

Alamogordo Fire Station 6 : addition

3100 N. Florida Ave.
Alamogordo, New Mexico

CONSTRUCTION DOCUMENTS

date 04.18.23
project no. 22.11



BUILDING ADDITION

Alamogordo
Fire Station 6
Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

REVISION DATE

Project no: 22.11
Date: April 2023
Sheet:

PROJECT DATA

| ITEM | CODE REQUIREMENT | PROVIDED |
|--|---|---|
| BUILDING OCCUPANCY | B - NS | B - NS |
| CONSTRUCTION TYPE | TYPE V - B | TYPE V - B |
| ALLOWABLE AREA | 9,000 S.F. | 3,200 S.F. (EXIST) 3,773 S.F. (ADDITION) 6,973 S.F. TOTAL |
| MAX. HEIGHT / STORIES | 40 FT. / 2 STORIES | 20 FT. / 1 STORY |
| PUBLIC OCCUPANT LOAD (EXIST. + NEW ADDITION) | 16 (OFFICE 1/100 S.F.) 28.8 (TRUCK BAYS 1/200) | 42.8 = 42 TOTAL |
| OCCUPANT LOAD @ ADDITION | 18.8 (TRUCK BAY 1/200) | 18.8 = 18 |
| NO. OF EXITS | 2 | 2 EXIST + 2 NEW |
| EXIT WIDTH | 32" MIN. | 144" TOTAL |
| EXTERIOR WALL FIRE RESISTANCE | N/A | N/A |
| MIN. CORRIDOR WIDTH | 44" | 5'-0" E.T.R. |

REGULATING CODES

| | |
|--|------|
| INTERNATIONAL BUILDING CODE | 2015 |
| UNIFORM MECHANICAL CODE | 2021 |
| NEW MEXICO MECHANICAL CODE | 2021 |
| UNIFORM PLUMBING CODE | 2021 |
| NEW MEXICO PLUMBING CODE | 2021 |
| INTERNATIONAL FIRE CODE | 2015 |
| NATIONAL ELECTRIC CODE | 2017 |
| NEW MEXICO ELECTRICAL CODE | 2017 |
| AMERICAN NATIONAL STANDARDS INSTITUTE A117 | 2009 |
| NEW MEXICO COMMERCIAL BUILDING CODE | 2015 |

ABBREVIATIONS

| | |
|-----------|---------------------------------|
| ACT | ACOUSTICAL TILE |
| ACU | AIR HANDLER UNIT |
| ADA | ADA |
| AFD | AMERICANS WITH DISABILITIES ACT |
| ALUM | ALUMINUM |
| ASPH | ASPHALT |
| B.O.F. | BOTTOM OF FOOTING |
| C&G | CURB & GUTTER |
| C.J. | CENTER LINE |
| C | CONCRETE |
| CMU | CONCRETE MASONRY UNIT |
| C.O.L.C. | CITY OF LAS CRUCES |
| CONC | CONCRETE |
| DEG | DEGREES |
| DEMO | DEMOLISH, DEMOLITION |
| DET | DETAIL |
| DG | DOOR GRILLE |
| DS | DOWNSPOUT |
| DUMP | DUMPSTER |
| EL & ELEC | ELECTRICAL COMPONENT |
| EXST | EXISTING |
| E.J. | EXPANSION JOINT |
| FD | FIRE DAMPER |
| FE | FIRE EXTINGUISHER |
| F.F. | FINISH FLOOR |
| FP | FLAG POLE |
| F.O.B. | FACE OF BRICK |
| F.O.S. | FACE OF STUD/ FACE OF SLAB |
| GA | GAUGE |
| GALV | GALVANIZED |
| GS | GAS METER |
| GYP BD | GYPSON BOARD |
| H/C | HANDICAPPED |
| HDW | HARDWARE |
| H.M. | HOLLOW METAL |
| HT | HEIGHT |
| LP | LIGHT POLE |
| MATL | MATERIAL |
| MAX | MAXIMUM |
| MD | MOTION DETECTOR |
| MH | MANHOLE |
| MIN | MINIMUM |
| MTL | METAL |
| N.I.C. | NOT IN CONTRACT |
| NO | NUMBER |
| OC | ON CENTER |
| P | PAINT AND COLOR NO. |
| PL | PLASTIC LAMINATE AND COLOR NO. |
| PT | PRESSURE TREATED |
| PVC | POLY VINYL CHLORIDE |
| RAD | RADIUS |
| REINF | REINFORCING |
| RET | RETAINING |
| SCWD | SOLID CORE WOOD |
| SIM | SIMILAR |
| SHT | SHEET |
| SQ | SQUARE |
| STL | STEEL |
| THK | THICK |
| T.J. | TOOLED JOINT |
| T.O.B. | TOP OF BRICK |
| T.O.C. | TOP OF CURB |
| T.O.C.W. | TOP OF CONCRETE WALK |
| T.O.P. | TOP OF PARAPET |
| T.O.W. | TOP OF WALL STRUCTURE |
| TRANS | TRANSFORMER |
| T.S. | TUBE STEEL |
| TYP | TYPICAL |
| U.N.O. | UNLESS NOTED OTHERWISE |
| USPS | UNITED STATES POSTAL SERVICE |
| UW | UTILITY WELL |
| VCT | VINYL COMPOSITION TILE |
| W.C.O. | WALL CLEAN OUT |
| WD | WOOD |
| WH | WALL HYDRANT |
| WL | WELL |
| WP | WATER PIPE |
| WM | WATER METER |
| WT | WATER |
| WWF | WELDED WIRE FABRIC |
| WWM | WOVEN WIRE MESH |

DRAWING INDEX

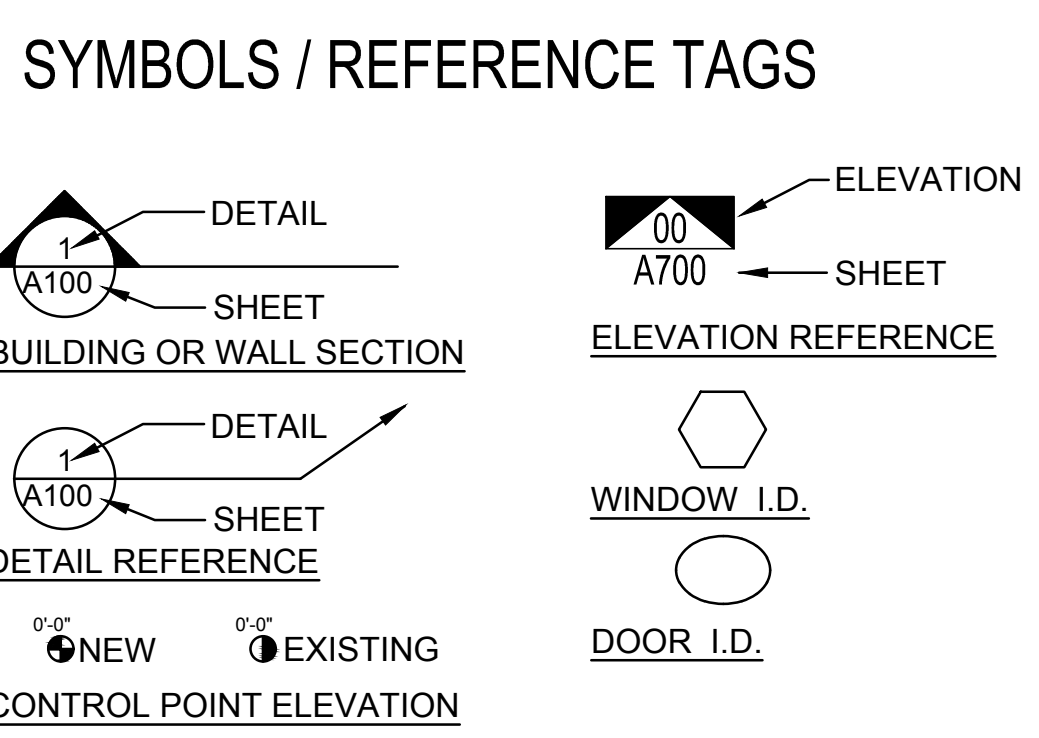
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| COVER SHEET |
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PROJECT TEAM

| | |
|---|--|
| OWNER | ARCHITECT |
| CITY OF ALAMOGORDO 1376 EAST NINTH STREET ALAMOGORDO, NM 88003 P 575.521.3757 F 575.521.3880 CONTACT: | STUDIO D P.O. BOX 1467 FAIRACRES, NM 88033 P 575.521.3757 F 575.521.3880 CONTACT: ABELARDO NATIVIDAD |
| STRUCTURAL | MECHANICAL, ELECTRICAL & PLUMBING |
| ROCKY SUMMIT ENGINEERING CONSULTING, LLC. P.O. BOX 816151 DALLAS, TX 75381 P 214.837.6062 F CONTACT: FERNANDO PEÑA | RAXIS ENGINEERING 1712 TEXAS ST. EL PASO, TX 79901 P 915.519.4340 F CONTACT: JOSE A. MORALES, P.E. CEM |

SITE REQUIREMENTS

| ZONING | REQUIREMENT | PROVIDED |
|----------------------------|---|-------------------------------|
| MIN. LOT AREA | R-1 TO M-1 CONDITIONAL (BUILDING CONSIDERED LIGHT COMMERCIAL) | 123.75 AC |
| MIN. LOT WIDTH | - | - |
| MIN. LOT DEPTH | - | - |
| FRONT SETBACK | 15 FT. | 46'-7" E.T.R. |
| SIDE SETBACK | 5 FT. | 238'-0" NORTH E.T.R. SOUTH |
| REAR SETBACK | - | - |
| MAX. HEIGHT | - | 20'-0" ROOF |
| PARKING RATIO | (PARKING IS EXISTING TO REMAIN) | - |
| REQUIRED SPACES | - | 8 |
| ACCESSIBLE SPACES REQUIRED | 1 | ACCESSIBLE SPACES PROVIDED 1 |

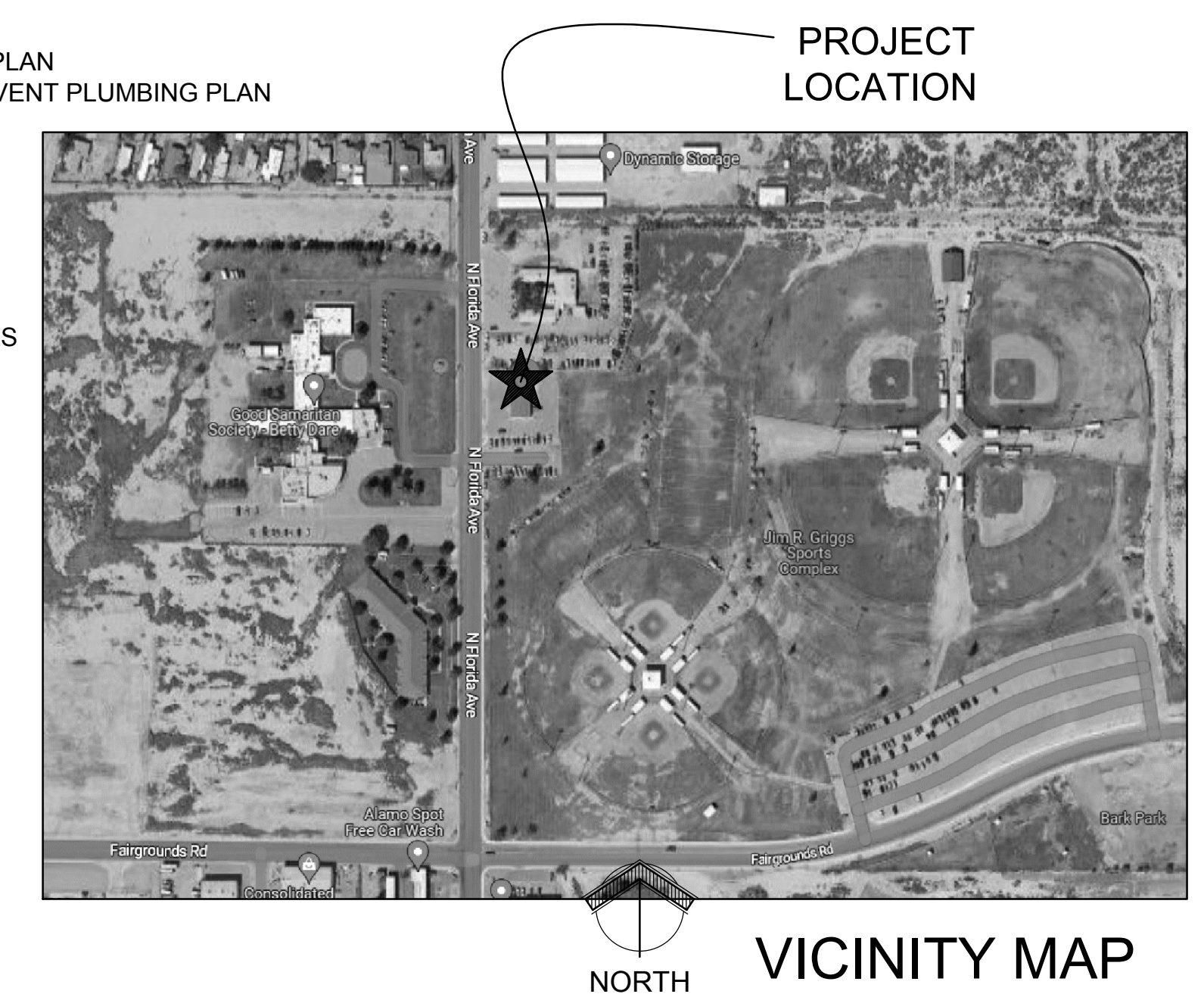


OCCUPANCY LOAD

| USE | AREA S.F. | LOAD FACTOR | # OCCUPANTS |
|------------------------|-----------|-------------|-------------|
| OFFICES (EXIST.) | 1,600 | 1/100 | 16 |
| TRUCK BAYS (EXIST.) | 1,600 | 1/200 | 8 |
| TRUCK BAYS (NEW) | 3,773 | 1/200 | 18.8 |
| TOTAL OCCUPANTS | | | 42.8 |

PLUMBING FIXTURE REQUIREMENTS

| | WATER CLOSETS | | URINALS | | LAVATORIES | |
|--------------------|---------------|----------|----------|----------|------------|----------|
| | REQUIRED | PROVIDED | REQUIRED | PROVIDED | REQUIRED | PROVIDED |
| MALE | 1 | 1 EXIST. | 0 | 0 | 1 | 1 EXIST. |
| FEMALE | 1 | 1 EXIST. | 0 | 0 | 1 | 1 EXIST. |
| SINGLE USE | 1 | 1 EXIST. | | | 1 | 1 EXIST. |
| DRINKING FOUNTAINS | 1 | 2 | | | | |
| SERVICE SINK | 1 | 1 | | | | |



Date: Apr 18, 2023 - 1:58pm User: Station 5
Drawing File: K:\2022 Projects\2211 Alamogordo Fire Station\DWG\Sheets\2211-COV.dwg
Last Saved By: Station 5 Apr 18, 2023 - 1:58pm
Layout Name: Layout1



04.18.23

BUILDING ADDITION

Alamogordo Fire Station 6 Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

| REVISION | DATE |
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OVERALL SITE PLAN

AS100

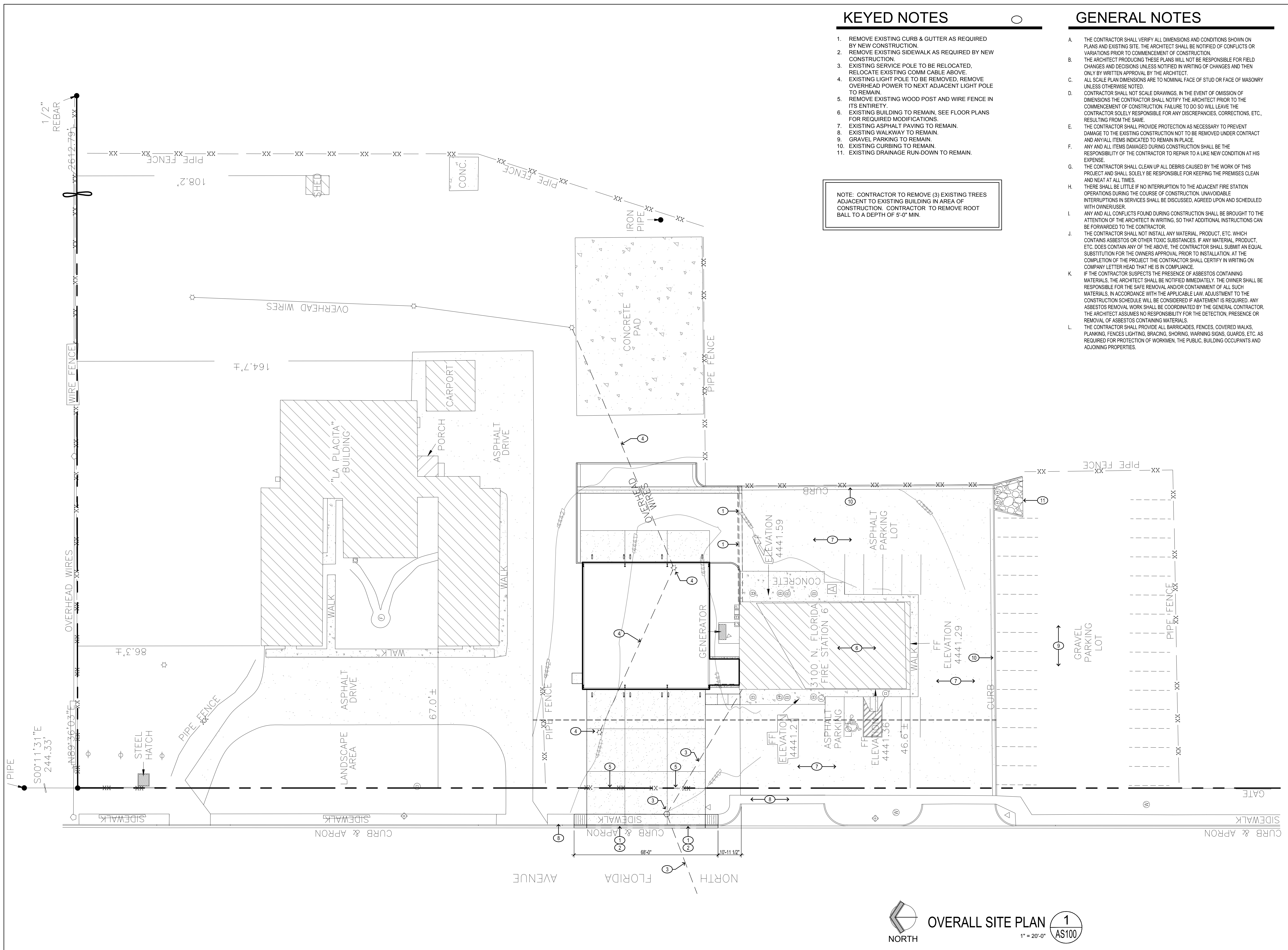
KEYED NOTES

1. REMOVE EXISTING CURB & GUTTER AS REQUIRED BY NEW CONSTRUCTION.
2. REMOVE EXISTING SIDEWALK AS REQUIRED BY NEW CONSTRUCTION.
3. EXISTING SERVICE POLE TO BE RELOCATED. RELOCATE EXISTING COMM CABLE ABOVE.
4. EXISTING LIGHT POLE TO BE REMOVED. REMOVE OVERHEAD POWER TO NEXT ADJACENT LIGHT POLE TO REMAIN.
5. REMOVE EXISTING WOOD POST AND WIRE FENCE IN ITS ENTIRETY.
6. EXISTING BUILDING TO REMAIN. SEE FLOOR PLANS FOR REQUIRED MODIFICATIONS.
7. EXISTING ASPHALT PAVING TO REMAIN.
8. EXISTING WALKWAY TO REMAIN.
9. GRAVEL PARKING TO REMAIN.
10. EXISTING CURBING TO REMAIN.
11. EXISTING DRAINAGE RUN-DOWN TO REMAIN.

GENERAL NOTES

- A. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON PLANS AND EXISTING SITE. THE ARCHITECT SHALL BE NOTIFIED OF CONFLICTS OR VARIATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- B. THE ARCHITECT PRODUCING THESE PLANS WILL NOT BE RESPONSIBLE FOR FIELD CHANGES AND DECISIONS UNLESS NOTIFIED IN WRITING OF CHANGES AND THEN ONLY BY WRITTEN APPROVAL BY THE ARCHITECT.
- C. ALL SCALE PLAN DIMENSIONS ARE TO NOMINAL FACE OF STUD OR FACE OF MASONRY UNLESS OTHERWISE NOTED.
- D. CONTRACTOR SHALL NOT SCALE DRAWINGS. IN THE EVENT OF OMISSION OF DIMENSIONS THE CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. FAILURE TO DO SO WILL LEAVE THE CONTRACTOR SOLELY RESPONSIBLE FOR ANY DISCREPANCIES, CORRECTIONS, ETC., RESULTING FROM THE SAME.
- E. THE CONTRACTOR SHALL PROVIDE PROTECTION AS NECESSARY TO PREVENT DAMAGE TO THE EXISTING CONSTRUCTION NOT TO BE REMOVED UNDER CONTRACT AND ANY ALL ITEMS INDICATED TO REMAIN IN PLACE.
- F. ANY AND ALL ITEMS DAMAGED DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR TO A LIKE NEW CONDITION AT HIS EXPENSE.
- G. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS CAUSED BY THE WORK OF THIS PROJECT AND SHALL SOLELY BE RESPONSIBLE FOR KEEPING THE PREMISES CLEAN AND NEAT AT ALL TIMES.
- H. THERE SHALL BE LITTLE IF NO INTERRUPTION TO THE ADJACENT FIRE STATION OPERATIONS DURING THE COURSE OF CONSTRUCTION. UNAVOIDABLE INTERRUPTIONS IN SERVICES SHALL BE DISCUSSED, AGREED UPON AND SCHEDULED WITH OWNER/USER.
- I. ANY AND ALL CONFLICTS FOUND DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN WRITING, SO THAT ADDITIONAL INSTRUCTIONS CAN BE FORWARDED TO THE CONTRACTOR.
- J. THE CONTRACTOR SHALL NOT INSTALL ANY MATERIAL, PRODUCT, ETC. WHICH CONTAINS ASBESTOS OR OTHER TOXIC SUBSTANCES. IF ANY MATERIAL, PRODUCT, ETC. DOES CONTAIN ANY OF THE ABOVE, THE CONTRACTOR SHALL SUBMIT AN EQUAL SUBSTITUTION FOR THE OWNER'S APPROVAL PRIOR TO INSTALLATION. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL CERTIFY IN WRITING ON COMPANY LETTER HEAD THAT HE IS IN COMPLIANCE.
- K. IF THE CONTRACTOR SUSPECTS THE PRESENCE OF ASBESTOS CONTAINING MATERIALS, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY. THE OWNER SHALL BE RESPONSIBLE FOR THE SAFE REMOVAL AND/OR CONTAINMENT OF ALL SUCH MATERIALS. IN ACCORDANCE WITH THE APPLICABLE LAW. ADJUSTMENT TO THE CONSTRUCTION SCHEDULE WILL BE CONSIDERED IF ABATEMENT IS REQUIRED. ANY ASBESTOS REMOVAL WORK SHALL BE COORDINATED BY THE GENERAL CONTRACTOR. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE DETECTION, PRESENCE OR REMOVAL OF ASBESTOS CONTAINING MATERIALS.
- L. THE CONTRACTOR SHALL PROVIDE ALL BARRICADES, FENCES, COVERED WALKS, FLAGGING, FENCES LIGHTING, BRACING, SHORING, WARNING SIGNS, GUARDS, ETC. AS REQUIRED FOR PROTECTION OF WORKMEN, THE PUBLIC, BUILDING OCCUPANTS AND ADJOINING PROPERTIES.

