volt, 20-ampere branch circuit shall be installed to supply receptacle outlets in attached garages and in detached garages with electric power. This circuit shall not have other outlets. EXCEPTION: This circuit shall be permitted to supply readily accessible outdoor receptacle outlets.
- E3902.8 Bathtub or shower stall receptacles: 125-volt, single-phase, 15- and 20-ampere receptacles that are located within 6'-0" (1829 mm) of the outside edge of a bathtub or shower stall shall have ground-fault circuit-interrupter protection for personnel.
- E3902.10 Kitchen dishwasher branch circuit: Ground-fault circuit-interrupter protection shall be provided for outlets that supply dishwashers in dwelling unit locations.
- All current carrying conductors shall be copper unless otherwise noted.
- E3902.9 Laundry areas: 125-volt, single-phase, 15- and 20-ampere receptacles installed in laundry areas shall have ground-fault circuit-interrupter protection for personnel.
- All current carrying conductors shall be copper unless otherwise noted.
- E3902.16 Arc-fault circuit-interrupter protection: Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, and similar rooms or areas shall be protected by any of the following: See code for listing. (Note: Arc-fault protection is now required for circuits in kitchens and laundry areas.)
- All current carrying conductors shall be copper unless otherwise noted.
- Wiring shall be properly supported as per the NEC.
- Electrical contractor is to coordinate all wiring and devices with the other disciplines to prevent clash.
- Telephon and data outlets shall match the height of the electrical outlets unless otherwise noted
- Switches to mounted at 42" AFF unless otherwisw noted
- Panels shall have type written schedule.

ELECTRICAL LEGEND

| SYMBOL | ITEM | CONTRACTOR | OWNER |
|--------|-------------------------------------|------------|-------|
| | DUPLEX OUTLET | X | |
| | DOUBLE DUPLEX | X | |
| | POWER OUTLET SIZE AS NOTED | X | |
| | SPLIT OUTLET | X | |
| | GFI OUTLET W/ WP COVER | X | |
| | FLOOR OUTLET | X | |
| | J-BOX | X | |
| | 1 POLE SWITCH | X | |
| | SWITCH W/ WP COVER | X | |
| | 3 WAY SWITCH | X | |
| | DIMMER SWITCH | X | |
| | 4 WAY SWITCH | X | |
| | DATA OUTLET HGT AS NOTED | X | |
| | LED LOW BAY FXTURES | | X |
| | WALL FIXTURE | | X |
| | DOWNLIGHT AS NOTED ON SCHEDULE | X | |
| | J-BOX FOR PENDANT FIXTURE | X | |
| | ATTIC SPACE LIGHT | | |
| | METER MAIN PNL | X | |
| | SUBPANEL | X | |
| | WEATHER PROOF DISCONNECT SIZE NOTED | X | |



REVISIONS:
1 - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

Garza Residence at the Riviera
2426 Riviera Ridge Court W
Lake Havasu, Arizona



DRAWN: ZV
CHECKED: -
DATE: 6 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

POWER FLOOR
PLAN

SHEET NO.:
E101.1

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LIGHTING FLOOR PLAN

$\frac{3}{16}'' = 1'-0''$

1

GENERAL ELECTRICAL NOTES

- City adopted codes: 2018 International Building Code, 2018 International Residential Code, 2017 NEC
- Installation shall comply with all national, State and Local codes as noted above.
- Owner to participate in a "box walk" with electrical contractor prior to installation of and boxes and or wiring. It is the contractor's responsibility to provide 2 weeks' notice to owners for coordination walk.
- Contractor to provide for all electrical inspections
- E3703.5 Garage branch circuits: Not less than one 120-volt, 20-ampere branch circuit shall be installed to supply receptacle outlets in attached garages and in detached garages with electric power. This circuit shall not have other outlets. EXCEPTION: This circuit shall be permitted to supply readily accessible outdoor receptacle outlets.
- E3902.8 Bathtub or shower stall receptacles: 125-volt, single-phase, 15- and 20-ampere receptacles that are located within 6'-0" (1829 mm) of the outside edge of a bathtub or shower stall shall have ground-fault circuit-interrupter protection for personnel.
- E3902.10 Kitchen dishwasher branch circuit: Ground-fault circuit-interrupter protection shall be provided for outlets that supply dishwashers in dwelling unit locations.
- All current carrying conductors shall be copper unless otherwise noted.
- E3902.9 Laundry areas: 125-volt, single-phase, 15- and 20-ampere receptacles installed in laundry areas shall have ground-fault circuit-interrupter protection for personnel.
- All current carrying conductors shall be copper unless otherwise noted.
- E3902.16 Arc-fault circuit-interrupter protection: Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, and similar rooms or areas shall be protected by any of the following: See code for listing. (Note: Arc-fault protection is now required for circuits in kitchens and laundry areas.)
- All current carrying conductors shall be copper unless otherwise noted.
- Wiring shall be properly supported as per the NEC.
- Electrical contractor is to coordinate all wiring and devices with the other disciplines to prevent clash.
- Telephon and data outlets shall match the height of the electrical outlets unless otherwise noted
- Switches to mounted at 42" AFF unless otherwisw noted
- Panels shall have type written schedule.

ELECTRICAL LEGEND

| SYMBOL | ITEM | CONTRACTOR | OWNER |
|--------|-------------------------------------|------------|-------|
| | DUPLEX OUTLET | X | |
| | DOUBLE DUPLEX | X | |
| | POWER OUTLET SIZE AS NOTED | X | |
| | SPLIT OUTLET | X | |
| | GFI OUTLET W/ WP COVER | X | |
| | FLOOR OUTLET | X | |
| | J-BOX | X | |
| | 1 POLE SWITCH | X | |
| | SWITCH W/ WP COVER | X | |
| | 3 WAY SWITCH | X | |
| | DIMMER SWITCH | X | |
| | 4 WAY SWITCH | X | |
| | DATA OUTLET HGT AS NOTED | X | |
| | LED LOW BAY FIXTURES | | X |
| | WALL FIXTURE | | X |
| | DOWNLIGHT AS NOTED ON SCHEDULE | X | |
| | J-BOX FOR PENDANT FIXTURE | X | |
| | ATTIC SPACE LIGHT | | |
| | METER MAIN PNL | X | |
| | SUBPANEL | X | |
| | WEATHER PROOF DISCONNECT SIZE NOTED | X | |



REVISIONS:
A - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

Garza Residence at the Riviera
2426 Riviera Ridge Court W
Lake Havasu, Arizona



DRAWN: ZV
CHECKED: -
DATE: 3 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

LIGHTING FLOOR
PLAN

SHEET NO.:
E101

| AIR BALANCE SCHEDULE | | |
|-------------------------|-----|------|
| MASTER BEDROOM 1000 CFM | AD# | CFM |
| LAUNDRY ROOM | 1 | 135 |
| CORRIDOR | 2 | 100 |
| CLOSET | 3 | 75 |
| TOILET | 4 | 40 |
| BATHROOM | 5 | 125 |
| BATHROOM | 6 | 125 |
| BEDROOM | 7 | 200 |
| BEDROOM | 8 | 200 |
| TOTAL CFM | | 1000 |
| GREAT RM 1200 CFM | AD# | CFM |
| ENTRY | 1 | 225 |
| GREAT ROOM | 2 | 225 |
| GREAT ROOM | 3 | 225 |
| GREAT ROOM | 4 | 225 |
| GREAT ROOM | 5 | 225 |
| ENTRY TOILET | 6 | 75 |
| TOTAL CFM | | 1200 |
| BEDROOM #1 400 CFM | AD# | CFM |
| BEDROOM | 1 | 225 |
| CLOSET | 2 | 100 |
| TOILET | 3 | 75 |
| TOTAL CFM | | 400 |
| BEDROOM #2 395 CFM | AD# | CFM |
| CLOSET | 1 | 100 |
| BEDROOM | 2 | 220 |
| TOILET | 3 | 75 |
| TOTAL CFM | | 395 |
| BEDROOM #2 395 CFM | AD# | CFM |
| BEDROOM | 1 | 395 |

| EXHAUST FAN SCHEDULE | | | | | | | |
|----------------------|--------------------|-----------|----------------|------|-------|-------|-------|
| MARK | LOCATION | MFG | MODEL # | CFM | LIGHT | VOLTS | NOTES |
| EF-1 | BEDROOM #1 | BROAN | AERN80LK | 80 | LED | 120 | |
| EF-2 | BEDROOM #2 | BROAN | AERN80LK | 80 | LED | 120 | |
| EF-3 | BEDROOM #3 | BROAN | AERN80LK | 80 | LED | 120 | |
| EF-4 | MASTER TOILET | BROAN | AERN80LK | 80 | LED | 120 | |
| EF-5 | MASTER SHOWER | BROAN | AERN80LK | 80 | LED | 120 | |
| EF-6 | HAVC EQUIP RM ROOF | QUIETCOOL | AFR SMT ES-2.0 | 2116 | NONE | 120 | |
| EF-7 | RV GARAGE ROOF | QUIETCOOL | AFR SMT ES-2.1 | 2117 | NONE | 121 | |
| EF-8 | RV TOILET | BROAN | AERN80LK | 80 | LED | 120 | |

| AIR DISTRIBUTION SCHEDULE | | | | | | | |
|---------------------------|-------------------|-------|----------|-------|-----------|--------|----------|
| MARK | LOCATION | MFG | MODEL # | SIZE | NECK SIZE | BORDER | MTG. |
| S-1 | LIVING AREA | TITUS | MCD-6 | 12X12 | 10 | 6 | GYP CLG |
| S-2 | ENTRY CORRIDOR | TITUS | MCD-6 | 12X12 | 10 | 6 | GYP CLG |
| S-3 | ENTRY TOILET | TITUS | MCD-7 | 6x6 | 6 | 6 | GYP CLG |
| S-4 | BEDROOM #1 | TITUS | MCD-6 | 12x12 | 10 | 6 | GYP CLG |
| S-5 | BEDROOM #1 TOILET | TITUS | MCD-6 | 6x6 | 6 | 6 | GYP CLG |
| S-6 | BEDROOM CLOSET | TITUS | MCD-6 | 8x8 | 6 | 6 | GYP CLG |
| S-7 | BEDROOM #2 | TITUS | MCD-6 | 10X10 | 8 | 6 | GYP CLG |
| S-8 | BEDROOM #2 CLOSET | TITUS | MCD-6 | 8x8 | 7 | 6 | GYP CLG |
| S-9 | BEDROOM #2 TOILET | TITUS | MCD-7 | 6x6 | 6 | 6 | GYP CLG |
| S-10 | BEDROOM #3 | TITUS | MCD-6 | 10X10 | 8 | 6 | GYP CLG |
| S-11 | MASTER BEDROOM | TITUS | MCD-6 | 12X12 | 8 | 6 | GYP CLG |
| S-12 | MASTER BEDROOM | TITUS | MCD-6 | 12X12 | 8 | 6 | GYP CLG |
| S-13 | MASTER BATH | TITUS | MCD-6 | 8x8 | 6 | 6 | GYP CLG |
| S-14 | MASTER CLOSET | TITUS | MCD-6 | 10x10 | 7 | 6 | GYP CLG |
| S-15 | MASTER TOILET | TITUS | MCD-6 | 6x6 | 6 | 6 | GYP CLG |
| S-16 | GARAGE CORRIDOR | TITUS | MCD-6 | 10x10 | 7 | 6 | GYP CLG |
| S-17 | LAUNDRY ROOM | TITUS | MCD-6 | 10x10 | 7 | 6 | GYP CLG |
| R-1 | BEDROOM#1 | TITUS | 350RLF-1 | 14x14 | 12 | 6 | GYP CLG |
| R-2 | BEDROOM#2 | TITUS | 350RLF-1 | 14x14 | 10 | 6 | GYP CLG |
| R-3 | BEDROOM#3 | TITUS | 350RLF-1 | 14x14 | 10 | 6 | GYP CLG |
| R-5 | GREATROOM ENTRY | TITUS | 350RLF-1 | 24x24 | 16 | 6 | GYP CLG |
| R-6 | MASTER CLOSET | TITUS | 350RLF-1 | 20x20 | 14 | 6 | GYP WALL |

| MARK | ITEM | LOCATION | MFG | M# | SIZE | QTY | NOTES |
|------|-----------------------|------------------|--------------|------|------|-----|------------------------------|
| RV-1 | MB SHOWER FAN | SIDEWALL | VUYBVY | GREY | 4" | 1 | STAINLESS |
| RV-2 | MB TOILET EXHAUST | SIDEWALL | VUYBVY | GREY | 4" | 1 | STEEL, NO |
| RV-3 | DRYER VENTS | SIDEWALL | VUYBVY | GREY | 4" | 2 | SCREEN IN |
| RV-4 | BEDROOM #1 TOILET EX. | SIDEWALL | VUYBVY | GREY | 4" | 1 | DRYER VENTS |
| RV-5 | BEDROOM #2 TOILET EX. | FLAT ROOF | KEPA | KV-6 | 6" | 1 | COMBINE DUCTS TO (1) VENT |
| | BEDROOM #2 TOILET EX. | SIDEWALL | | | | | |
| RV-6 | KITCHEN HOOD | FLAT ROOF | KEPA | KV-6 | 6" | 1 | |
| RV-7 | EQUIP RM EXHAUST | POP-UP FLAT ROOF | SEE MECH SCH | N/A | | 1 | |
| RV-8 | GARAGE EXHAUST | RV FLAT ROOF | SEE MECH SCH | N/A | | 1 | |



REVISIONS:
1 - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

Garza Residence at the Riviera
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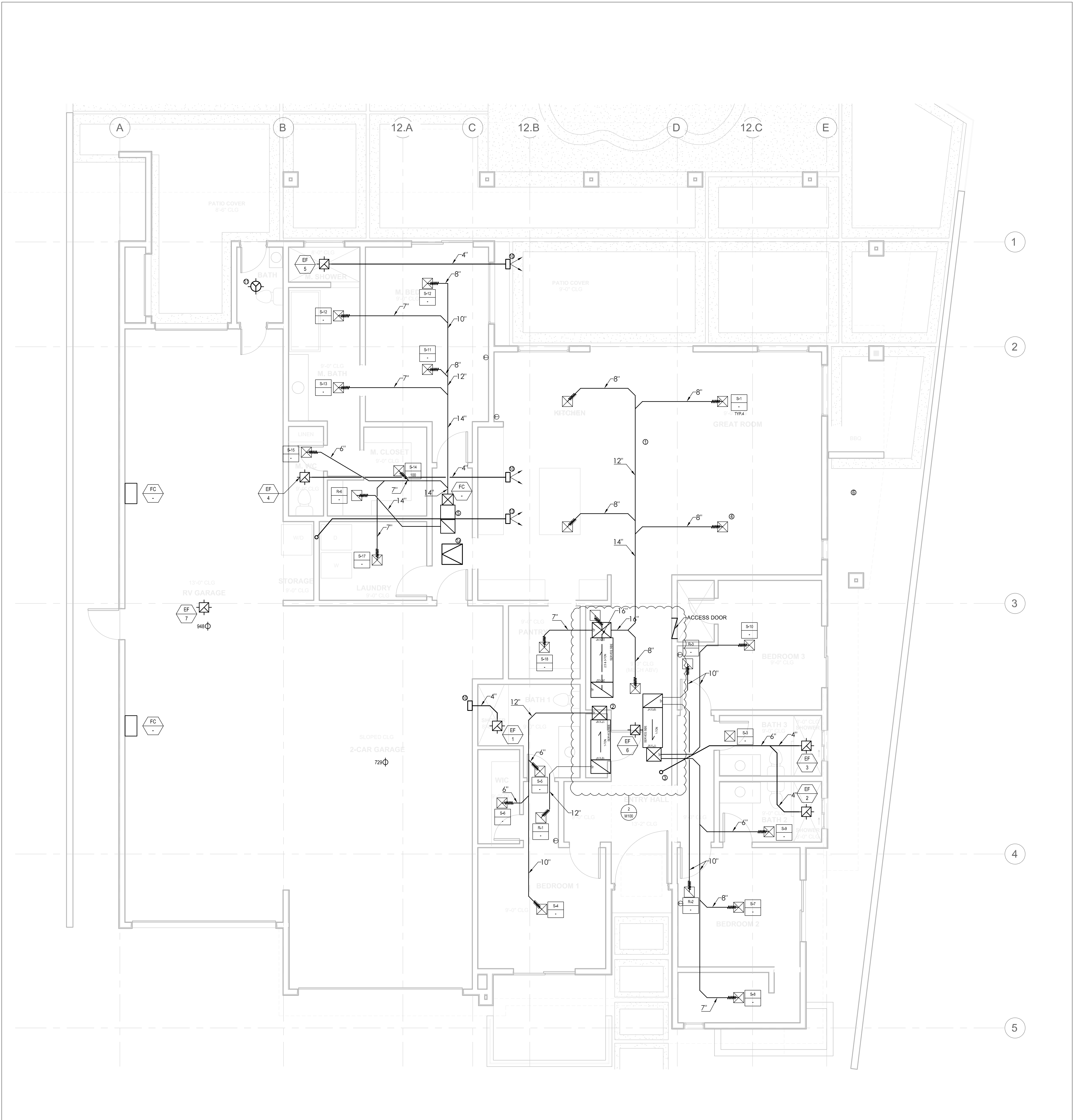


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CHECKED: -
DATE: 3 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

MECHANICAL HVAC
SCHEDULE AND
DETAILS

SHEET NO.:
M100.1

File Name & Location: R:\Data\2022_Bldg\Rivera\Engineering\Archives\4\1\1\101_22-0131.dwg Plot Date: Mon, 08 Feb 2023 17:00 Layout: M101



MECHANICAL FLOOR PLAN

$\frac{3}{16}'' = 1'-0''$

1

MECHANICAL LEGEND

| SYMBOL | ABBR | DESCRIPTION |
|--------|------|--------------------------|
| | SA | SUPPLY DIFFUSER |
| | RA | RETURN DIFFUSER |
| | EF | EXHAUST FAN |
| | T | THERMOSTAT |
| | FC | FAN COIL |
| | FC | WALL MOUNTED DUCTLESS FC |
| | MD | MANUAL VOLUME DAMPER |

| | |
|--------------------|------|
| DIFFUSER TYPE | SD-1 |
| CFM | 300 |
| EQUIPMENT TYPE | FC |
| UNIT NUMBER | 1 |
| DETAIL NUMBER | 1 |
| SHEET NUMBER | M5.1 |
| MECHANICAL KEYNOTE | ① |

GENERAL NOTES

- Code reference, 2018 International Mechanical Code.
- Mechanical systems shall comply with State and Local mechanical codes.
- Mechanical contractor is responsible to coordinate all work with other disciplines on the project.
- Mechanical contractor shall keep a record set of drawing of the installed system. Install equipment and materials to provide required access for servicing and maintenance. Coordinate the final location of concealed equipment and devices requiring access with final
- Verify all dimensions by field measurements.
- Arrange for chases, slots, and openings in other building components to allow for mechanical installations.
- Coordinate the installation of required supporting devices and sleeves to be set in poured in place concrete and other structural components, as they are constructed. Sequence, coordination, and integrate installations of mechanical materials and equipment for efficient flow of the Work. Give particular attention to large equipment requiring positioning prior to closing in the building.
- Coordinate the cutting and patching of building components to accommodate the installation of mechanical equipment and materials. Where mounting heights are not detailed or dimensioned, install mechanical services and overhead equipment to provide the maximum headroom possible. Install mechanical equipment to facilitate maintenance and repair or replacement of equipment components. As much as practical, connect equipment for ease of disconnecting, with minimum of interference with other installations.
- Coordinate the installation of mechanical materials and equipment above ceilings with suspension system, light fixtures, and other installations. Coordinate connection of mechanical systems with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies. Provide required connection for each service.
- Comply with SMACNA's "HVAC Duct Construction Standards, Metal and Flexible" for fabrication and installation of metal and flexible ductwork.
- 307.2.4.1 Ductless mini-split system traps: Ductless mini-split equipment that produces condensate shall be provided with backflow prevention device if pumping is required.

INSULATION NOTES

- All new duct insulation shall be a minimum of R-6. General: Install insulation products in accordance with manufacturer's written instructions, and in accordance with recognized industry practices to ensure that insulation serves its indented purpose.
- Install insulation materials with smooth and even surfaces. Clean and dry ductwork prior to insulating. Butt insulation joints firmly together to ensure complete and tight fit over surfaces to be covered.
- Maintain integrity of vapor barrier on ductwork insulation, and protect it to prevent puncture and other damage.
- Extend ductwork insulation without interruption through walls, floors and similar ductwork penetrations, except where otherwise indicated.

REFRIGERANT PIPING NOTES

- Installation of refrigeration copper tubing shall comply with the latest applicable building codes for the local jurisdiction.
- Copper tubing and or line sets shall be the grade for use in refrigeration applications. All refrigeration piping shall be insulated with minimum 1" Armaflex or equal insulation. Installer shall ensure that all exposed copper is properly covered and sealed to prevent condensation. Refrigeration copper piping shall be purged with nitrogen while being soldered to prevent interior oxidation and contamination.
- Refrigeration piping, while under construction, shall be sealed to prevent contaminates from entering.
- Entire system shall be pressurized, with nitrogen, to 3 time the rated pressure for a period of 24 hour to ensure no leaks are present, there shall be no deviation from initial pressure charge within the 24-hour period and initial charge shall be maintained until system is triple evacuated.
- Triple evacuation method of the refrigeration piping system down to between 1,000 and 2,000 microns, then a small amount of nitrogen shall be introduced into the system. The gas is then purged, and this process is repeated two additional times prior to charging with freon.
- Thermostat location to be verified with owner.

DRYER NOTES

- M1502.3.1 Exhaust termination outlet and passageway size. The passageway of dryer exhaust duct terminals shall be undiminished in size and shall provide an open area of not less than 12.5 square inches (8065 mm²).
- M1502.4.2 Duct installation. Where dryer exhaust ducts are enclosed in wall or ceiling cavities, such cavities shall allow the installation of the duct without deformation. (Note: Dryer ducts shall be no less than 4 inches in diameter; therefore, they shall be installed in a wall space greater than 4 inches in width.)
- M1502.4.6 Length identification. Where the exhaust duct equivalent length exceeds 35 feet (10 668 mm), the equivalent length of the exhaust duct shall be identified on a permanent label or tag. The label or tag shall be located within 6 feet of the exhaust duct connection. (Note: Duct labeling is no longer required unless the equivalent duct length exceeds 35 feet as allowed by M1502.4.5.2 & M1502.4.5.3.)
- M1503.6 Makeup air required. Where one or more gas, liquid, or sold fuel-burning appliance that is neither direct-vent nor uses a mechanical draft venting system is located within a dwelling unit's air barrier, each exhaust system capable of exhausting in excess of 400 cubic feet per minute (0.19 m³/s) shall be mechanically or passively provided with makeup air at a rate approximately equal to the exhaust rate. Such makeup air systems shall be equipped with no fewer than one damper complying with Section M1503.6.2. (Note: Make-up air for exhaust systems in excess of 400 CFM is no longer required unless natural draft appliances are provided in the residence.)

MECHANICAL NOTES

- INSTALL DUCTING WITHIN THE JOIST SPACE.
- HANG FAN COILS FROM STRUCTURE ABOVE.
- VENT TOILET FAN UTR ABOVE EQUIPMENT ROOM AS NOTED.
- CORRIDNATE WITH FRAMER ALL SUPPORTS REQUIRED FOR INSTALLATION.
- MOUNT MB VERTICAL FAN COIL ON AIR TIGHT PLENUM. PROVIDE OPENING IN WALL TO ACCEPT FILTER GRILLE.
- INSTALL CONDENSATE PIPING WITH PROPER TRAP AND EXTEND THROUGH CEILING OF BEDROOMS AND DOWN WALL AND DRAIN TO LANDSCAPING. PIPING SHALL BE SIZED FOR THREE UNIT. PIPING TO BE IN COPPER TYPE "M".
- VRF CONDENSING UNIT: INSTALL REFRIGERANT PIPING UP WALL INTO ATTIC SPACE TO FC EQUIPMENT ROOM.
- INSTALL BRANCH CONTROLLER IN FC EQUIPMENT ROOM.
- GARAGE CONDENSING UNIT: ROUTE REFRIGERANT LINE INTO WALL AND EXTEND TO WFCs INSTALL CONDENSATE PIPING DOWN WALL AND DRAIN TO LANDSCAPING. PIPING TO BE COPPER TYPE "M".
- DUCT TOILET EXHAUST TO SIDEWALL ON PITCHED ROOF.
- 24X24 MOONLITE MOLD ACCESS DOOR
- DRYER VENT TERMINATE AT SIDEWALL OF PITCHED ROOF. REFER TO DRYER DUCT NOTES ON THIS PAGE. DUCT TO BE GALVANIZED W/NO SCREWS, FOIL TAPE JOINTS



REVISIONS:
1 - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

Garza Residence at the Riviera
2426 Riviera Ridge Court W
Lake Havasu, Arizona



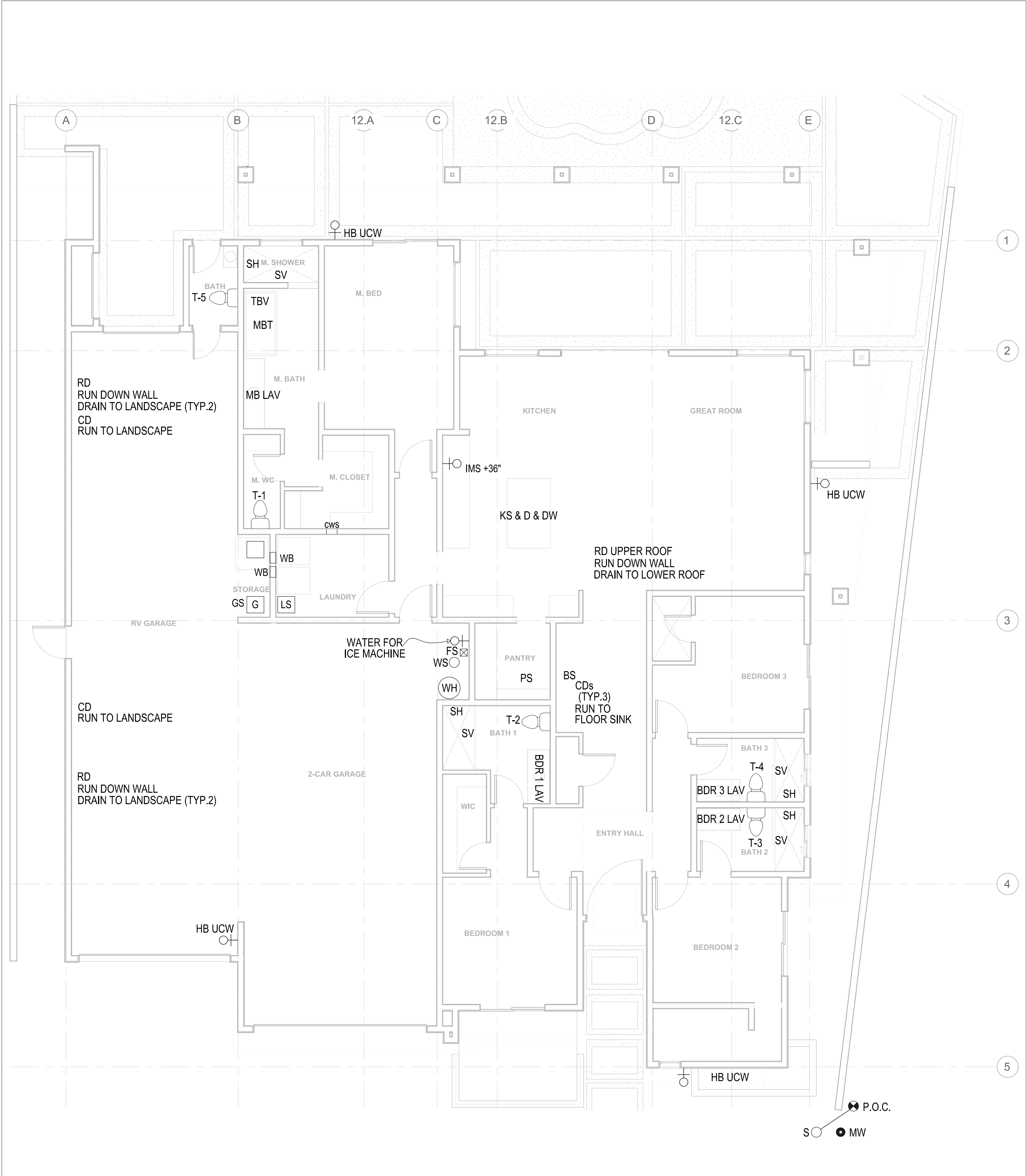
DRAWN: Z.V
CHECKED: -
DATE: 3 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

MECHANICAL FLOOR
PLAN

SHEET NO.:

M101

File Name & Location: R:\bids\2022_ Bids\Riviera Engineering Archive (4)\P101 23-0131.dwg Layout: P101 Printed: Mon, 06 Feb 2023 16:50



PLUMBING FLOOR PLAN

$\frac{3}{16}'' = 1'-0''$

1

PLUMBING GENERAL NOTES

1. ALL PLUMBING INSTALLATION SHALL CONFORM WITH ALL APPLICABLE CODES AND AUTHORITIES HAVE JURISDICTION.
2. PLUMBING CONTRACTOR TO COORDINATE HIS/OR HER WORK WITH ALL OTHER CONTRACTORS.
3. PLUMBING CONTRACTOR TO VISIT SITE AND VERIFY POINTS OF CONNECTION FOR SEWER AND WATER
4. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILLING AND COMPACTION FOR THEIR WORK.
5. THE PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL THE PLUMBING SYSTEM COMPLETE WITH ALL EQUIPMENT, PIPING, VALVES INSULATION, HANGERS AND TRIMS AS REQUIRED FOR A COMPLETE INSTALLATION.
6. ALL MATERIAL AND WORKMANSHIP PROVIDED BY THIS CONTRACTOR SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE DATE OF COMPLETION.
7. PLUMBING CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PROPOSED INSTALLATION.
8. AN APPROVED PRESSURE REDUCING STATION WITH BACKFLOW PREVENTION DEVICE SHALL BE PROVIDED ON MAIN WATER SUPPLY LINE.
9. HOSE BIBS SHALL BE PROVIDED WITH BACKFLOW PREVENTERS.
10. PLUMBING CONTRACTOR TO SUBMIT FOR APPROVAL ALL PIPING AND PLUMBING DEVICES PROVIDED UNDER HIS/OR HERS CONTRACT.
11. ALL DOMESTIC WATER SUPPLY LINES SHALL BE FLUSHED AND SANITIZED PRIOR TO THE TURN OVER TO THE OWNER.
12. PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL CONDENSATE PIPING.
13. OWNER SUPPLIED PLUMBING FXTURES AND DEVICES SHAL BE INSTALLED BY THIS CONTRACTOR.
14. ALL ROOF DRAINS TO BE PROVIDED UNDER THIS CONTRACT.
15. PROTECTION OF ALL INSTALLED MATERIAL AND EQUIPMENT IS THE RESPONSIBILITY OF THIS CONTRACTOR UNTIL TURN OVER TO OWNERSHIP.
16. ALL SANITARY SEWER PIPING 3" AND LARGER SHALL HAVE A SLOPE NOT LESS THAN 1% OR 1/8" PER FOOT UNLESS OTHERWISE NOTED. ALL SANITARY PIPING 2" AND SMALLER SHALL HAVE A SLOPE OF NOT LESS THAN 2% OR A 1/4" PER FOOT UNLESS OTHERWISE NOTED.
17. ALL SEWER CLEAN-OUTS SHALL BE THE SAME SIZE AS THE PIPE THEY SERVE.
18. WATER HEATERS SHALL BE EQUIPPED WITH THERMAL AND PRESSURE RELIEF VALVES.
19. WATER HEATERS SHALL PROPERLY SECURED TO STRUCTURE.