NOTE: CONTRACTOR TO REMOVE (3) EXISTING TREES ADJACENT TO EXISTING BUILDING IN AREA OF CONSTRUCTION. CONTRACTOR TO REMOVE ROOT BALL TO A DEPTH OF 5'-0" MIN.



OVERALL SITE PLAN

1
AS100

1" = 20'-0"



04.18.23

BUILDING ADDITION

Alamogordo Fire Station 6 Addition

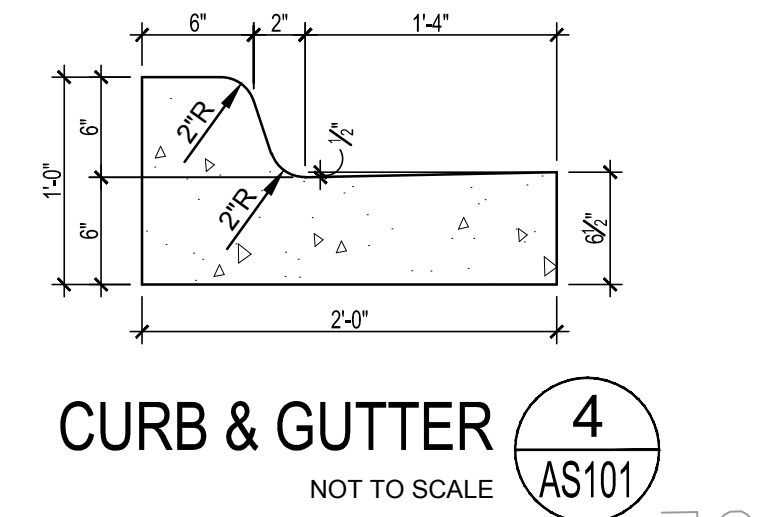
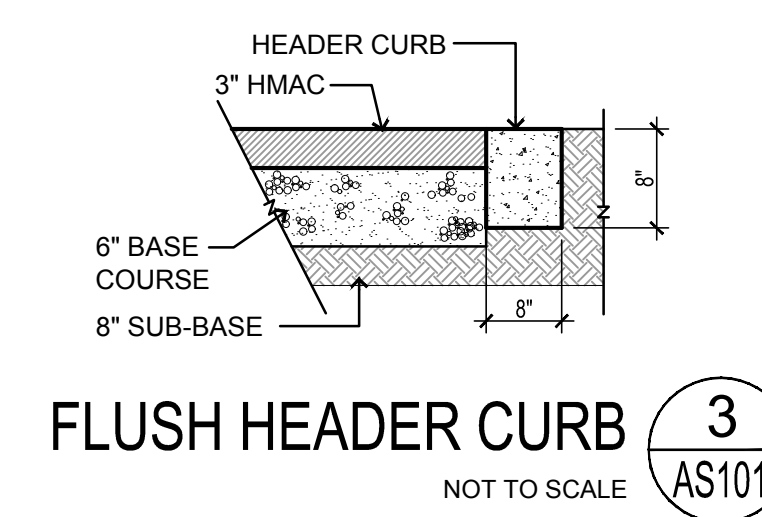
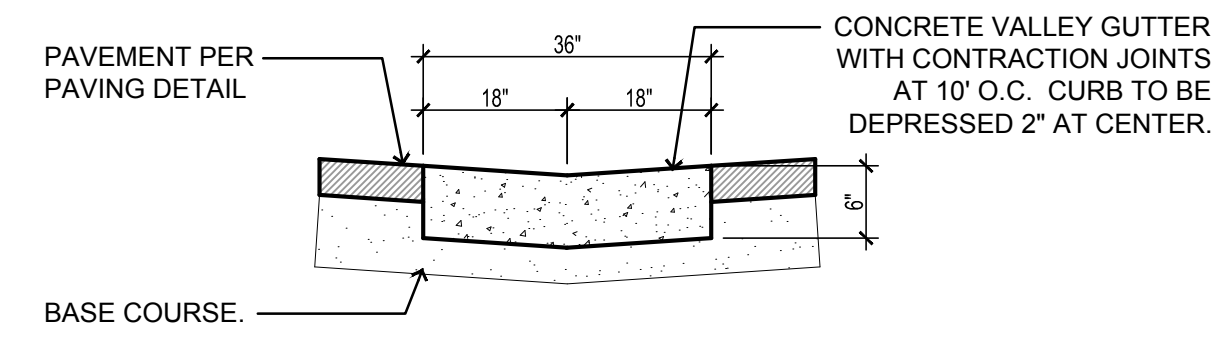
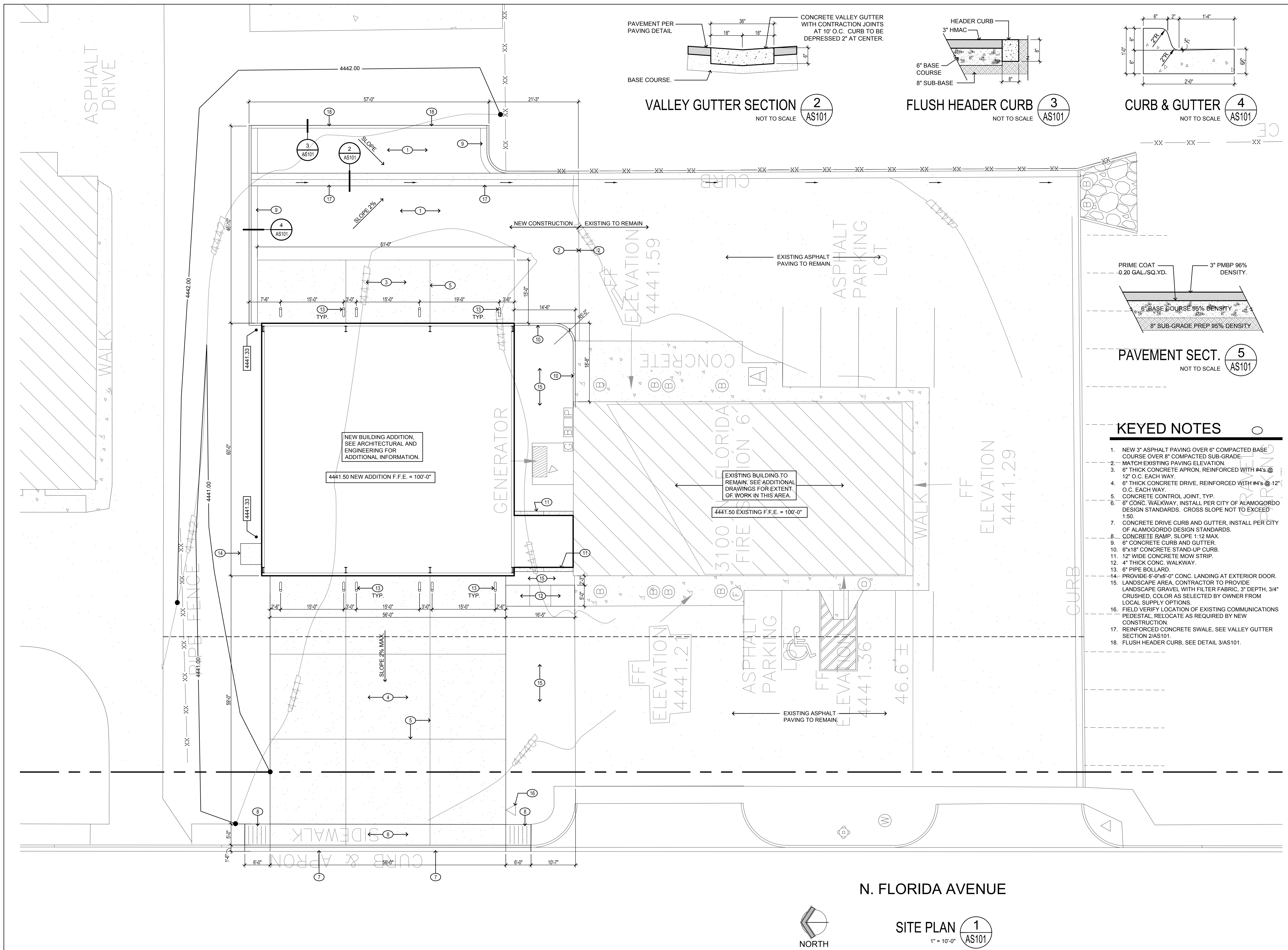
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DIMENSION SITE PLAN

AS101



- KEYED NOTES**
- NEW 3" ASPHALT PAVING OVER 6" COMPACTED BASE COURSE OVER 6" COMPACTED SUB-GRADE.
 - MATCH EXISTING PAVING ELEVATION.
 - 6" THICK CONCRETE APRON, REINFORCED WITH #4s @ 12" O.C. EACH WAY.
 - 6" THICK CONCRETE DRIVE, REINFORCED WITH #4s @ 12" O.C. EACH WAY.
 - CONCRETE CONTROL JOINT, TYP.
 - 6" CONC. WALKWAY. INSTALL PER CITY OF ALAMOGORDO DESIGN STANDARDS. CROSS SLOPE NOT TO EXCEED 1:50.
 - CONCRETE DRIVE CURB AND GUTTER. INSTALL PER CITY OF ALAMOGORDO DESIGN STANDARDS.
 - CONCRETE RAMP. SLOPE 1:12 MAX.
 - 6" CONCRETE CURB AND GUTTER.
 - 6"x18" CONCRETE STAND-UP CURB.
 - 12" WIDE CONCRETE MOW STRIP.
 - 4" THICK CONC. WALKWAY.
 - 6" PIPE BOLLARD.
 - PROVIDE 5'-0"x5'-0" CONC. LANDING AT EXTERIOR DOOR. LANDSCAPE AREA. CONTRACTOR TO PROVIDE LANDSCAPE GRAVEL WITH FILTER FABRIC. 3" DEPTH, 3/4" CRUSHED. COLOR AS SELECTED BY OWNER FROM LOCAL SUPPLY OPTIONS.
 - FIELD VERIFY LOCATION OF EXISTING COMMUNICATIONS PEDESTAL. RELOCATE AS REQUIRED BY NEW CONSTRUCTION.
 - REINFORCED CONCRETE SWALE. SEE VALLEY GUTTER SECTION 2/AS101.
 - FLUSH HEADER CURB. SEE DETAIL 3/AS101.

N. FLORIDA AVENUE



SITE PLAN 1 AS101
1" = 10'-0"



PO BOX 816151,
DALLAS, TX, 75381
(214)837-6062
www.rockysummitec.com

Alamogordo Fire Station 6 Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

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Project no: 22.11
Date: March 2023
Sheet:

GENERAL NOTES

S100

STRUCTURAL GENERAL NOTES

GENERAL REQUIREMENTS:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODES LISTED BELOW.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
3. THE GENERAL CONTRACTOR SHALL COMPARE AND COORDINATE THE DRAWINGS OF ALL DISCIPLINES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS TO THE ARCHITECT AND ENGINEER.
4. DETAILS LABELED "TYPICAL" SHALL APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SEE DETAIL TITLES FOR APPLICABILITY OF A PARTICULAR DETAIL. TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE SPECIFICALLY KEYED AT EACH LOCATION. THE ENGINEER SHALL HAVE FINAL AUTHORITY TO DETERMINE APPLICABILITY OF TYPICAL DETAILS.
5. WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS, AS INDICATED BY THE STRUCTURAL ENGINEER SHALL GOVERN.
6. THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
7. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
8. THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ANCHORED, EMBEDDED OR SUPPORTED ITEMS. NOTIFY THE ARCHITECT / ENGINEER OF ANY DISCREPANCIES.

SPECIAL INSPECTIONS:

1. NO SPECIAL INSPECTION IS REQUIRED, VERIFY WITH CITY OF ALAMOGORDO FOR SPECIAL INSPECTION REQUIREMENTS.

CONSTRUCTION RESPONSIBILITY:

1. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.
2. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, OR FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. PERIODIC SITE OBSERVATION VISITS MAY BE PROVIDED BY THE STRUCTURAL ENGINEER. THE SOLE PURPOSE OF THESE OBSERVATIONS IS TO REVIEW THE GENERAL CONFORMANCE OF THE CONSTRUCTION WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED OBSERVATIONS SHOULD NOT BE CONSTRUED AS CONTINUOUS OR EXHAUSTIVE TO VERIFY THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

PRIMARY CODES AND SPECIFICATIONS:

1. GENERAL BUILDING CODE:
 - A. INTERNATIONAL BUILDING CODE, 2015
2. CONCRETE CODES:
 - A. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14).
 - B. SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).
 - C. LATEST EDITION OF THE CRSI MANUAL OF STANDARD PRACTICE WITH ALL SUPPLEMENTS.
3. STRUCTURAL STEEL CODES:
 - A. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, (AISC 360-10).
4. STEEL DECK:
 - A. NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS,
 - B. SDI DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS.
5. COLD FORMED METAL FRAMING:
 - A. NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS
6. WOOD CONSTRUCTION:
 - A. NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS-2015).

DESIGN LOADS:

1. ROOF LIVE LOADS:
 - A. UNIFORMLY DISTRIBUTED LIVE LOAD ON HORIZONTAL PROJECTION..... 20 PSF
2. SNOW LOADS:
 - A. UNIFORMLY DISTRIBUTED..... 5 PSF
3. FLOOR LIVE LOADS:
 - A. UNIFORMLY DISTRIBUTED LIVE LOADS:
RETAIL STORES FIRST FLOOR.....100 PSF
4. WIND LOADS:
 - A. LOADS BASED ON ASCE 7-10 WIND LOAD CRITERIA.
BUILDING CATEGORY TYPE III
BASIC WIND SPEED, ULTIMATE 3 SECOND GUST..... 115 MPH
WIND EXPOSURE CATEGORY..... C
WIND TOPOGRAPHIC FACTOR, KZT..... 1.0
5. SEISMIC:
 - A. SDS..... 0.326
SD1..... 0.101
R..... 3.25 (STEEL ORDINARY CONCENTRICALLY BRACED FRAMES)
IE..... 1.25
SITE CLASS..... D
V_e = (0.125 X W) = (0.125 X 66,631) = 8,328 LB

SITE:

1. THE GEOTECHNICAL INVESTIGATION FOR THE PROJECT WAS PERFORMED BY TERRACON. THE REPORT IS A PART OF THE CONTRACT SPECIFICATIONS. ITS RECOMMENDATIONS SHALL BE FOLLOWED FOR CONSTRUCTION OF THIS PROJECT.
2. ALL VEGETATION, ASPHALT PAVEMENT, DEBRIS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THROUGHOUT THE ENTIRE BUILDING AREA AND ANY OTHER AREAS OF THE SITE TO RECEIVE FILL. TREE STUMPS AND MATTED ROOTS LARGER THAN 2 INCHES IN DIAMETER SHALL BE REMOVED FROM WITHIN 6 INCHES OF THE SURFACE OF AREAS TO RECEIVE FILL OR WITHIN 18 INCHES OF SUBGRADE IN ROADWAYS OR PARKING AREAS.
3. ALL FOOTINGS SHALL BE SUPPORTED ON 2'-0" OF STRUCTURAL FILL. STRUCTURAL FILL SHALL EXTEND 2'-0" BEYOND THE EDGES OF FOOTINGS.
4. FLOOR SLABS SHALL BE OVEREXCAVATED TO A POINT 2'-0" BELOW THE BOTTOM OF THE SLAB AND BACKFILLED WITH STRUCTURAL FILL.
5. ALL STRUCTURAL FILL SHALL BE SPREAD IN LAYERS NOT EXCEEDING 8 INCHES, WATERED AS NECESSARY AND COMPACTED. THE MOISTURE CONTENT AT THE TIME OF COMPACTION SHALL BE WITHIN TWO PERCENT OF OPTIMUM. A DENSITY OF NOT LESS THAN 95 PERCENT OF MAXIMUM DRY DENSITY WITHIN THE BUILDING PAD SHALL BE OBTAINED FOR THE NATIVE SOILS AND STRUCTURAL FILL.
6. THE OPTIMUM MOISTURE CONTENT AND MAXIMUM DENSITY OF THE NATIVE SOILS AND STRUCTURAL FILL, FOR EACH SOIL TYPE USED, SHALL BE DETERMINED IN ACCORDANCE WITH "ASTM D-1557".
7. THE STRUCTURAL FILL MATERIAL SHALL CONSIST OF SOILS THAT MEET THE FOLLOWING GRADATION REQUIREMENTS:

| SIEVE SIZE (SQUARE OPENINGS) | PERCENT PASSING PER WEIGHT |
|------------------------------|----------------------------|
| 6 INCH | 100 |
| 3 INCH | 70-100 |
| NO. 4 | 50-100 |
| NO. 200 | LESS THAN 50 |

THE PLASTICITY INDEX OF THE STRUCTURAL FILL SHALL BE LESS THAN 15 AND THE LIQUID LIMIT SHALL BE LESS THAN 30. THE MAXIMUM EXPANSIVE POTENTIAL SHALL BE 15% WHEN MEASURED ON A SAMPLE COMPACTED TO 95% OF THE ASTM D-1557 MAXIMUM DRY DENSITY AT ABOUT 3% BELOW OPTIMUM WATER CONTENT AND CONFINED UNDER A 100 PSF SURCHARGE AND SUBMERGED. THE RESULTS OF THE INVESTIGATION INDICATE THAT THE NATIVE SOILS WILL NOT MEET THE ABOVE REQUIREMENTS AND IMPORTED FILL WILL BE REQUIRED.

8. PRIOR TO PLACEMENT OF STRUCTURAL FILL, THE BUILDING AREA SHALL BE OBSERVED BY A REPRESENTATIVE OF SMITH ENGINEERING CO. TO ENSURE SATISFACTORY REMOVAL OF NATIVE SOILS AND THE REMOVAL OF ANY EXISTING UNCONTROLLED FILL. THE EXPOSED CUT SURFACE, AS WELL AS ANY OTHER SURFACES TO RECEIVE FILL, SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES, MOISTURE CONDITIONED, INCLUDING AIR DRYING IF REQUIRED, AND PROPERLY COMPACTED.

CAST-IN-PLACE CONCRETE:

1. THE LATEST EDITION OF THE FOLLOWING ACI STANDARDS APPLY:
 - A. ACI 318 (CODE) ACI 304 (PLACING)
 - A. ACI 306 (WINTER CONCRETING) ACI 315 (DETAILING)
 - A. ACI 305 (HOT WEATHER CONCRETING) ACI 347 (FORMWORK)
 - A. ACI 211.1 (MIX PROPORTIONING) ACI 301 (SPECIFICATIONS)
2. ALL CONCRETE SHALL BE NORMAL WEIGHT (148 PCF DRY DENSITY, MIN), WITH MIXES DESIGNED TO MEET A MINIMUM OF 3000 PSI 28-DAY COMPRESSIVE STRENGTH UNLESS OTHERWISE NOTED.
3. A CONCRETE MIX DESIGN FOR EACH UNIQUE COMBINATION OF STRENGTH, COARSE AGGREGATE GRADATION AND WATER CEMENT RATIO SPECIFIED SHALL BE PREPARED BY THE SUPPLIER OR AN INDEPENDENT TESTING LABORATORY AND BE SUBMITTED FOR REVIEW PRIOR TO CASTING ANY CONCRETE. MIXES THAT WILL BE TRANSPORTED AT THE PROJECT SITE BY PUMPING SHALL BE SPECIFICALLY DESIGNED FOR PUMPING.