PLUMBING SCHEDULE

| MARK | ITEM | MFG | MODEL # | BY |
|-----------|---------------------|--------------|---|------------|
| T-1 | MB TOILET | | | CONTRACTOR |
| T-2 | BDR #1 TOILET | | | CONTRACTOR |
| T-3 | BDR #2 TOILET | | | CONTRACTOR |
| T-4 | BDR #3 TOILET | | | CONTRACTOR |
| T-5 | OUTDOOR TOILET | | | CONTRACTOR |
| KS | KITCHEN SINK | | | OWNER |
| KSF | KITCHEN SINK FAUCET | | | OWNER |
| D | DISPOSER | INSINKERATOR | Evolution Select Lift & Latch Quiet Series 5/8 HP | OWNER |
| SV-1 | SHOWER VALVE | | | OWNER |
| SV-2 | SHOWER VALVE | | | OWNER |
| SV-3 | SHOWER VALVE | | | OWNER |
| MB LAV | LAV FAUCET | | | OWNER |
| BDR-1 LAV | LAV FAUCET | | | OWNER |
| BDR-2 LAV | LAV FAUCET | | | OWNER |
| BDR-3 LAV | LAV FAUCET | | | OWNER |
| ODR LAV | LAV FAUCET | | | OWNER |
| MBT | MB TUB | | | OWNER |
| TBV | TUB VALVE | | | OWNER |
| WH | WATER HEATER | RHEEM | PROPH65 T2 RH375-SO | OWNER |
| WS | WATER SOFTENER | Harmony | Series 64,000 Grain Electronic Metered Water Softener with Sediment and Carbon Pre-Filter | OWNER |
| GS | GARAGE SINK | TRINITY | 18"X16" FREE STANDING SS SINK W/ PULLOUT FAUCET | OWNER |
| LS | LAUNDRY SINK | TRINITY | | OWNER |
| FS | FLOOR SINK | PROFLOOR | 12X12 PVC FLOOR SINK | CONTRACTOR |

PLUMBING LEGEND

| | |
|------|--------------------------|
| HB | HOSE BIB |
| WB | TECHTITE WASHER BOX |
| WS | WATER SOFTNER |
| WH | WATER HEATER |
| CD | CONDENSATE DRAIN |
| RD | ROOF DRAIN |
| RDDW | ROOF DRAIN DRY WELL |
| UCW | UNCONDITIONED COLD WATER |
| SV | SHOWER VALVE |
| SH | SHOWER HEAD |
| TBV | TUB VALVE |
| KS | KITCHEN SINK |
| BS | BAR SINK |
| FS | FLOOR SINK |
| IMS | ICE MAKER SUPPLY |
| LS | LAUNDRY SINK |
| IMS | GARAGE SINK |
| PS | PANTRY SINK |
| FD | FLOOR DRAIN |
| MW | MAIN WATER SUPPLY |
| POC | POINT OF CONNECTION |
| S | SEWER |

PLUMBING INSTALLATION NOTES

1. CODE REFERENCE, 2018 INTERNATIONAL PLUMBING CODE (IPC):
 - THERMAL EXPANSION TANKS. A THERMAL EXPANSION TANK SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THERMAL EXPANSION TANKS SHALL NOT BE SUPPORTED BY THE PIPING THAT CONNECTS TO SUCH TANKS.
3. WATER HEATERS SHALL BE EQUIPPED WITH THERMAL & PRESSURE RELIEF VALVES.
4. CONDENSATE PIPING TO FLOOR SINK.
5. POTABLE WATER FEEDING THE EXTERIOR HOSE BIBS SHALL BE NON-CONDITIONED WATER.
6. PROVIDE FLOOR SINK FOR WATER SOFTENER, ICE MACHINE AND WATER HEATER RELIEF VALVE.
7. SHOWER VALVES ARE TO BE MOUNTED ON SHOWER ENTR'ACTE WALL.
8. FRONT AND REAR OF RESIDENCE HOSE BIB MAIN FEED SHALL BE EQUIPPED WITH A ¾ TAKE OFF WITH BALL VALVE FOR FUTURE SPRINKLER SYSTEM.
9. ALL SEWER VENTS SHALL TERMINATE IN THE FLAT ROOF, NO PENETRATIONS IN METAL ROOFS.
10. CONDENSATE DRAIN FROM WALL HUNG UNITS TO LANDSCAPE.



REVISIONS:
1 - HOA 3RD SUBMITTAL - 2/6/23

PROJECT:

Garza Residence at the Riviera
2426 Riviera Ridge Court W
Lake Havasu, Arizona

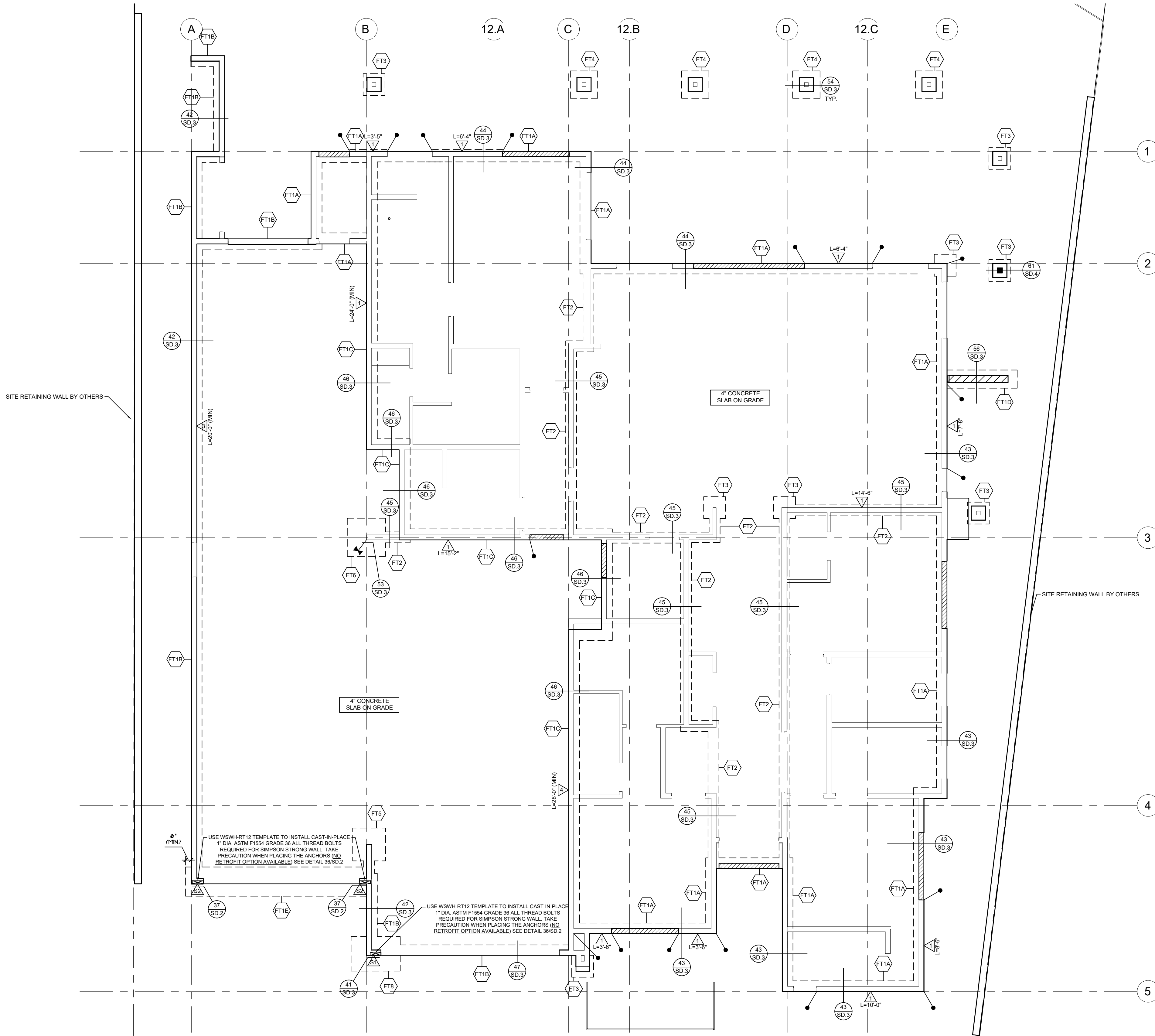


DRAWN: ZV
CHECKED: -
DATE: 6 FEBRUARY, 2023
PROJECT NO.: -
SHEET TITLE:

PLUMBING FLOOR PLAN

SHEET NO.:

P101



FOOTINGS AND FOUNDATION PLAN

| FOOTING SCHEDULE | | | | | | | | | | | |
|------------------|--------|-------|-------|--------------------------|------|--------|---------|-------------------------|------|--------|---------|
| DESG. | LENGTH | WIDTH | DEPTH | LENGTHWISE REINFORCEMENT | | | | CROSSWISE REINFORCEMENT | | | |
| | | | | QTY. | SIZE | LENGTH | SPACING | QTY. | SIZE | LENGTH | SPACING |
| FT1A | CONT. | 12" | 20" | 2 | #4 | CONT. | EQ. | - | - | - | - |
| FT1B | CONT. | 12" | 14" | 2 | #4 | CONT. | EQ. | - | - | - | - |
| FT1C | CONT. | 12" | 30" | 4 | #4 | CONT. | EQ. | - | - | - | - |
| FT1D | CONT. | 20" | 12" | 3 | #4 | CONT. | EQ. | - | - | - | - |
| FT1E | CONT. | 32" | 16" | 10 | #4 | CONT. | EQ. | - | - | - | - |
| FT2 | CONT. | 12" | 16" | 2 | #4 | CONT. | EQ. | - | - | - | - |
| FT3 | 24" | 24" | 12" | 3 | #4 | 18" | EQ. | 3 | #4 | 18" | EQ. |
| FT4 | 30" | 30" | 12" | 4 | #4 | 24" | EQ. | 4 | #4 | 24" | EQ. |
| FT5 | 36" | 36" | 12" | 4 | #4 | 30" | EQ. | 4 | #4 | 30" | EQ. |
| FT6 | 42" | 42" | 12" | 5 | #4 | 36" | EQ. | 5 | #4 | 36" | EQ. |
| FT7 | 48" | 48" | 12" | 6 | #4 | 42" | EQ. | 6 | #4 | 42" | EQ. |
| FT8 | 54" | 54" | 12" | 7 | #4 | 48" | EQ. | 7 | #4 | 48" | EQ. |

NOTES: 1. FILL 300 PSI, 1000 PSI OR 1500 PSI, NO SPECIAL INSPECTION REQUIRED. 2. FOOTINGS SHALL BE ON OR ABOVE UNDISTURBED NATIVE SOILS OR STRUCTURAL COMPACTED FILL (90% COMPACTION), SPECIFIED AND TESTED BY A REGISTERED GEOTECHNICAL ENGINEER. 3. ALL FOOTINGS SHALL BE AT A MINIMUM OF 12" BELOW GRADE OR BELOW THE FIRST LINE OF THE LOCALITY, WHICHEVER IS DEEPER. 4. PROVIDE JOINTS TO MATCH VERTICAL REBAR FOR WALL, REINFORCEMENT WITH 24" MINIMUM LAP SPICE INTO FOUNDATION WALL (WHERE APPLICABLE). 5. CENTER FOOTING UNDER FOUNDATION WALL U/LD. (WHERE APPLICABLE).

LEI CONSULTING ENGINEERS AND SURVEYORS, INC. IS NOT A GEOTECHNICAL ENGINEER AND HAS NOT PERFORMED ANY SOIL BEARING OR SLOPE ANALYSIS. LEI HAS DESIGNED THE FOUNDATION IN ACCORDANCE WITH THE MAXIMUM BEARING PRESSURE ALLOWED WHEN NO GEOTECHNICAL REPORT IS PROVIDED. LEI IS NOT LIABLE FOR DAMAGE OR REPAIRS CAUSED BY SETTLEMENT RESULTING FROM OUTSIDE FACTORS OR POOR SOIL CONDITIONS. THE HOMEOWNER/CONTRACTOR ASSUME ALL RISK ASSOCIATED WITH CONSTRUCTION WITHOUT AN ADEQUATE GEOTECHNICAL INVESTIGATION.

| SHEAR WALL SCHEDULE | | | | | | | | | | | |
|---------------------|--|----------|-------|------|-------|----------------------|-------|------|-------|----------|---------|
| DESG. | MATERIAL | #4 NAILS | | | | 12" 18 GAUGE STAPLES | | | | CAPACITY | |
| | | EDGE | FIELD | EDGE | FIELD | EDGE | FIELD | EDGE | FIELD | WIND | SEISMIC |
| 1 | 3/4" OSB OR CDX PLYWOOD | 6" | 12" | 3/8" | 12" | 32" O.C. | 33" | 24" | 24" | 24.5 | 24.5 |
| 2 | 3/4" OSB OR CDX PLYWOOD | 4" | 12" | 2" | 12" | 24" O.C. | 45" | 35" | 35" | 35 | 35 |
| 3 | 3/4" GYPSUM OR BETTER | 6" | 12" | - | - | 32" O.C. | 90 | 90 | 90 | 4.7 | 4.7 |
| 4 | 3/4" GYPSUM OR BETTER | 4" | 12" | - | - | 32" O.C. | 155 | 155 | 155 | 4.7 | 4.7 |
| S1 | SIMPSON WSWH12X8 HIGH-STRENGTH WOOD SHEAR WALL - SEE DETAILS 34/SD 2, 35/SD 2, 36/SD 2, & 41/SD 3 | | | | | | | | | | |
| S2 | SIMPSON WSWH12X12 HIGH-STRENGTH WOOD SHEAR WALL - SEE DETAILS 34/SD 2, 35/SD 2, 36/SD 2, & 37/SD 2 | | | | | | | | | | |

NOTES: 1. WALL OVER AND TOP SPICES 12" (SEE DETAIL 15/SD 1). 2. SHEATH ABOVE AND BELOW OPENINGS IN PERFORATED SHEAR WALLS AS PER THE ADJACENT SHEAR WALL DESIGNATION ON EACH SIDE OF THE OPENING. 3. USE 12" LONG STUDS AT END OF SHEAR WALLS. 4. ALL PANEL EDGES SHALL BE BLOCKED WITH 2" OR WIDER FRAMING WITH EDGE NAILING AT ALL SUPPORTS AND PANEL EDGES IN U.O. 5. ALL PANEL EDGES SHALL BE APPLIED ON BOTH SIDES OF A WALL, AND NAIL SPACING IS LESS THAN 7" O.C. ON OTHER SIDE. PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT PANEL MEMBERS. 6. FRAMING AT ADJOINING PANEL EDGES AND BIL PLATES SHALL BE 3" OR WIDER FOR EDGE NAILING 3" O.C. OR LESS. NAIL IS AT ADJOINING PANEL EDGES AND INTO BIL PLATES SHALL BE 12" (SEE DETAIL 15/SD 1). 7. PARTITIONED FOR SHEAR WOOD SHEAR WALLS SHALL BE NO. 6 TYPE S OR W DRYWALL SCREWS 90" LONG IN LIEU OF #4 NAILS.

- SIMPSON WSWH NOTES**
- STRONG WALL HIGH STRENGTH WOOD SHEAR WALLS SHALL BE INSTALLED AS PER SIMPSON SPECIFICATIONS.
 - WSWH MAY BE FIELD TRIMMED TO A MINIMUM HEIGHT OF 74 1/2" (TRIM TOP OF WALL ONLY - DO NOT TRIM FROM SIDES OR BOTTOM).
 - DRILLING HOLES IN WSWH IS NOT ALLOWED EXCEPT AS SPECIFICALLY ALLOWED BY THE MANUFACTURER (REFER TO SIMPSON SPECIFICATIONS).
 - ANCHOR BOLT NUTS SHOULD BE FINGER TIGHT PLUS 1/2 TURN.
 - TOP CONNECTION INSTALLS WITH A COMBINATION OF SCS2500 HEAVY DUTY CONNECTOR SCREWS & SWS16150 STRONG WALL SCREWS.
 - TAKE PRECAUTION WHEN INSTALLING CAST-IN-PLACE BOLTS AT CONCRETE FOUNDATION (NO RETROFIT OPTION IS AVAILABLE).
 - CONTACT SIMPSON REPRESENTATIVE GARY FUGIMIRE (801-244-7430) WITH QUESTIONS REGARDING THE INSTALLATION OF SIMPSON STRONG WALLS.

| HOLDOWN SCHEDULE | |
|------------------|--|
| SYMBOL | HOLDOWN/STRAP |
| ● | LSTH08 HOLDOWN SEE DETAIL 15/SD 1 |
| ○ | H012-S02.5 RETROFIT HOLDOWN w/ 1/2" DIA A36 THREADED ROD ANCHOR EMBEDDED 6" INTO FOOTING w/ SIMPSON SET-XP EPOXY (SPECIAL INSPECTION REQUIRED) SEE DETAIL 59/SD 4 |

LEI

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ENGINEERS

SURVEYORS

PLANNERS

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Phone: 801.798.0555
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office@lei-eng.com
www.lei-eng.com

Professional Engineer
06853
ERIC C. MURRAY
Signed: 02/10/2023
ARIZONA U.S.A.

STRUCTURAL ELEMENTS ONLY

2426 RIVIERA RIDGE COURT WEST

LAKE HAVASU CITY, ARIZONA

FOOTING & FOUNDATION PLAN

DIMENSIONS SHOWN ON THE STRUCTURAL PLANS ARE FOR CONVENIENCE ONLY. VERIFY ALL DIMENSIONS WITH THE CURRENT ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.

REVISIONS

| 1 | DESCRIPTION | DATE | BY |
|---|-------------|------|----|
| 2 | - | - | - |
| 3 | - | - | - |
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LEI PROJECT #:

2022-2291

DRAWN BY:

JMW

CHECKED BY:

EBM

SCALE:

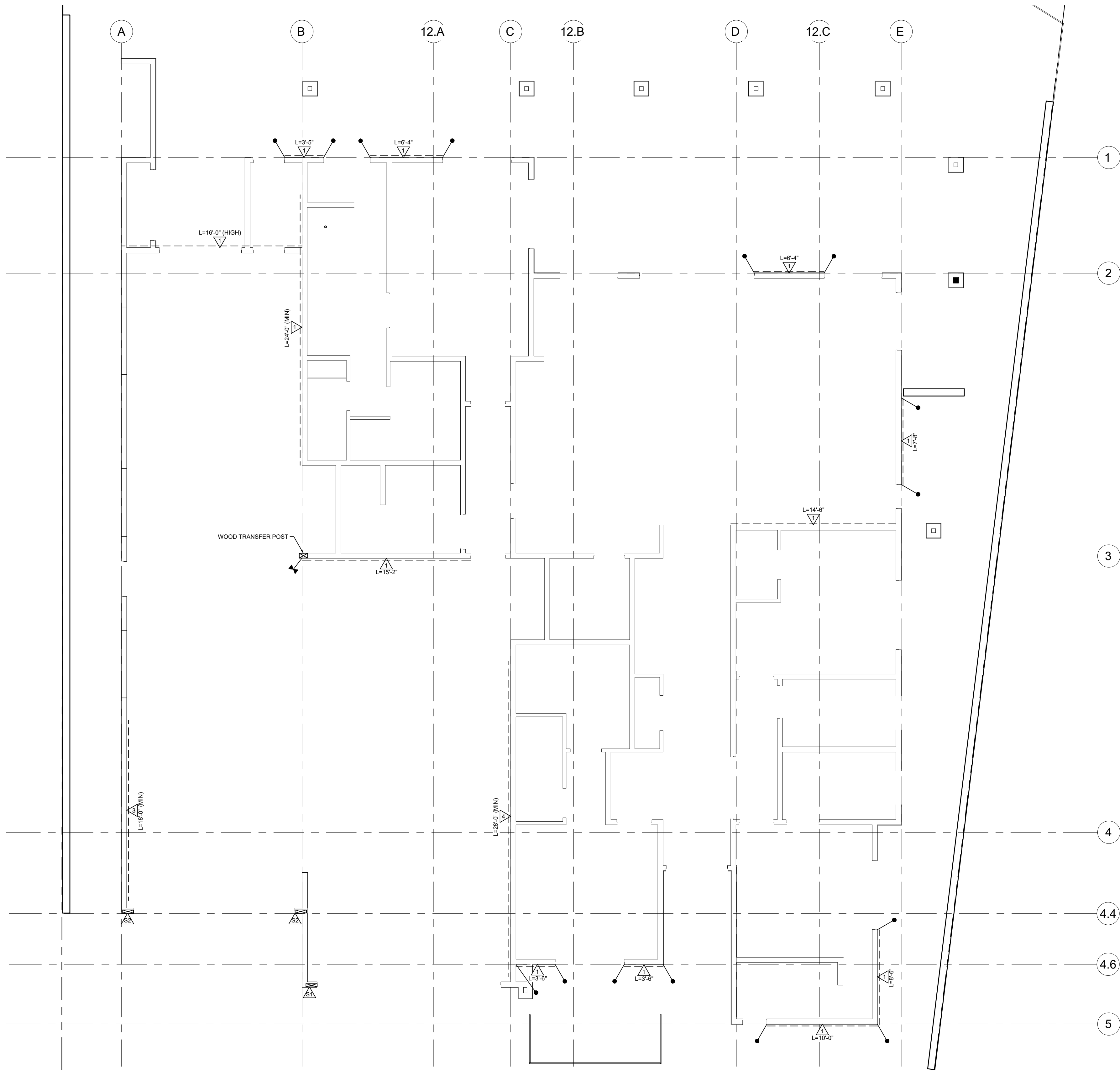
3/16"=1'-0"

DATE:

2/10/2023

SHEET

S1.0



SHEAR PLAN

| SHEAR WALL SCHEDULE | | | | | | | | | | |
|---------------------|--|----------|-------|----------------------|-------|------------------|---------|----------|---------|-------|
| DESG. | MATERIAL | 8d NAILS | | 10" 14 GAUGE STAPLES | | 1/2" ANCHOR BOLT | SPACING | CAPACITY | | NOTE |
| | | EDGE | FIELD | EDGE | FIELD | | | WIND | SEISMIC | |
| 1 | 3/4" OSB OR CDX PLYWOOD | 6" | 12" | 3/4" | 12" | 32" O.C. | | 339 | 241 | 2.4.5 |
| 2 | 3/4" OSB OR CDX PLYWOOD | 4" | 12" | 2" | 12" | 24" O.C. | | 499 | 350 | 2.4.5 |
| 3 | 3/4" GYPSUM OR BETTER | 6" | 12" | - | - | 32" O.C. | | 90 | 90 | 4.7 |
| 4 | 3/4" GYPSUM OR BETTER | 4" | 12" | - | - | 32" O.C. | | 165 | 155 | 4.7 |
| S1 | SIMPSON WSWH12X12 HIGH-STRENGTH WOOD SHEAR WALL - SEE DETAILS 34/SD 2, 35/SD 2, 36/SD 2, & 41/SD 3 | | | | | | | | | |
| S2 | SIMPSON WSWH12X12 HIGH-STRENGTH WOOD SHEAR WALL - SEE DETAILS 34/SD 2, 35/SD 2, 36/SD 2, & 37/SD 2 | | | | | | | | | |

NOTES: 1. WALL STUDS ARE TO BE SPACED AT 16" O.C. U.N.D.
2. STUDS ABOVE AND BELOW OPENINGS IN PERFORATED SHEAR WALLS AS PER THE ADJACENT SHEAR WALL DESIGNATION ON EACH SIDE OF THE OPENING.
3. USE 2d TYPE STUDS AT EACH END OF SHEAR PANELS SHEAR WALL CHORDS U.N.D.
4. ALL PANEL EDGES SHALL BE BLOCKED WITH 2x OR VIDER FRAMING WITH EDGE NAILING AT ALL SUPPORTS AND PANEL EDGES U.N.D.
5. WHERE PANELS ARE APPLIED ON BOTH SIDES OF A WALL, NAIL SPACING IS LESS THAN 7" O.C. ON BOTH SIDES. PANEL JENTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS.
6. FRAMING AT ADJOINING PANEL EDGES AND BELL PLATES SHALL BE 3x OR WIDER FOR EDGE NAILING 7" O.C. OR LESS. NAILS AT ADJOINING PANEL EDGES AND BELL PLATES SHALL BE STAGGERED. DOUBLE 2x FRAMING STITCH NAILED WITH STAGGERED 16d NAILS WITH SPACING EQUAL TO THE SHEAR WALL EDGE NAILING IS AN ADEQUATE SUBSTITUTE FOR 3x FRAMING.
7. PARTENERS FOR SHEET ROCK SHEAR WALLS SHALL BE NO. 6 TYPE S OR W DRYWALL SCREWS 12" LONG IN LIEU OF 8d NAILS.