REINFORCING STEEL:

1. REINFORCING STEEL: ASTM A 615, GRADE 60.
3. MINIMUM REINFORCING STEEL CLEAR COVER (U.M.O.):
 - A. CONCRETE CAST DIRECTLY AGAINST EARTH .. 3"
 - B. INTERIOR SLABS 1"
 - C. INTERIOR BEAMS 1-1/2" TO TIES
 - D. SLABS ON GRADE 1-1/2" FROM TOP
4. WHERE REINFORCING BARS ARE NOTED AS CONTINUOUS, THE FOLLOWING SHALL BE COMPLIED WITH:
 - A. THE TERMINATION OF ALL CONTINUOUS REINFORCING BAR RUNS SHALL BE A STANDARD HOOK UNLESS NOTED OTHERWISE.
 - B. SPLICES IN CONTINUOUS TOP BARS, IF REQUIRED, SHALL OCCUR OVER PARALLEL CHU WALLS OR AT THE CENTER OF THE OPENING SPAN.
 - C. SPLICES IN CONTINUOUS BOTTOM BARS, IF REQUIRED, SHALL OCCUR OVER CHU WALLS OR CENTERED OVER COLUMNS.
 5. WHERE SPLICE LENGTHS ARE NOT SPECIFIED, USE 48 BAR DIAMETERS IN MASONRY AND 40 BAR DIAMETERS IN CAST CONCRETE.
 6. REINFORCING STEEL SHALL NOT BE TACK WELDED FOR ANY REASON. WELDED REINFORCING STEEL SPLICES ARE NOT PERMITTED

CONCRETE MASONRY:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. CONCRETE MASONRY UNITS SHALL BE LOAD BEARING TYPE CONFORMING TO ASTM C-90 HAVING A MINIMUM COMPRESSIVE STRENGTH OF 1900 PSI (NET AREA).
3. MORTAR SHALL CONFORM TO ASTM C-270 TYPE S.
4. PLAIN END TWO CELLED UNITS SHALL BE USED FOR BLOCKS THAT ARE TO HAVE CELLS REINFORCED AND FILLED. WEB SHELLS ADJACENT TO CELLS THAT ARE TO BE FILLED ARE TO BE BEDDED IN MORTAR.
5. FILL CELLS AS NOTED ON DRAWINGS WITH 3000 PSI GROUT, OR GROUT CONFORMING TO ASTM C-476, SPECIFICALLY DESIGNED FOR FILLING OF CELLS.
6. IN SPLICING VERTICAL BARS, LAP ENDS, PLACE IN CONTACT AND WIRE-TIE TOGETHER OR USE BAR POSITIONERS. LAP BARS SIDE BY SIDE IN THE PLANE OF THE WALL TO MAINTAIN PROPER COVER.
7. SEE PRIMARY CODES, SPECIFICATIONS AND DRAWINGS FOR GROUTING PROCEDURES.
8. INSTALLATION OF CONCRETE MASONRY SHALL BE COMPATIBLE WITH ALL APPLIED FINISHES SUCH AS STUCCO OR PAINT. DO NOT SPONGE WALLS WITHOUT PROPER CLEANING COMPATIBLE WITH FINISHES.
9. PROVIDE GALVANIZED WIRE TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C. (MAX) AND AS INDICATED ON ARCHITECTURAL DRAWINGS. PROVIDE HOT DIP GALVANIZED H.R. ON ALL EXTERIOR WALLS. IN ADDITION TO SCHEDULED OR DETAILED LINTEL AND SILL REINFORCING, PROVIDE TWO LAYERS OF H.R. AT 8 INCHES ON CENTER ABOVE AND BELOW ALL LINTELS AND SILLS WHICH SPAN MORE THAN 12 INCHES. EXTEND ADDED H.R. 24 INCHES BEYOND THE OPENING JAMBS EXCEPT AT W.C.I.
10. MASONRY BOND BEAMS AND CONCRETE TIE BEAMS CAST ON MASONRY WALLS SHALL BE CONSTRUCTED SO AS TO KEY AND BOND INTO BLOCK CELLS. THE USE OF BUILDING PAPER OR SHEET PLASTIC TO CLOSE VOIDS BELOW BEAMS IS NOT ALLOWED DUE TO BREAKAGE OF MORTAR BOND.
11. SEE ARCHITECT'S DRAWINGS FOR THE EXTENT AND EXACT LOCATION OF MASONRY WALLS.
12. WALL CONTROL JOINTS (W.C.J.):
 - A. WALL CONTROL JOINTS SHALL BE PROVIDED IN ALL CONCRETE MASONRY CONSTRUCTION AT LOCATIONS INDICATED ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS BUT UNLESS NOTED OTHERWISE AT A SPACING NOT GREATER THAN 24' O.C.
 - B. HORIZONTAL JOINT REINFORCING SHALL BE INTERRUPTED EACH SIDE OF WALL CONTROL JOINTS.
 - C. WALL CONTROL JOINTS SHALL NOT BE PLACED OVER OPENINGS OR WITHIN AN OPENING JAMB WIDTH. SEE PLANS AND/OR JAMB REINFORCING SCHEDULE FOR MINIMUM JAMB WIDTHS.
 - D. SEE ARCHITECTURAL DRAWINGS FOR SEALANT REQUIREMENTS AT WALL CONTROL JOINTS.
 - E. SEE THESE DRAWINGS FOR ADDITIONAL REQUIREMENTS.
13. MASONRY WALLS SHALL BE BRACED EITHER BY OTHER INTERSECTING WALLS OR BY ANCHORAGE OR BRACING TO THE STRUCTURE ABOVE, OR TO ADJACENT WALLS, AS DETAILED ON THE STRUCTURAL DRAWINGS.
14. BLOCK LINTELS SHALL BE SPECIALLY FORMED U-SHAPED LINTEL OR LOW WEB LINTEL UNITS WITH REINFORCING BARS, OR PRECAST UNITS DESIGNED FOR THE WEIGHT OF MASONRY ABOVE AND OTHER APPLIED LOADS. STEEL THE USE OF STEEL LINTELS IS ACCEPTABLE, USE MANUFACTURER'S LOAD TABLES FOR SELECTION.
15. ALL MASONRY WALLS SHOWN ON THE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST CONFIGURATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BRACE THE WALLS FOR VERTICAL AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF LATERAL SUPPORT BY CONNECTIONS AT FLOORS OR ROOF FRAMING LEVELS.

STRUCTURAL STEEL:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. MATERIALS:
 - A. W-SHAPES & WT-SHAPES..... ASTM A992
 - A. S-SHAPES, M-SHAPES, HP-SHAPES..... ASTM A36
 - A. ST-SHAPES & MT-SHAPES..... ASTM A36
 - A. C-SHAPES & MC-SHAPES..... ASTM A36
 - A. ANGLES & PLATES..... ASTM A36
 - A. HSS SHAPES..... ASTM A500, GRADE B
 - A. STEEL PIPE..... ASTM A53 (TYPE E OR S), GRADE B
 - A. HIGH STRENGTH BOLTS..... ASTM A325
 - A. MACHINE BOLTS..... ASTM A307
 - A. ANCHOR RODS.....ASTM F1554, GRADE 55 TYPE SK1UND)
 - A. WELDED HEADED STUDS..... ASTM A100
 - A. DEFORMED BAR ANCHORS..... ASTM A496
 - A. WELDING ELECTRODES..... AWS D11, E70 SERIES
3. WHERE SPECIFIED, NON-SHRINK, NON-METALLIC GROUT WITH A 28 DAY STRENGTH OF 5000 PSI SHALL BE USED UNDER BASE PLATES AND SHALL CONFORM TO CORPS OF ENGINEERS CRD-C621, FACTORY PREMIX GROUT. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
4. ENGINEER SHALL BE CONTACTED FOR APPROVAL OF ANY FIELD MODIFICATIONS OF ANCHOR BOLTS OR RODS AND COLUMN BASE PLATES (PER OSHA).
5. TEMPORARY BRACING OF STRUCTURAL STEEL ELEMENTS IS THE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES DURING THE ERECTION PROCESS.
6. PROVIDE ONE SHOP COAT OF PRIMER (TT-P-636) ON ALL STEEL EXCEPT FOR ITEMS TO BE HOT DIPPED GALVANIZED OR SPRAY FIREPROOFED. DO NOT PAINT PORTIONS EMBEDDED IN CONCRETE.
7. FRAMING CONNECTIONS NOT DETAILED, OR CONNECTIONS THAT ARE MODIFIED FROM THOSE DETAILED, SHALL BE DESIGNED BY SUPPLIER FOR THE END REACTION SHOWN ON THE PLAN. IF NO REACTION IS PROVIDED, DESIGN FOR 1/2 THE BEAM MAXIMUM UNIFORM LOAD PER AISC MANUAL FOR STEEL CONSTRUCTION. SUBMIT SIGNED AND SEALED CALCULATIONS.
8. ALL WELD OPERATORS SHALL BE CURRENTLY AWS QUALIFIED.
9. SHOP CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED. USE 3/16" FILLET WELD MINIMUM.
10. FIELD CONNECTIONS SHALL BE WELDED OR HIGH STRENGTH BOLTED AS DETAILED. NO FIELD WELDING OF HOT DIPPED GALVANIZED MEMBERS WILL BE ALLOWED. USE 3/16" FILLET WELD MINIMUM.
11. STEEL JOISTS SHALL COMPLY WITH STEEL JOIST INSTITUTE STANDARD SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS LATEST EDITION.

STEEL ROOF DECK:

1. ROOF DECK SHALL BE 1-1/2" DEEP. SEE PLAN FOR GAGE AND PROFILE DESIGNATION.
2. ROOF DECK SHALL BE PLACED SO AS TO COVER AT LEAST TWO SPANS. NO SINGLE SPAN CONDITIONS SHALL BE USED.
3. ROOF DECK SHALL BE FABRICATED SO THAT DECK RUNS CONTINUOUSLY OVER OPENINGS. THE OPENINGS IN THE DECK SHALL NOT BE CUT UNTIL THE OPENING IS NEEDED (PER OSHA).
4. STEEL DECK SHALL BE GALVANIZED WITH A PROTECTIVE ZINC COATING CONFORMING TO ASTM A924, WITH COATING DESIGNATION G90.
5. PROVIDE A MINIMUM END BEARING OF 2" OVER SUPPORTS. END LAPS OF SHEETS SHALL BE A MINIMUM OF TWO INCHES AND SHALL OCCUR OVER SUPPORTS.
6. ALL ROOF DECKS SHALL BE FASTENED WITH AND APPROVED SELF DRILLING OR POWER DRIVEN SCREWS ON THE FOLLOWING PATTERN:
 - A. EDGE SUPPORTS 36/7
 - B. INTERMEDIATE SUPPORTS 36/4
 - C. LAP @ 12" O.C.

COLD FORMED METAL FRAMING:

1. SEE NOTES ON PRIMARY CODES AND SPECIFICATIONS.
2. ALL MEMBERS SHALL BE FORMED FROM HOT-DIPPED GALVANIZED STEEL, RED OXIDE COATED IS ACCEPTABLE, CORRESPONDING TO THE REQUIREMENTS OF ASTM A653 SQ GRADE 50 (FY = 50,000 PSI). GALVANIZED COATING SHALL CONFORM TO ASTM A924 WITH COATING DESIGNATION G60.



**Alamogordo
Fire Station 6
Addition**

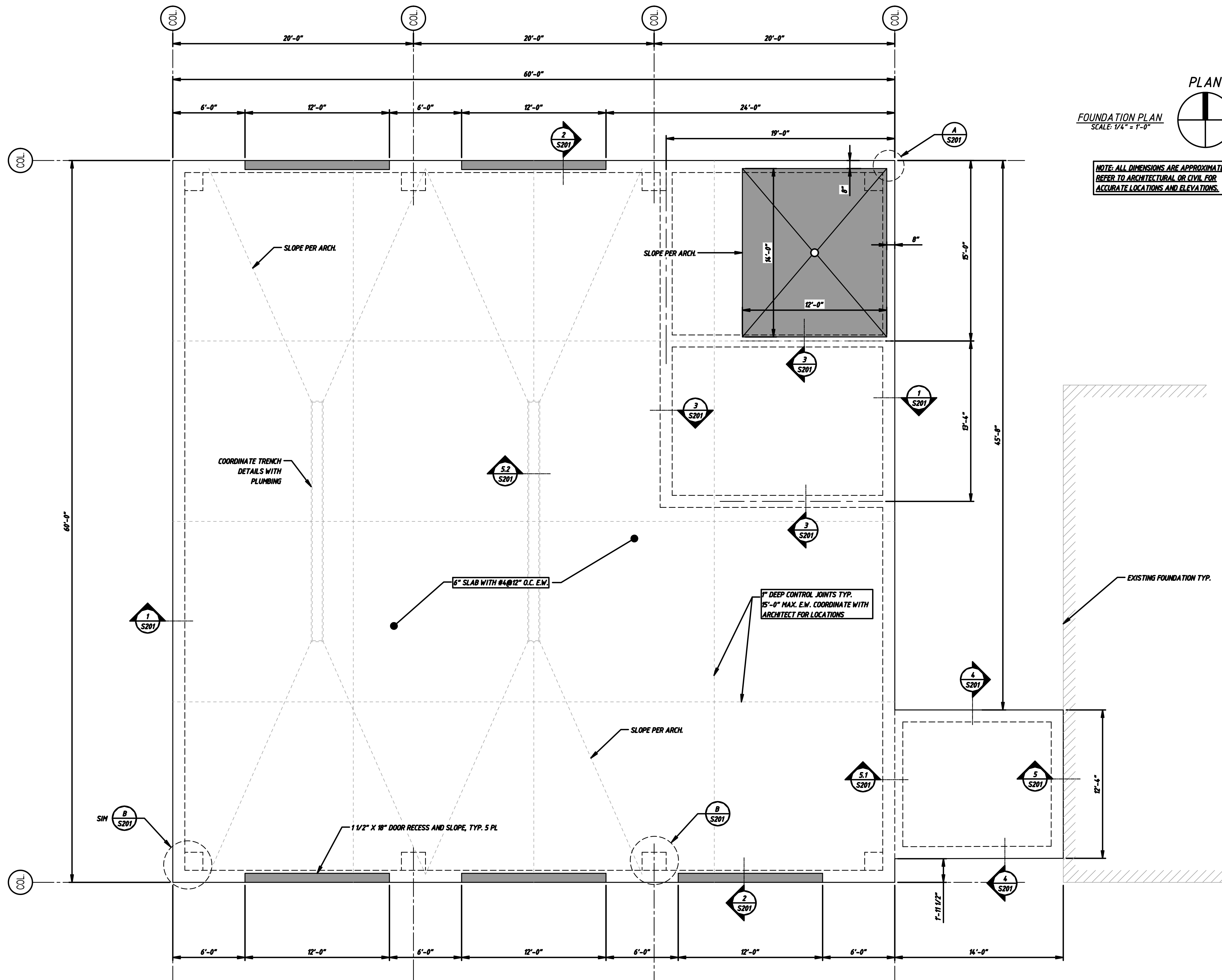
3100 N. Florida Ave.
Alamogordo, New Mexico

| REVISION | DATE |
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Project no: 22.11
Date: March 2023
Sheet:

FOUNDATION PLAN

S200





Alamogordo
Fire Station 6
Addition

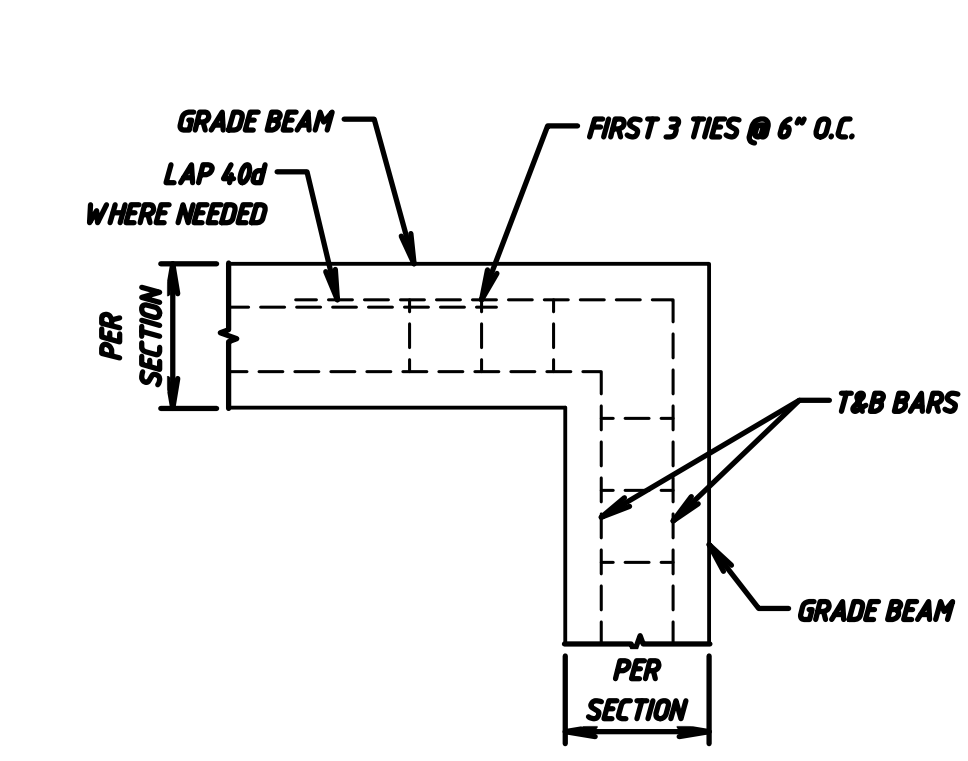
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Alamogordo, New Mexico

| REVISION | DATE |
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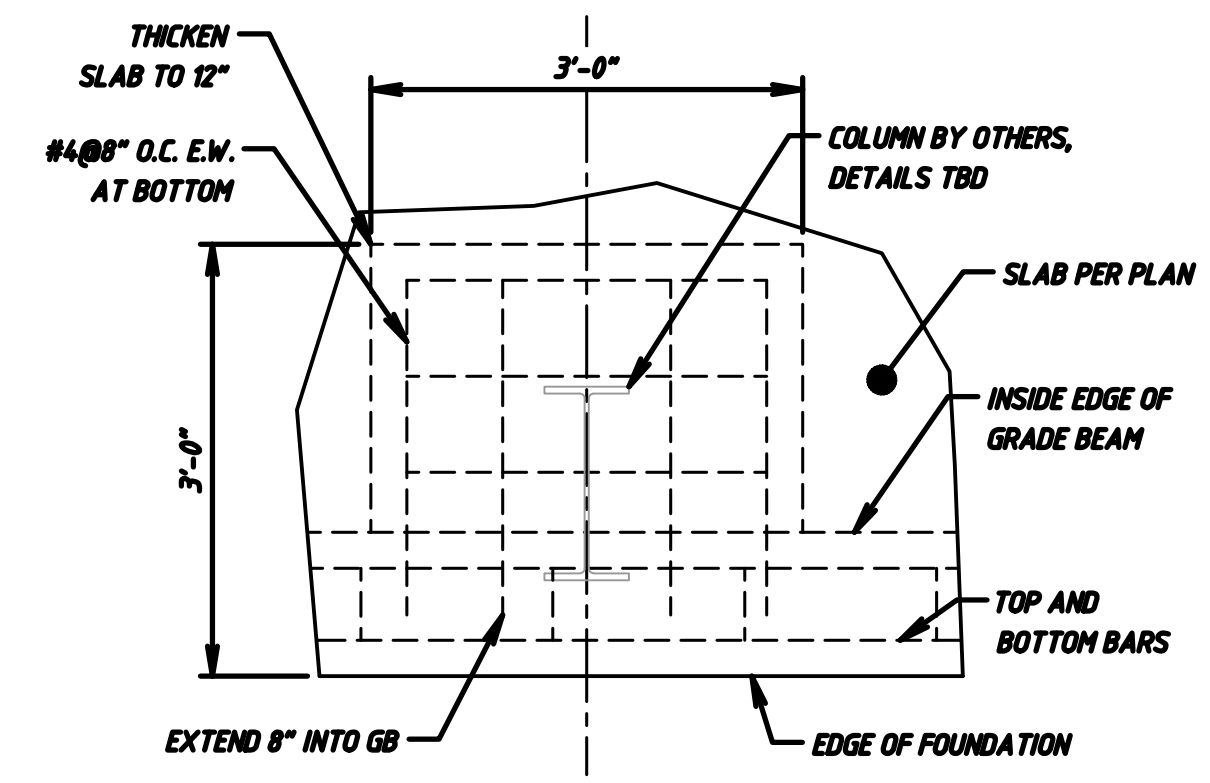
Project no: 22.11
Date: March 2023
Sheet:

FOUNDATION
DETAILS

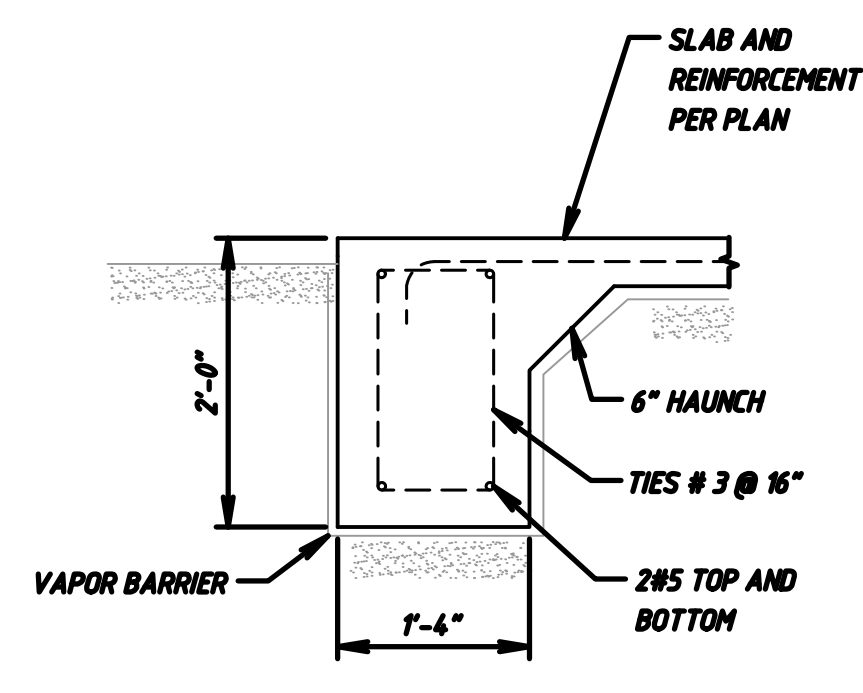
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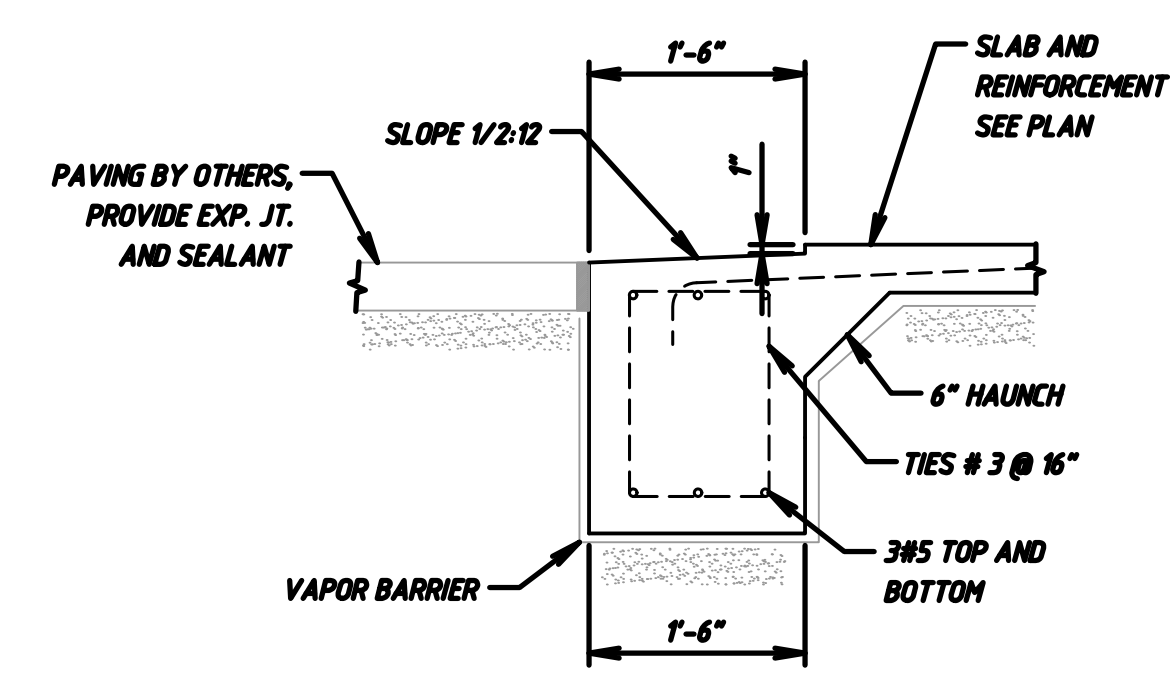
DETAIL A
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TYPICAL @ CORNERS



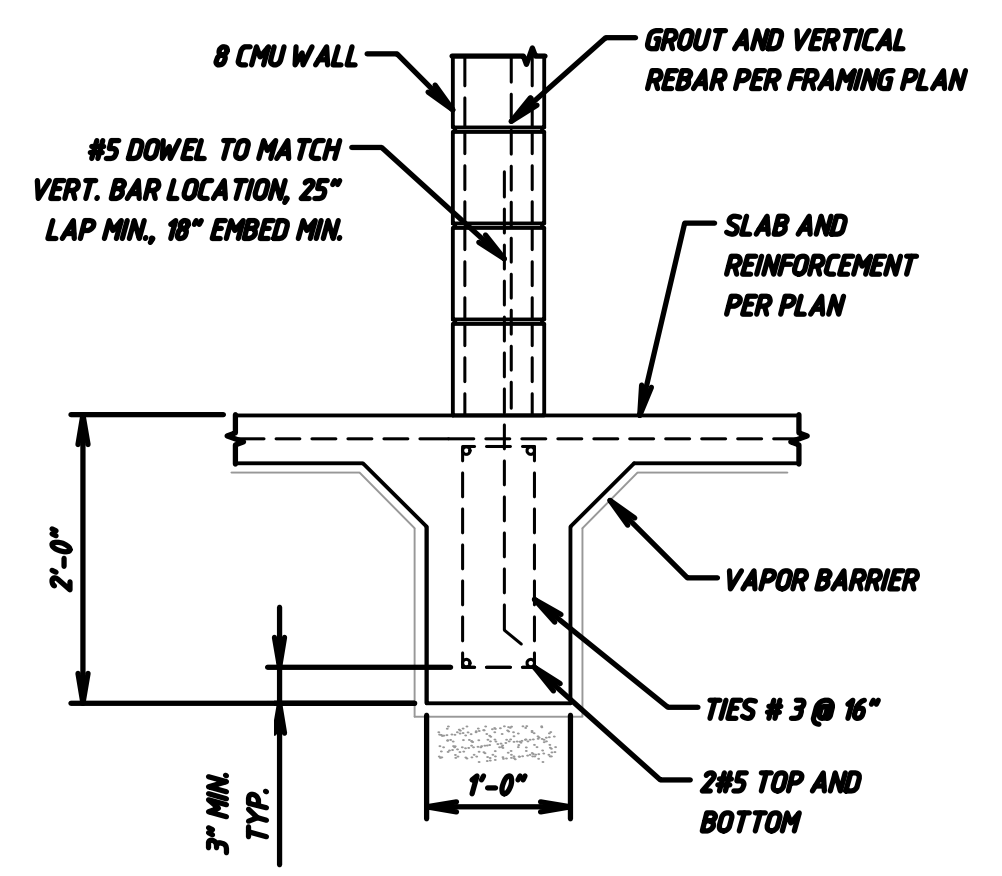
DETAIL B
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TYPICAL AT CENTER COLUMNS



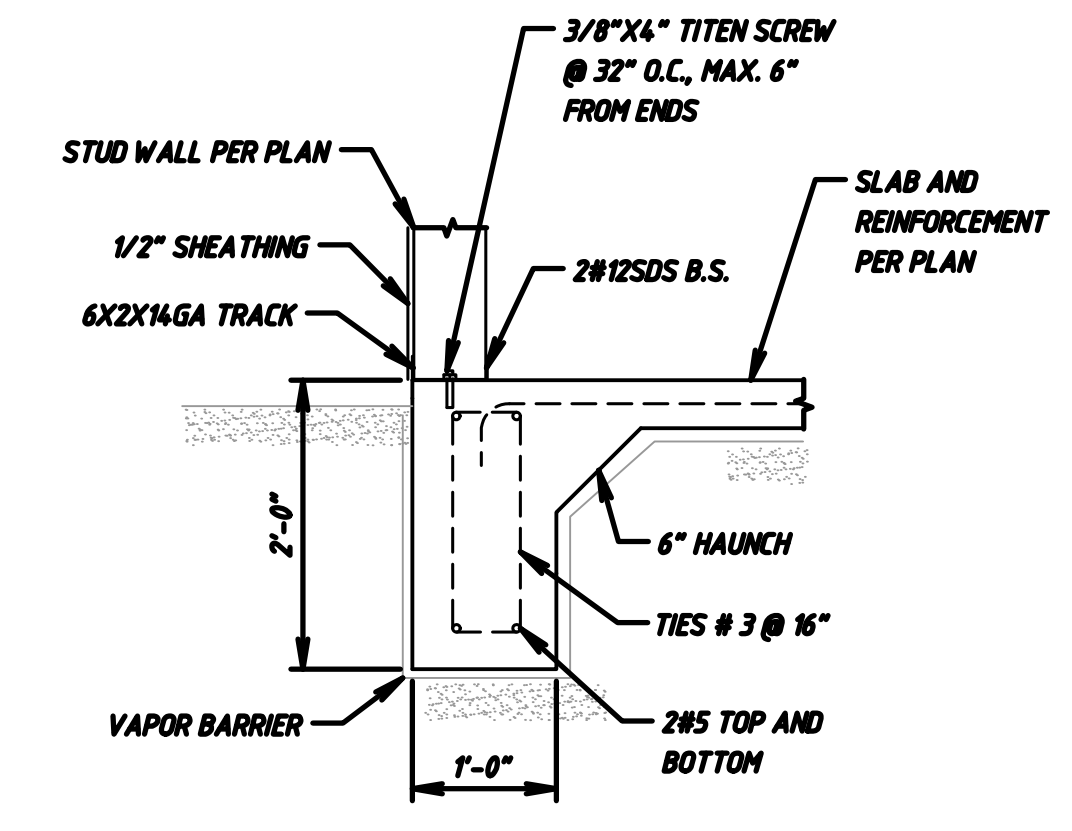
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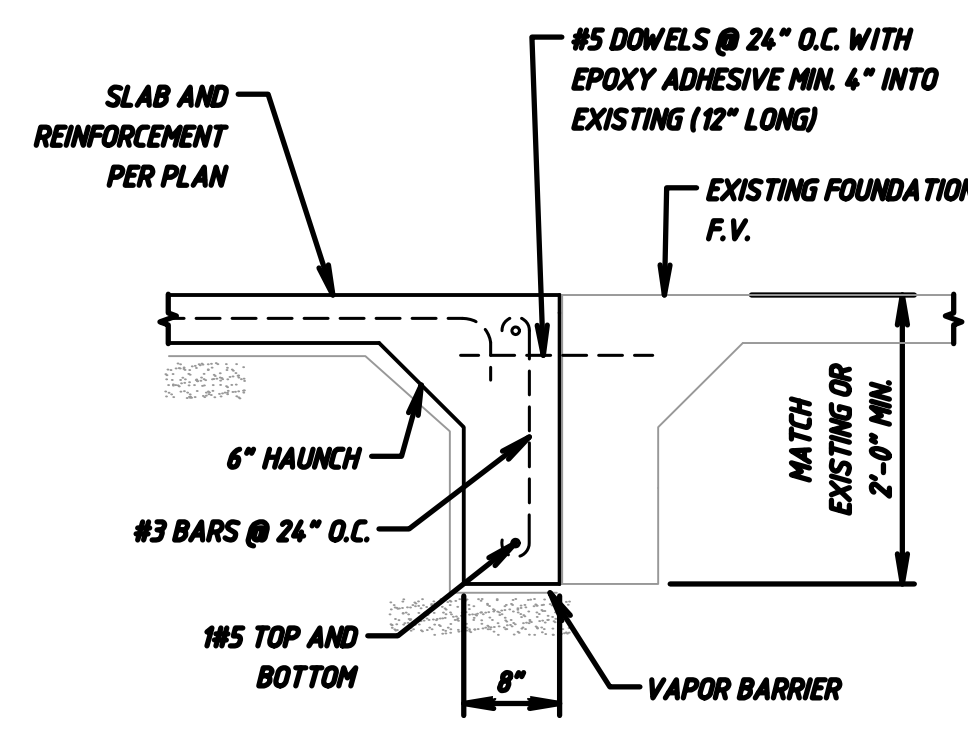
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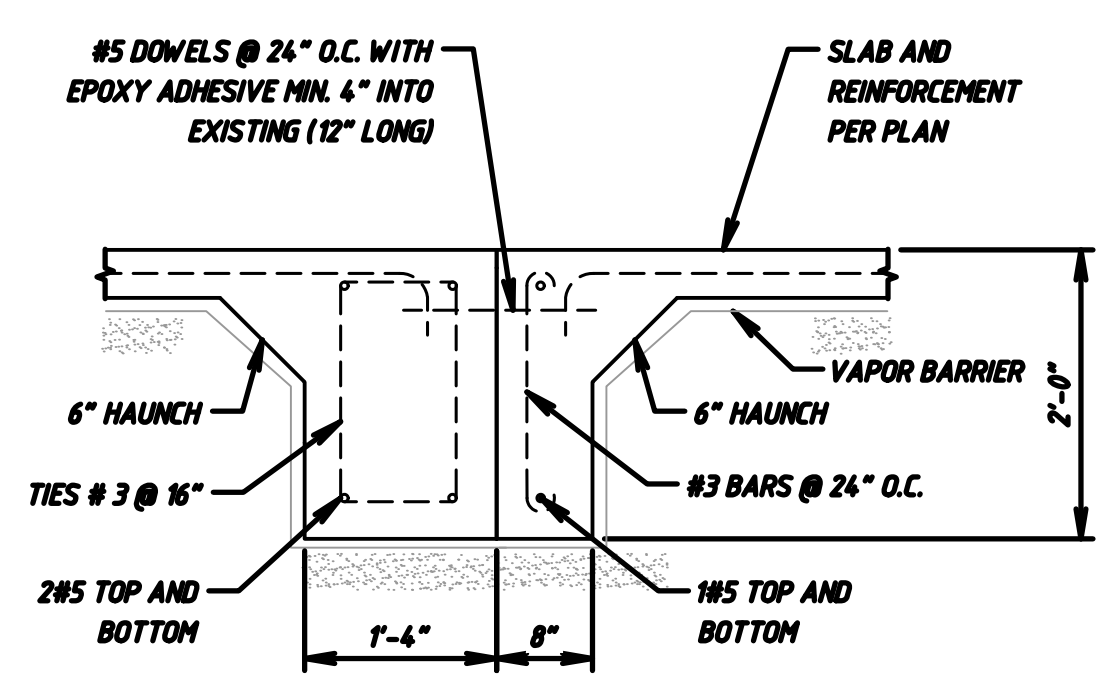
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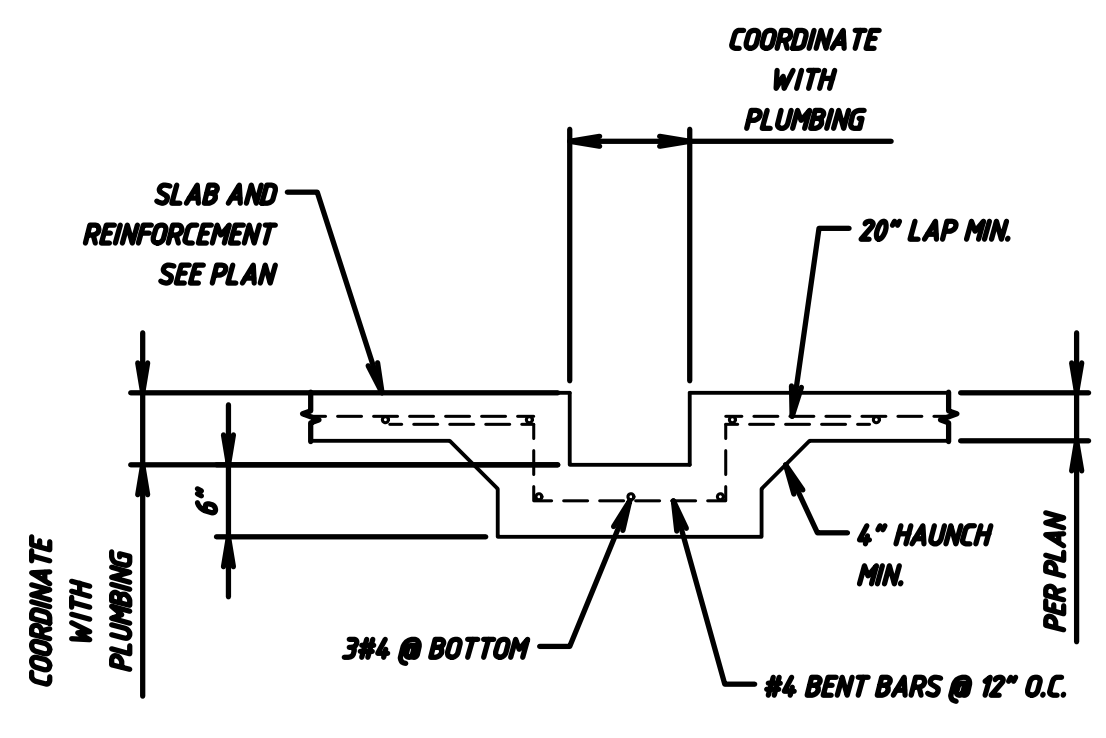
SECTION 4
SCALE: 3/4" = 1'-0"



SECTION 5
SCALE: 3/4" = 1'-0"



SECTION 5.1
SCALE: 3/4" = 1'-0"



SECTION 5.2
SCALE: 3/4" = 1'-0"



Alamogordo
Fire Station 6
Addition

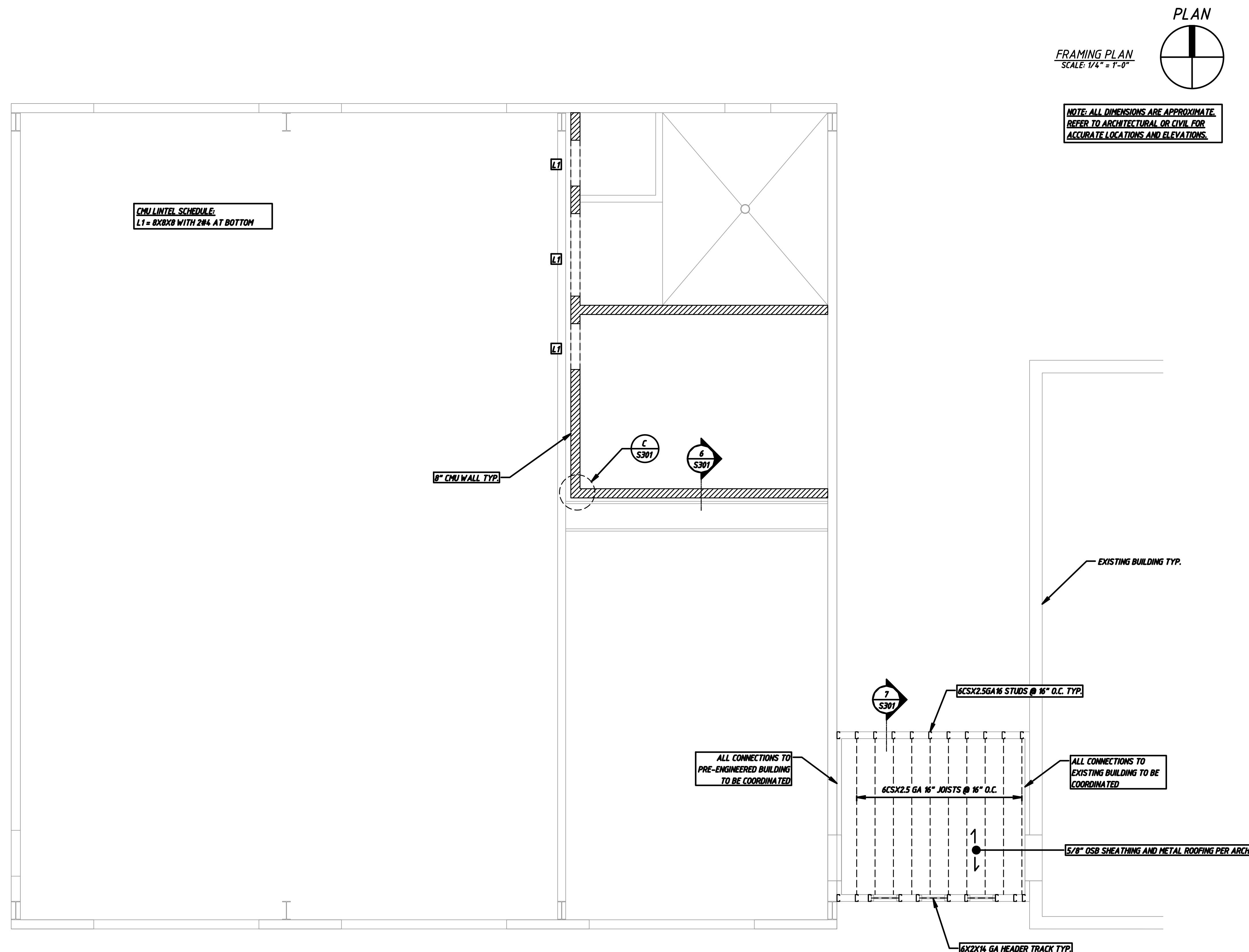
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Alamogordo, New Mexico

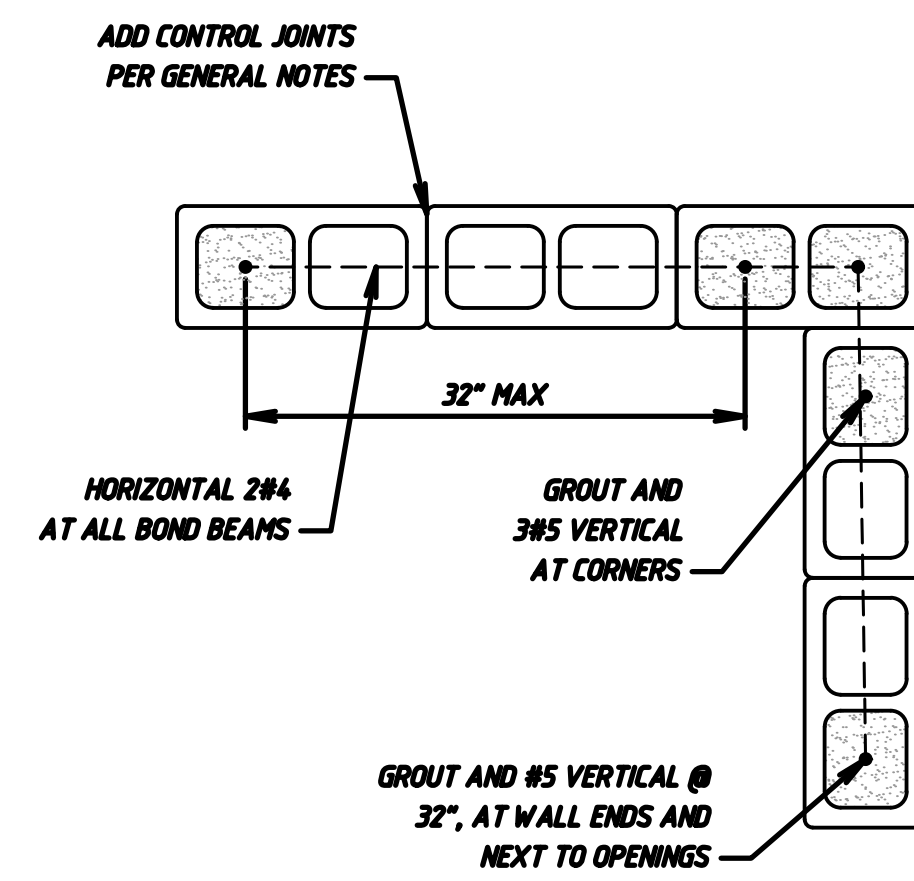
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Date: March 2023
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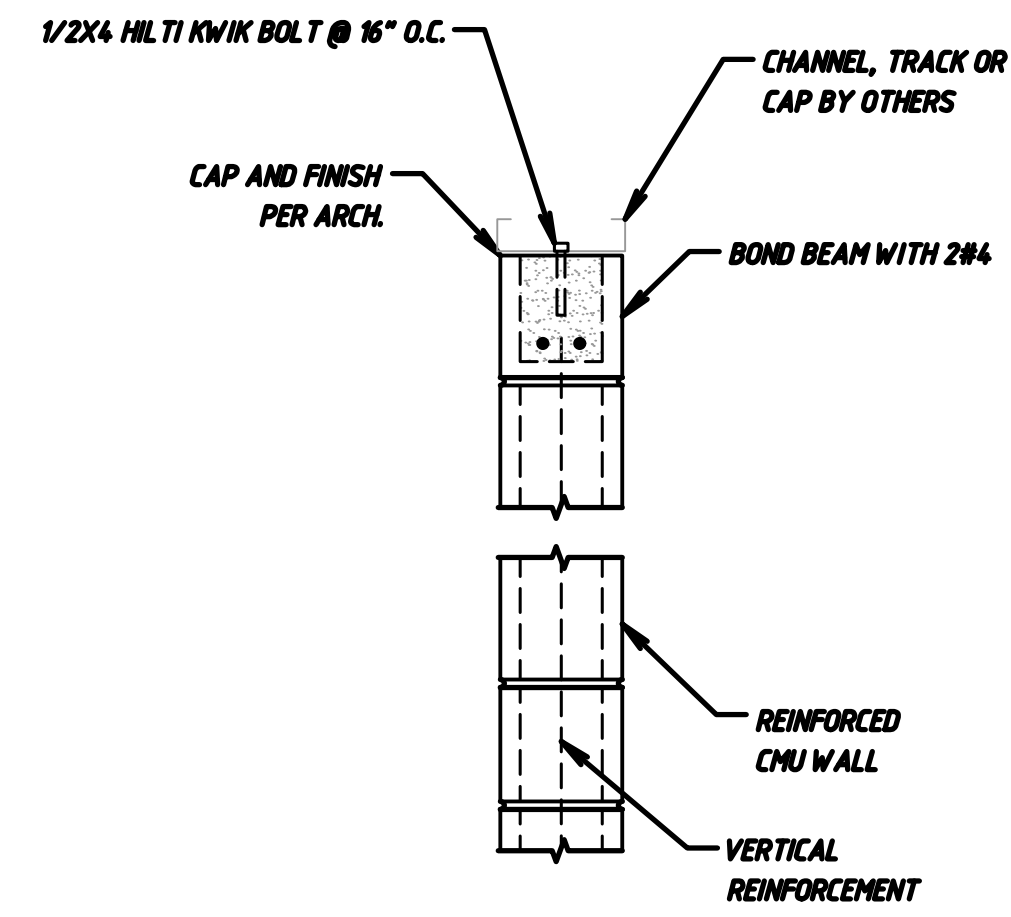
FRAMING
PLAN