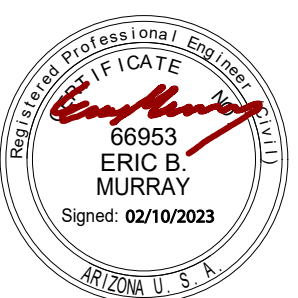
- SIMPSON WSWH NOTES**
1. STRONG WALL HIGH STRENGTH WOOD SHEAR WALLS SHALL BE INSTALLED AS PER SIMPSON SPECIFICATIONS.
 2. WSWH MAY BE FIELD TRIMMED TO A MINIMUM HEIGHT OF 74 1/2" (TRIM TOP OF WALL ONLY - DO NOT TRIM FROM SIDES OR BOTTOM).
 3. DRILLING HOLES IN WSWH IS NOT ALLOWED EXCEPT AS SPECIFICALLY ALLOWED BY THE MANUFACTURER (REFER TO SIMPSON SPECIFICATIONS).
 4. ANCHOR BOLT NUTS SHOULD BE FINGER TIGHT PLUS 1/2 TURN.
 5. TOP CONNECTION INSTALLS WITH A COMBINATION OF SDS2500 HEAVY-DUTY CONNECTOR SCREWS & SWS16150 STRONG-WALL SCREWS.
 6. TAKE PRECAUTION WHEN INSTALLING CAST-IN-PLACE BOLTS AT CONCRETE FOUNDATION (NO RETROFIT OPTION IS AVAILABLE).
 7. CONTACT SIMPSON REPRESENTATIVE GARY PUGMIRE (801-244-7436) WITH QUESTIONS REGARDING THE INSTALLATION OF SIMPSON STRONG WALLS.

| HOLDOWN SCHEDULE | |
|------------------|--|
| SYMBOL | HOLDOWN/STRAP |
| ● | LSTHDB HOLDOWN SEE DETAIL 15/SD.1 |
| ○ | H02J-SDS2.5 RETROFIT HOLDOWN w/ 5/8" DIA. A308 THREADED ROD ANCHOR EMBEDDED 6" INTO FOOTING w/ SIMPSON SET-XP EPOXY. (SPECIAL INSPECTION REQUIRED) SEE DETAIL 50/SD.4 |



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www.lei-eng.com



STRUCTURAL ELEMENTS ONLY

2426 RIVIERA RIDGE COURT WEST
LAKE HAVASU CITY, ARIZONA
SHEAR PLAN

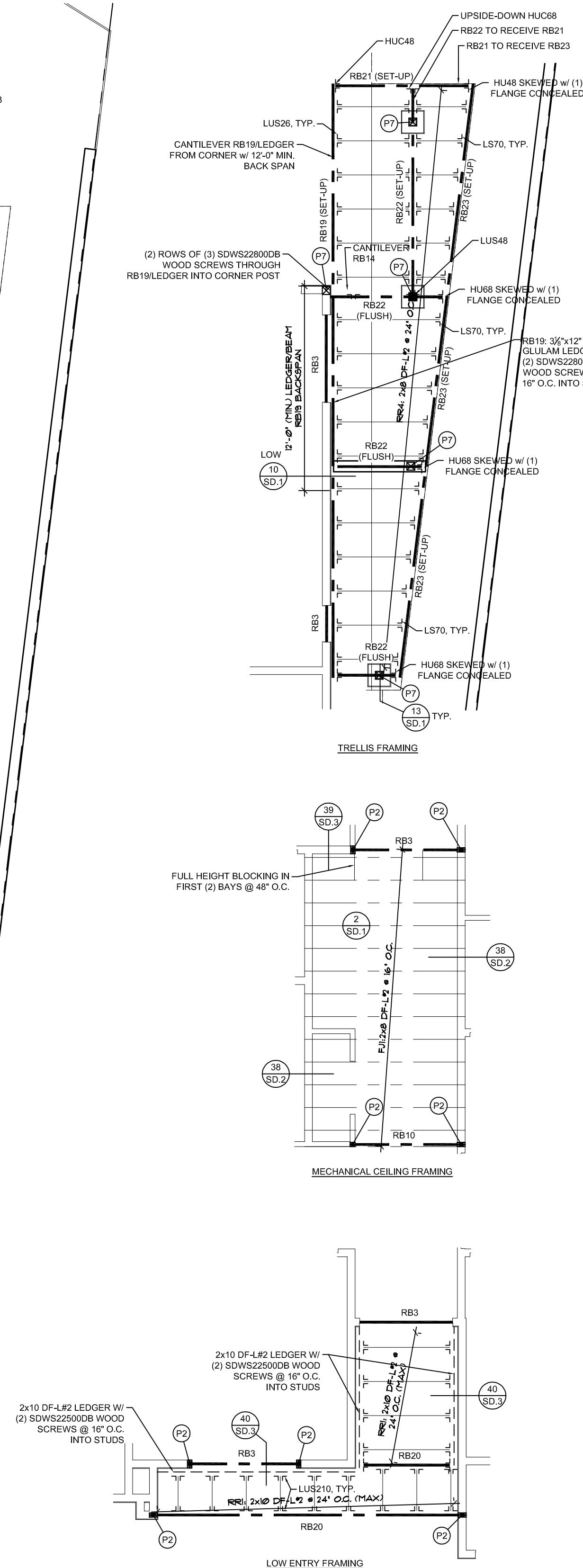
DIMENSIONS SHOWN ON THE STRUCTURAL PLANS ARE FOR CONVENIENCE ONLY. VERIFY ALL DIMENSIONS WITH THE CURRENT ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.

| REVISIONS | |
|-----------|-------------|
| 1 | DESCRIPTION |
| DATE | BY |
| 2 - | |
| 3 - | |
| 4 - | |
| 5 - | |

LEI PROJECT #:
2022-2291
DRAWN BY:
JMW
CHECKED BY:
EBM
SCALE:
3/16"=1'-0"
DATE:
2/10/2023

SHEET

S2.0



**ROOF TRUSS LAYOUT IS
SCHEMATIC ONLY. REFER TO THE
TRUSS MANUFACTURER'S LAYOUT
& CALCULATIONS FOR ACTUAL
LOCATION OF TRUSSES.**

FRAMING NOTES

1. PLANS ARE NOT COMPLETE WITHOUT THE STRUCTURAL CALCULATIONS.
2. REFER TO SHEET SD-0 FOR THE GENERAL STRUCTURAL NOTES.
3. ROOF SHEATHING SHALL BE RA4 RATED 4" OSB OR CDX PLYWOOD WITH 84 NAILS AT 6" O.C.
4. FLOOR SHEATHING SHALL BE RA4 RATED 3" T&G WITH 104 NAILS OR SIMPSON WNTLS AT 6" O.C. SCREWS AT 6" O.C. EDGE, 12" O.C. FIELD.
5. EXTERIOR STUD WALLS SHALL BE 2x6 @ 16" O.C.
6. USE #1 16d NAILS FROM TOP PLATE STUDS TO 2x6 STUDS. PROVIDER AND SHEAR WALLS. PROVIDE 4"x4" MINIMUM LAP SPICES.
7. INSTALL ALL SIMPSON HARDWARE PER MANUFACTURER'S INSTRUCTIONS.
8. HOLD-DOWNS SHALL BE INSTALLED ON (2) FULL HEIGHT KING STUDS (MINIMUM).
9. PROVIDE 2x6 ROOF RATTEN @ 12" O.C. PROVIDE 2x6 ROOF RATTEN @ 24" O.C.
10. PROVIDE 2x6 SQUASH BLOCKING AT FLOOR FRAMING TO MATCH DIMENSIONS OF POST ABOVE.
11. ALL DETAILS SHALL APPLY IN ALL SIMILAR SITUATIONS.
12. ALL LUMBER NOT PERMANENTLY PROTECTED WITH PRESERVATIVE TREATED OR OF A DECAY RESISTANT SPECIES, CONTACT LEAD ENGINEER FOR SURETY REQUIREMENTS. IF A DIFFERENT SPECIES IS TO BE USED.

SIMPSON SWSH WALL NOTES

1. STRONG WALL HIGH-STRENGTH WOOD BRACE WALLS SHALL BE INSTALLED AS PER SIMPSON SPECIFICATIONS.
2. WYSWH MAY BE FIELD TRIMMED TO A MINIMUM OF 74" FROM TOP OF WALL ONLY - DO NOT TRIM FROM SIDES OR BOTTOM.
3. DRILL 1" HOLES IN WYSWH IS NOT ALLOWED EXCEPT AS SPECIFICALLY ALLOWED BY THE MANUFACTURER.
4. ANCHOR BOLT SPACING SHALL BE 48" ON CENTER. ANCHOR BOLT NUTS SHOULD BE FINGER TIGHT PLUS 1/2 TURN.
5. THE WALL SHALL BE INSTALLED WITH A COMBINATION OF S0526500 HEAVY-DUTY CONNECTOR SCREWS & SW16150 SCREW DRILLING SCREWS.
6. TAKE PRECAUTION WHEN INSTALLING CAST-IN-PLACE BOLTS AT CONCRETE FOOTING (NO RETROFIT OPTION IS AVAILABLE).
7. CONTACT SIMPSON REPRESENTATIVE GARY PUGHMIRE (800-242-2444) WITH ANY QUESTIONS REGARDING THE INSTALLATION OF SIMPSON STRONG WALLS.

LEI PROJECT #:
2022-2291

DRAWN BY:
JMW

CHECKED BY:
EBM

SCALE:
 $\frac{3}{16}$ "=1'-0"

DATE:
2/10/2023

SHEET

S3.0



STRUCTURAL ELEMENTS ONLY

LAKE HAVASU CITY, ARIZONA ROOF FRAMING PLAN

BASIS OF DESIGN

| | |
|---|----------------------|
| 1. GOVERNING BUILDING CODE | 2018 IBC |
| 2. GRAVITY DESIGN: | |
| ROOF DEAD LOAD (TILE) | 25 PSF |
| ROOF DEAD LOAD (SHINGLES, METAL, MEMBRANE) | 20 PSF |
| FLOOR DEAD LOAD | 15 PSF |
| ROOF LIVE LOAD | 40 PSF |
| ROOF LIVE LOAD | 20 PSF |
| 3. SEISMIC DESIGN: | |
| LATERAL SYSTEM | SHEAR WALL |
| ZONE | C |
| $S_a=0.186$ | $S_s=0.112$ |
| $S_{m1}=0.198$ | $S_{m2}=0.177$ |
| SITE CLASS (ASSUMED) | R=6.5 |
| RISK CATEGORY | II |
| 4. WIND DESIGN: | |
| BASIC WIND SPEED | 99 MPH |
| EXPOSURE | C |
| 5. SOILS: | |
| SOIL BEARING PRESSURE (ASSUMED PER 2018 IBC 1806.2) | 1500 PSF |

GENERAL

| | |
|--|--|
| 1. THE GENERAL CONTRACTOR SHALL: | |
| A. BECOME FAMILIAR WITH ALL PORTIONS OF THE CONTRACT DOCUMENTS AND ENSURE THAT ALL SUBCONTRACTORS ARE FAMILIAR WITH THOSE PORTIONS PERTAINING TO THEIR AREA OF WORK. NO DEVIATIONS WILL BE ALLOWED UNLESS AGREED UPON BY ALL PARTIES IN WRITING PRIOR TO CONSTRUCTION OR FABRICATION. | |
| B. VERIFY ALL DIMENSIONS AND ELEVATIONS. COORDINATE ALL DOORS, WINDOWS, NON-BEARING INTERIOR AND EXTERIOR WALLS, ELEVATIONS, SLOPES, STAIRS, CURBS, DRAINAGE, RECESSES, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES, CHAMFERS, KEEPS, ETC. | |
| C. FIELD VERIFY ALL SITE CONDITIONS AND IMMEDIATELY NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER REGARDING ACTUAL CONDITIONS AT THE SITE WHICH ARE NOT PER THE DRAWINGS. | |
| D. COORDINATE ALL WORK BETWEEN THE VARIOUS TRADES AND SUBCONTRACTORS. REPORT ANY MODIFICATIONS TO THE STRUCTURAL PORTION OF THE BUILDING BY OTHER TRADES TO THE ARCHITECT AND STRUCTURAL ENGINEER. | |
| E. BE RESPONSIBLE FOR SAFETY AND PROTECTION IN AND AROUND THE JOB SITE AND/OR ADJACENT PROPERTIES. | |
| 2. CONTRACT DOCUMENTS: | |
| A. REFER TO THE SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE DRAWINGS. | |
| B. DETAILS, SECTIONS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO ALL SIMILAR SITUATIONS ELSEWHERE, UNLESS NOTED OR SHOWN OTHERWISE. | |
| C. THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE OVER SHOP DRAWINGS UNLESS SPECIFICALLY NOTED OTHERWISE. | |
| D. INFORMATION ON DRAWINGS INDICATING EXISTING CONDITIONS IS BASED ON BEST PRESENT KNOWLEDGE, BUT MAY NOT BE ENTIRELY ACCURATE AND MUST BE FIELD VERIFIED. | |
| 3. BUILDING CODE COMPLIANCE: | |
| A. INSPECTION, TESTING, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING BUILDING CODE AND STANDARDS. ASTM AND IRC DESIGNATIONS SHALL BE AS AMENDED TO LATEST DATE UNLESS NOTED OTHERWISE. | |
| 4. COORDINATION: | |
| A. COORDINATE AND VERIFY ROOF, FLOOR, AND WALL OPENINGS REQUIRED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND/OR OTHER DRAWINGS PRIOR TO CONSTRUCTION. REPORT OPENINGS REQUIRED WHICH ARE NOT SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW. | |
| B. COORDINATE ANY CONSTRUCTION SITUATION NOT COVERED BY THESE PLANS, GENERAL NOTES, OR SPECIFICATIONS WITH THE ARCHITECT AND STRUCTURAL ENGINEER. | |
| 5. CONSTRUCTION SEQUENCE, SHORING, AND BRACING REQUIREMENTS: | |
| A. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE METHOD, MEANS, AND SEQUENCE OF ALL STRUCTURAL ERECTION EXCEPT WHEN SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. HE SHALL PROVIDE TEMPORARY SHORING AND BRACING AS HIS METHOD OF ERECTION REQUIRES TO PROVIDE ADEQUATE VERTICAL AND LATERAL SUPPORT DURING ERECTION. THIS SHORING AND BRACING SHALL REMAIN IN PLACE UNTIL ALL PERMANENT MEMBERS ARE IN PLACE AND ALL FINAL CONNECTIONS ARE COMPLETED, INCLUDING ALL ROOF AND FLOOR ATTACHMENTS. | |
| B. SHORING AND SUPPORTING FORM WORK FOR SUSPENDED CONCRETE OR MASONRY MATERIAL SHALL REMAIN IN PLACE AND SHALL NOT BE REMOVED UNTIL THE STRUCTURAL MEMBERS HAVE ACQUIRED SUFFICIENT STRENGTH TO SAFELY SUPPORT THEIR OWN WEIGHT AND ANY ADDITIONAL CONSTRUCTION, STORAGE, AND/OR OTHER LOADS TO WHICH THEY MAY BE SUBJECTED. IN NO CASE SHALL THEY BE REMOVED PRIOR TO 7 DAYS. BE-SHORING SHALL BE IMMEDIATELY INSTALLED UPON REMOVAL OF SUCH FORMS AND SHALL REMAIN IN PLACE UNTIL 28 DAYS AFTER PLACING OF MATERIAL OR UNTIL MATERIAL HAS REACHED ITS 28 DAY DESIGN STRENGTH, WHICHEVER IS LONGER. DO NOT REMOVE LARGE AREAS OF SHORING BEFORE STARTING RE-SHORING PROCEDURES. | |
| C. NON-BEARING INTERIOR WALLS SHALL BE ADEQUATELY BRACED TO THE STRUCTURE ABOVE WITH ALLOWANCE FOR DEFLECTION OF THE STRUCTURE ABOVE AND/OR BELOW. | |
| D. BUILDING WALLS WHICH RETAIN EARTH MUST BE BRACED AT THE TOP. DO NOT BACKFILL UNLESS BRACING IS PROVIDED OR UNTIL THE COMPLETE FLOOR OR ROOF SYSTEM IS IN PLACE, TYPICAL, UNLESS NOTED OTHERWISE. | |
| 6. OMISSIONS AND/OR CONFLICTS: | |
| A. OMISSIONS IN AND/OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER AND SHALL BE RESOLVED BY THE SAME BEFORE PROCEEDING WITH ANY WORK INVOLVED. | |
| B. IN CASE OF CONFLICTS IN THE STRUCTURAL WORK, THE MOST STRINGENT REQUIREMENTS, AS DIRECTED BY THE ARCHITECT AND STRUCTURAL ENGINEER, SHALL BE IMPLEMENTED AT NO ADDITIONAL COST TO THE OWNER. | |
| 7. MISCELLANEOUS: | |
| A. DURING AND AFTER CONSTRUCTION, THE CONTRACTOR AND/OR OWNER SHALL KEEP THE LOADS ON THE STRUCTURE WITHIN THE LIMITS OF THE DESIGN. | |
| B. OBSERVATION VISITS TO THE SITE BY REPRESENTATIVES OF THE ARCHITECT AND/OR STRUCTURAL ENGINEER SHALL NOT BE CONSIDERED AS INSPECTION NOR APPROVAL OF CONSTRUCTION. | |
| 8. SUBMITTALS: | |
| A. THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION, ERECTION, INSTALLATION, OR OTHERWISE BEING INCORPORATED INTO THE WORK. | |
| REINFORCING STEEL SHOP DRAWINGS. | |
| STRUCTURAL STEEL SHOP DRAWINGS. | |
| ENGINEERED TRUSS DRAWINGS. | |
| * THESE SUBMITTALS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF ILLINOIS AS THE ENGINEER OF RECORD. | |
| B. A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE REVIEW OF ALL SUBMITTALS BY THE ARCHITECT AND STRUCTURAL ENGINEER. | |
| C. REQUESTS FOR SUBSTITUTIONS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER IN WRITING, REASON(S) FOR THE SUBSTITUTION AND COST DIFFERENTIALS SHALL BE INCLUDED IN THE REQUESTS. SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED IN WRITING BY THE ARCHITECT AND STRUCTURAL ENGINEER. | |
| SITE PREPARATION | |
| 1. REQUIREMENTS | |
| A. DO NOT PLACE FOOTINGS OR FOUNDATIONS ON DISTURBED SOILS, UNDOCTORED FILL, DEBRIS, FROZEN SOIL, OR IN FLOODED WATER. | |
| B. ALL UNSUITABLE SOILS AND VEGETATION, SUCH AS TOPSOIL, ORGANIC SOILS, UNDOCTORED FILL, DISTURBED NATIVE SOILS, AND OTHER DESTRUCTIVE MATERIALS, SHALL BE REMOVED FROM BELOW FOOTINGS, FOUNDATIONS, AND FLOOR SLABS. | |

CONCRETE

CODES AND STANDARDS:

A. CONCRETE WORK SHALL COMPLY WITH THE AMERICAN CONCRETE INSTITUTE (ACI) EDITIONS OF:

 I. ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

 II. ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".

 III. ACI 347, "RECOMMENDED PRACTICE FOR CONCRETE FORM WORK".

2. MATERIALS:

A. CEMENT SHALL CONFORM TO ASTM C150, TYPE II, PORTLAND CEMENT.

B. HARD ROCK AGGREGATES SHALL CONFORM TO ASTM C53. LIGHTWEIGHT AGGREGATES SHALL CONFORM TO ASTM C530.

C. WATER SHALL BE POTABLE.

D. AIR ENTERTAINMENT SHALL CONFORM TO ASTM C260.

E. FLY ASH SHALL CONFORM TO ASTM C618.

F. CALCIUM CHLORIDE SHALL NOT BE USED.

3. MIX DESIGNS:

A. ONLY ONE TYPE OF CONCRETE SHALL BE PLACED AT THE SITE AT ANY GIVEN TIME.

B. A MIX DESIGN THAT PRODUCES THE LOWEST SLUMP COMPATIBLE WITH PROPER PLACEMENT SHALL BE USED. 4" MAXIMUM.

C. CONCRETE MIXES SHALL CONFORM TO THE FOLLOWING:

| TYPE OF CONCRETE MEMBER | MINIMUM STRENGTH AT 28 DAYS (PSI) | MAX. W/C (RATIO) | DRY WEIGHT (PCF) | MAX AGGREGATE SIZE (INCHES) | AIR ENTRAINMENT (%) | MIN. CEMENT PER YARD (LBS) |
|-------------------------|-----------------------------------|------------------|------------------|-----------------------------|---------------------|----------------------------|
| FOOTINGS: | 2500 | 0.50 | 145 | 0'-0 3/4" | 3 ±-1 | 517 |
| FOUNDATION WALLS: | 2500 | 0.45 | 145 | 0'-0 3/4" | 3 ±-1 | 564 |
| SLAB ON GRADE: | | | | | | |
| INTERIOR | 2500 | 0.45 | 145 | 0'-0 3/4" | 3 ±-1 | 564 |
| EXTERIOR | 2500 | 0.45 | 145 | 0'-0 3/4" | 6 ±-1 | 564 |
| SLABS ON DECK: | | | | | | |
| 17. WT.* | 2500 | 0.53 | 110 | 0'-0 3/4" | 6 ±-1 | 564 |
| COLUMNS: | 2500 | 0.45 | 145 | 0'-0 3/4" | 3 ±-1 | 564 |
| BEAMS: | 2500 | 0.45 | 145 | 0'-0 3/4" | 3 ±-1 | 564 |

* 12. WT. CONCRETE SHALL HAVE A MIN. SPLITTING TENSILE STRENGTH OF 450 PSI.

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| D. LIMIT FILL ASH TO 15% OF THE TOTAL CEMENTitious MATERIAL. | |
| E. PEA GRAVEL AGGREGATE AND/OR PLASTICIZER MAY BE USED IN CONGESTED AREAS WHEN REQUIRED TO PROPERLY FILL ALL VOIDS AND/OR FOR POROSITY. (CONTRACTOR'S OPTION). | |
| 4. CONSTRUCTION: | |
| A. CONCRETE SHALL BE PROPERLY VIBRATED DURING PLACEMENT. | |
| B. PRIOR TO PLACING CONCRETE, CHECK WITH ALL TRADES TO ENSURE PROPER PLACEMENT OF OPENINGS, BLOCK OUTS, SLEEVES, CURBS, CONDUITS, BOLTS, INSERTS, EMBEDS, DOWELS, ETC. ANCHORS, BOLTS AND DOWELS SHALL BE PLACED PRIOR TO CASTING CONCRETE. | |
| C. CONSTRUCTION JOINTS AND BULKHEADS SHALL BE FORMED WITH A KEY WAY. ALL CONTACT SURFACES, NEW OR EXISTING, AT CONSTRUCTION JOINTS SHALL BE INTENTIONALLY ROUGHENED PRIOR TO CASTING ADJACENT POUR. | |
| D. OPENINGS IN FLOORS AND/OR WALLS SHALL HAVE ADDITIONAL REINFORCING AROUND ALL SIDES OF THE OPENING EQUIVALENT TO THE BARS CUT BY THE OPENING WITH HALF ON EACH SIDE OF THE OPENING OR 12-# BARS, WHICHEVER IS GREATER. UNLESS NOTED OTHERWISE, BARS PARALLEL TO THE PRINCIPAL REINFORCING SHALL RUN FULL LENGTH OF THE SPAN. BARS IN THE OTHER DIRECTION SHALL RUN 24 INCHES BEYOND THE EDGE OF THE OPENING OR END WITH A STANDARD HOOK. ALSO PROVIDE 2-#5 x 4'-0" DIAGONAL BARS AT EACH CORNER OF EACH OPENING. | |
| E. NO PENETRATION SHALL BE ALLOWED THROUGH ANY CONCRETE BEAM, JOIST, COLUMN, PIER, OR JAMB WITHOUT THE ARCHITECT'S AND STRUCTURAL ENGINEER'S PRIOR WRITTEN APPROVAL. PENETRATIONS SHALL BE RE-DOPTED AS REQUIRED AT THESE LOCATIONS. | |
| 5. FOOTINGS: | |
| A. FOOTINGS SHALL BE ON PROPERLY PREPARED MATERIAL. SEE THE SITE PREPARATION NOTES. | |
| B. FOOTINGS SHALL BE CENTERED BELOW THE WALL AND/OR COLUMN ABOVE, TYPICAL, UNLESS NOTED OTHERWISE. | |
| C. EXTERIOR FOOTINGS SHALL BEAR BELOW THE EFFECTS OF FROST. | |
| D. PROVIDE 2x4 BEVELED KEY WAYS IN ALL CONTINUOUS WALL FOOTINGS. | |
| E. STAGGER FOOTING CONSTRUCTION JOINTS FROM WALL CONSTRUCTION JOINTS ABOVE BY AT LEAST 4 FEET. | |
| F. REINFORCING IN CONTINUOUS FOOTINGS SHALL BE CONTINUOUS AT CORNERS AND/OR INTERSECTIONS BY PROVIDING PROPER LAP LENGTHS AND/OR CORNER BARS. | |
| G. NO PENETRATIONS SHALL BE ALLOWED THROUGH ANY CONCRETE FOOTING. WHEN CONTACTS ARE BETWEEN UNDERGROUND UTILITIES, UTILITIES, ETC., THE FOOTING SHALL BE STEPPED DOWN BELOW THE CONTACT AND A CONCRETE WALL, PIER, COLUMN, ETC., SHALL BE EXTENDED TO THE FOOTING AS REQUIRED. | |
| H. BEARING SURFACES FOR FOOTINGS WHICH ARE, OR BECOME, UNDERMINED DURING CONSTRUCTION SHALL BE BACKFILLED WITH A LEAN-MIX CONCRETE (1000 PSI MIN.). | |
| 6. SLABS ON GRADE: | |
| A. INTERIOR SLABS ON GRADE SHALL BE A MINIMUM OF 4 INCHES THICK, SHALL BE ON A 4 INCH MINIMUM LAYER OF FILL, BEARING GRAVEL, AND SHALL BE REINFORCED WITH #4 BARS AT 24" O.C. BOTH WAYS, TYPICAL, UNLESS NOTED OTHERWISE. PROVIDE CHAIRS WITH SAND PLATES FOR PROPER PLACEMENT. | |
| B. LARGE AREAS OF INTERIOR SLABS ON GRADE SHALL BE PLACED IN STRIPS NOT TO EXCEED 150 FEET IN LENGTH NOR 30 FEET IN WIDTH WHICH ARE SUBDIVIDED BY CONSTRUCTION AND/OR CONNECTION (CONTROL) JOINTS INTO ROUGHLY SQUARE AREAS WHOSE SIDES SHALL NOT EXCEED 15 FEET IN EITHER DIRECTION. | |
| C. SEE ARCHITECTURAL FOR EXTERIOR SLABS ON GRADE, TYPICAL, UNLESS NOTED OTHERWISE. | |

MASONRY VENEER ANCHOR TIES

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| 1. PRODUCTS: | |
| A. MASONRY VENEER ANCHOR TIES SHALL BE ONE OF THE FOLLOWING: | |
| I. DOWTALL ANCHORS. | |
| II. DX-10 SEISMIC CLIP INTERLOCK SYSTEM BY HORMANN & BARNARD. | |
| III. ARCHITECT AND STRUCTURAL ENGINEER APPROVED TWO PIECE ADJUSTABLE HOT-DIPPED GALVANIZED TIES. | |
| 2. INSTALLATION: | |
| A. MAXIMUM SPACING SHALL BE 16" O.C. HORIZONTAL AND VERTICAL. | |
| B. PROVIDE CONTINUOUS HORIZONTAL GALVANIZED #9 WIRE IN CENTER THIRD OF MORTAR JOINTS AT 16" O.C. ENCASE #9 WIRE WITH ALL ANCHOR TIES. | |
| C. CONSTRUCTION JOINTS IN MASONRY VENEER WALLS SHALL BE PROVIDED AS PER THE ARCHITECTURAL DRAWINGS, AND SHALL BE SPACED AT A MAXIMUM OF 16'-0" O.C. FOR MASONRY BLOCK VENEER. | |
| REINFORCING STEEL | |
| 1. CODES AND STANDARDS: | |
| A. REINFORCING STEEL SHALL COMPLY WITH: | |
| I. AMERICAN CONCRETE INSTITUTE BUILDING CODE & COMMENTARY ACI 318. | |
| II. AMERICAN CONCRETE INSTITUTE "DETAILING MANUAL", ACI 315 (OR SP-66). | |
| 2. MATERIALS: | |
| A. REINFORCING STEEL SHALL BE NEW STOCK DEFORMED BARS AND SHALL CONFORM TO ASTM A615, GRADE 60, WITH A DESIGN YIELD STRENGTH OF 60,000 PSI, EXCEPT AS NOTED BELOW. | |
| I. DOWELS TO BE BENT IN THE FIELD DURING CONSTRUCTION SHALL BE ASTM A615, GRADE 40 OR ASTM A706, GRADE 60, "LOW-ALLOY STEEL". | |
| II. REINFORCING TO BE WELDED SHALL BE ASTM A706, GRADE 60, "LOW-ALLOY STEEL". | |
| B. MASONRY JOINT REINFORCING SHALL BE MANUFACTURED FROM WIRE WHICH CONFORMS TO ASTM A8. | |

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| 3. CONSTRUCTION: | |
| A. REINFORCING SHALL BE DETAILLED, BOLSTERED, AND SUPPORTED PER ACI 315. | |
| B. REINFORCING STEEL SHALL BE FREE OF LOOSE, FLAKY RUST, SCALE, GREASE, OIL, DIRT, AND OTHER MATERIALS WHICH MIGHT AFFECT OR IMPAIR BOND. | |
| C. REINFORCING SHALL BE CONTINUOUS IN WALLS, BEAMS, COLUMNS, SLABS, FOOTINGS, ETC. | |
| D. SPLICES IN CONTINUOUS REINFORCING SHALL BE MADE IN AREAS OF COMPRESSION AND/OR AT POINTS OF MINIMUM STRESS, TYPICAL UNLESS NOTED OTHERWISE. LAP SPLICES SHALL BE 40 BAR DIAMETERS LONG IN CONCRETE AND 48 BAR DIAMETERS LONG IN MASONRY. MINIMUM LAP SHALL BE 24 INCHES LONG. DOWELS SHALL HAVE A MINIMUM OF 30 BAR DIAMETERS EMBEDMENT. TENSION SPLICES SHALL BE USED IN CONCRETE WHEN SPECIFICALLY NOTED. USE A CLASS B SPLICE. SPLICES IN TOP BARS IN SUSPENDED SLABS AND BEAMS SHALL BE MADE AT MID SPAN. SPLICES IN BOTTOM BARS IN SUSPENDED SLABS AND BEAMS SHALL BE MADE AT SUPPORTS. | |
| E. BENDS SHALL BE MADE COLD. DO NOT USE HEAT. BENDS SHALL BE DONE IN THE FABRICATOR'S SHOP UNLESS SPECIFICALLY NOTED FOR THE FIELD. DO NOT UN-BEND OR RE-BEND A PREVIOUSLY BENT BAR. | |
| F. REINFORCING STEEL IN CONCRETE SHALL BE SECURELY ANCHORED AND TIED IN PLACE PRIOR TO PLACING CONCRETE AND SHALL BE POSITIONED WITH THE FOLLOWING MINIMUM CONCRETE COVER: | |
| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH..... | 3" |
| CONCRETE EXPOSED TO EARTH OR WEATHER: #4 AND LARGER..... | 2" |
| #5 AND SMALLER..... | 1 1/2" |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER: SLABS AND WALLS, #11 AND SMALLER..... | 3/4" |
| BEAMS AND COLUMNS, MAIN REINFORCING OR TIES..... | 1 1/2" |
| SLABS ON GRADE..... | CENTER OF SLAB |
| G. REINFORCING STEEL IN MASONRY SHALL BE PLACED PRIOR TO GROUTING AND SHALL BE PLACED, POSITIONED, AND LOCATED ACCORDING TO THE STRUCTURAL DRAWINGS. IT SHALL BE SECURED AGAINST DISPLACEMENT AT INTERVALS NOT TO EXCEED 200 BAR DIAMETERS OR TEN FEET. | |
| H. NO REINFORCING STEEL SHALL BE WELDED UNLESS SPECIFICALLY NOTED AS SUCH. USE BOND ELECTRODES AND ASTM A954 REINFORCING, COMPLY WITH AS REQUIRED. | |

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| I. EPOXY COATED REINFORCING BARS SHALL BE USED WHEN SPECIFICALLY NOTED. INCREASE LAP SPICE LENGTHS AS REQUIRED BY THE IBC. | |
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STRUCTURAL STEEL

1. CODES AND STANDARDS:

- A. STRUCTURAL STEEL WORK SHALL COMPLY WITH:
 - I. THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS", WITH "COMMENTARY".
 - II. AISC "CODE OF STANDARD PRACTICES" EXCLUDING SECTIONS 1.4.1, 3.5 (SENTENCE), 4.2, 7.5.4, AND 7.11.5.
 - III. AMERICAN WELDING SOCIETY (AWS) "STRUCTURAL WELDING CODE", EXCLUDING ITEMS CONFLICTING WITH AISC REQUIREMENTS.