S300

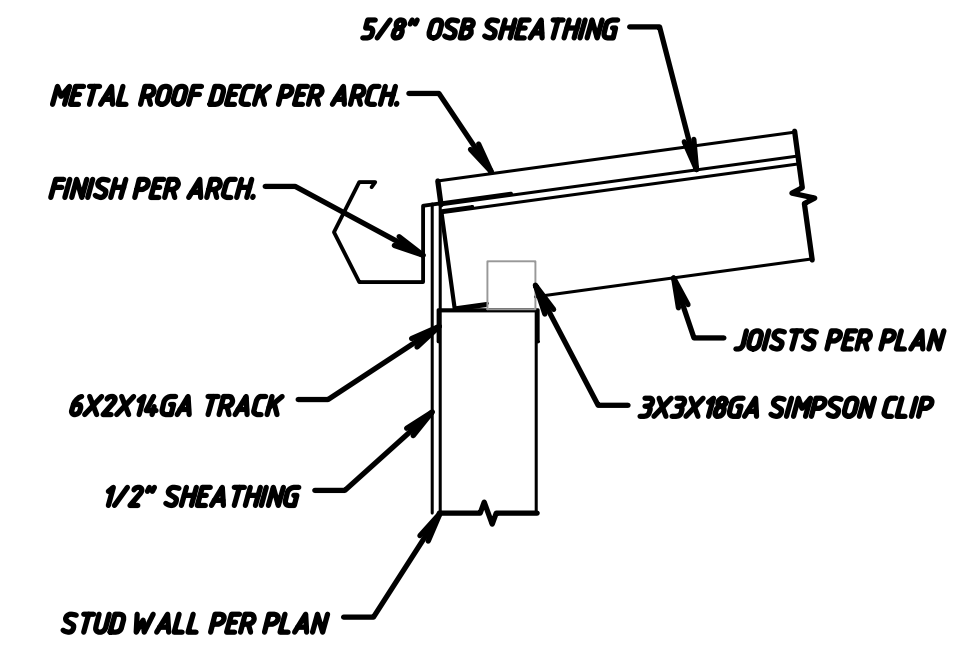




DETAIL C
SCALE: 1" = 1'-0"



SECTION 6
SCALE: 3/4" = 1'-0"



SECTION 7
SCALE: 3/4" = 1'-0"



Alamogordo
Fire Station 6
Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

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Project no: 22.11
Date: March 2023
Sheet:

FRAMING
DETAILS

S301



04.10.23

BUILDING ADDITION

Alamogordo Fire Station 6 Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

REVISION DATE

Project no: 22.11
Date: April 2023
Sheet:

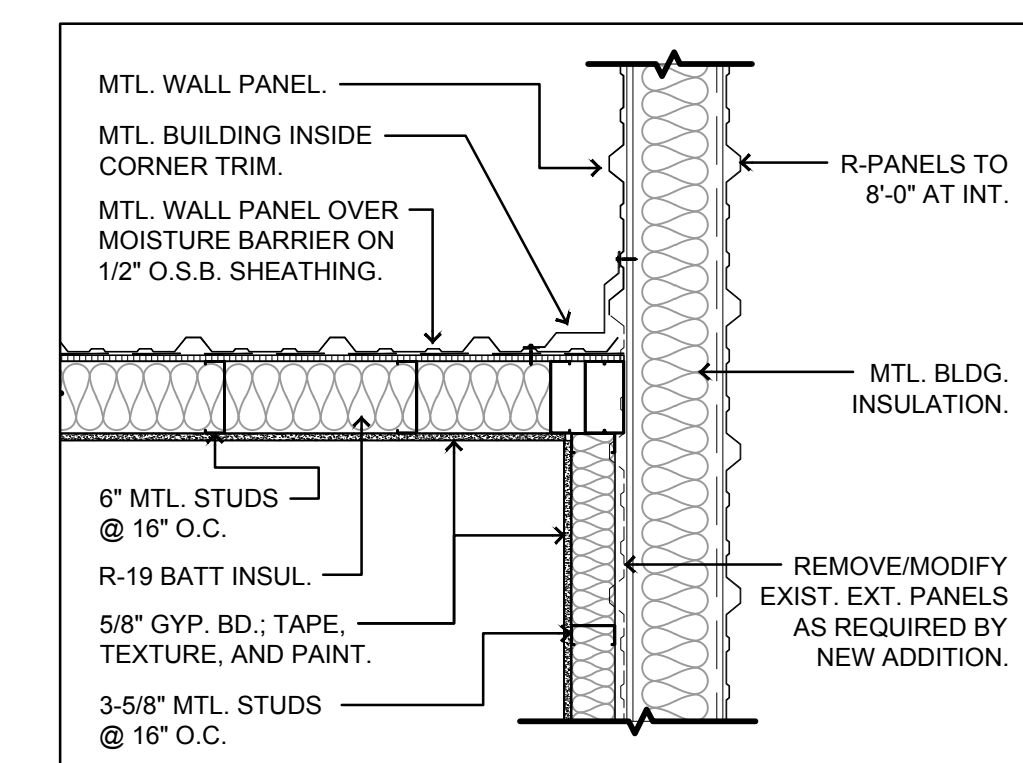
DIMENSION FLOOR PLAN

A100

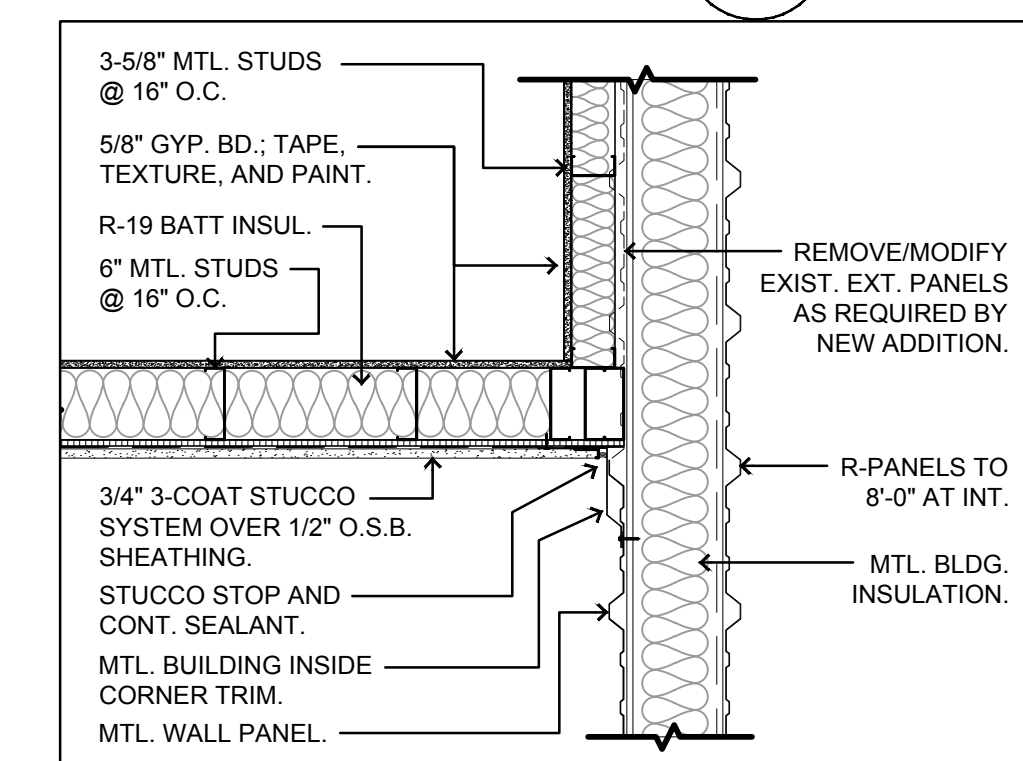
KEYED NOTES

- CONTRACTOR TO PROVIDE NEW 3'-0"x7'-0" DOOR OPENING IN EXISTING METAL BUILDING END WALL. CONTRACTOR TO PROVIDE ADDITIONAL 8" METAL BUILDING CEE'S FOR NEW DOOR OPENING FRAME.
- EMERGENCY SHOWER STATION WITH EYE WASH, SEE PLUMBING FOR ADDITIONAL INFORMATION.
- UTILITY SINK, DOUBLE BASIN, SEE PLUMBING.
- DRYING RACK TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- WASHER / EXTRACTOR TO BE PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR.
- 22"x22" BUNKER GEAR LOCKERS, PROVIDE IN-WALL WD. BLOCKING AT LOCKER ATTACHMENT POINTS.
- FLOOR DRAIN, SEE PLUMBING.
- TRENCH DRAIN, SEE PLUMBING.
- METAL BUILDING RIGID FRAME, METAL BUILDING TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
- WALL MOUNTED MULTI-PURPOSE FIRE EXTINGUISHER, LARSEN'S MP10 OR EQUAL.

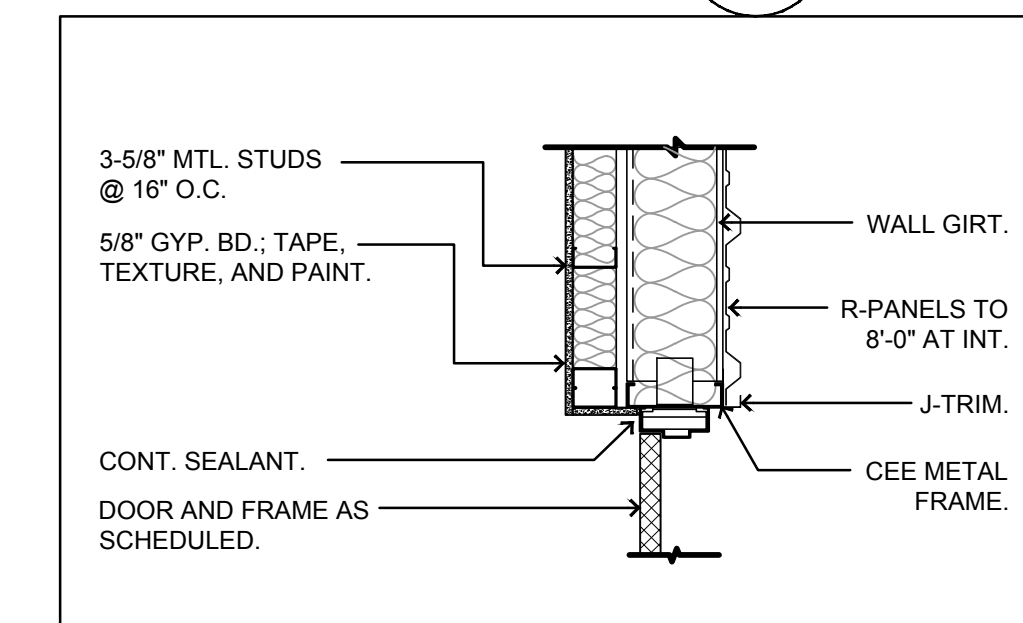
WALL TYPES



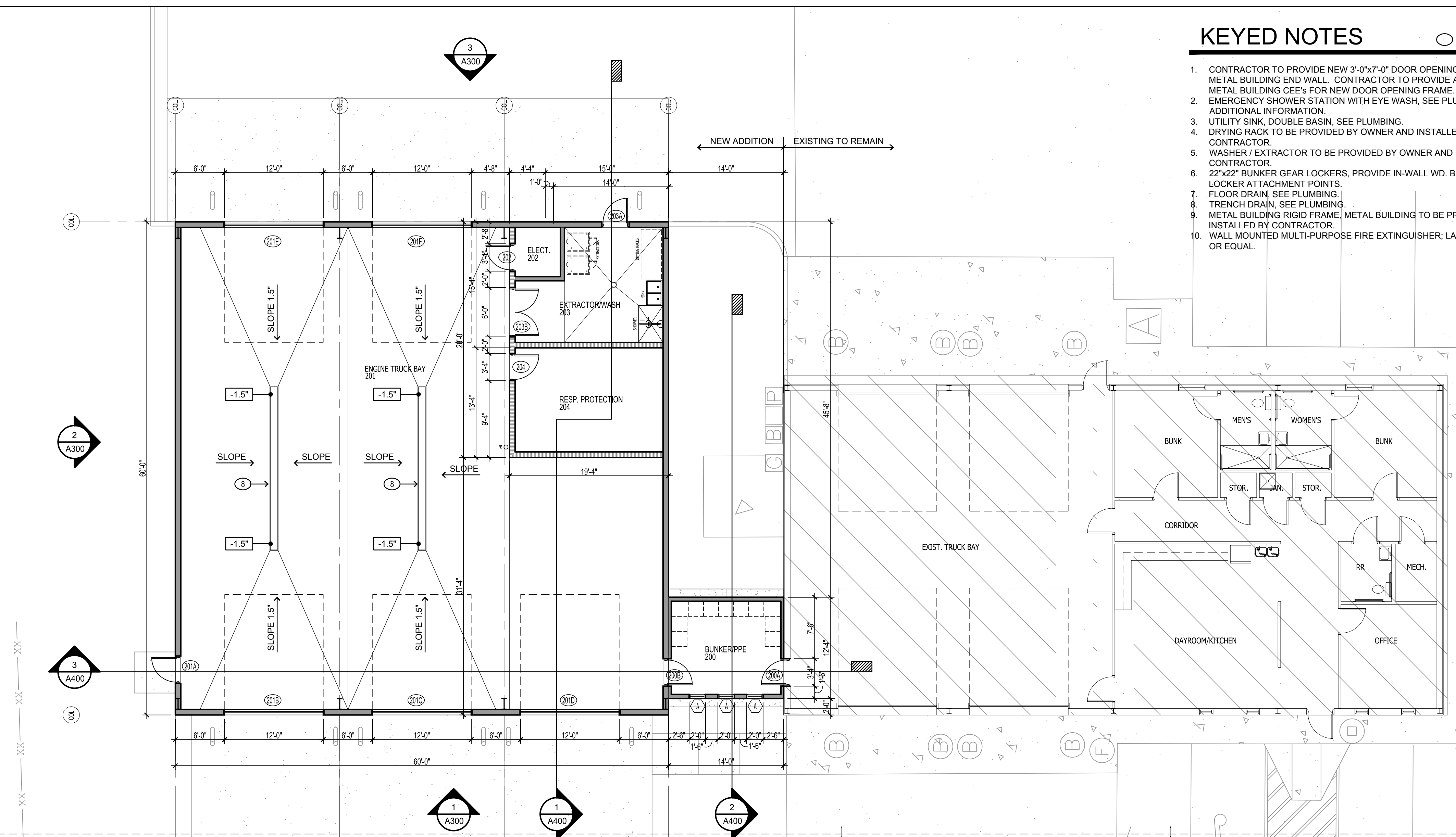
PLAN DETAIL 4
3/4" = 1'-0"
A100



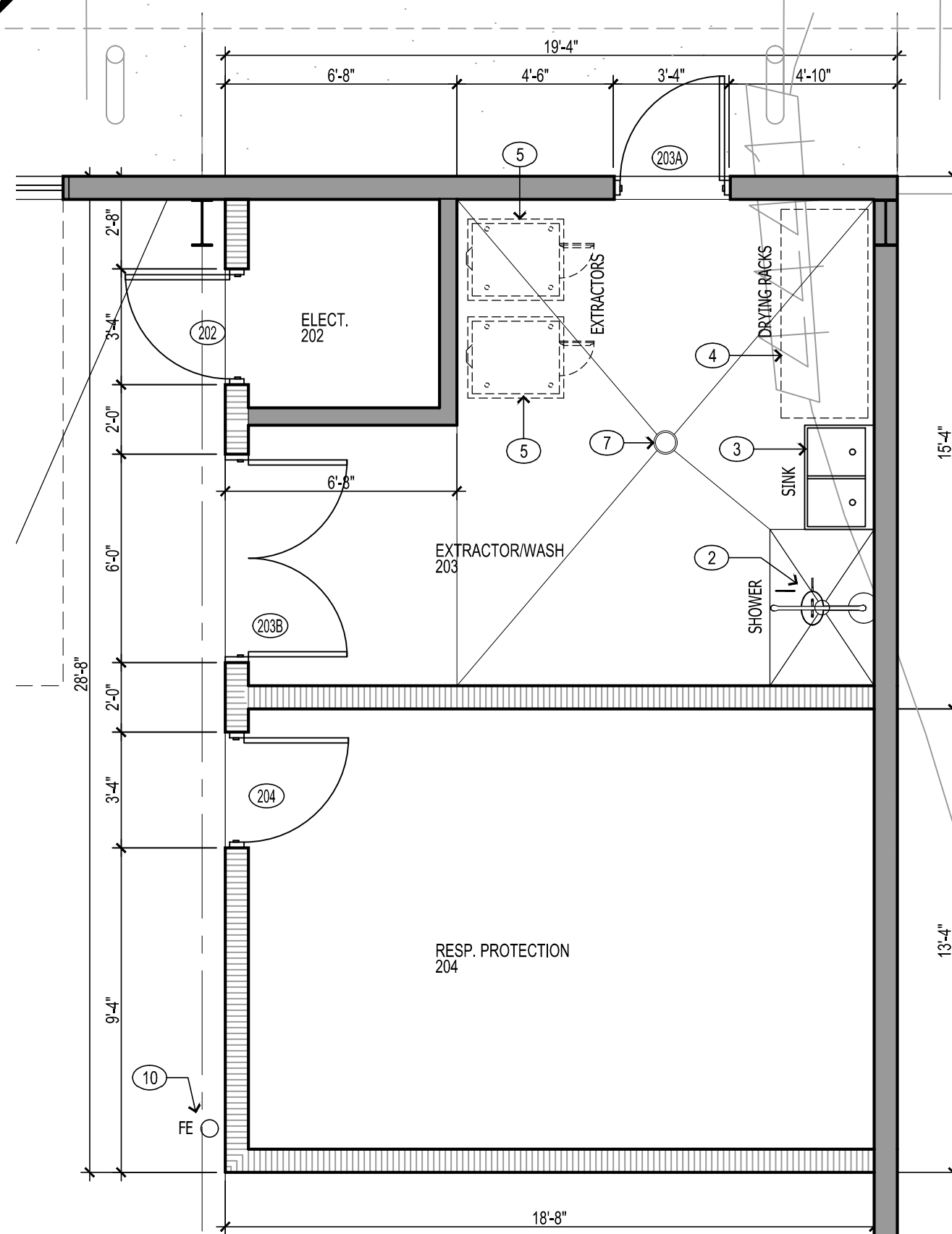
PLAN DETAIL 5
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A100



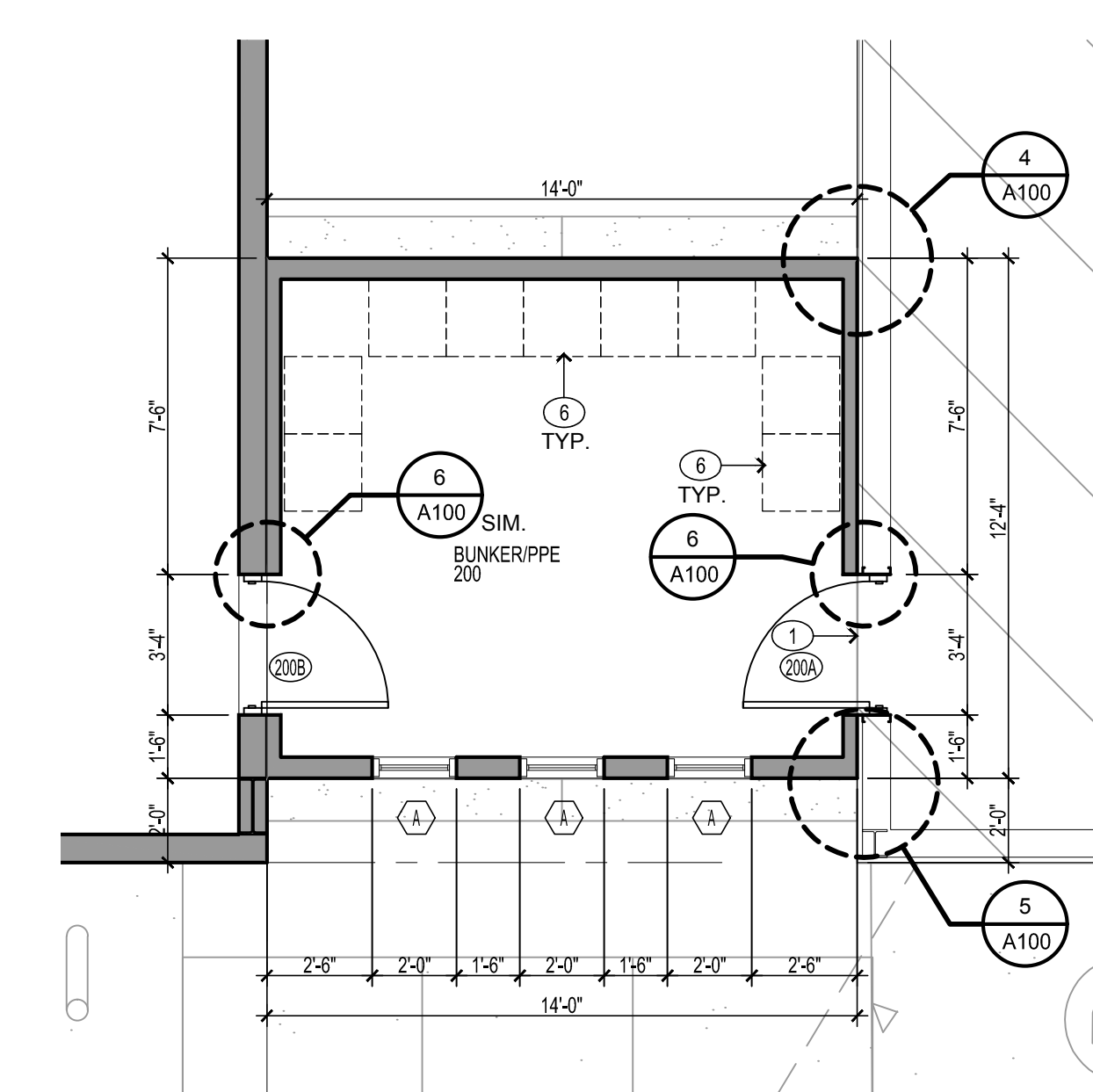
PLAN DETAIL 6
3/4" = 1'-0"
A100



FLOOR PLAN 1
1/8" = 1'-0"
A100



ENLARGED PLAN 2
1/4" = 1'-0"
A100



ENLARGED PLAN 3
1/4" = 1'-0"
A100

METAL BUILDING SPECS.