2. MATERIALS:

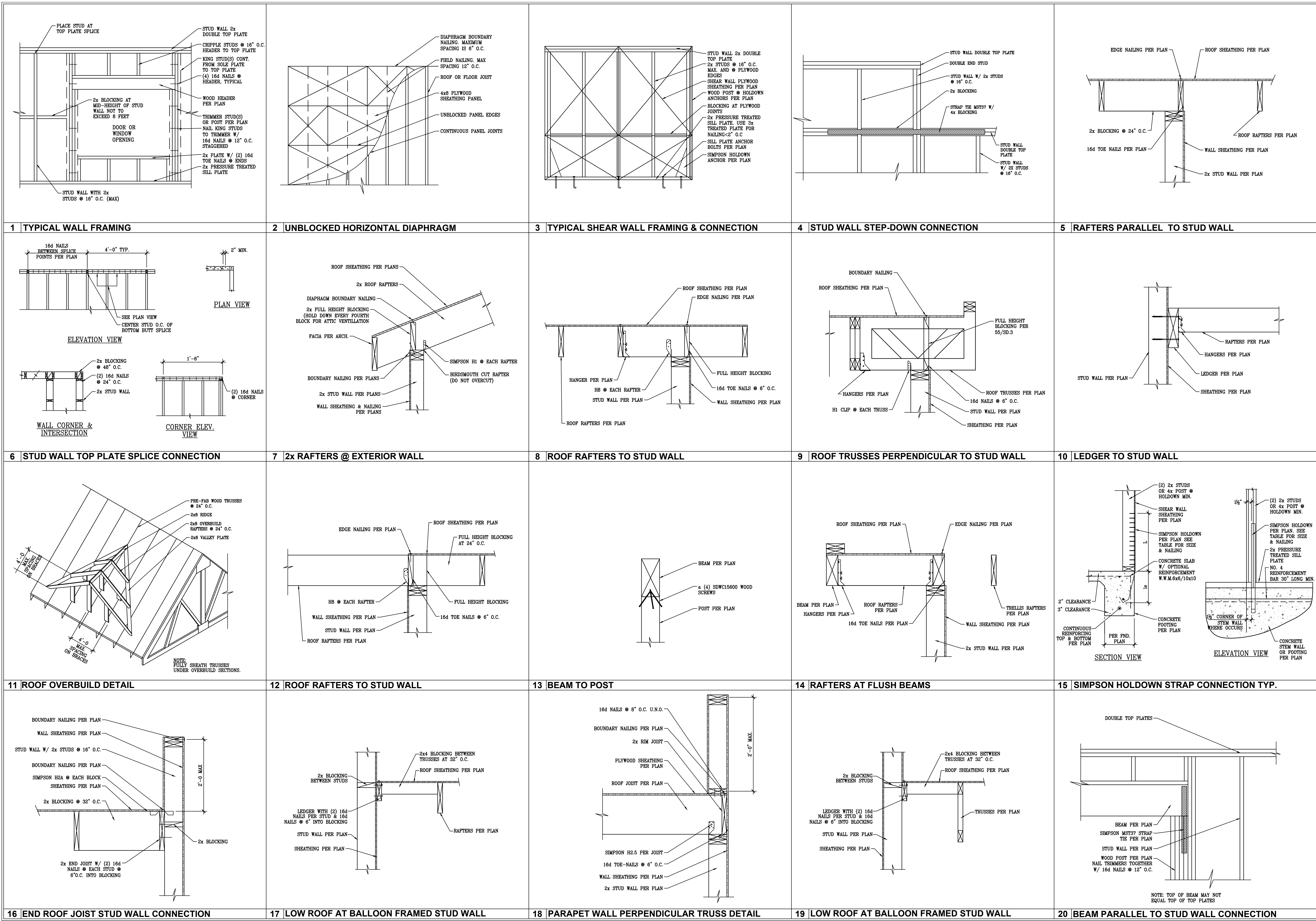
- A. STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A572 GRADE 50 ENHANCED STEEL. STRUCTURAL STEEL PLATES SHALL CONFORM TO ASTM A572.
- B. STRUCTURAL TUBE STEEL SHALL CONFORM TO ASTM A500, GRADE B, WITH A MINIMUM YIELD STRENGTH $F_y \geq 46$ KSI.
- C. STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, WITH A MINIMUM YIELD STRENGTH $F_y \geq 46$ KSI.
- D. HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM A325. ALL OTHER BOLTS SHALL CONFORM TO ASTM A307 OR BETTER.
- E. WELDED ANCHOR STUDS AND DEFORMED BAR ANCHORS SHALL CONFORM TO THE MANUFACTURER'S SPECIFICATIONS.

3. CONSTRUCTION:

- A. FABRICATION SHALL BE DONE IN AN APPROVED FABRICATOR'S SHOP.
- B. CAMBER IN BEAMS SHALL BE AS INDICATED ON PLANS.
- C. PROVIDE A SHOP COAT OF PAINT ON ALL STEEL ITEMS, EXCEPT AT AREAS OF WELDING AND/OR BOLTING.
- D. USE HIGH STRENGTH (8000 PSI MINIMUM AT 28 DAYS, NON-SHrink, LIQUID REPAIR GROUT BENEATH ALL STEEL BASE PLATES AND BRACING PLATES) TO BRACE PLATES WITH SAND OR FINE GRAVEL, AS RECOMMENDED BY THE MANUFACTURER. PLACE GROUT AS SOON AS STEEL MEMBER HAS BEEN PROPERLY POSITIONED AND ALIGNED.
- E. REINFORCE STRUCTURAL STEEL WIDE FLANGE, PIPE, OR TUBE SECTIONS ARE EMBEDDED IN CONCRETE. PROVIDE ANCHORS AND REINFORCING BARS UP TO IT. DEFORMED BAR ANCHORS OR REINFORCING BARS WELDED TO STEEL. PROVIDE 12" MIN. TO THE ADJACENT REINFORCING BARS, 46 BAR DIAMETERS LONG, SHALL BE WELDED TO THE STRUCTURAL STEEL. THE MANUFACTURER'S WELDING PROCEDURES SHALL BE ADHERED TO.

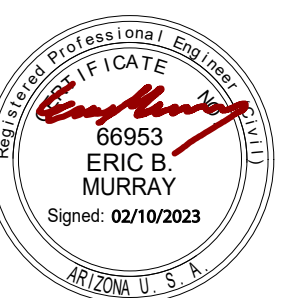
4. BOLTED CONNECTIONS:

- A. BOLTS SHALL BE $3/4"$ DIAMETER, UNLESS NOTED OTHERWISE.
- B. BOLTS SHALL BE BRACING TYPE CONNECTIONS UNLESS NOTED OTHERWISE.
- C. STEEL TO STEEL BOLTED CONNECTIONS SHALL BE MADE WITH A572 AND HIGH STRENGTH BOLTS AND NUTS, UNLESS NOTED OTHERWISE. BOLTS SHALL CARRY THE IDENTIFYING MARK OF THREE (3) RADIAL LINES.
- D. ALL OTHER BOLTED CONNECTIONS SHALL BE MADE WITH A572 AND HIGH STRENGTH BOLTS AND NUTS, UNLESS NOTED OTHERWISE, INCLUDING ANCHOR BOLTS.



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STRUCTURAL ELEMENTS ONLY

2426 RIVIERA RIDGE COURT WEST

LAKE HAVASU CITY, ARIZONA

STRUCTURAL DETAILS

DIMENSIONS SHOWN ON THE
STRUCTURAL PLANS ARE FOR
CONVENIENCE ONLY. VERIFY ALL
DIMENSIONS WITH THE CURRENT
ARCHITECTURAL PLANS PRIOR TO
CONSTRUCTION.

| REVISIONS | |
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| 1 | DESCRIPTION |
| DATE | BY |
| 2 - | - |
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LEI PROJECT #:
2022-2291

DRAWN BY:
JMW

CHECKED BY:
EBM

SCALE:
NTS

DATE:
2/10/2023

SHEET

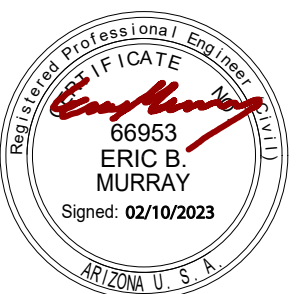
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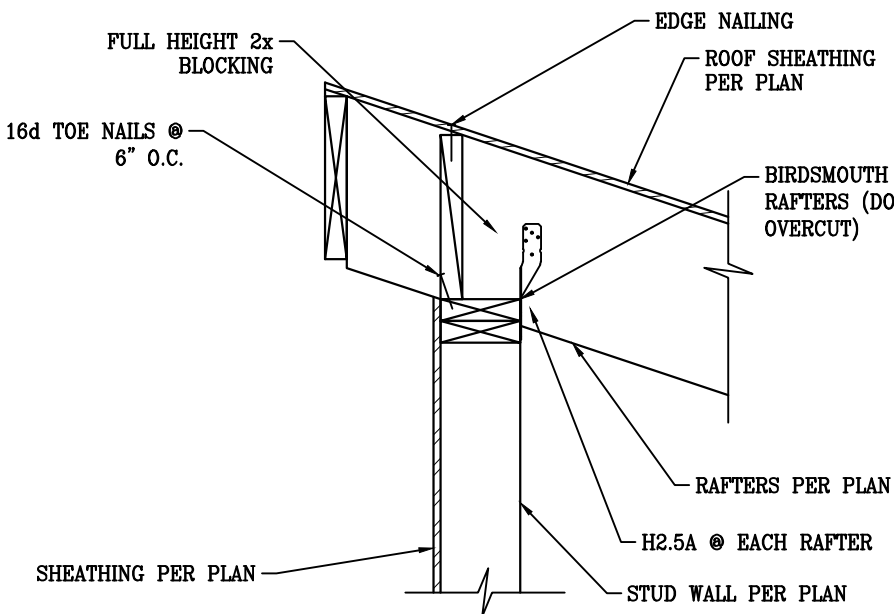
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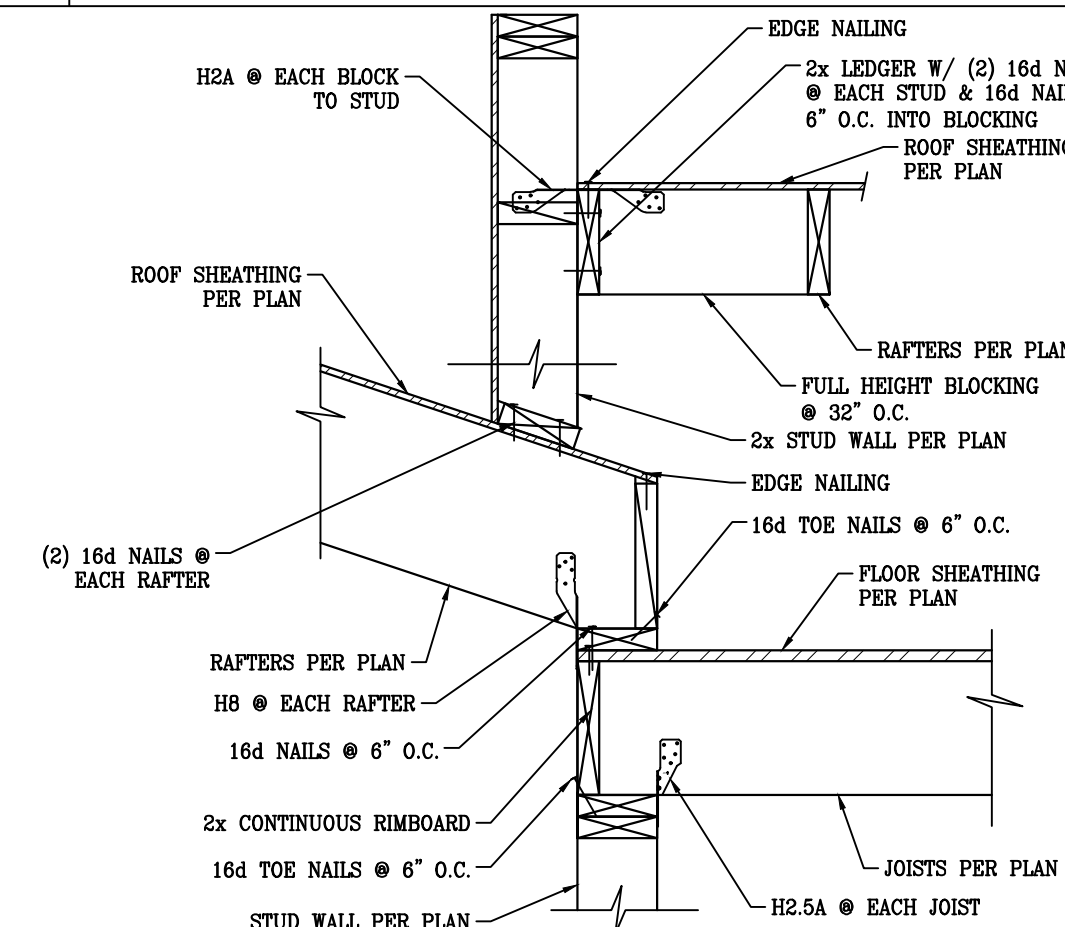
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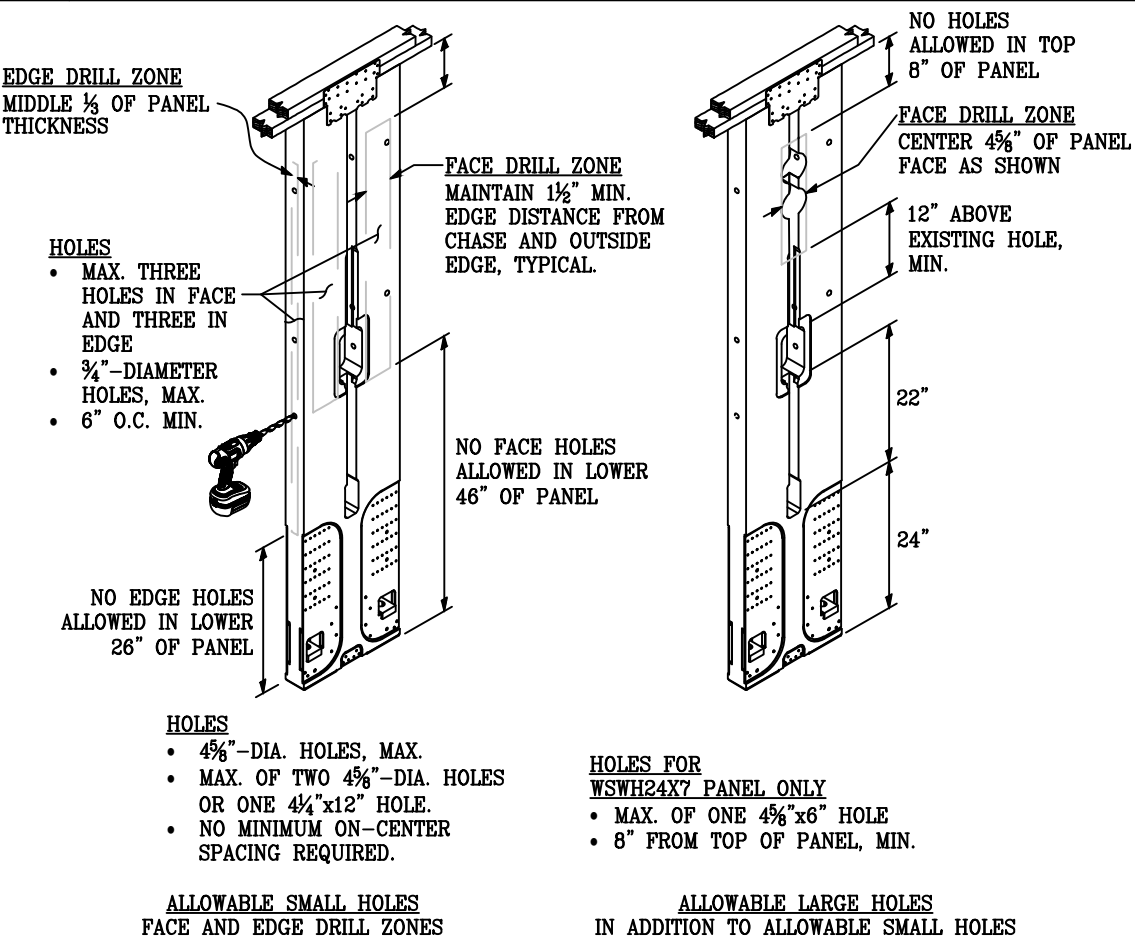
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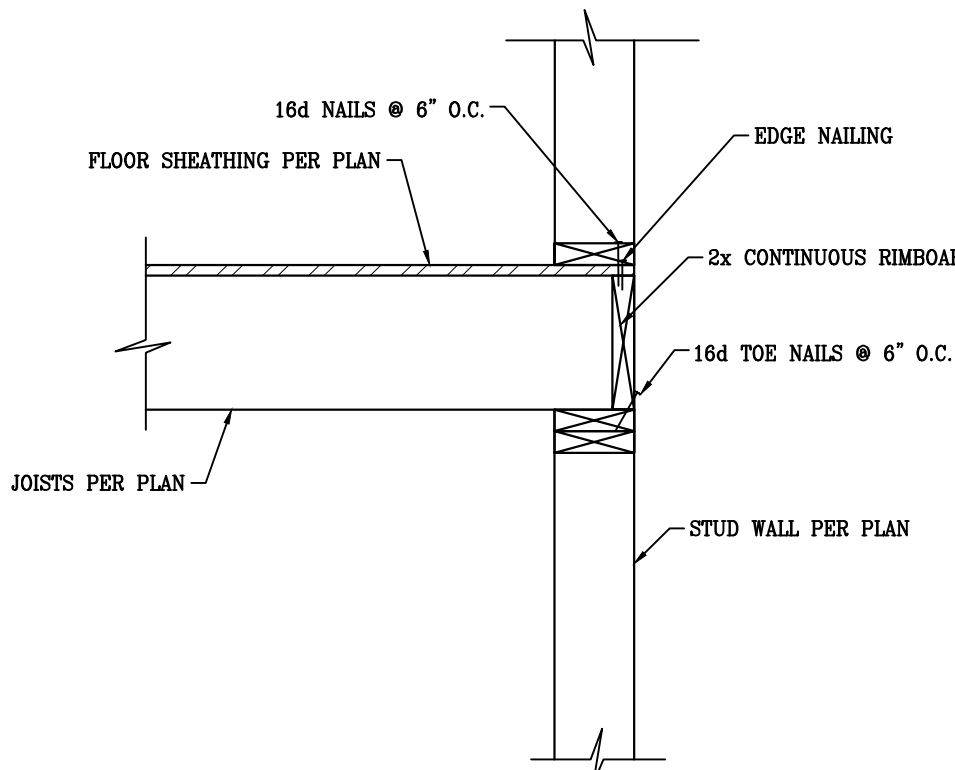
25 | ROOF RAFTERS TO STUD WALL



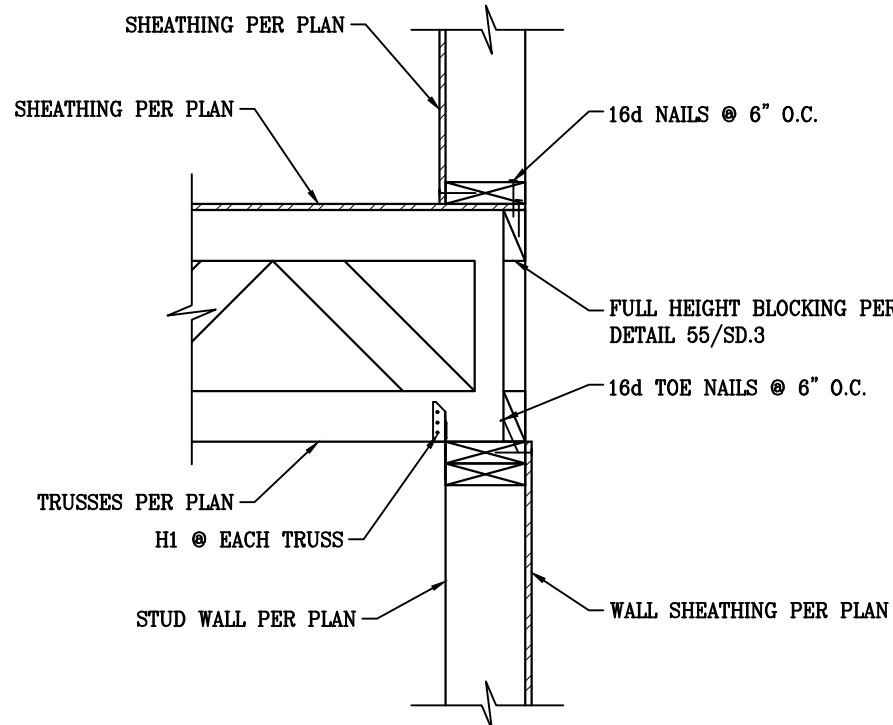
30 | ROOF RAFTERS TO STUD WALL



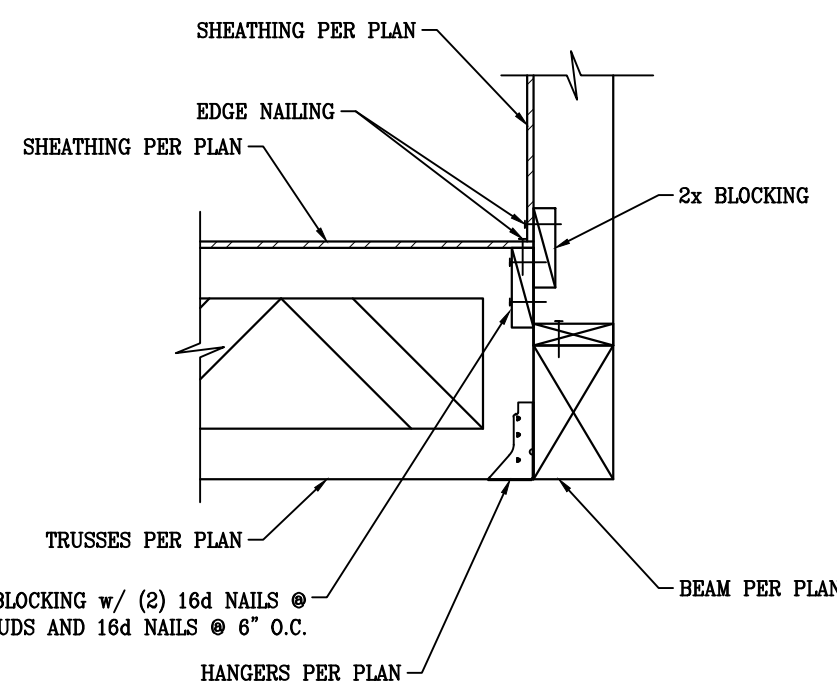
35 | WSWH TRIM ZONE & ALLOWABLE HOLES



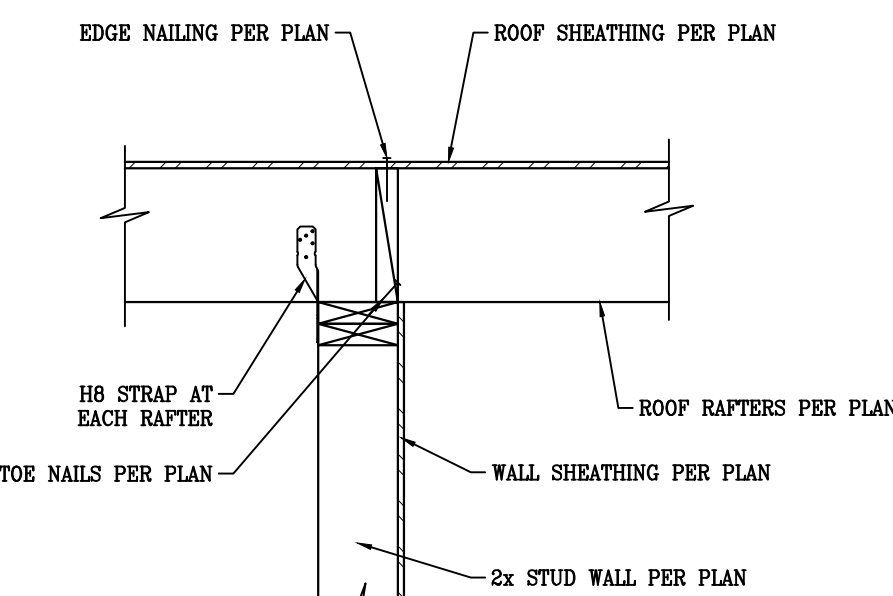
38 | FLOOR JOIST CONNECTION



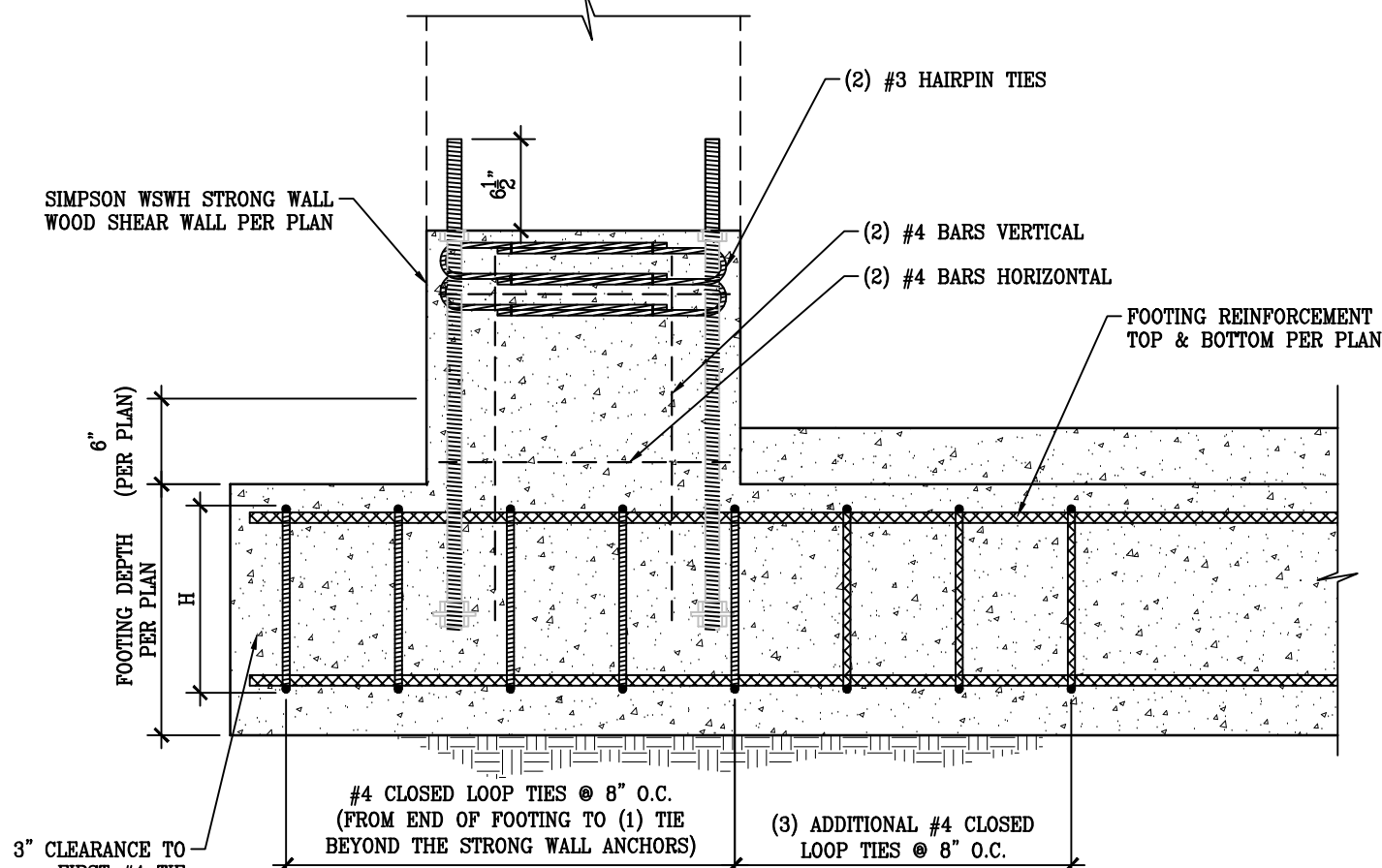
23 | ROOF TRUSSES AT STUD WALL



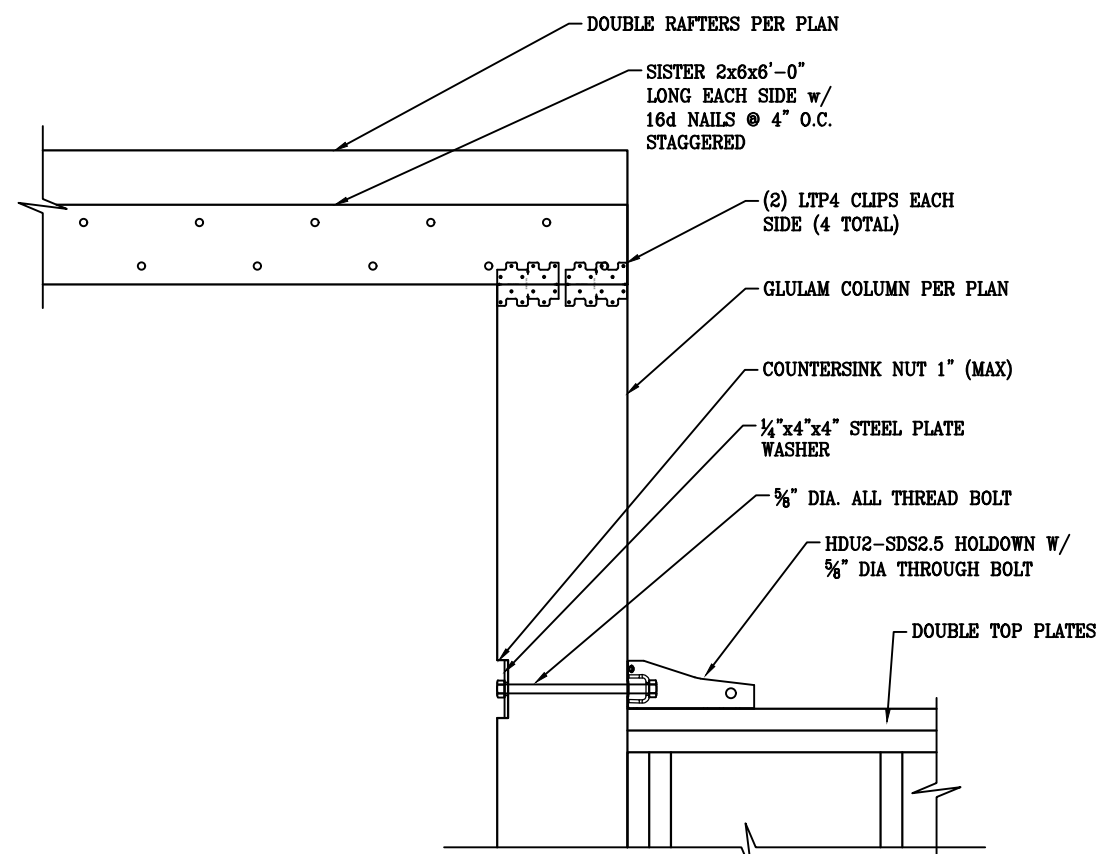
28 | ROOF TRUSSES TO WOOD BEAM



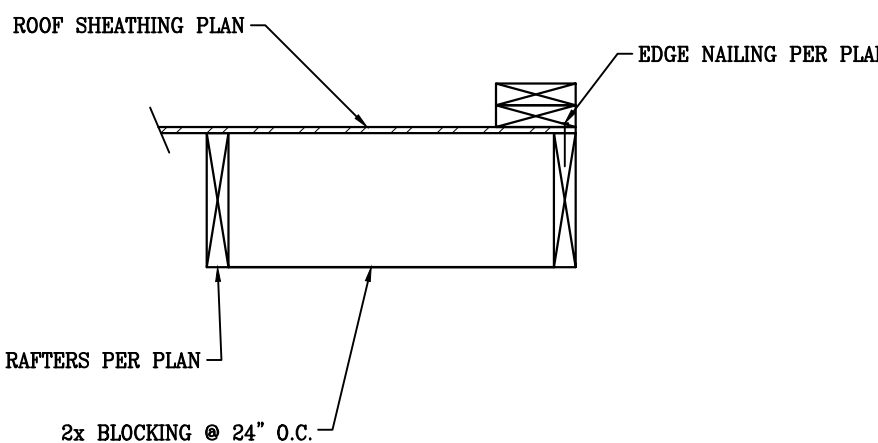
33 | RAFTERS PARALLEL TO STUD WALL



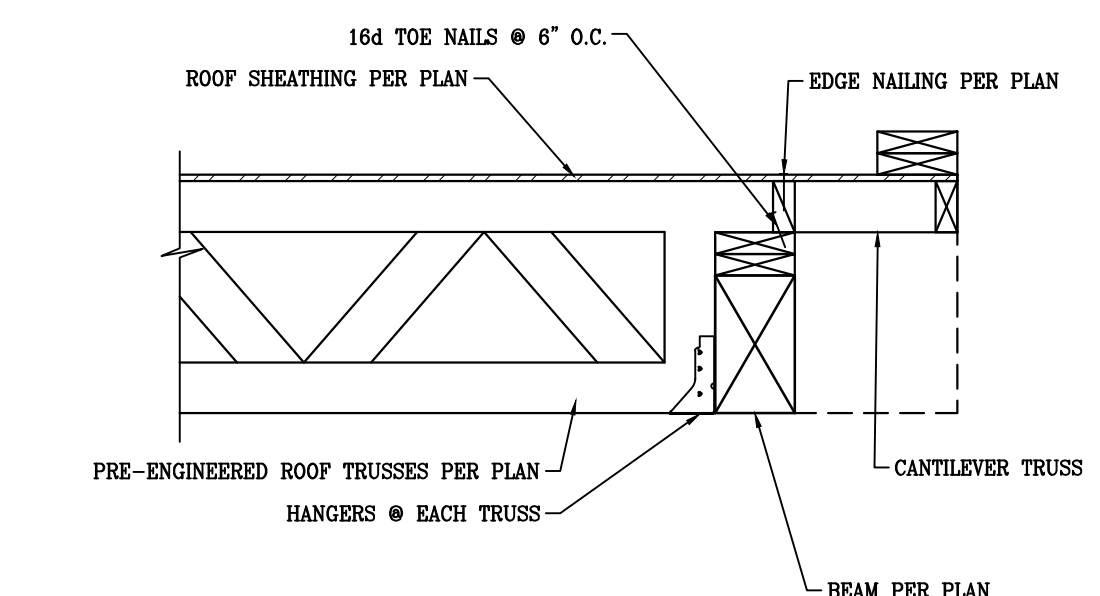
34 | WOOD HEADER OVER WSWH-PK



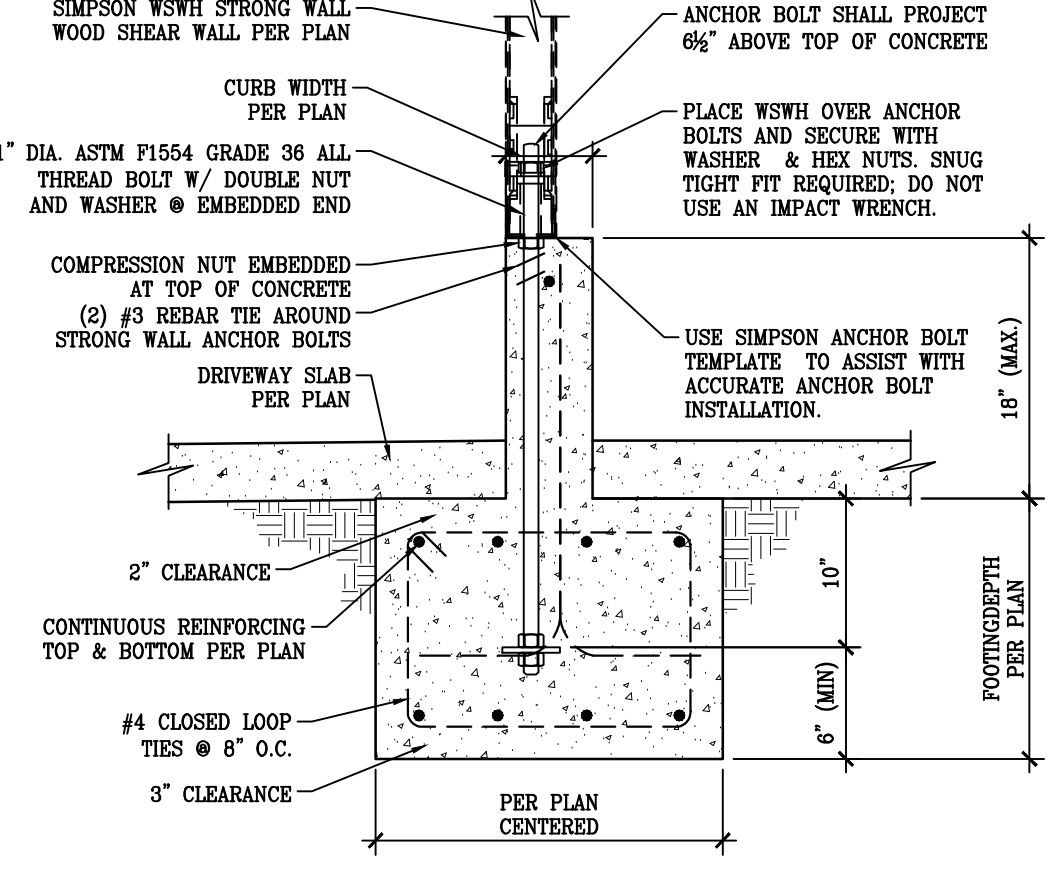
22 | SHEAR TRANSFER AT WOOD POST



27 | END ROOF RAFTERS

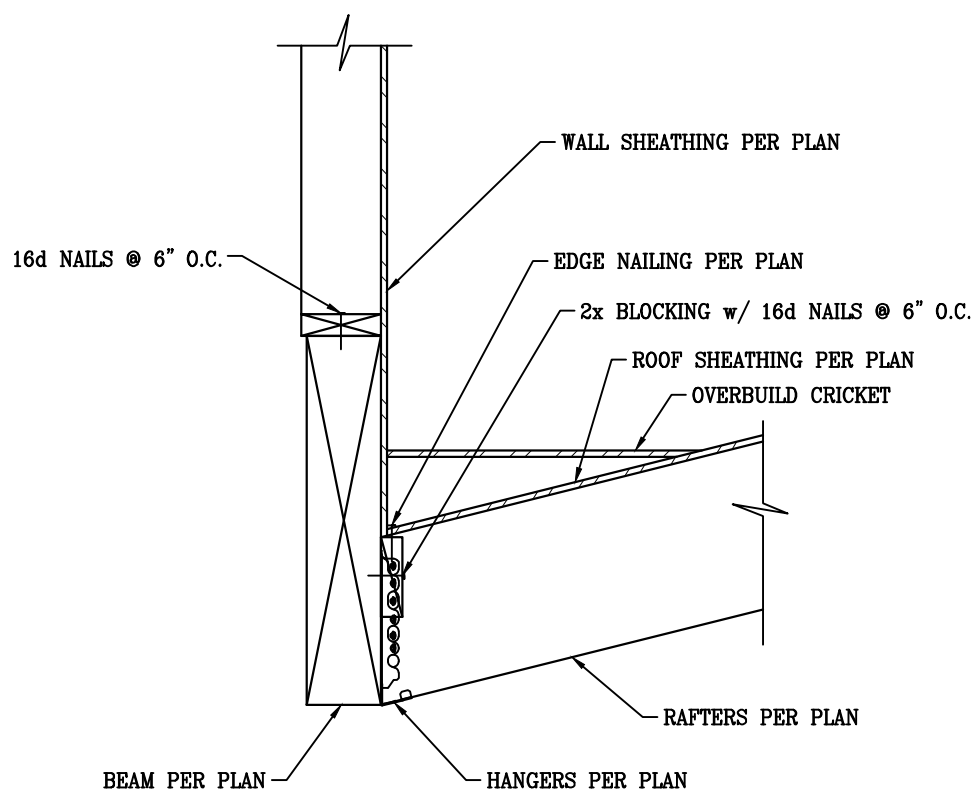


32 | RAFTERS AT SET-UP BEAM

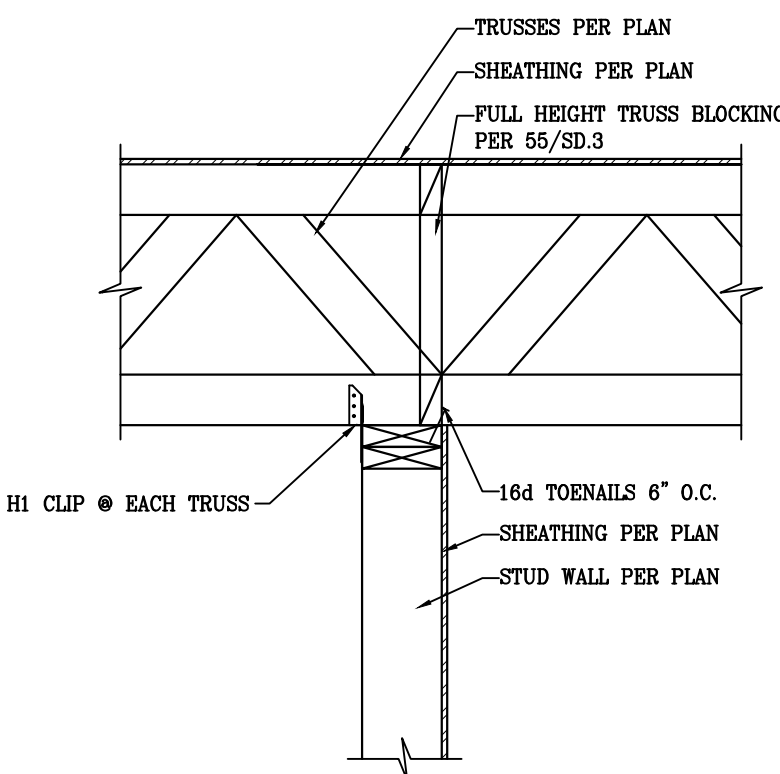


36 | WSWH TEMPLATE

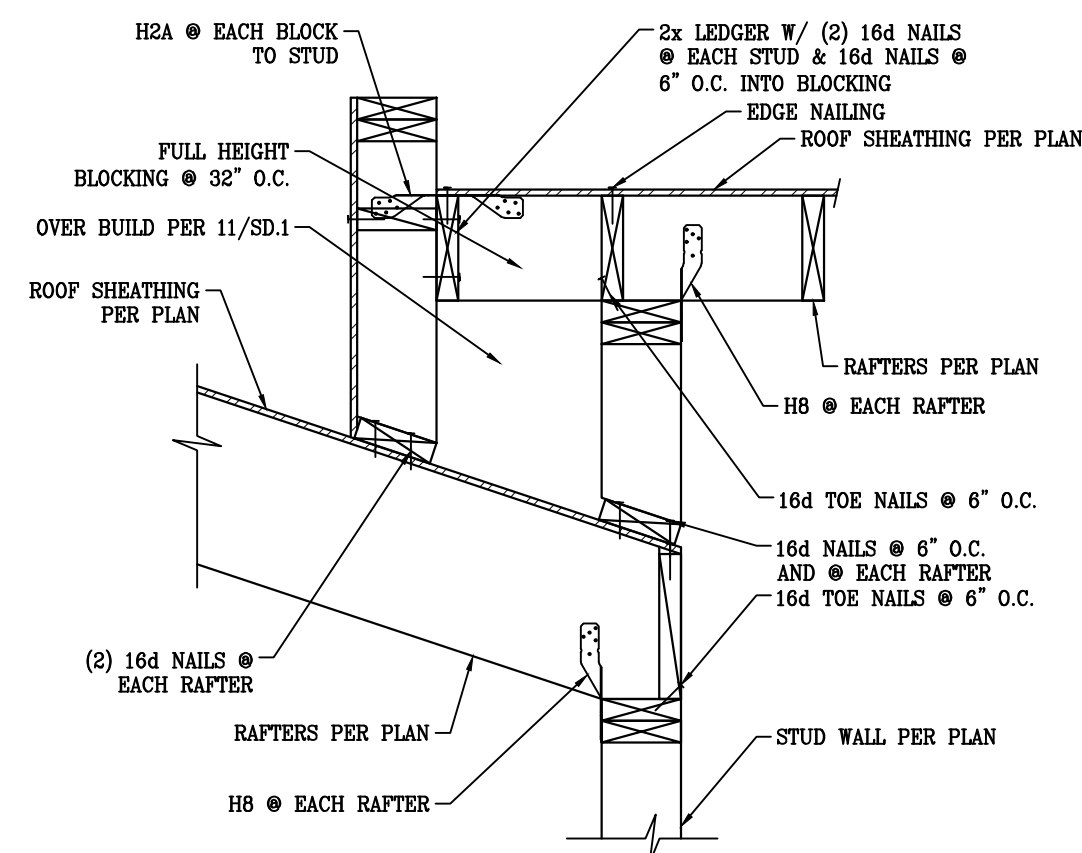
37 | WSWH AT CONCRETE CURB & FOOTING



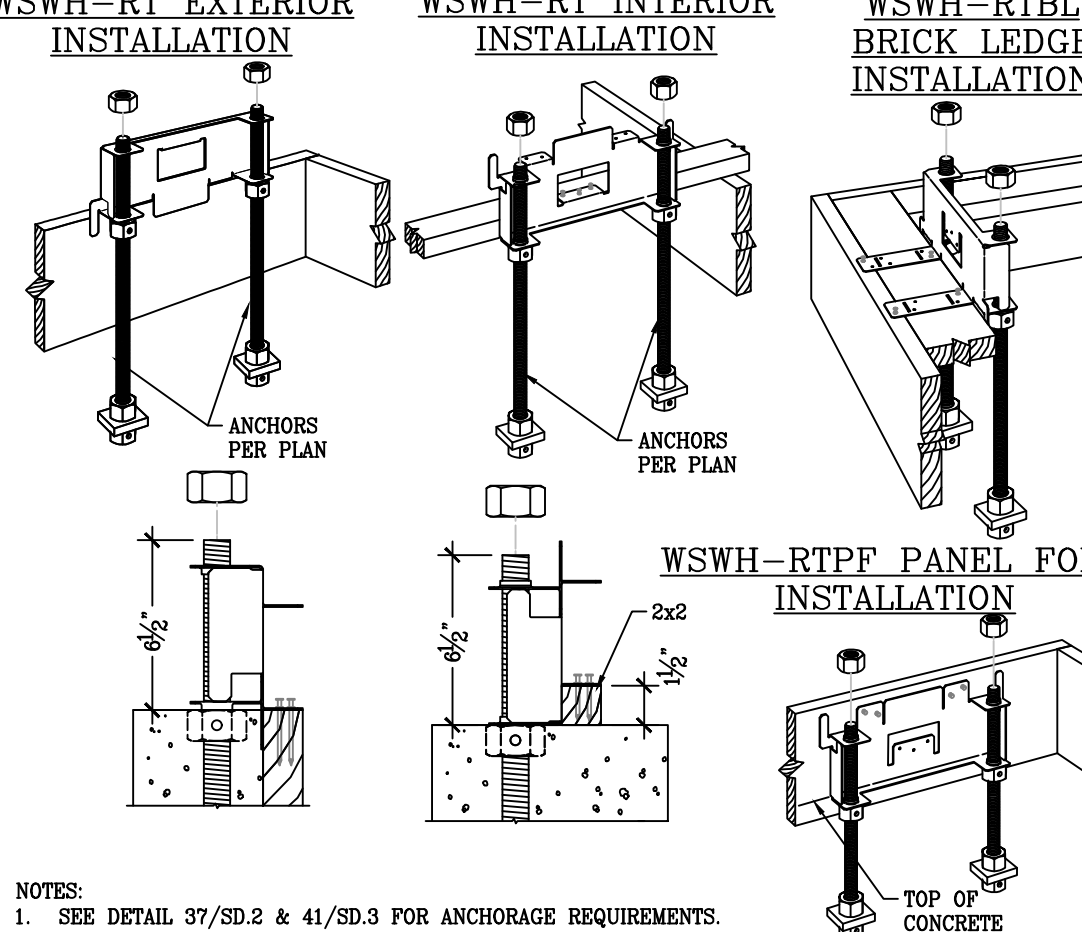
21 | RAFTERS TO SET-UP BEAM



26 | SHEAR TRANSFER AT INTERIOR WALL



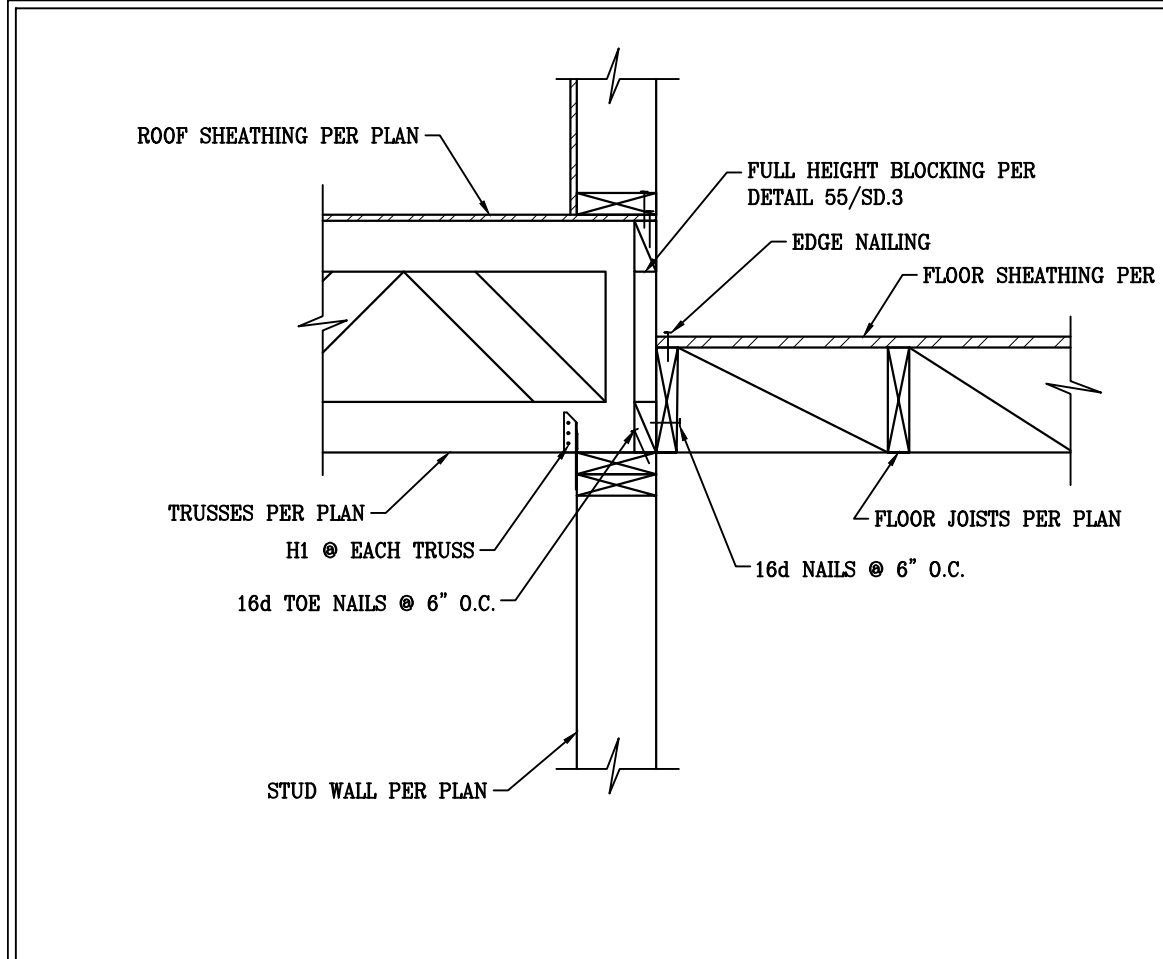
31 | RAFTERS TO STUD WALL



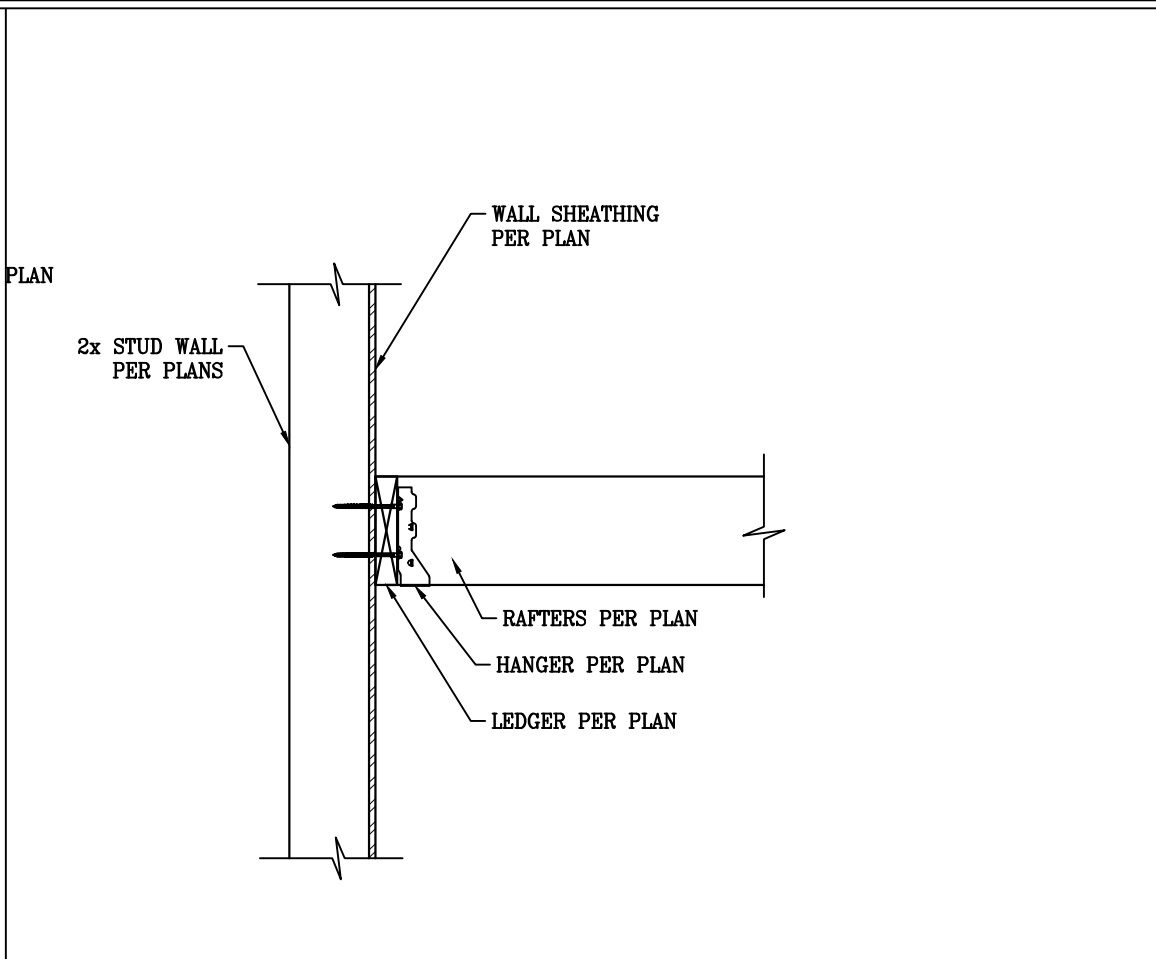
33 | RAFTERS PARALLEL TO STUD WALL

NOTES:
1. SEE DETAIL 37/SD.2 & 41/SD.3 FOR ANCHORAGE REQUIREMENTS.