GENERAL

- PROVIDE PRE-ENGINEERED COMMERCIAL METAL BUILDING AND ALL REQUIRED ACCESSORIES FOR COMPLETE INSTALLATION.
- ALL FRAMING MEMBERS SHALL BE SHOP FABRICATED FOR FIELD BOLTED ASSEMBLY.
- ALL WELDS SHALL BE IN ACCORDANCE WITH AWS CODE FOR BUILDING CONSTRUCTION.
- ROVIDE PRE-FINISHED 26GA. COMMERCIAL GRADE R-PANEL METAL WALL PANELS AT ALL EXTERIOR WALLS. COLOR AS SELECTED BY OWNER.
- PROVIDE 24GA. BRIGHT WHITE MTL TRAPEZOIDAL LOCK ROOF PANEL OR EQUAL.
- PROVIDE VINYL FACED METAL BUILDING WALL AND ROOF INSULATION AS INDICATED ON DRAWINGS.

PRIMARY FRAMING

- ALL RIGID FRAMES SHALL BE WELDED BUILT-UP SECTIONS OR MILL SHAPES AS REQUIRED.
- BY DESIGN, BUILT-UP COLUMNS AND RAFTERS MAY BE EITHER CONSTANT OR TAPERED DEPTH.
- ENDWALL ROOF BEAMS AND ENDWALL COLUMNS SHALL BE COLD-FORMED "C" SECTIONS, MILL-ROLLED SECTIONS, OR BUILT-UP "I" SECTIONS DEPENDING ON DESIGN REQUIREMENTS.
- BASE PLATES, SPLICE PLATES, CAP PLATES, AND STIFFENERS SHALL BE FACTORY WELDED INTO PLACE ON THE STRUCTURAL MEMBERS.
- BASE PLATES, SPLICES, AND FLANGES SHALL BE SHOP FABRICATED TO INCLUDE BOLT CONNECTION HOLES. WEBS SHALL BE SHOP FABRICATED TO INCLUDE BRACING HOLES.

SECONDARY FRAMING

- PURLINS AND GIRTS SHALL BE COLD-FORMED "Z" SECTIONS WITH STIFFENED FLANGES. THEY SHALL BE PREPUNCHED AT THE FACTORY TO PROVIDE FOR FIELD BOLTING TO CLIPS. THEY SHALL BE FLUSH OR BY-PASS AS REQUIRED BY DESIGN AND THE CONTRACT DOCUMENTS.
- EAVE STRUTS SHALL BE UNEQUAL FLANGE COLD-FORMED "C" SECTIONS.
- A BASE MEMBER WILL BE SUPPLIED BY WHICH THE BASE OF THE WALL COVERING MAY BE ATTACHED TO THE PERIMETER OF THE SLAB. BASE ANGLE SHALL BE SECURED TO THE CONCRETE SLAB WITH EXPANSION ANCHORS.

Date: Apr 18, 2023 - 11:50am User: Station 5
Drawing File: K:\2022 Projects\2211 Alamogordo Fire Station\DWG\Sheets\2211-A100.dwg
Last Saved By: Station 5 Mar 21, 2023 - 10:35am
Layout Name: A100

Alamogordo Fire Station 6 Addition

3100 N. Florida Ave.
Alamogordo, New Mexico

| ROOM FINISH SCHEDULE | | | | | | | | | | |
|----------------------|------------------|------|------|-------|----|----|------|----------|---------|-----------------------------|
| ROOM NO. | ROOM NAME | FLR. | BSE. | WALLS | | | CLG. | CLG. HT. | REMARKS | |
| | | | | N | W | S | E | | | |
| 200 | BUNKER/PPE | F1 | B2 | - | - | - | W3 | C1 | 10'-0" | |
| 201 | TRUCK BAY | F1 | B2 | W1 | W1 | W1 | W1 | C2 | 10'-0" | SEE RCP FOR CEILING DETAILS |
| 202 | ELECT. | F1 | B2 | W1 | W1 | W1 | W1 | C1 | 10'-0" | |
| 203 | EXTRACTOR/WASH | F1 | B2 | W1 | W1 | W1 | W1 | C1 | 10'-0" | |
| 204 | RESP. PROTECTION | F1 | | | | | | | | |

* SEE RCP FOR CEILING DETAILS

| FINISHES | | | | | |
|----------|-----------------|------|----------------|----|--|
| FLOOR | BASE | WALL | CEILING | | |
| F1 | SEALED CONCRETE | B1 | 4" RUBBER BASE | W1 | GYP. WALL BD., PAINT & TEXT. |
| | | | | W2 | R-PANEL TO 8" W/ WIRE ABOVE. |
| | | | | W3 | FRP PANEL TO 8" W/ WIRE ABOVE. |
| | | | | W4 | FRP PANEL TO 8" W/ PAINTED GYP. BD. ABOVE. |
| | | | | W5 | 8" C.M.U. W/ EPOXY PAINT FINISH |
| | | | | W6 | 5/8" PAINTED GYP. BD. |

- EPOXY PAINT - PROVIDE SHERWIN WILLIAMS PRO INDUSTRIAL HIGH PERFORMANCE EPOXY B67-200 SERIES OR EQUAL. COLOR AS SELECTED BY OWNER/ARCH.
- ACOUSTICAL CEILING - PROVIDE ARMSTRONG PRELUDE XL 15/16" EXPOSED TEE SYSTEM WITH ULTIMA TEGULAR CEILING TILE.
- FRP (FIBERGLASS REINFORCED PLASTIC) - MARLITE STANDARD FRP, TEXTURED. COLOR AS SELECTED BY OWNER/ARCH.

DOOR SCHEDULE

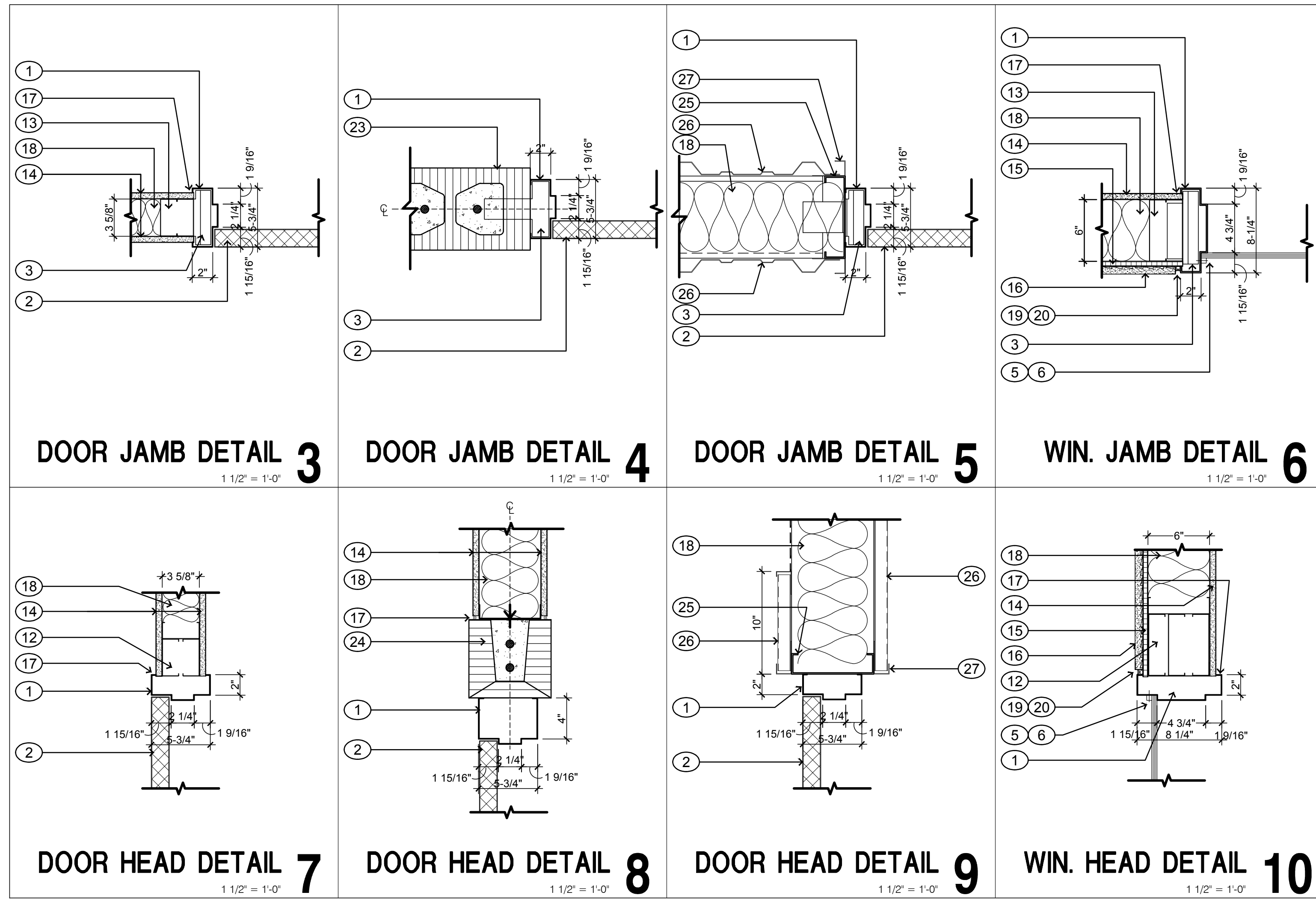
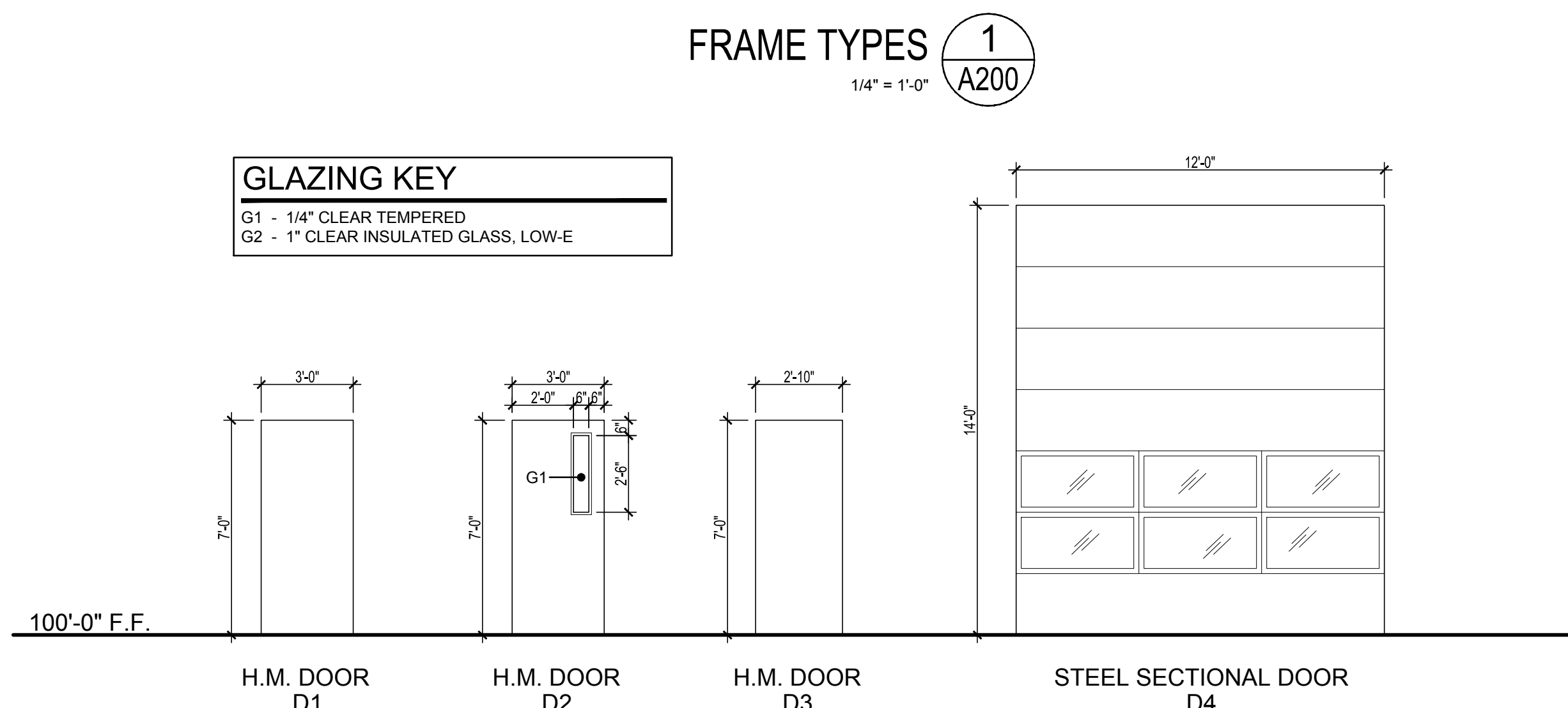
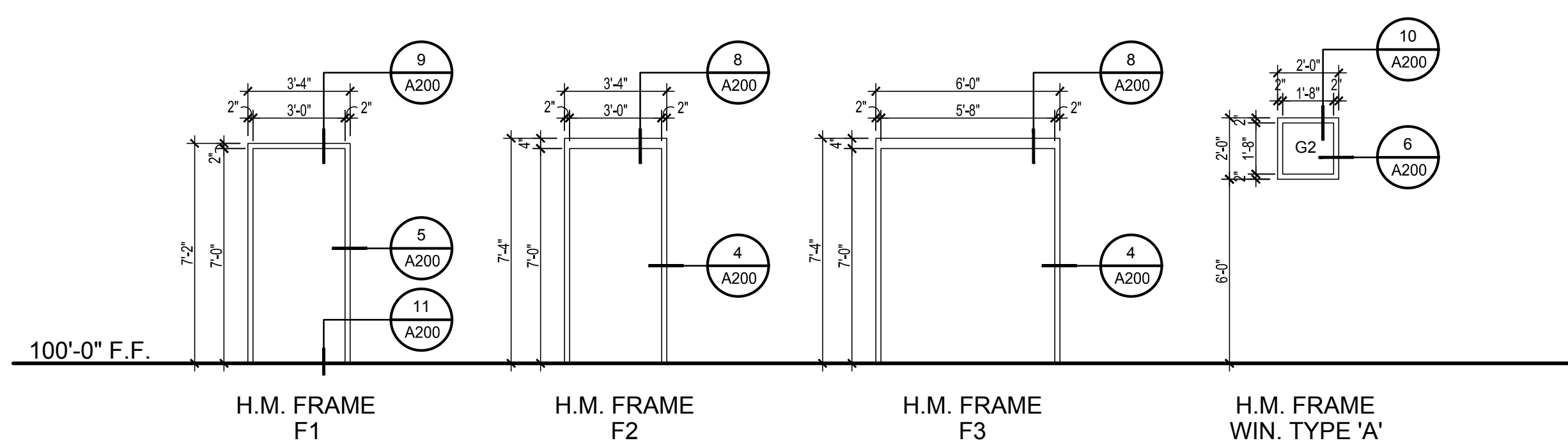
| DOOR NO. | WIDTH | HT. | THKNS. | TYPE | FRAME W X D | FRAME TYPE | HDWR SET | REMARKS |
|----------|------------|--------|--------|------|-------------|------------|----------|--|
| 200A | 3'-0" | 7'-0" | 1-3/4" | D2 | 2'x5 3/4" | F1 | HW-3 | |
| 200B | 3'-0" | 7'-0" | 1-3/4" | D2 | 2'x5 3/4" | F1 | HW-3 | |
| 201A | 3'-0" | 7'-0" | 1-3/4" | D1 | 2'x5 3/4" | F1 | HW-1 | |
| 201B | 12'-0" | 14'-0" | | | | | | INSULATED GARAGE DOOR TO MATCH EXIST. |
| 201C | 12'-0" | 14'-0" | | | | | | INSULATED GARAGE DOOR TO MATCH EXIST. |
| 201D | 12'-0" | 14'-0" | | | | | | INSULATED GARAGE DOOR TO MATCH EXIST. |
| 201E | 12'-0" | 14'-0" | | | | | | INSULATED GARAGE DOOR TO MATCH EXIST. |
| 201F | 12'-0" | 14'-0" | | | | | | INSULATED GARAGE DOOR TO MATCH EXIST. |
| 202 | 3'-0" | 7'-0" | 1-3/4" | D1 | 2'x5 3/4" | F2 | HW-2 | |
| 203A | 3'-0" | 7'-0" | 1-3/4" | D1 | 2'x5 3/4" | F1 | HW-4 | |
| 203B | DBL 2'-10" | 7'-0" | 1-3/4" | D3 | 2'x5 3/4" | F3 | HW-4 | PROVIDE ONE OPERABLE AND ONE INOPERABLE LEAF |
| 204 | 3'-0" | 7'-0" | 1-3/4" | D1 | 2'x5 3/4" | F2 | HW-4 | |

NOTE: ALL HARDWARE TO BE COMMERCIAL GRADE 1 (KEYING SYSTEM TO MATCH CITY OF ALAMOGORDO STANDARDS)

| HW-1 EXTERIOR PANIC HARDWARE SET WEATHER SEALS (3) 5-KNUCKLE FULL MORTISE HINGES ALUMINUM THRESHOLD CLOSER | HW-2 STORAGE STORAGE LEVER LOCK SET (3) 5-KNUCKLE FULL MORTISE HINGES SILENCERS WALL BUMPER | HW-3 PASSAGE PUSH/PULL PLATE (3) 5-KNUCKLE FULL MORTISE HINGES SILENCERS WALL BUMPER KICK PLATE BOTH SIDES CLOSER | HW-4 ENTRY ENTRANCE LOCK SET (3) 5-KNUCKLE FULL MORTISE HINGES SILENCERS WALL BUMPER KICK PLATE BOTH SIDES FLUSH BOLTS @ DR 203B) |
|--|---|---|---|
|--|---|---|---|

STEEL SECTIONAL DOOR

- CONTRACTOR TO PROVIDE 12'-0" Wx 14'-0" H THERMACORE SECTIONAL STEEL DOORS MODEL 596 BY OVERHEAD DOOR COMPANY OR EQUAL.
- PROVIDE WITH THERMAL GLAZING AND ALUMINUM SASH SECTIONS AS SHOWN ON DOOR ELEVATION.
- PROVIDE ALL HIGH USAGE COMPONENTS
- PROVIDE WITH ELECTRIC OPERATORS AND CHAIN HOIST.
- PROVIDE SAFETY FEATURES AND SENSING EDGES.
- COLOR OPTION TO BE WHITE TO MATCH EXISTING TRUCK BAY DOORS.
- PROVIDE ALL COMPONENTS REQUIRED FOR FULL INSTALLATION.
- INSTALL PER MANUFACTURERS REQUIREMENTS.



- ### H.M. KEYED NOTES
- H.M. FRAME, SEE SCHEDULE.
 - DOOR, SEE SCHEDULE.
 - DOOR WINDOW ANCHORS, 3 PER JAMB MIN. CLIP ANCHOR AT FLOOR WHERE REQUIRED.
 - NOT USED.
 - GLAZING, SEE SCHEDULE.
 - GLAZING STOP.
 - THRESHOLD.
 - CONCRETE WALK, SEE CIVIL.
 - 1" RIGID INSULATION, TYP. AT FOOTING PERIMETER 24" DP.
 - CONCRETE FOOTING, SEE STRUCTURAL.
 - EDGE OF JAMB BEYOND.
 - LIGHT-GUAGE METAL CHANNEL HEADER.
 - 16 GAUGE STUDS WELDED TOGETHER. EXTEND AND BRACE TO STRUCTURE ABOVE. TYP. AT ALL INTERIOR STUD WALL DOORS AND WINDOWS.
 - 5/8" GYPSUM WALL BOARD.
 - 1/2" GYPSUM SHEATHING.
 - STUCCO SYSTEM AS SPECIFIED.
 - CONTINUOUS SEALANT, BOTH SIDES.
 - BATT. INSULATION AS SCHEDULED.
 - 1/2" SEALANT AND BACKER ROD.
 - PROVIDE FLASHING.
 - 1/4" SHIM MAX.
 - FLOOR FINISH AS SCHEDULED.
 - C.M.U. WALL, SEE WALL TYPES.
 - REINFORCED C.M.U. LINTEL, SEE STRUCT.
 - MTL. BUILDING CEE METAL AT DOOR JAMB/HEAD.
 - PRE-FINISHED MTL. R-PANEL.
 - PRE-FINISHED MTL. BUILDING J-TRIM.

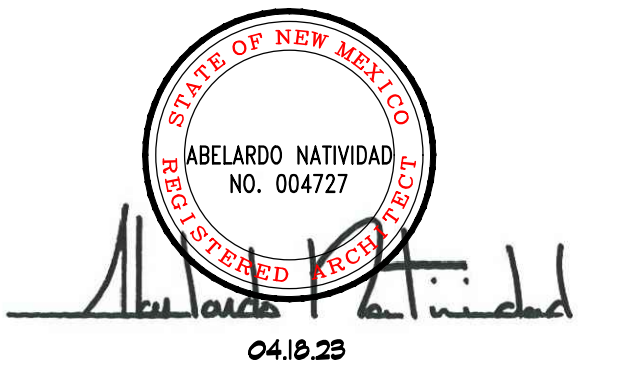
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SCHEDULES WIN. AND DOOR TYPES A200

KEYED NOTES

1. 3-COAT STUCCO SYSTEM OVER METAL BUILDING WALL PANELS MATCH EXISTING.
2. STONE VENEER OVER STUCCO SCRATCH COAT OVER METAL BUILDING WALL PANELS, MATCH EXISTING.
3. PRE-FINISHED METAL BUILDING WALL PANELS BY METAL BUILDING MANUFACTURER.
4. PRE-FINISHED METAL BUILDING ROOF PANELS BY METAL BUILDING MANUFACTURER.
5. METAL BUILDING TRIM BY METAL BUILDING MANUFACTURER. CONTRACTOR TO PROVIDE ALL REQUIRED METAL BUILDING TRIM AND FLASHING AS REQUIRED BY NEW ADDITION.
6. SECTIONAL DOOR, 12Wx14H TO MATCH EXISTING TRUCK BAY DOOR SYSTEM.
7. 2X2 H.M. FRAME WINDOW SYSTEM. SEE WINDOW TYPES.
8. H.M. DOOR AND FRAME, SEE DOOR AND FRAME TYPES.
9. STEEL PIPE BOLLARD, SEE BOLLARD DETAIL.
10. PRE-FINISHED METAL GUTTER AND DOWNSPOUT SYSTEM.
11. HIDDEN LINE OF BUILDING BEYOND.



BUILDING ADDITION

**Alamogordo
Fire Station 6
Addition**

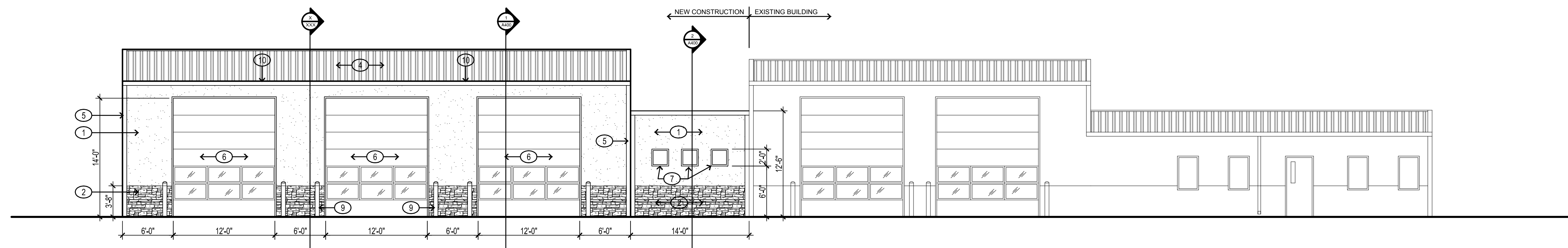
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Alamogordo, New Mexico

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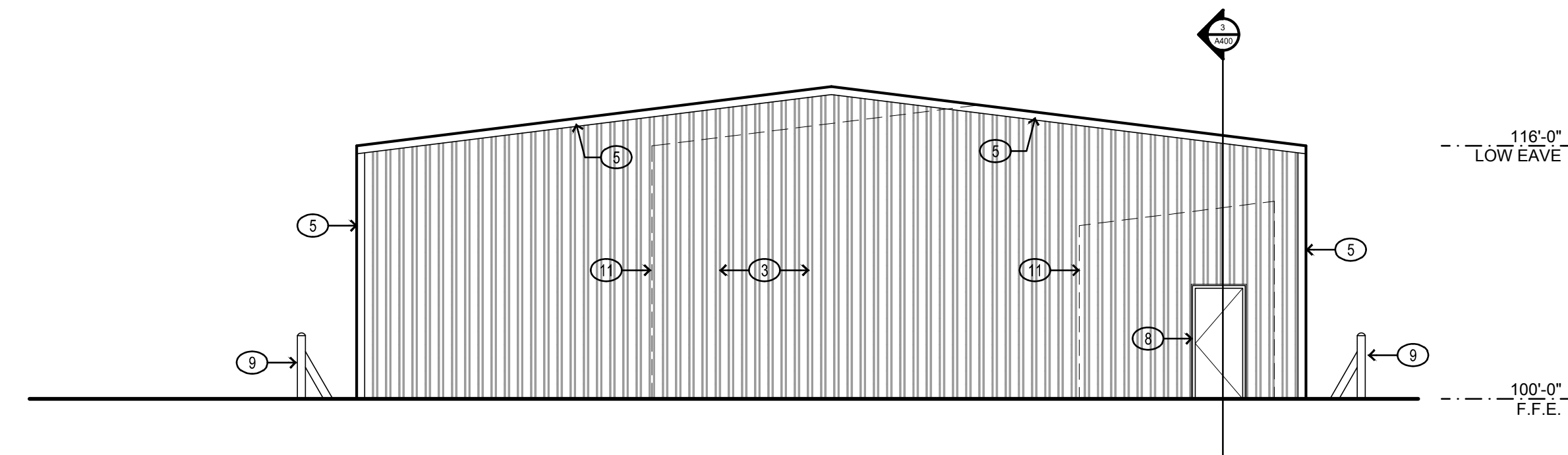
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**EXTERIOR
ELEVATIONS**

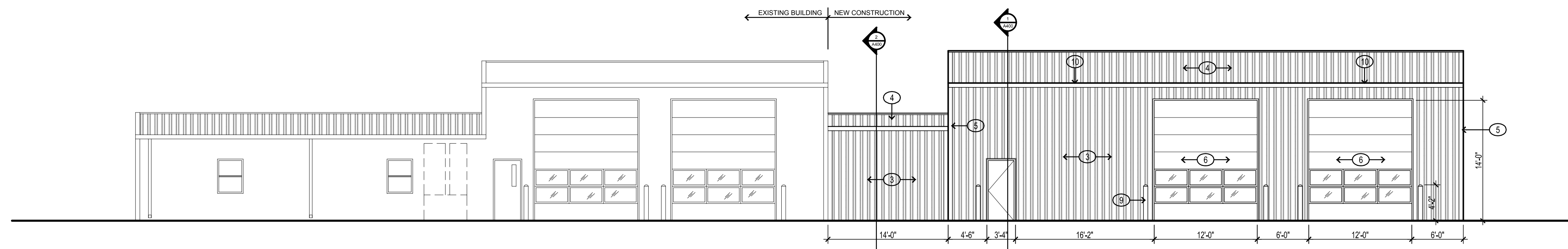
A300



WEST ELEVATION 1
1/8" = 1'-0" A300



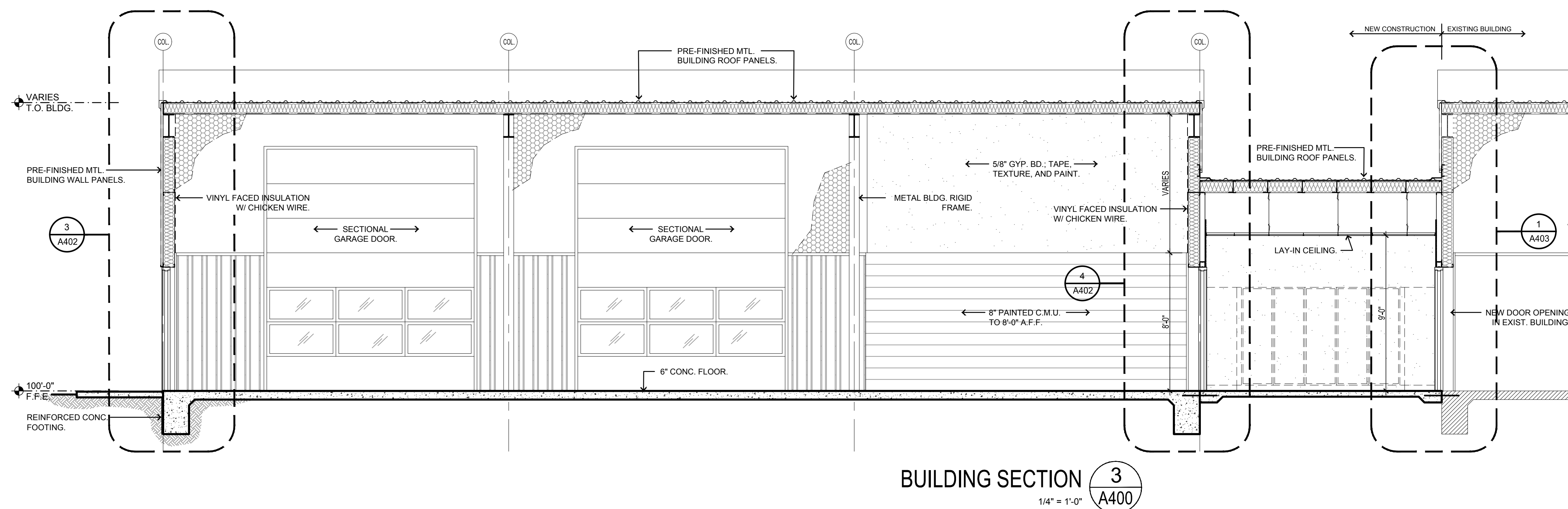
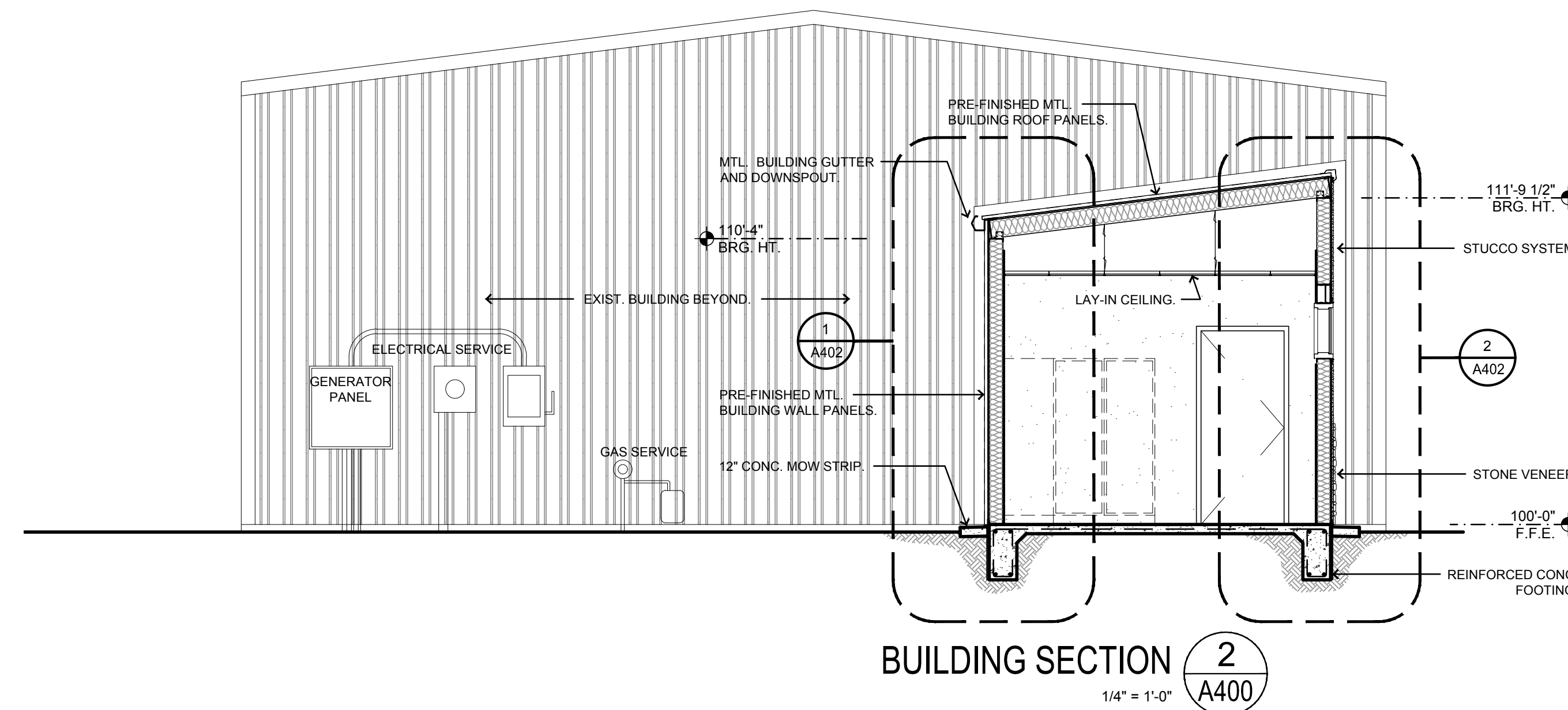
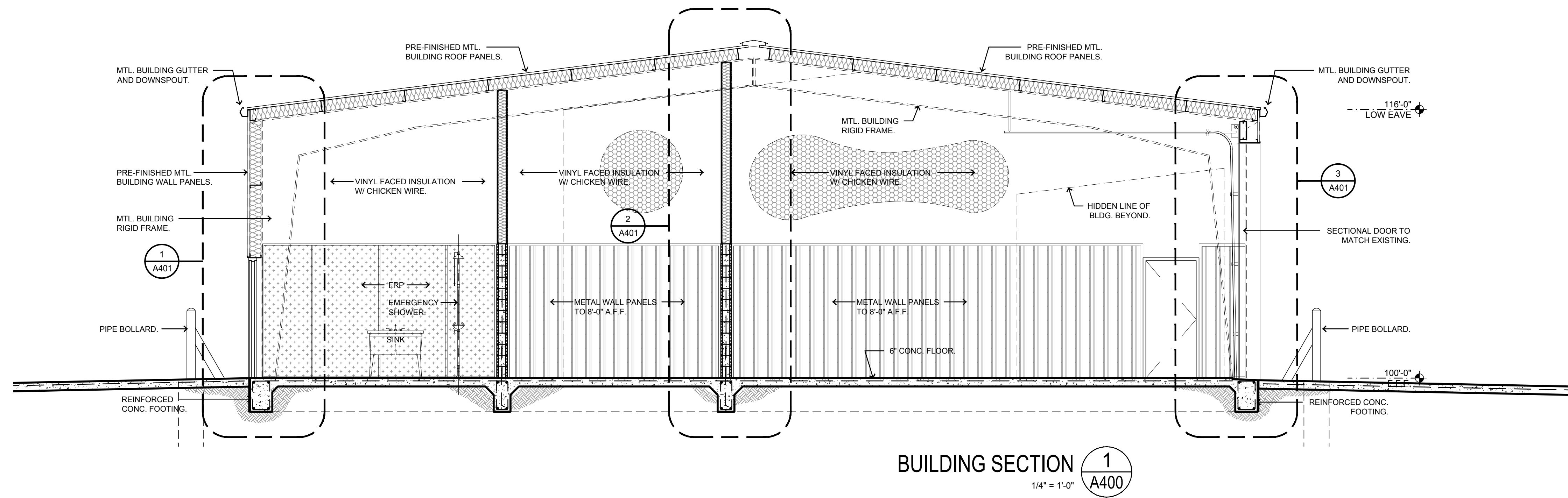
NORTH ELEVATION 2
1/8" = 1'-0" A300



EAST ELEVATION 3
1/8" = 1'-0" A300



04.10.23



BUILDING ADDITION

Alamogordo Fire Station 6 Addition

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Alamogordo, New Mexico

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BUILDING SECTIONS

A400



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BUILDING ADDITION

Alamogordo Fire Station 6 Addition

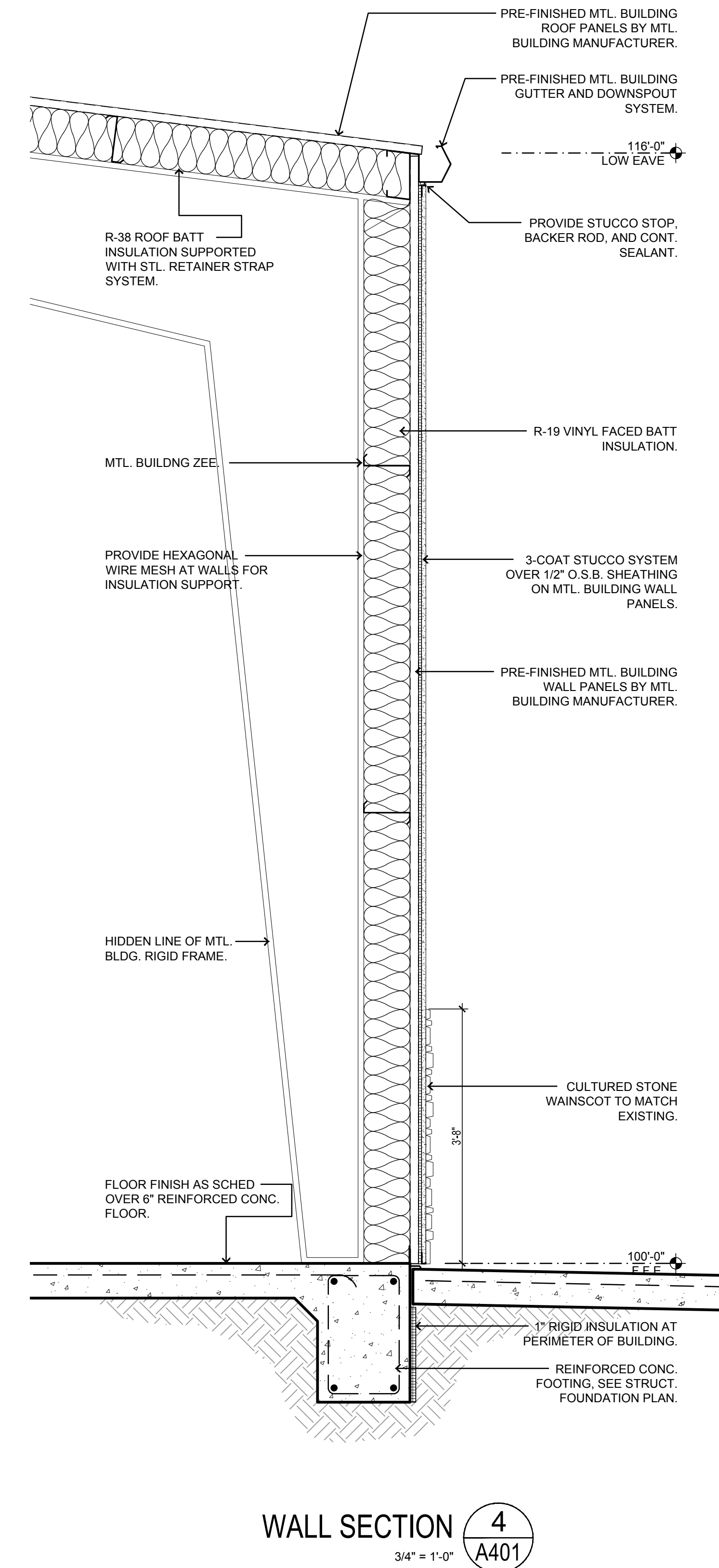
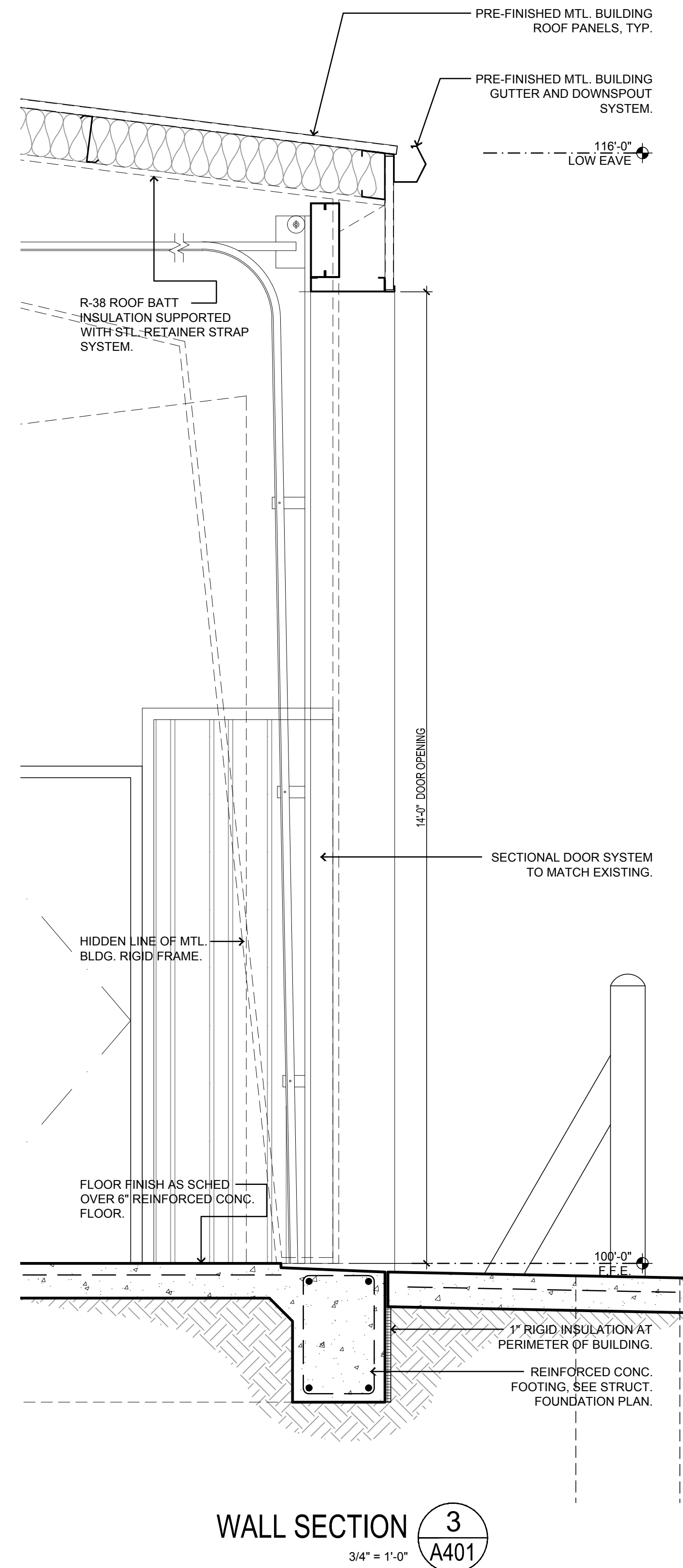
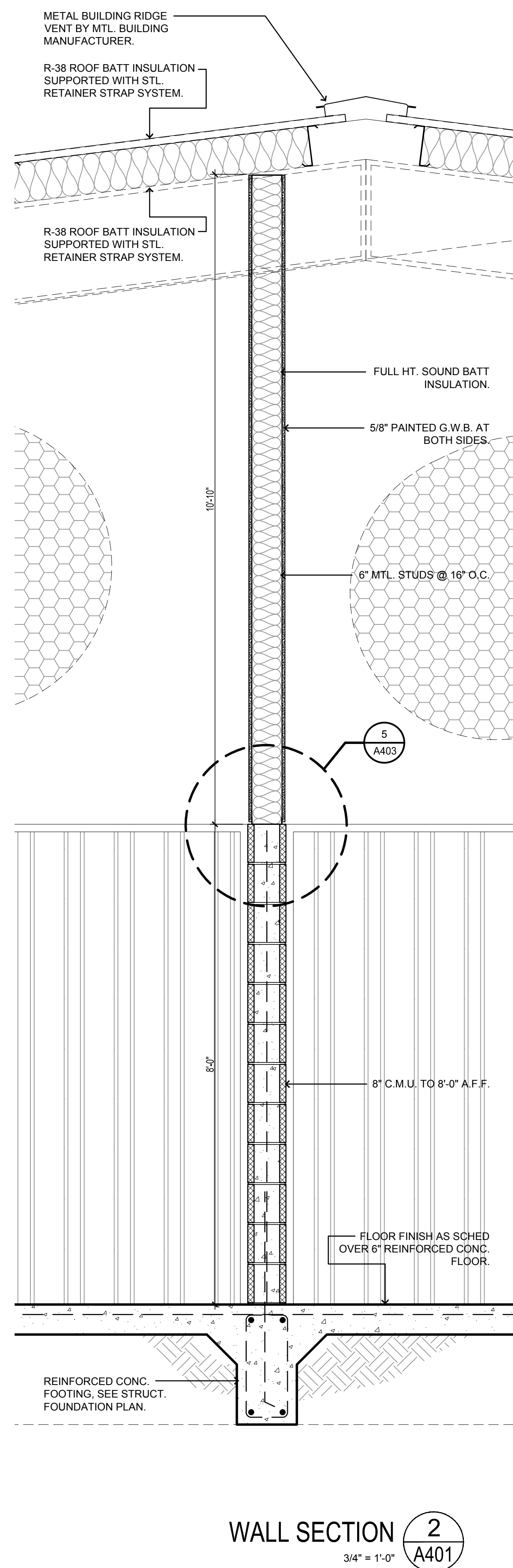
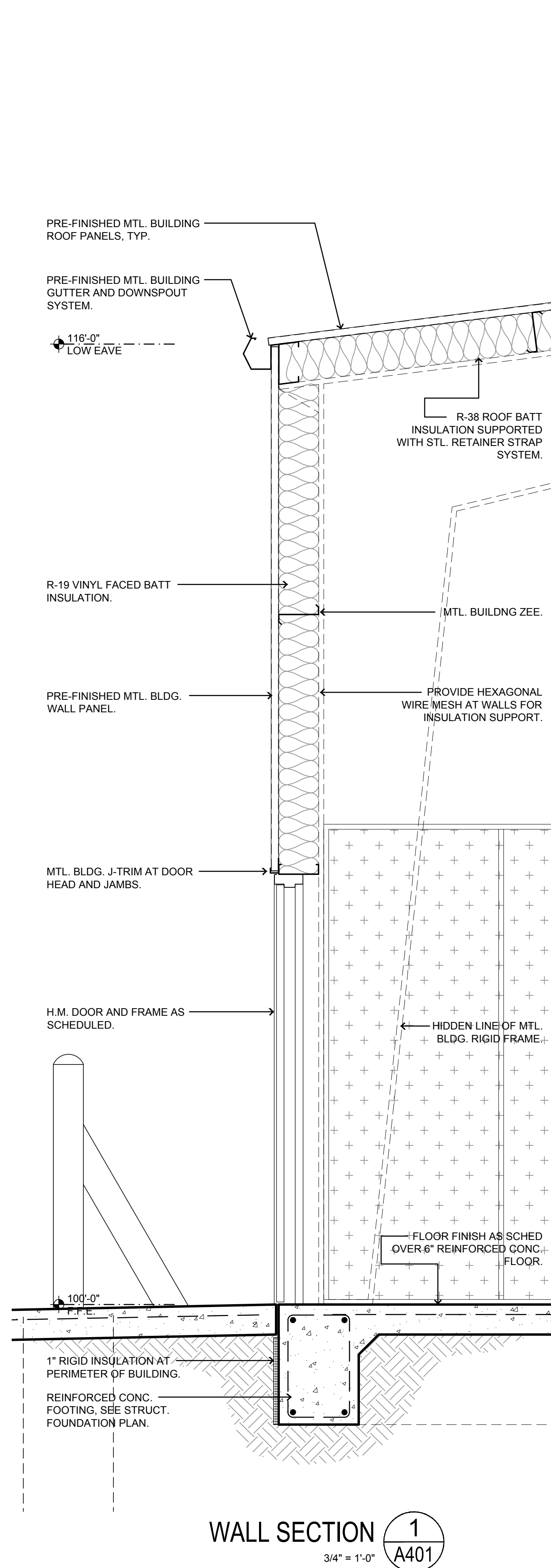
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BLDG. WALL SECTIONS