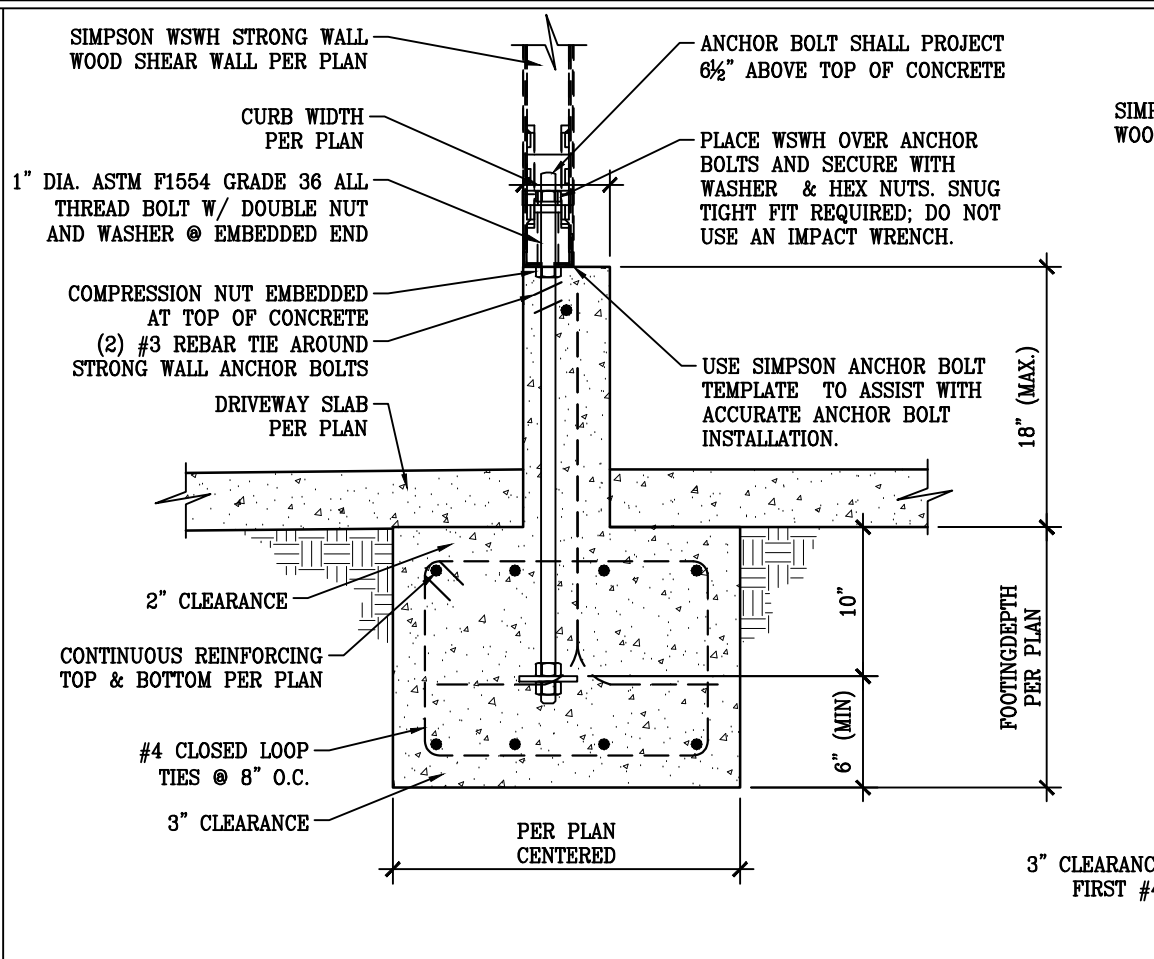
36 | WSWH TEMPLATE



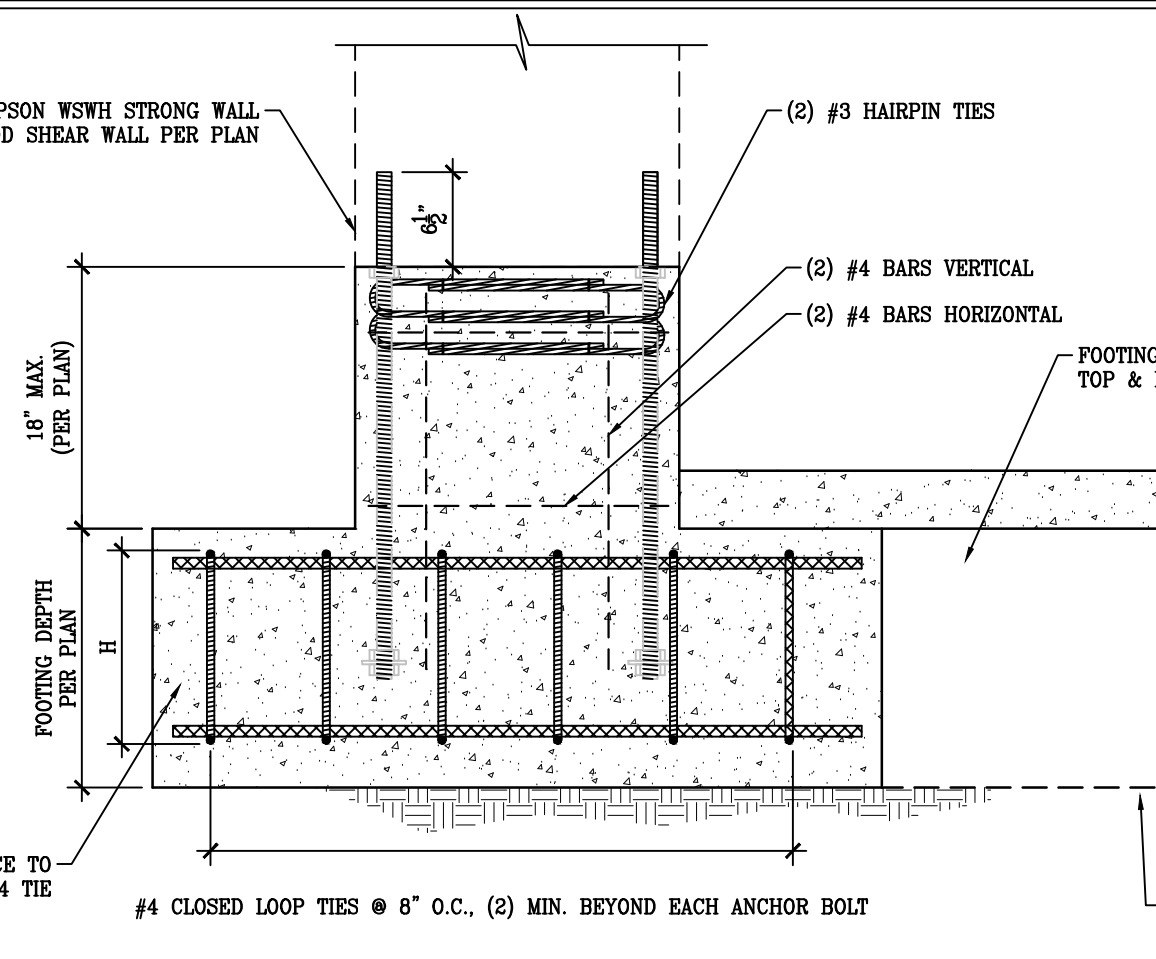
39 | ROOF TRUSSES PARALLEL TO FLOOR JOISTS



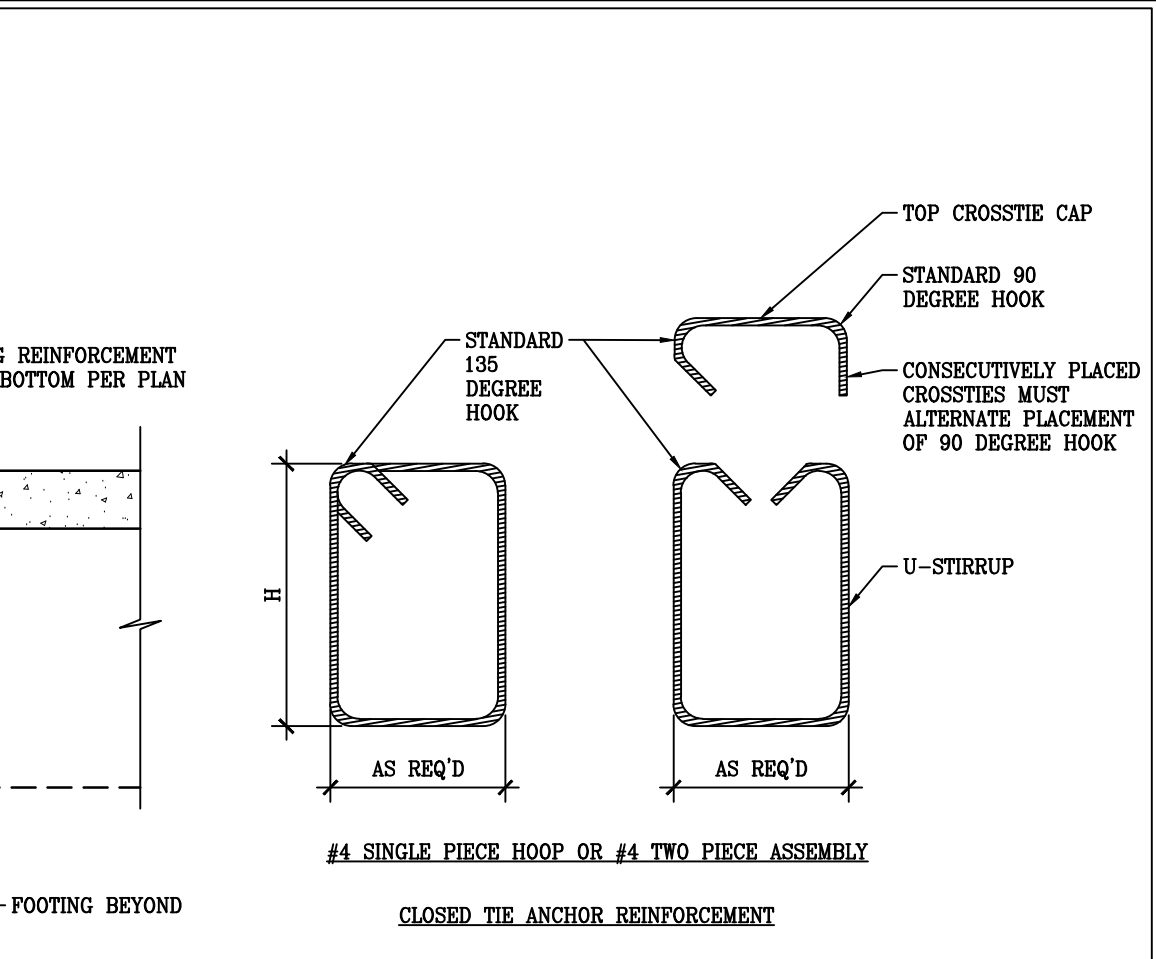
40 | RAFTERS TO LEDGER CONNECTION



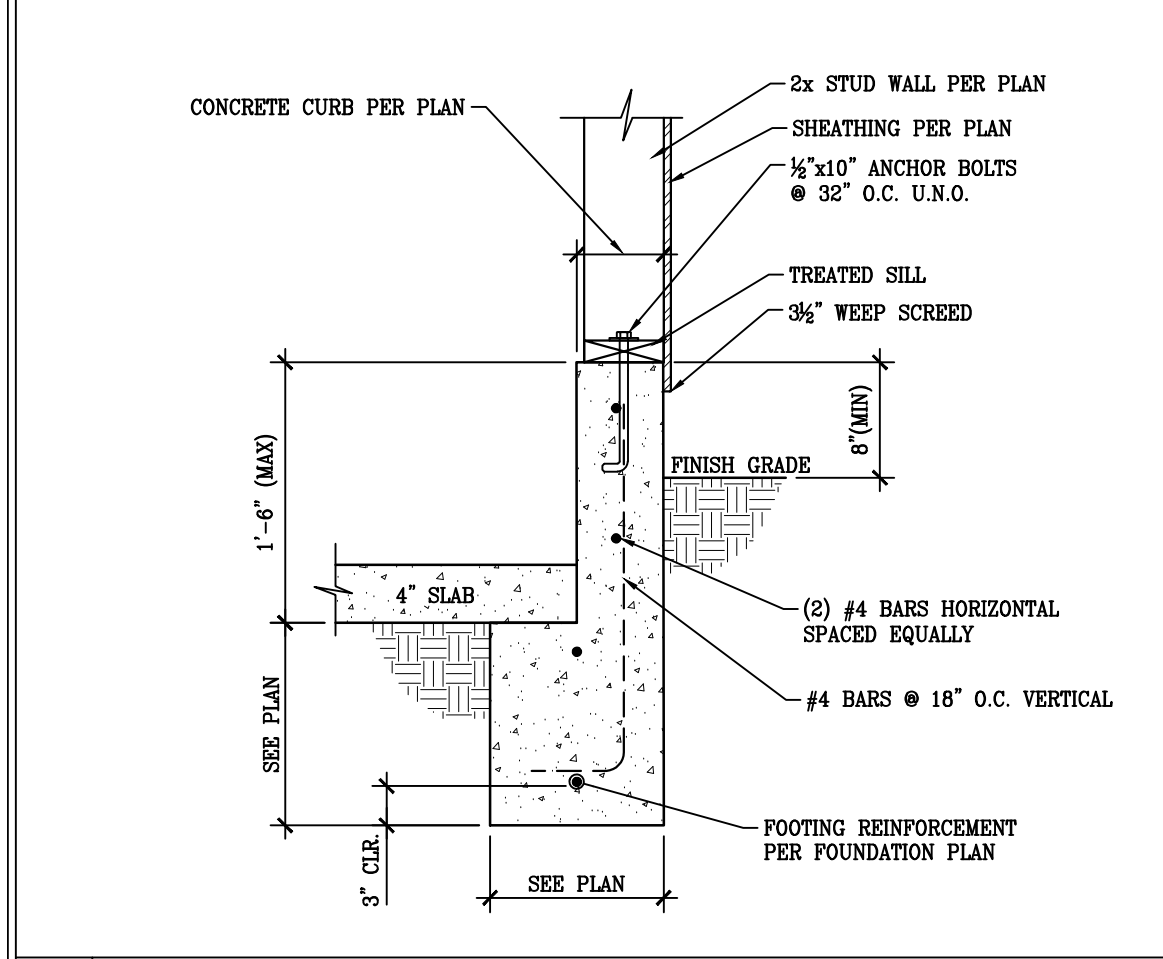
41 | WSWH AT CONCRETE CURB & FOOTING



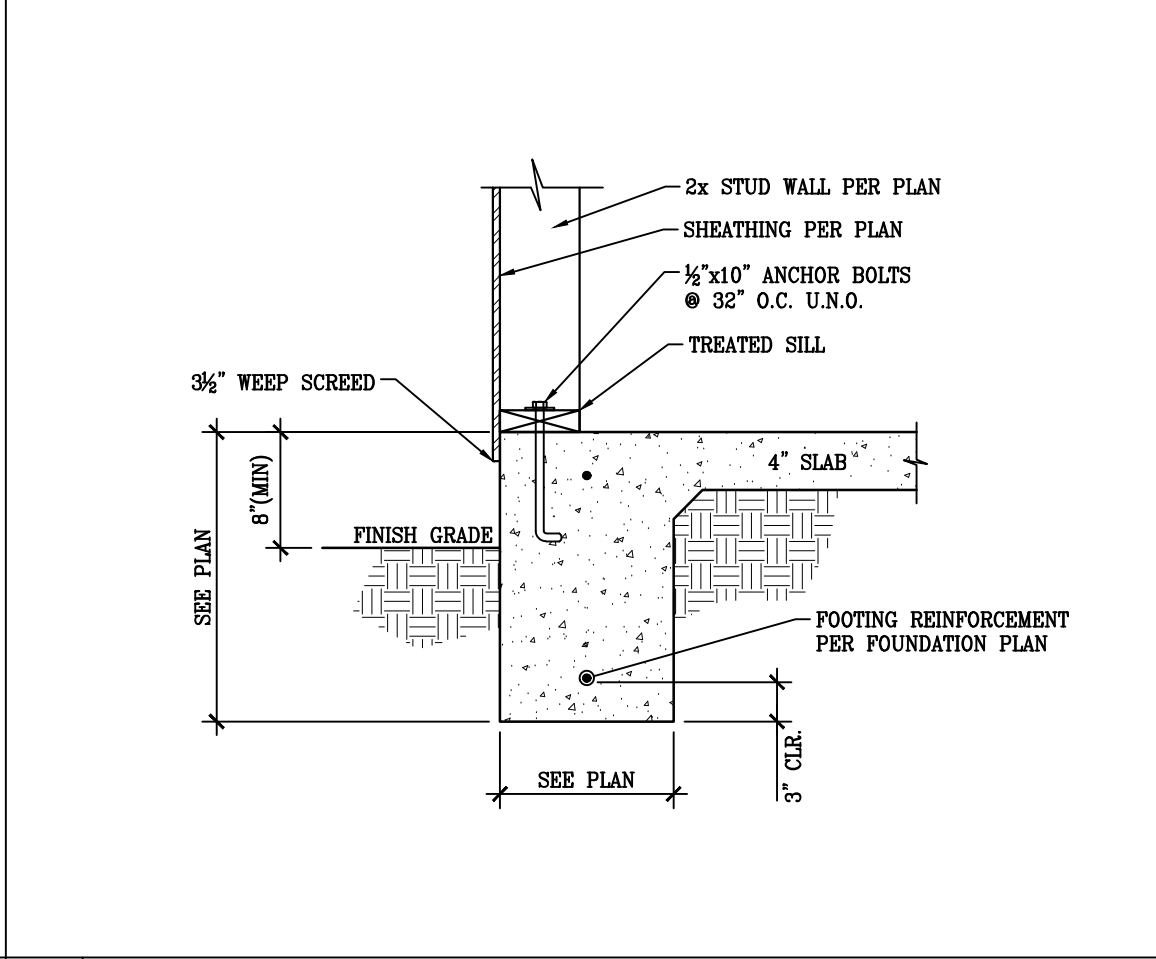
41 | WSWH AT CONCRETE CURB & FOOTING



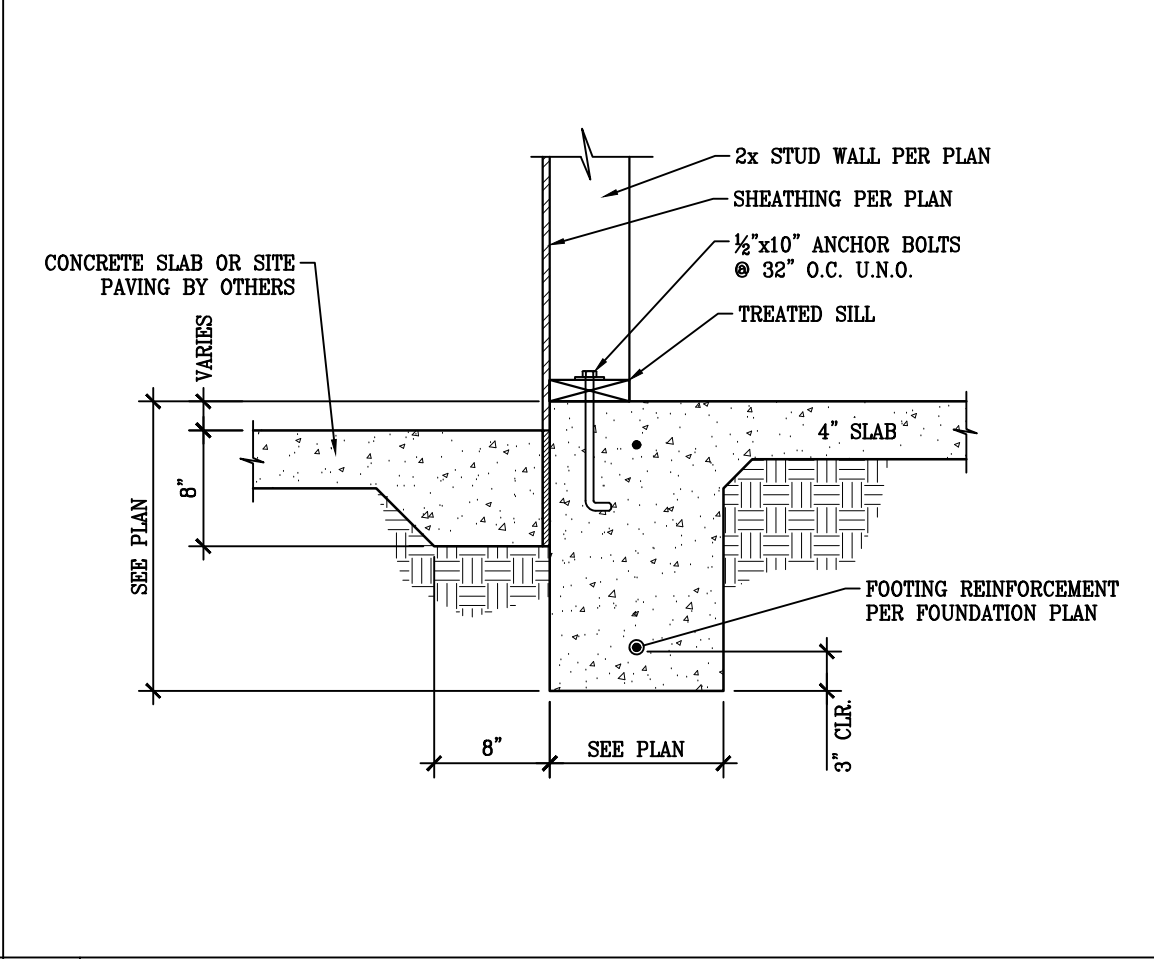
41 | WSWH AT CONCRETE CURB & FOOTING



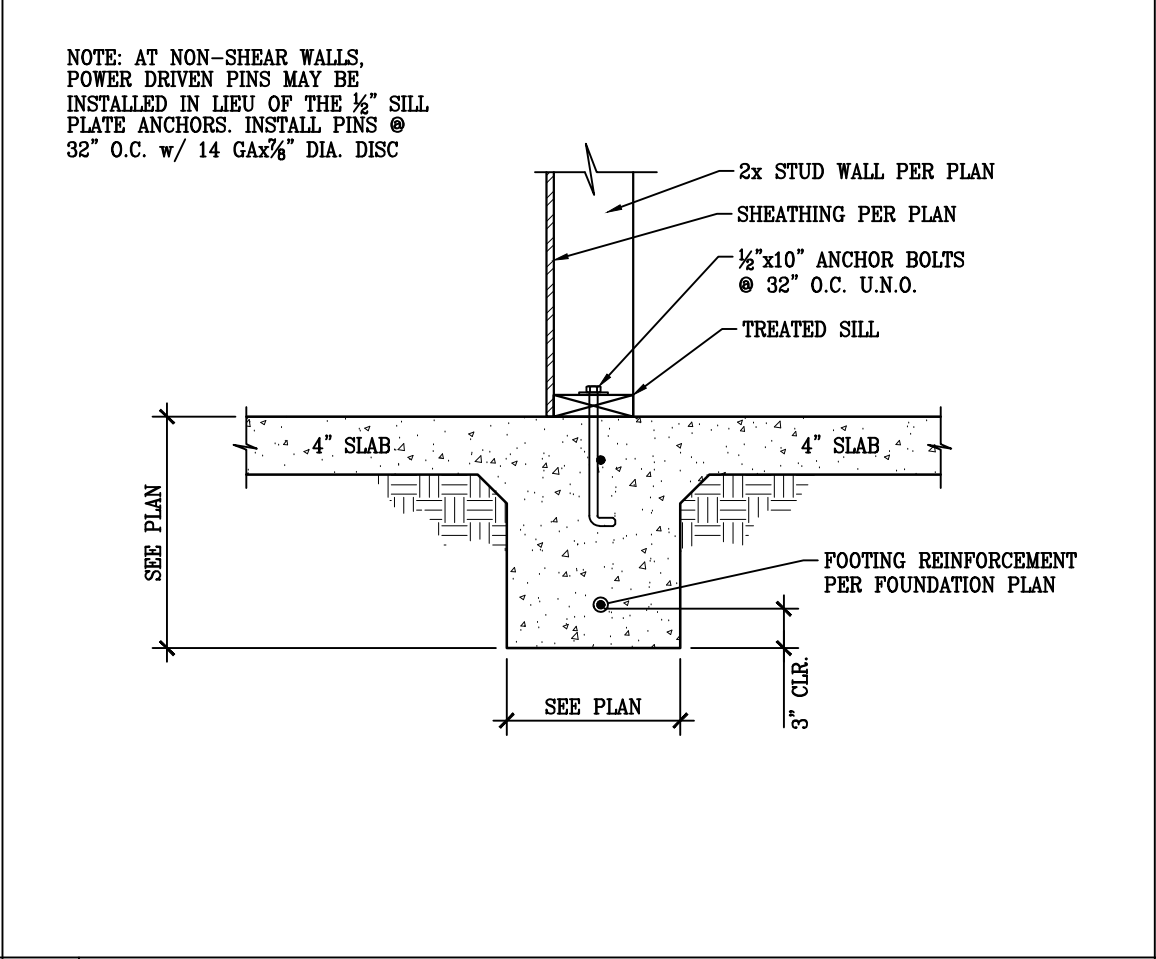
42 | 18" STEM WALL



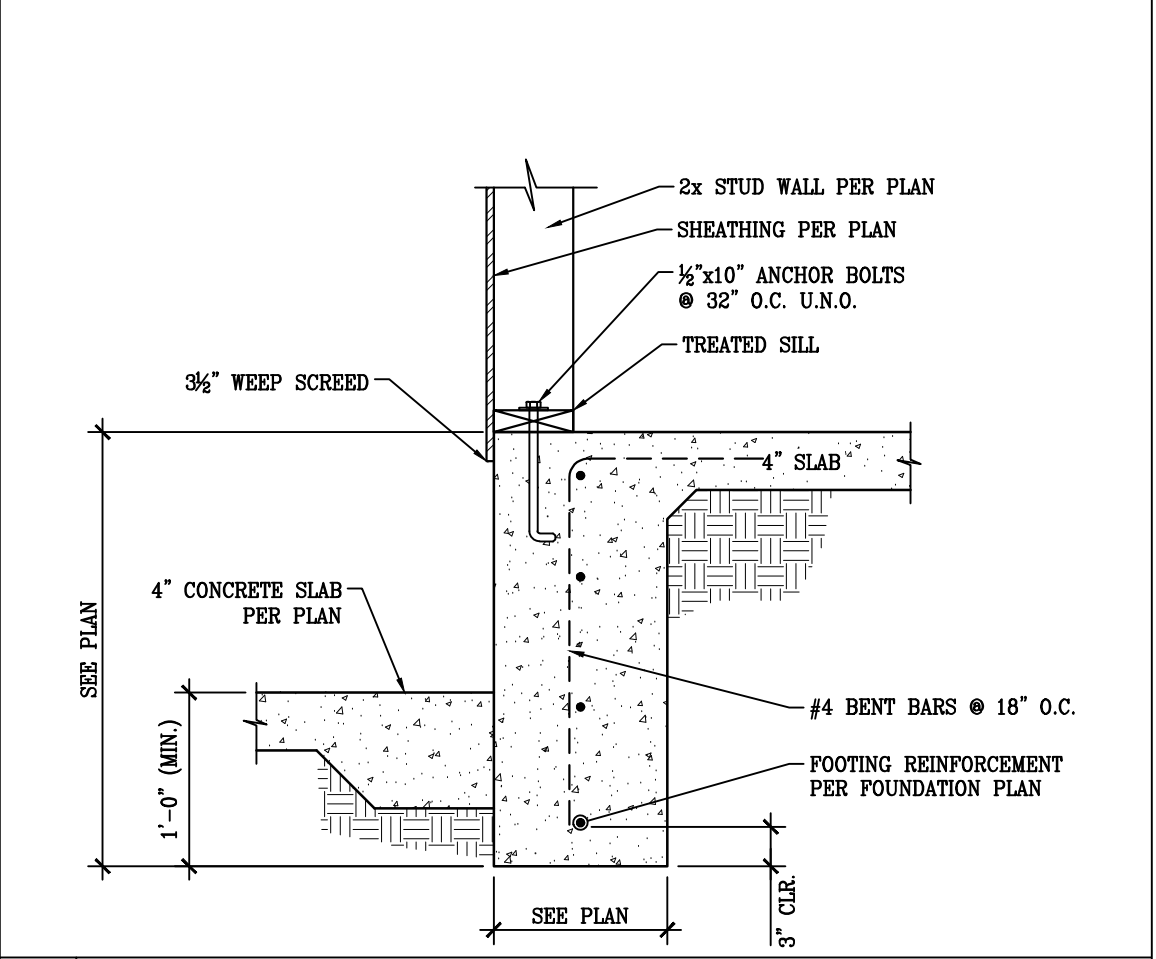
43 | CONT. CONCRETE FOOTING FOR EXT. STUD WALL



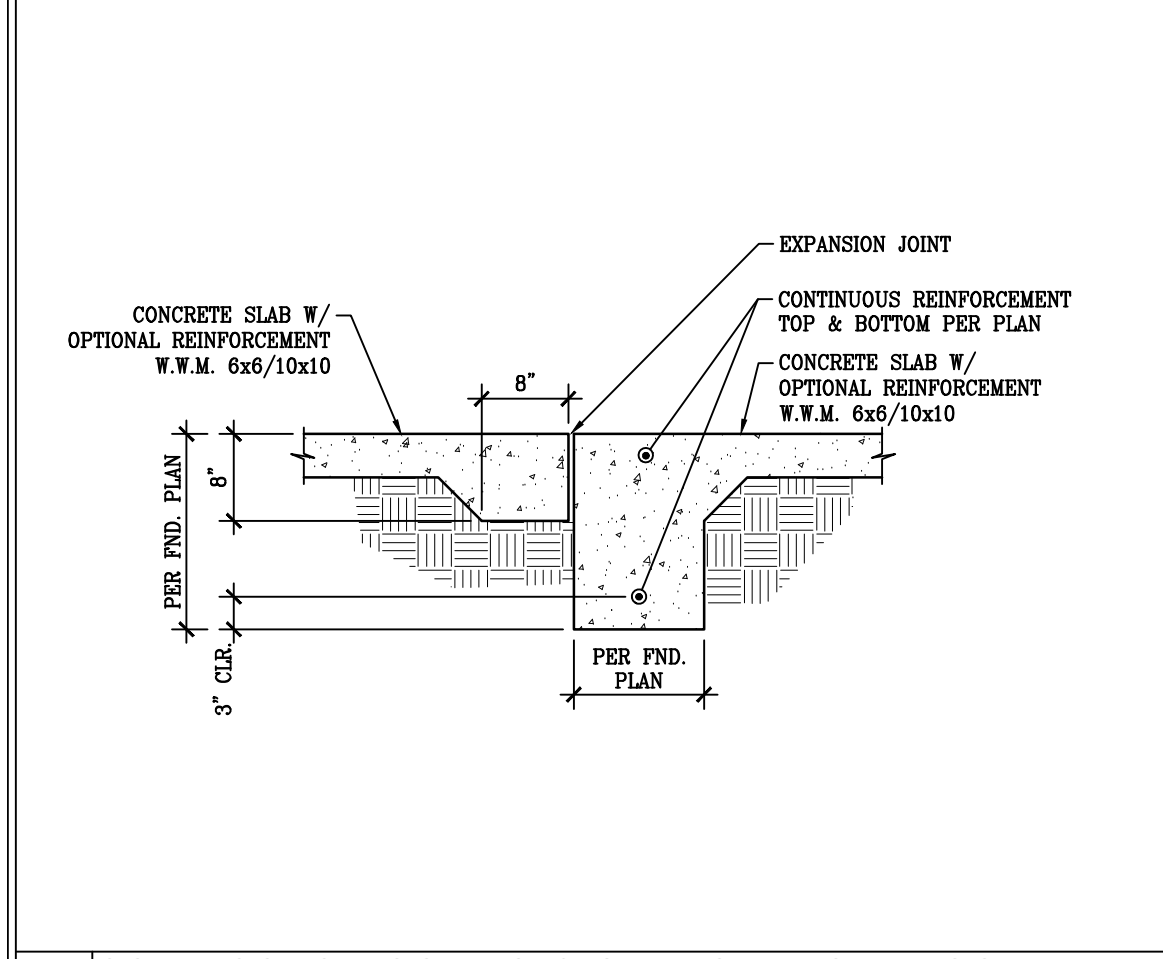
44 | CONT. CONCRETE FOOTING ADJACENT TO CONC. SLAB



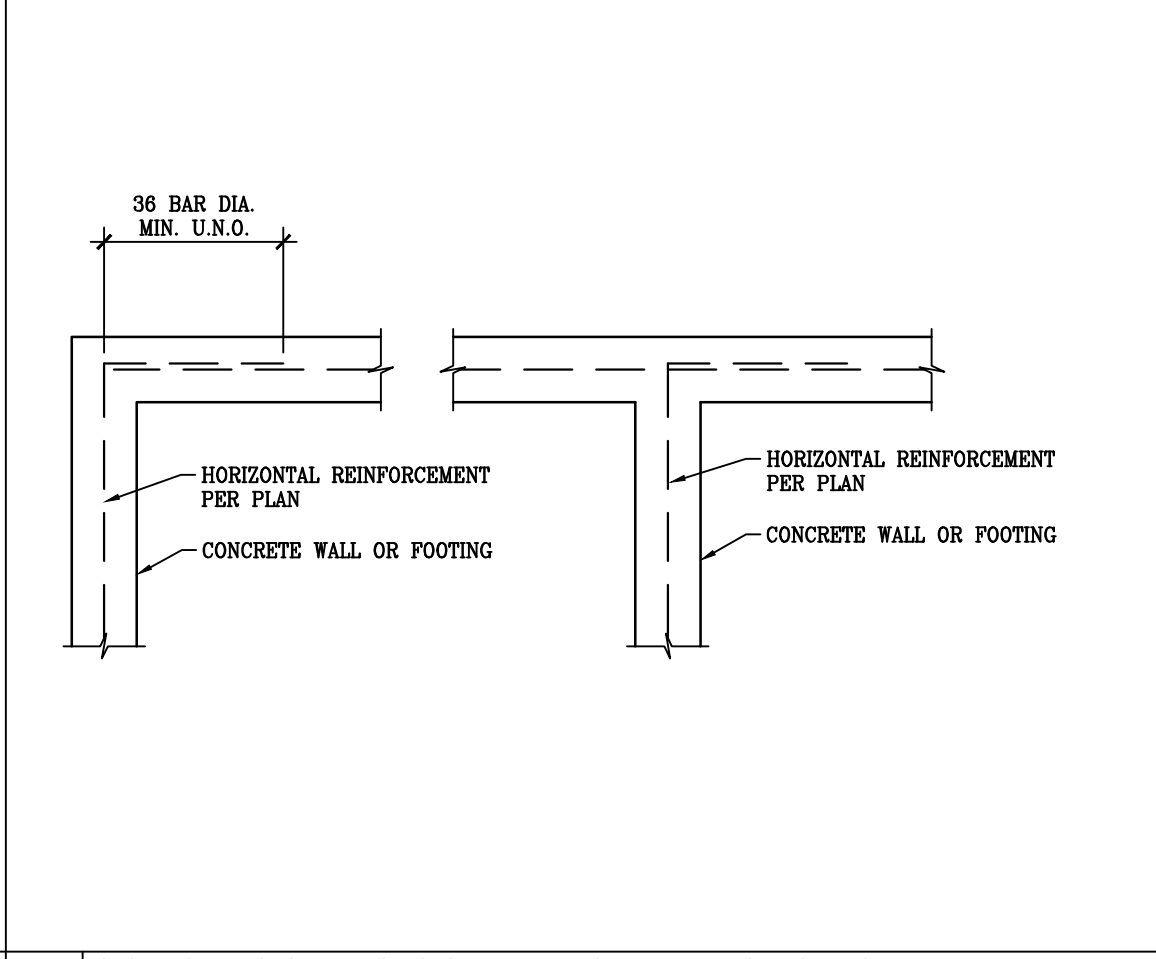
45 | CONT. CONC. FOOTING FOR INT. BEARING STUD WALL



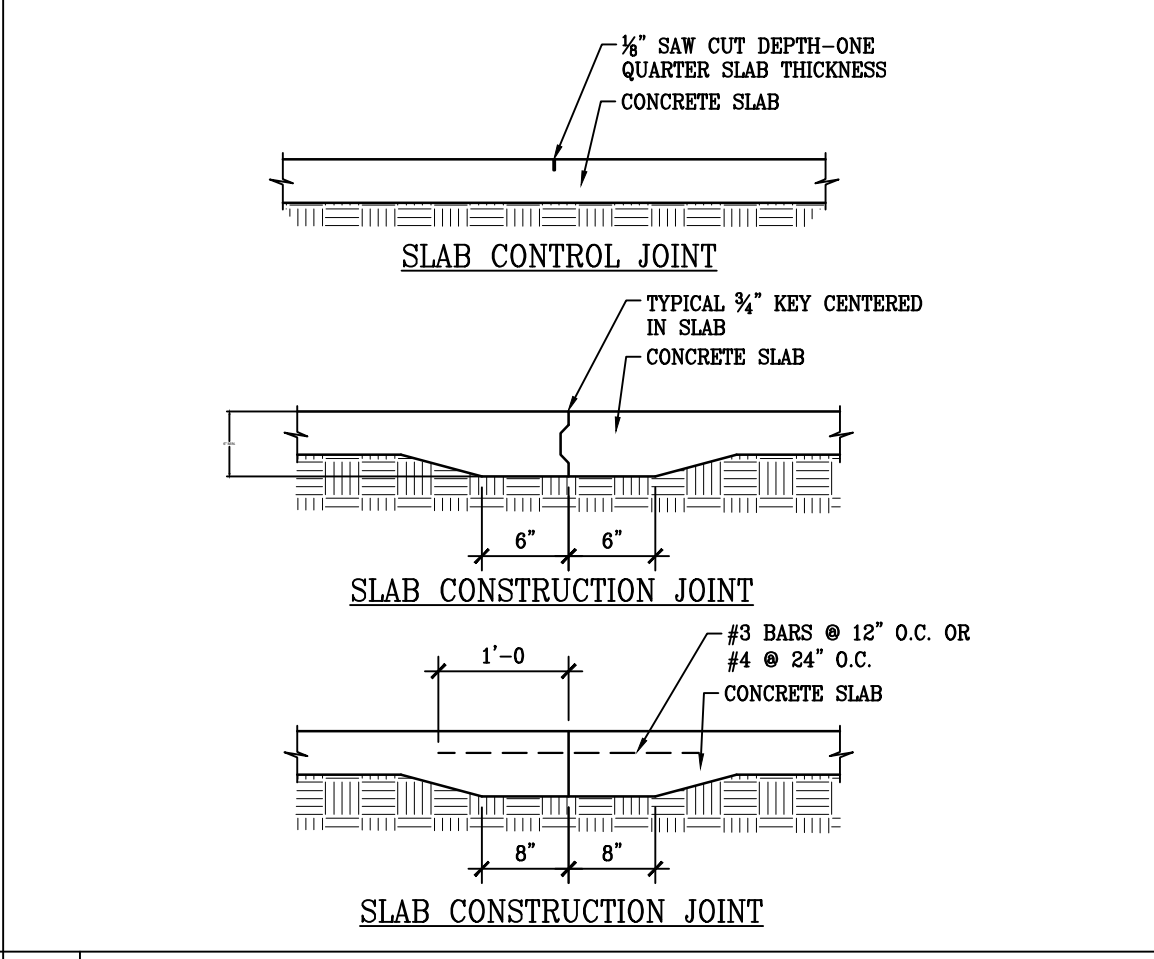
46 | CONT. CONCRETE FOOTING FOR EXT. STUD WALL



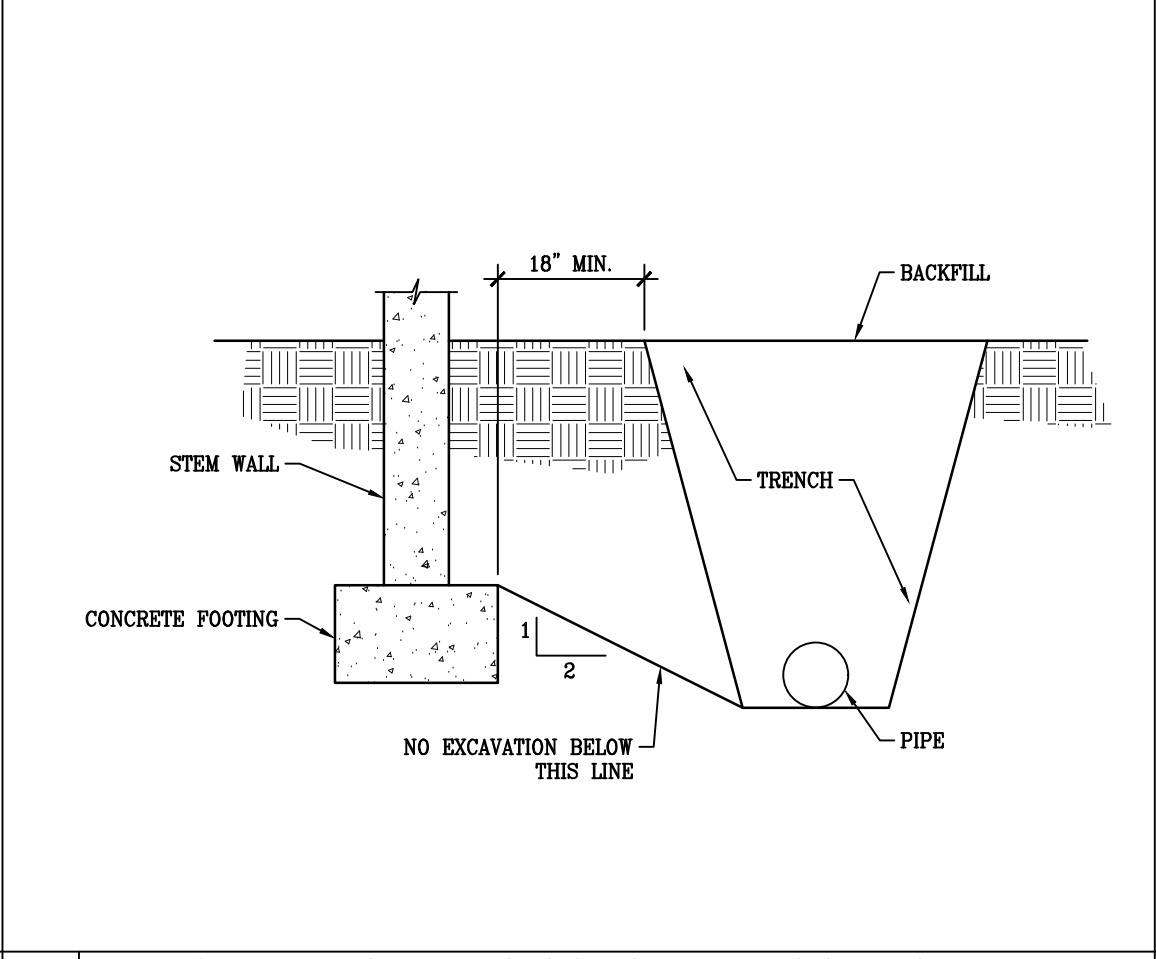
47 | CONT. CONC. FOOTING @ GARAGE FRONT DOOR



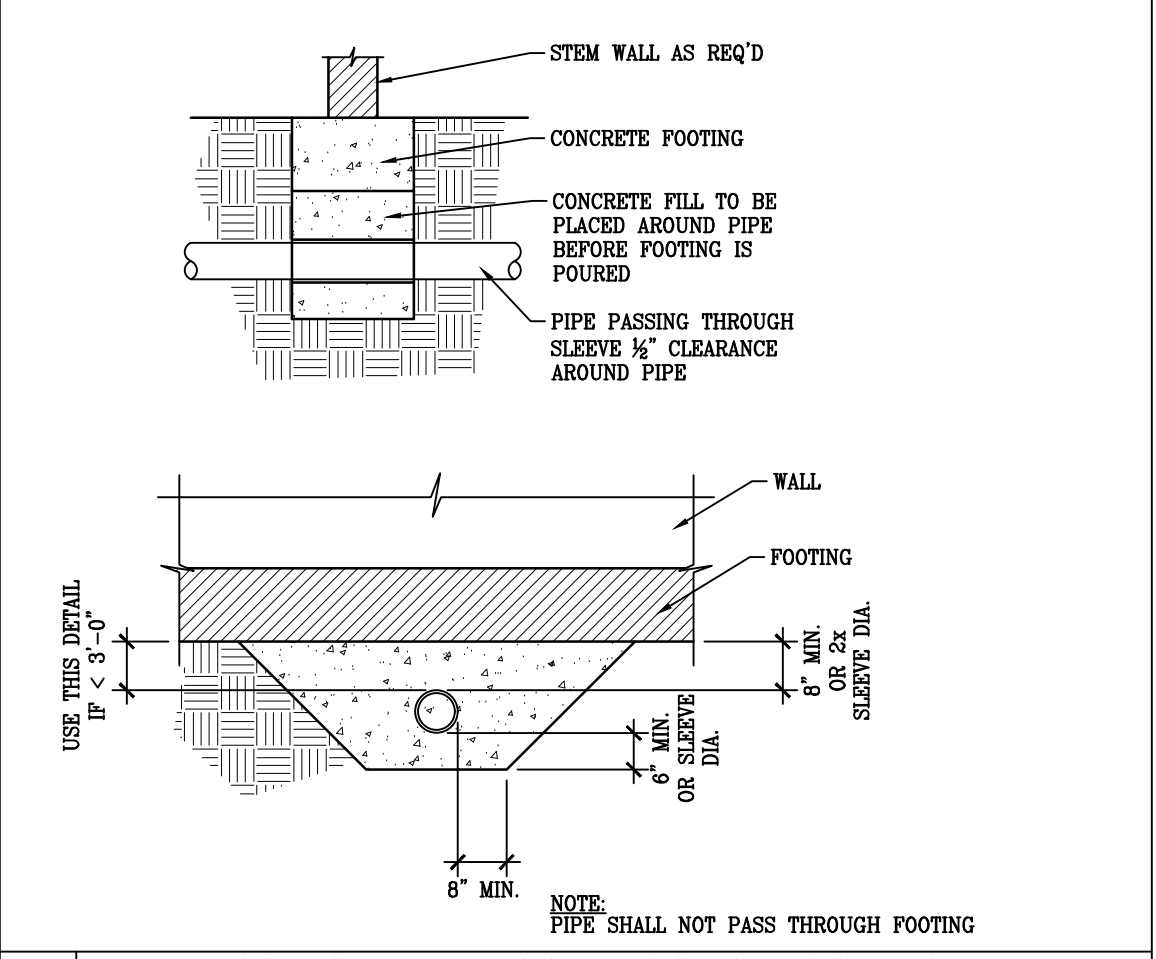
48 | CONC. FOOTING CORNER & INTERSECTION REINF.



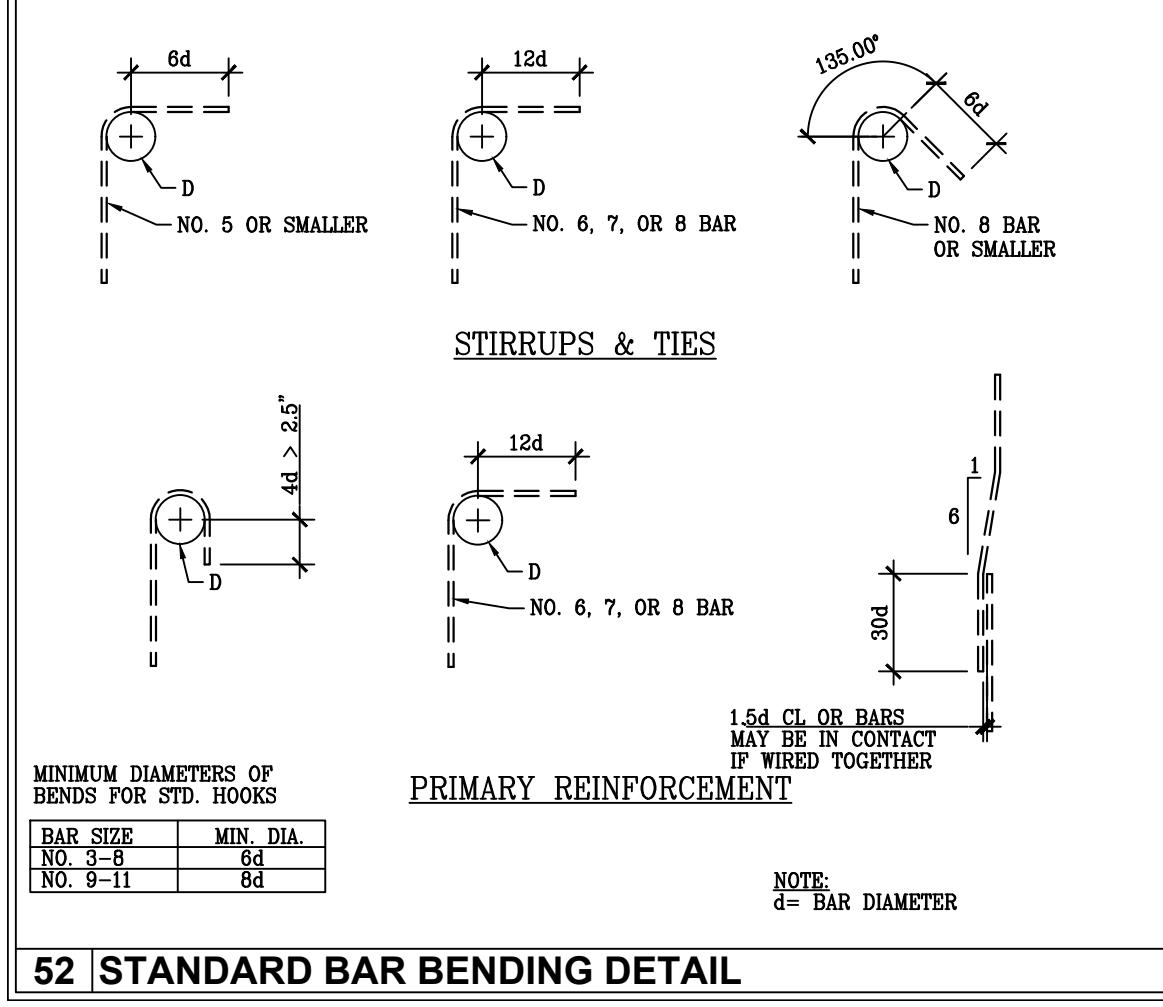
49 | CONCRETE SLAB CONTROL JOINTS TYPICAL



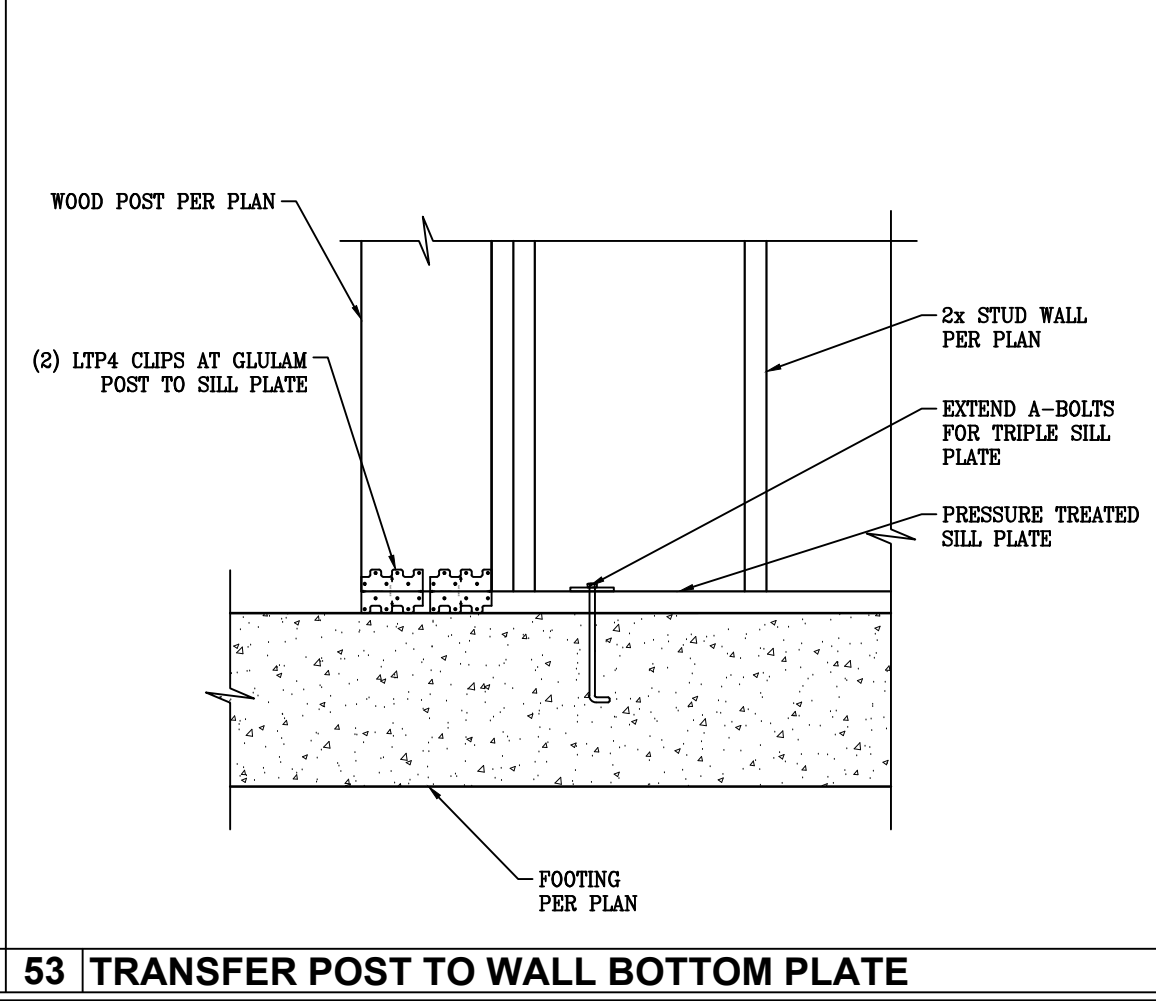
50 | TRENCH ADJACENT TO CONCRETE FOOTING



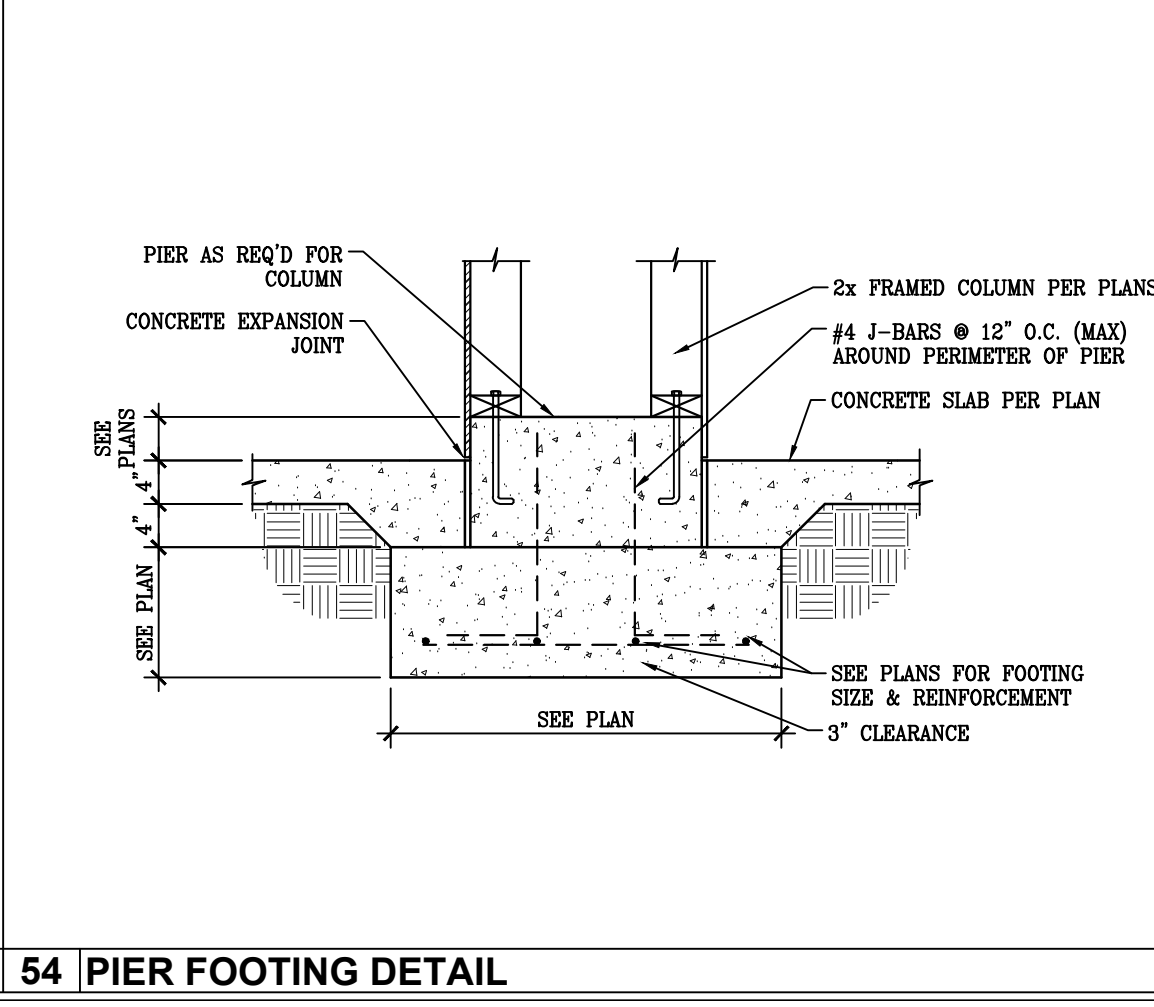
51 | PIPE PASSING UNDER CONT. CONC. FOOTING TYP.



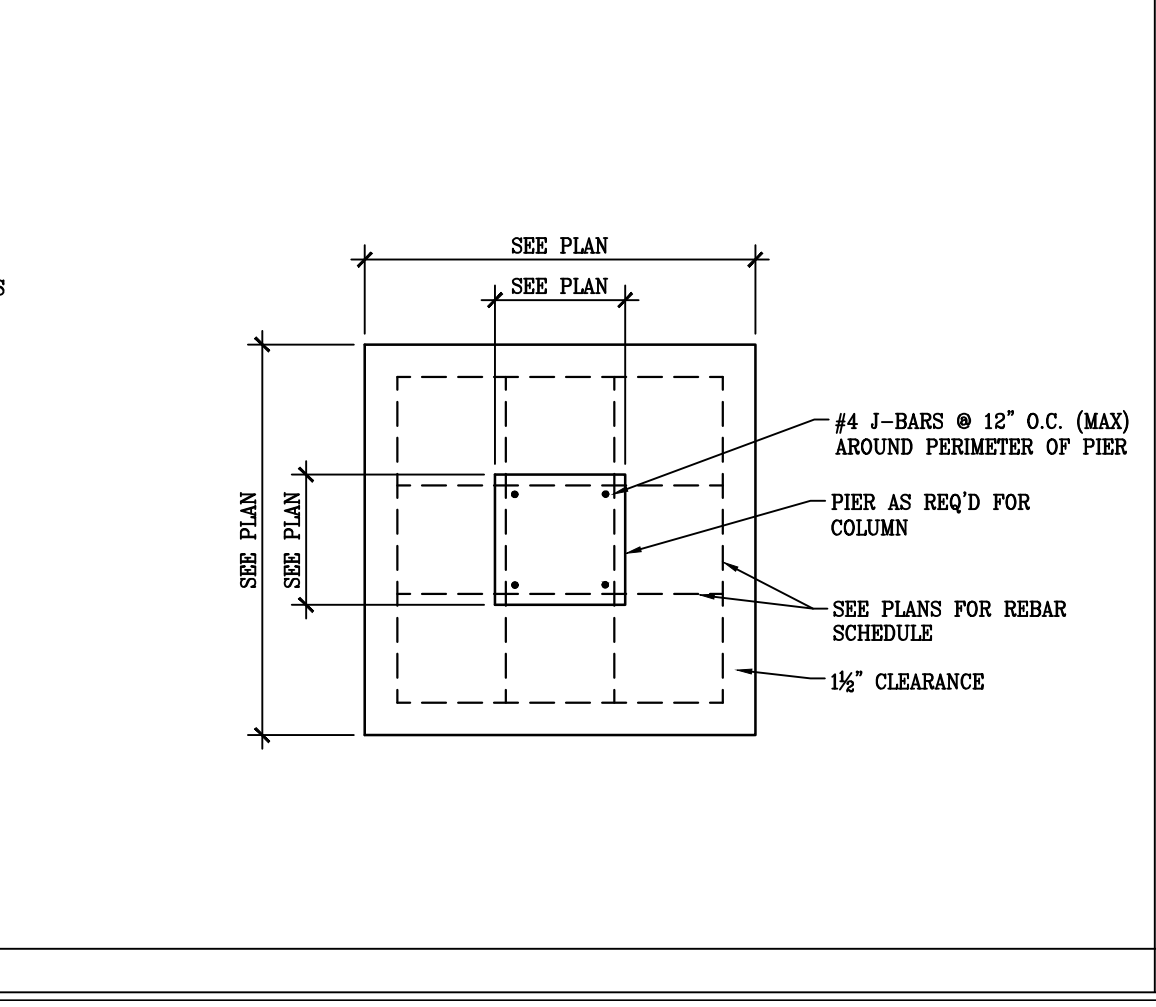
52 | STANDARD BAR BENDING DETAIL



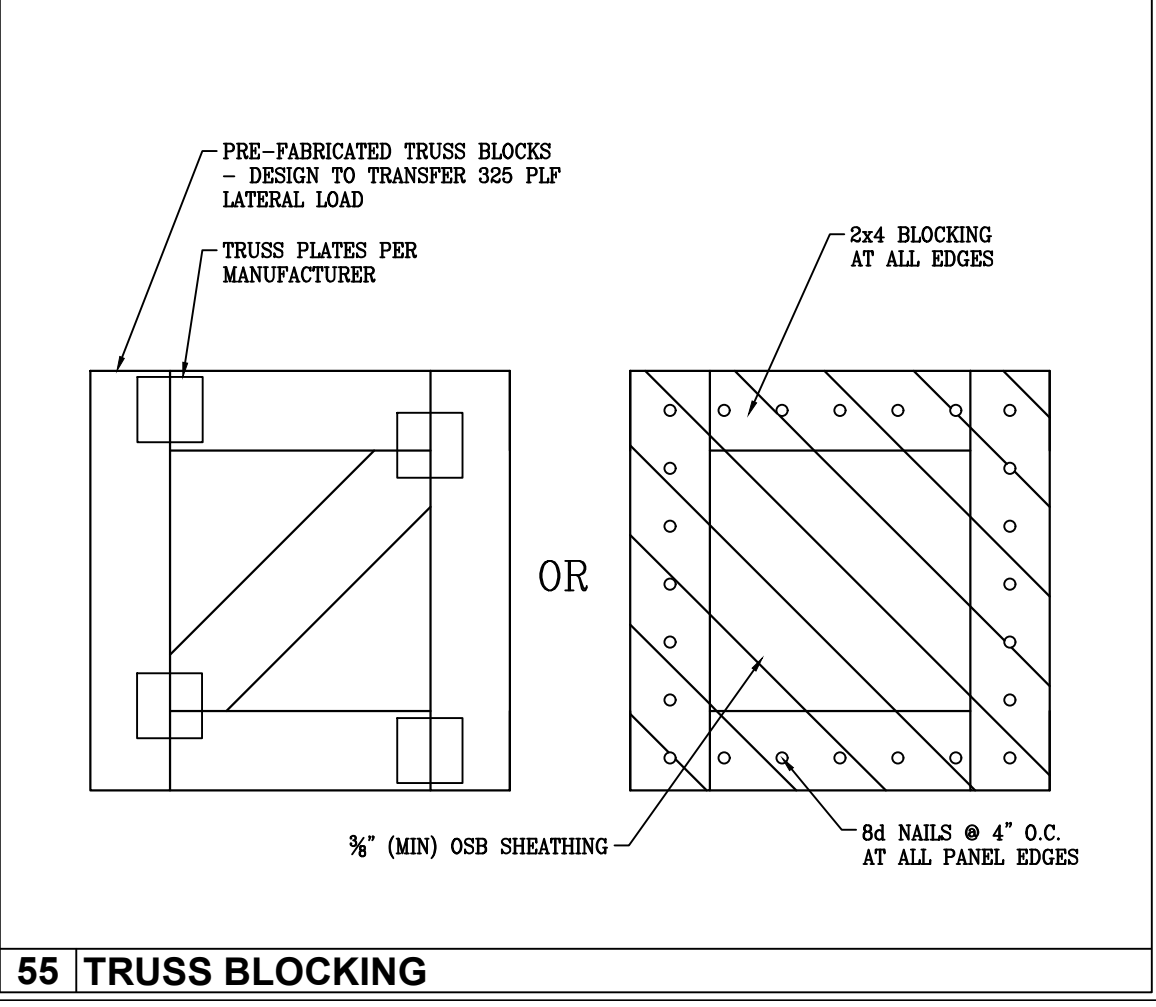
53 | TRANSFER POST TO WALL BOTTOM PLATE



54 | PIER FOOTING DETAIL



54 | PIER FOOTING DETAIL



55 | TRUSS BLOCKING

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www.lei-eng.com

Professional Engineer
06853
ERIC B. MURRAY
Signed: 02/10/2023
STATE OF UTAH

STRUCTURAL ELEMENTS ONLY

2426 RIVIERA RIDGE COURT WEST
LAKE HAVASU CITY, ARIZONA
STRUCTURAL DETAILS

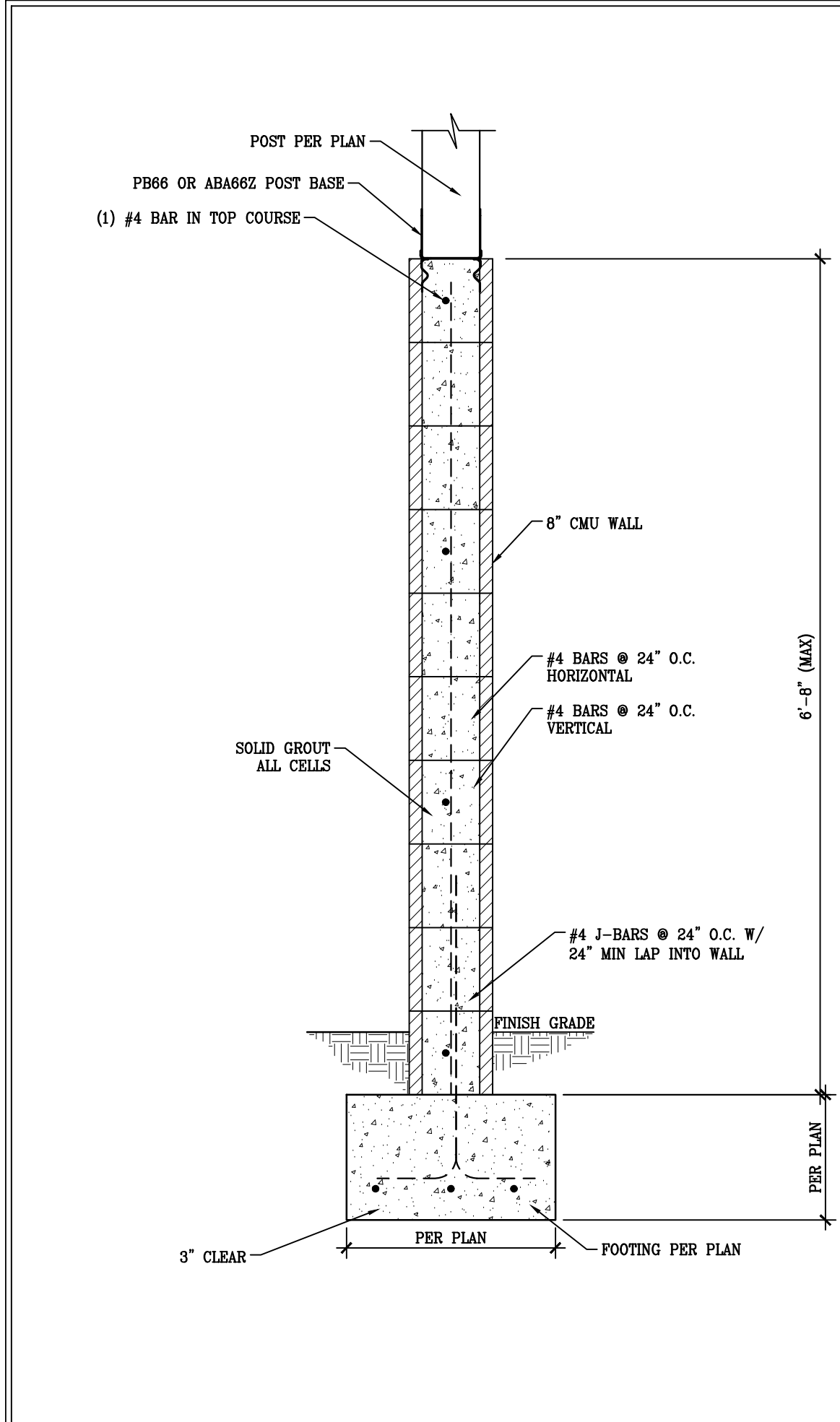
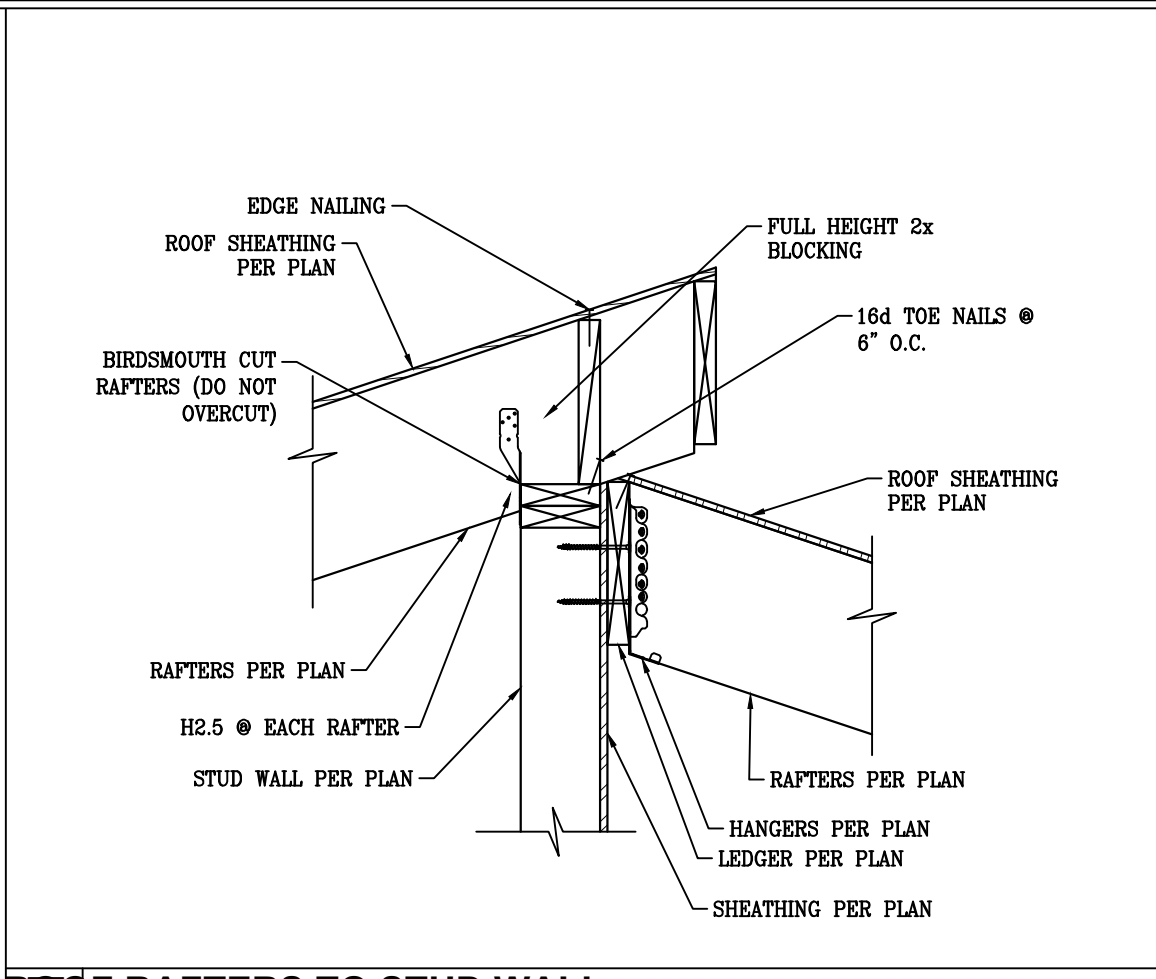
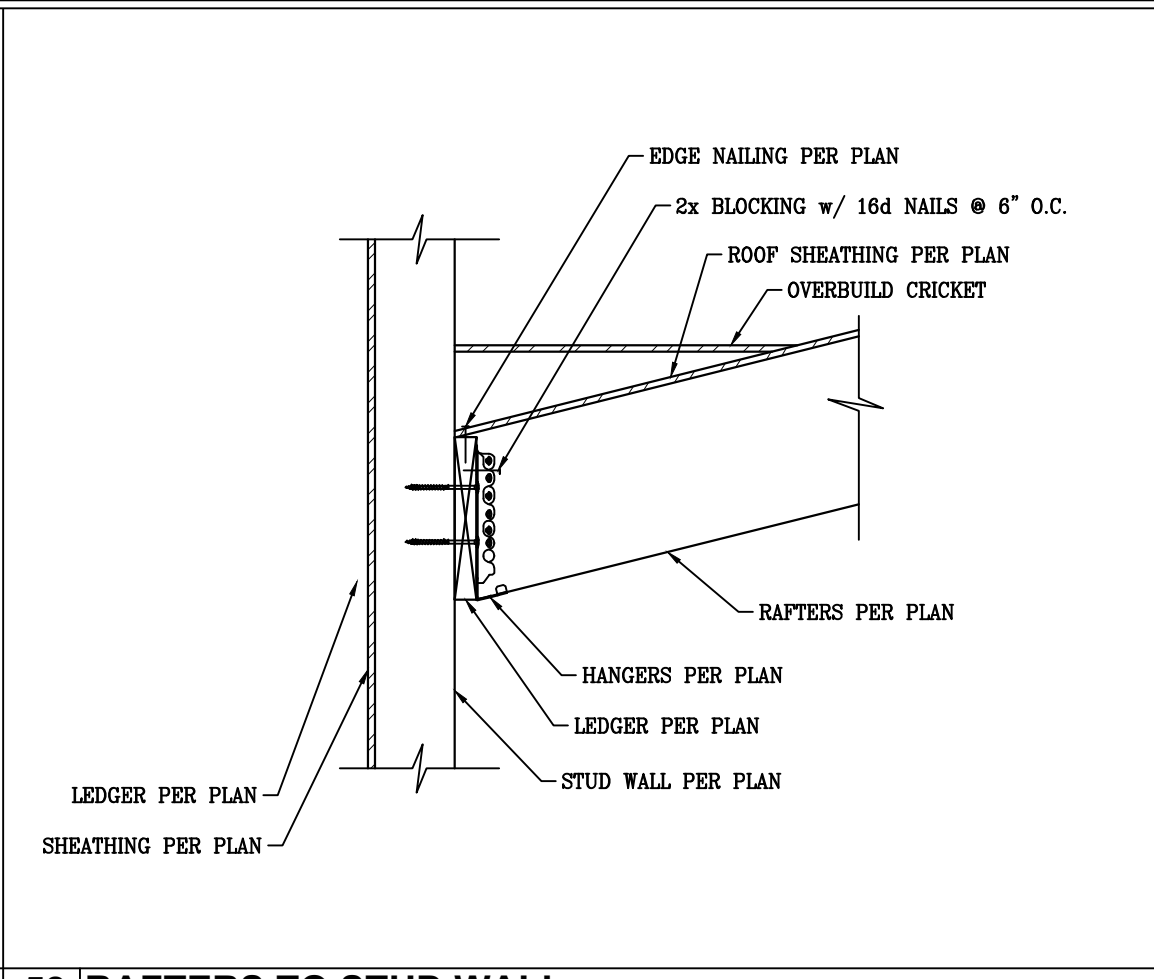
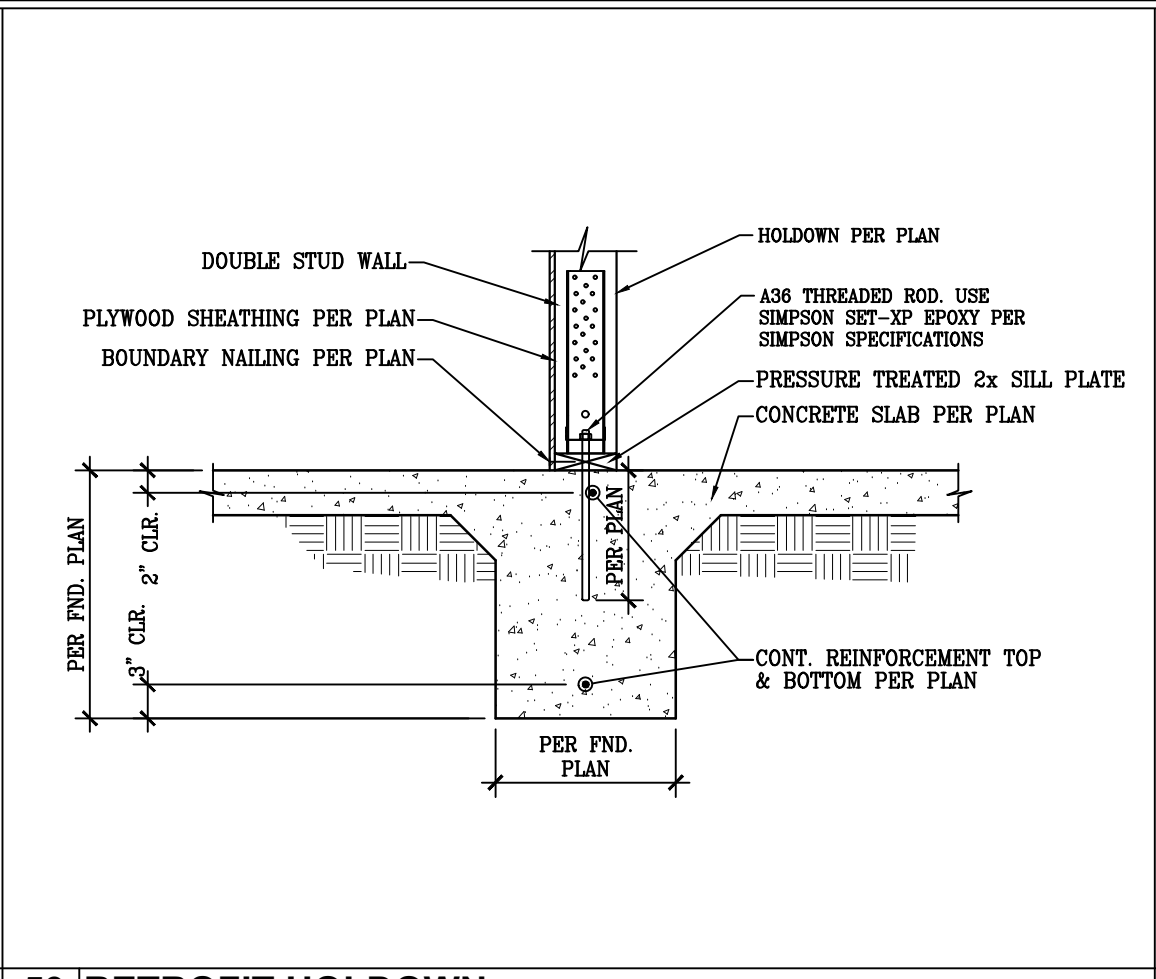
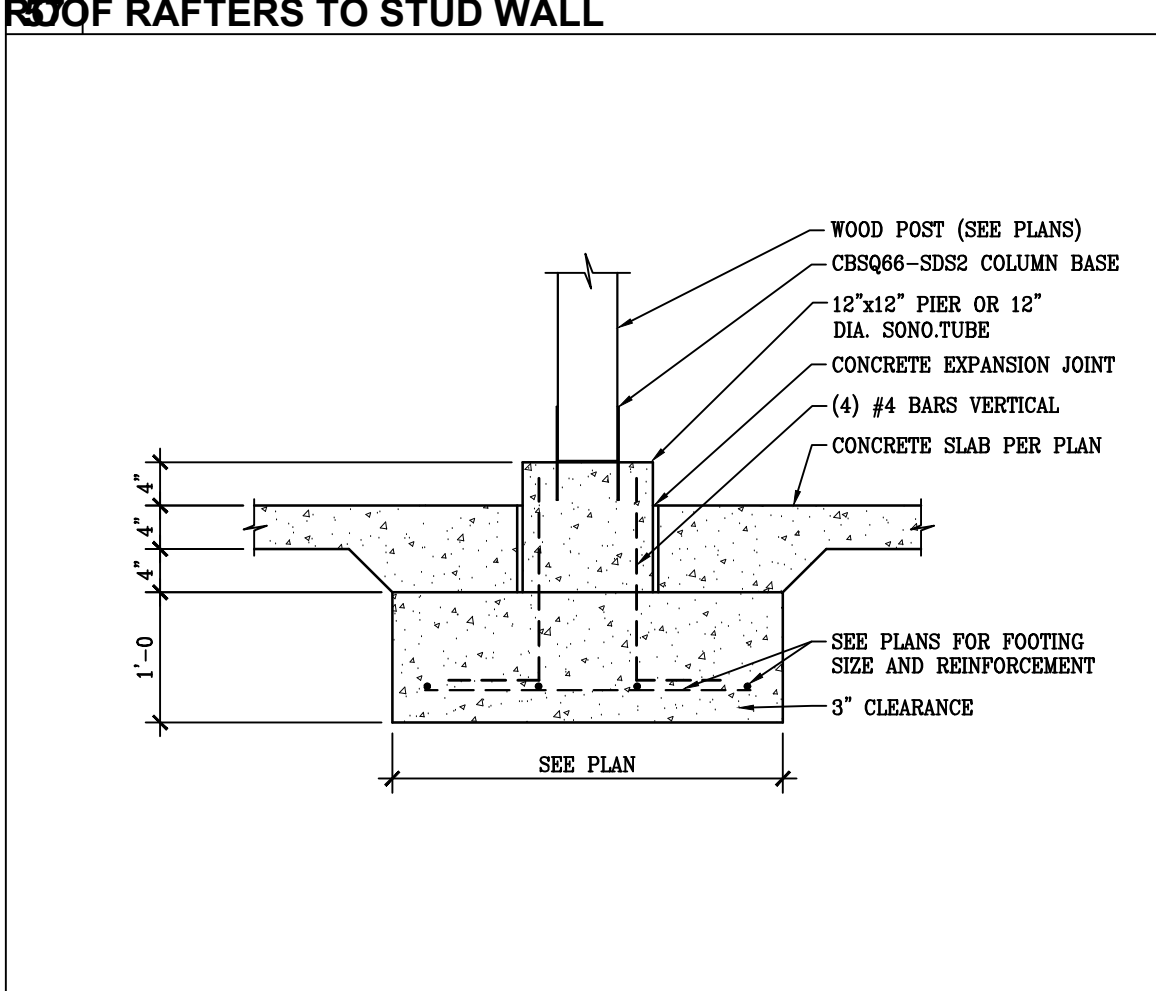
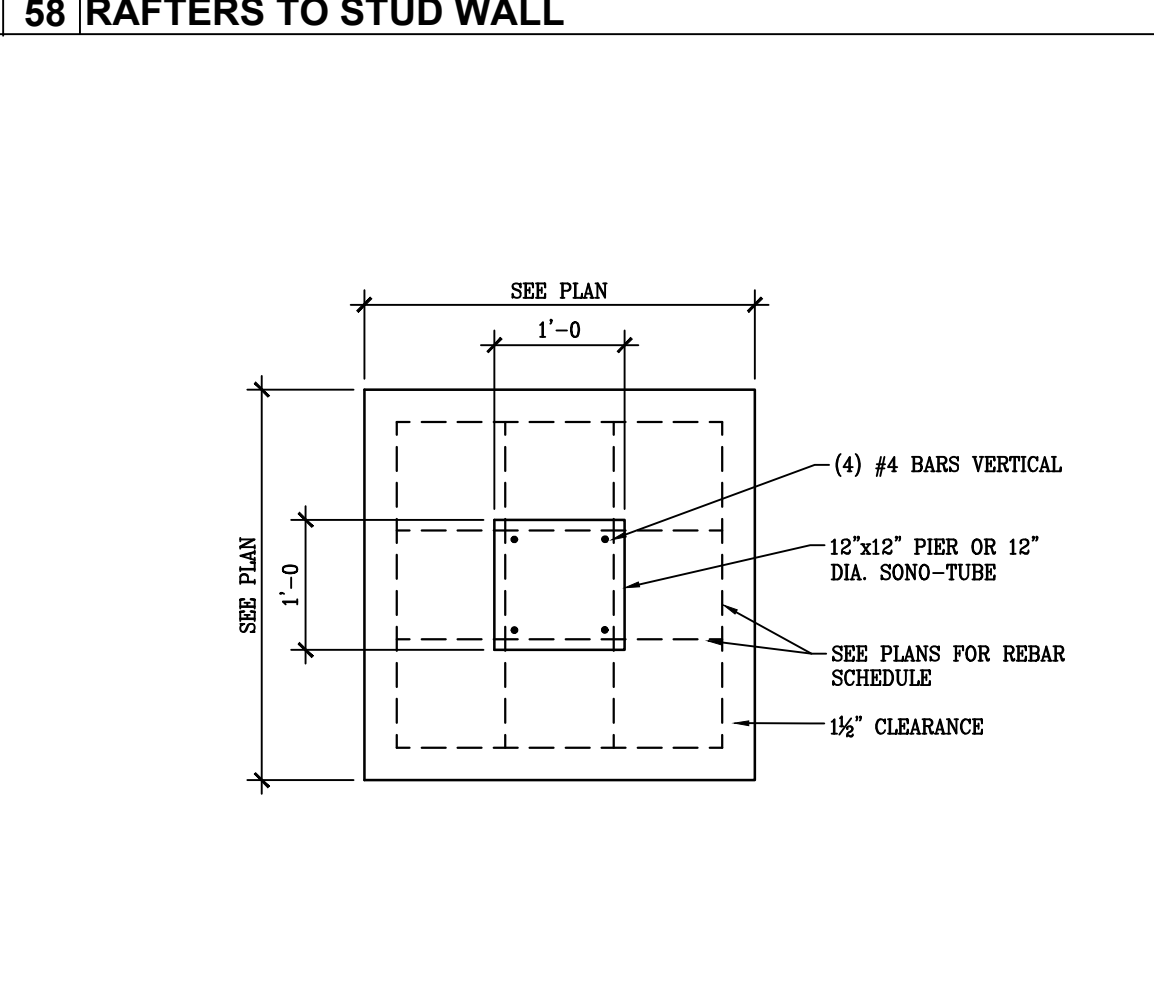
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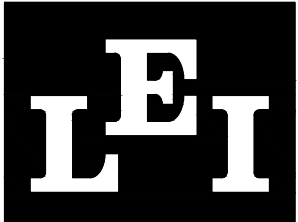
| REVISIONS | |
|-----------|-------------|
| 1 | DESCRIPTION |
| DATE | BY |
| 2 | - |
| 3 | - |
| 4 | - |
| 5 | - |

LEI PROJECT #:
2022-2291
DRAWN BY:
JMW
CHECKED BY:
EBM
SCALE:
NTS
DATE:
2/10/2023

SHEET

SD.3

| | | | | |
|--|---|--|---|---------------|
|  |  |  |  | |
| 56 6-8" CMU RETAINING WALL | 57 ROOF RAFTERS TO STUD WALL | 58 RAFTERS TO STUD WALL | 59 RETROFIT HOLDOWN | 60 NOT USED |
| |  |  | | |
| 65 NOT USED | 61 PIER FOOTING DETAIL | 63 NOT USED | 64 NOT USED | |
| | | | | |
| 65 NOT USED | 66 NOT USED | 67 NOT USED | 68 NOT USED | 69 NOT USED |
| | | | | |
| 70 NOT USED | 71 NOT USED | 72 NOT USED | 73 NOT USED | 74 NOT USED |



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| REVISIONS | |
|-----------|-------------|
| 1 | DESCRIPTION |
| DATE | BY |
| 2 - | |
| 3 - | |
| 4 - | |
| 5 - | |

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SD.4