A401





04.10.23

BUILDING ADDITION

Alamogordo Fire Station 6 Addition

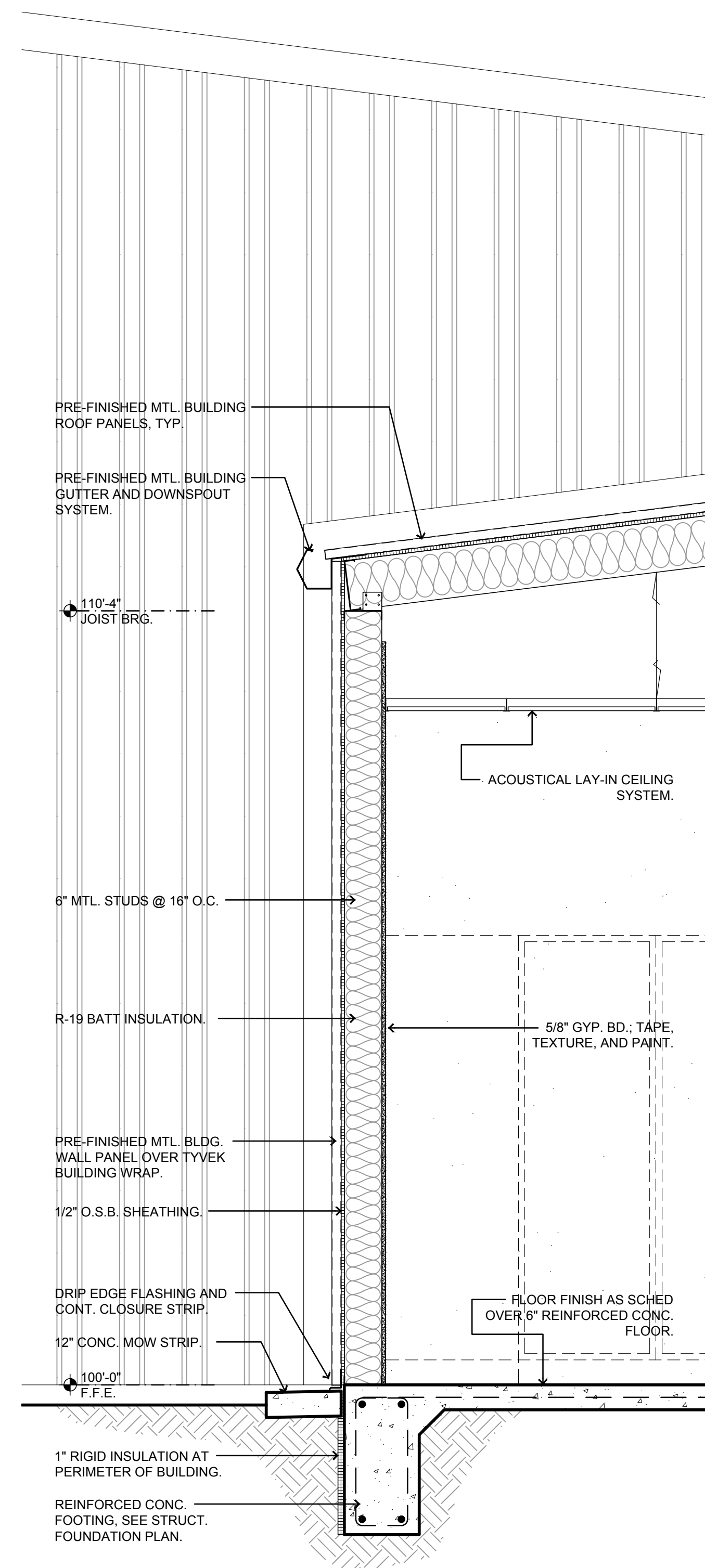
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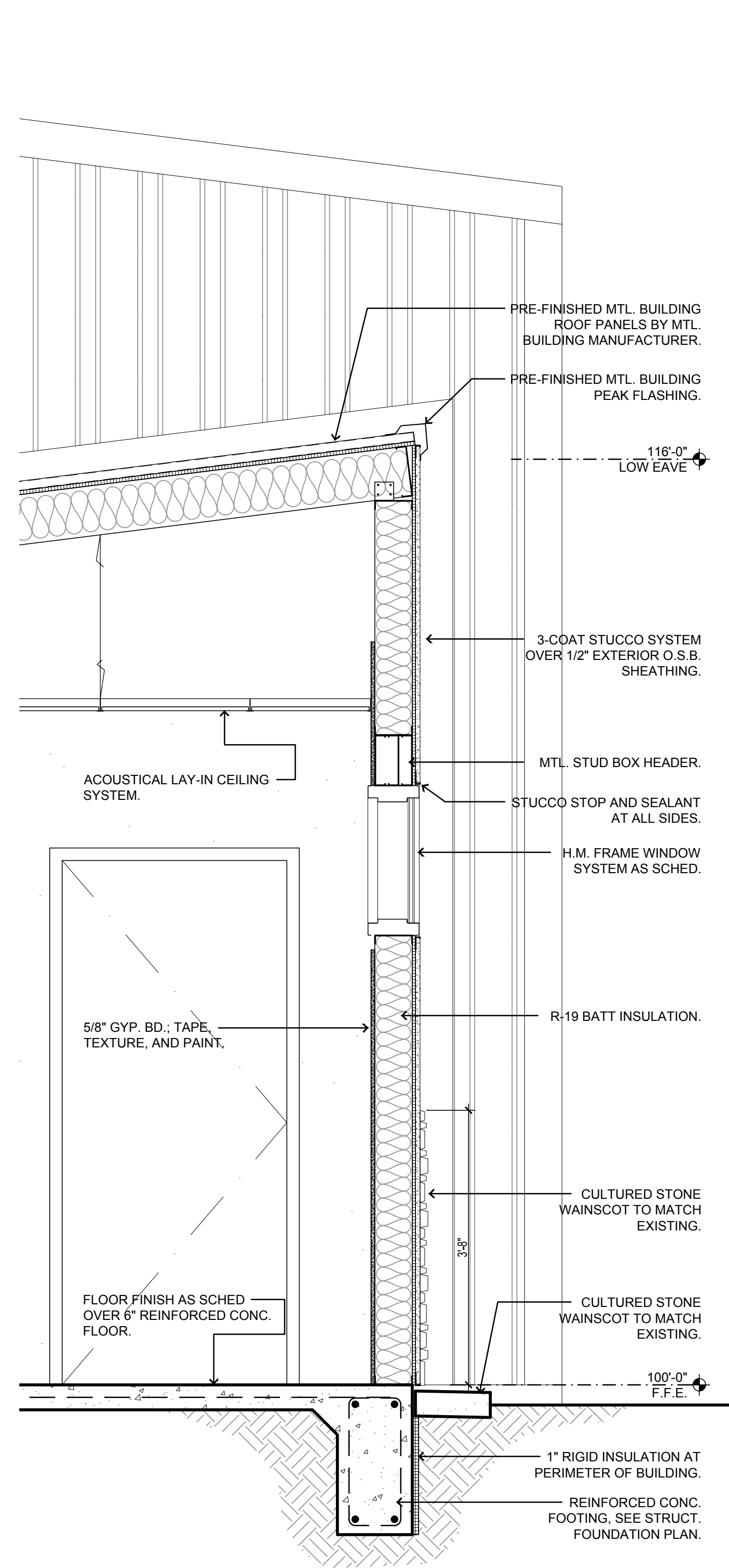
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BLDG. WALL SECTIONS

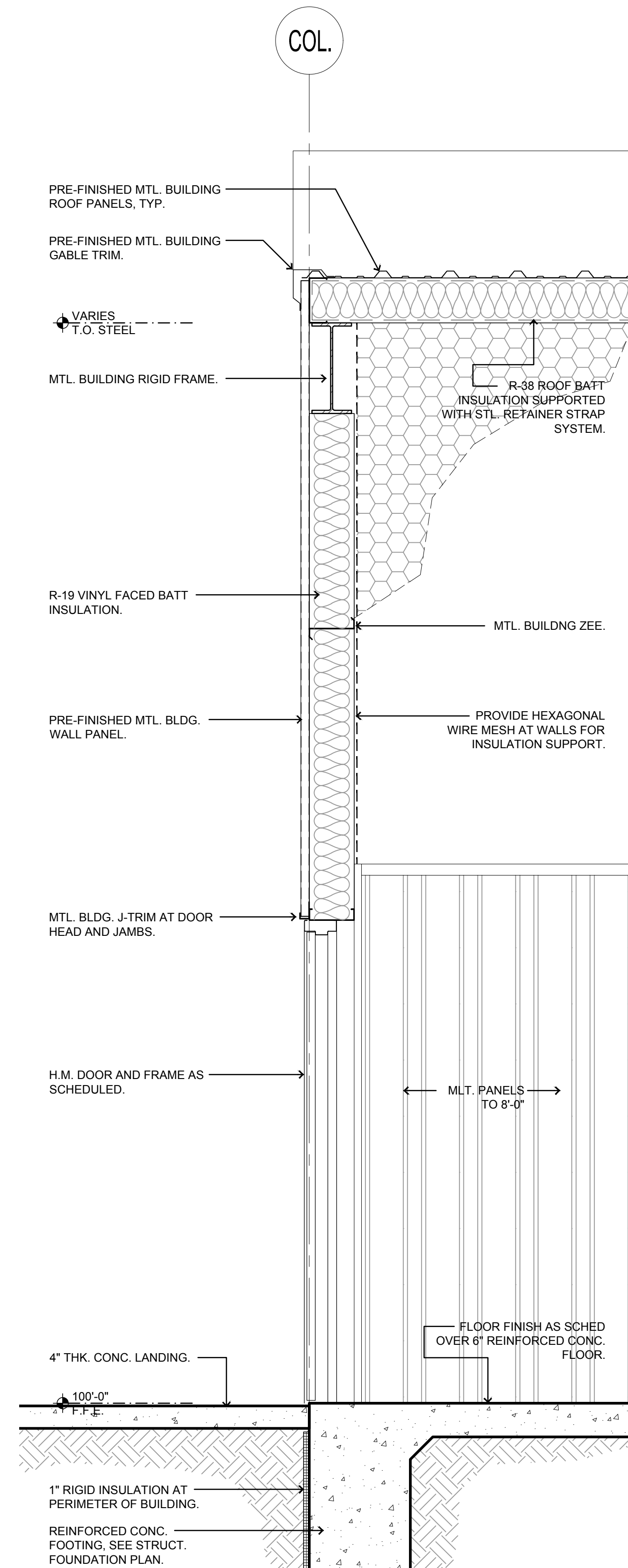
A402



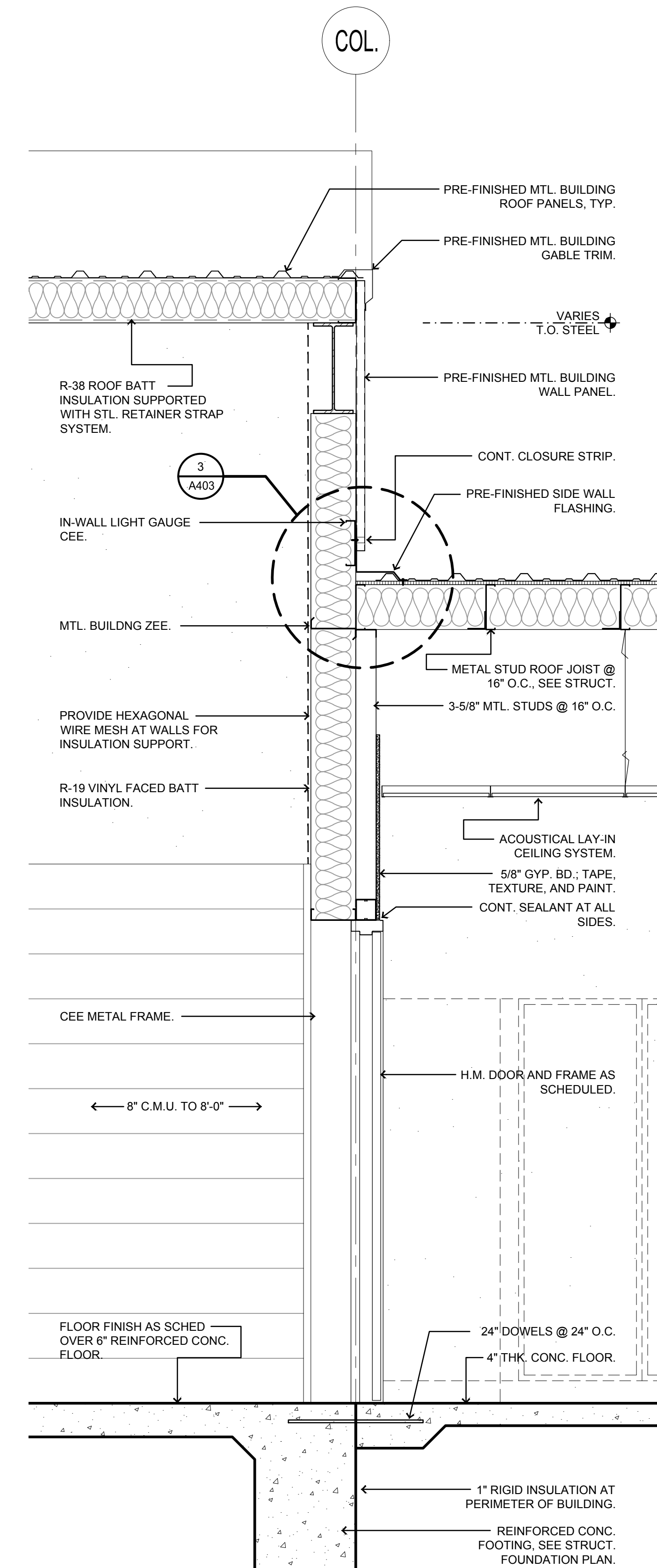
WALL SECTION **1**
3/4" = 1'-0" **A402**



WALL SECTION **2**
3/4" = 1'-0" **A402**



WALL SECTION **3**
3/4" = 1'-0" **A402**



WALL SECTION **4**
3/4" = 1'-0" **A402**



04.10.23

BUILDING ADDITION

**Alamogordo
Fire Station 6
Addition**

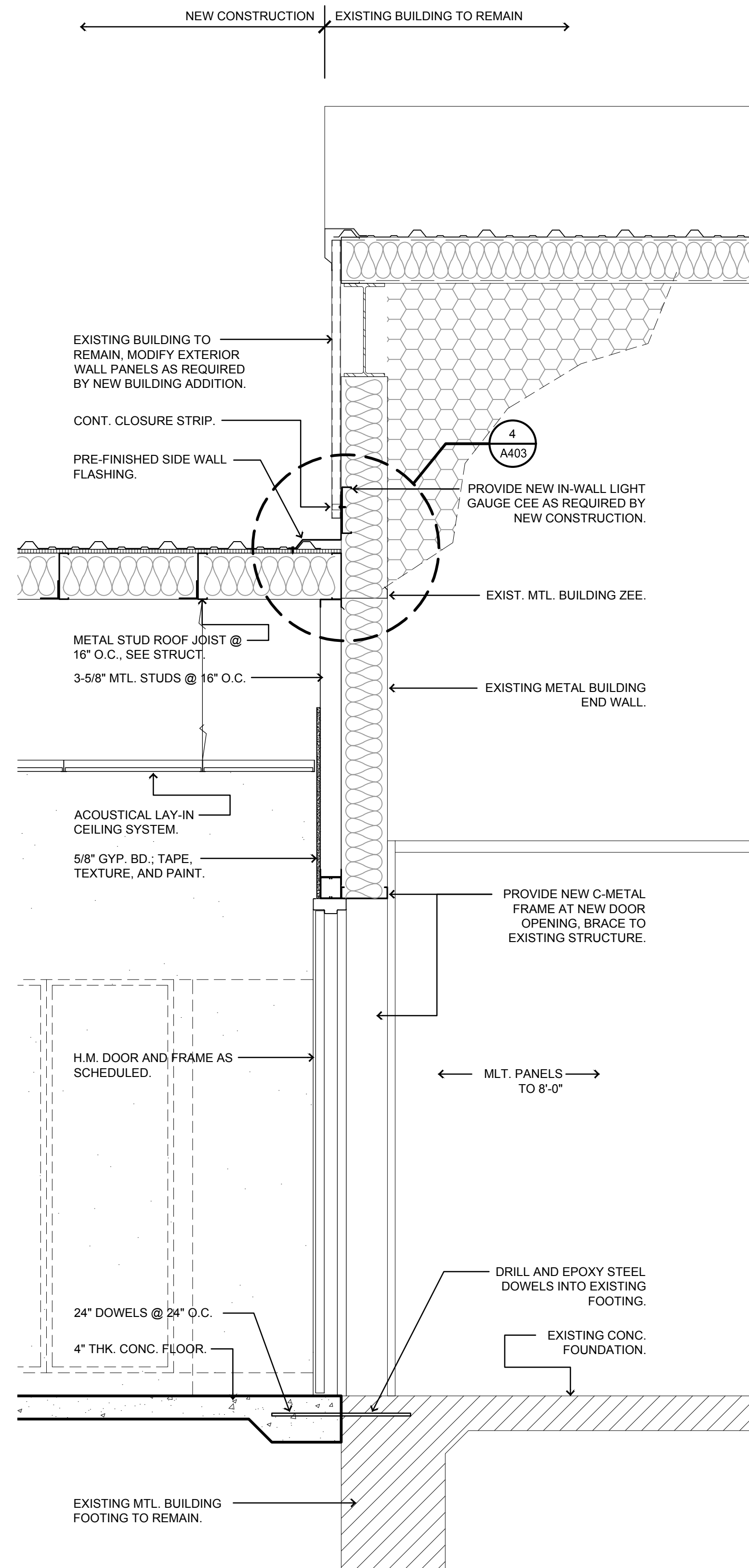
3100 N. Florida Ave.
Alamogordo, New Mexico

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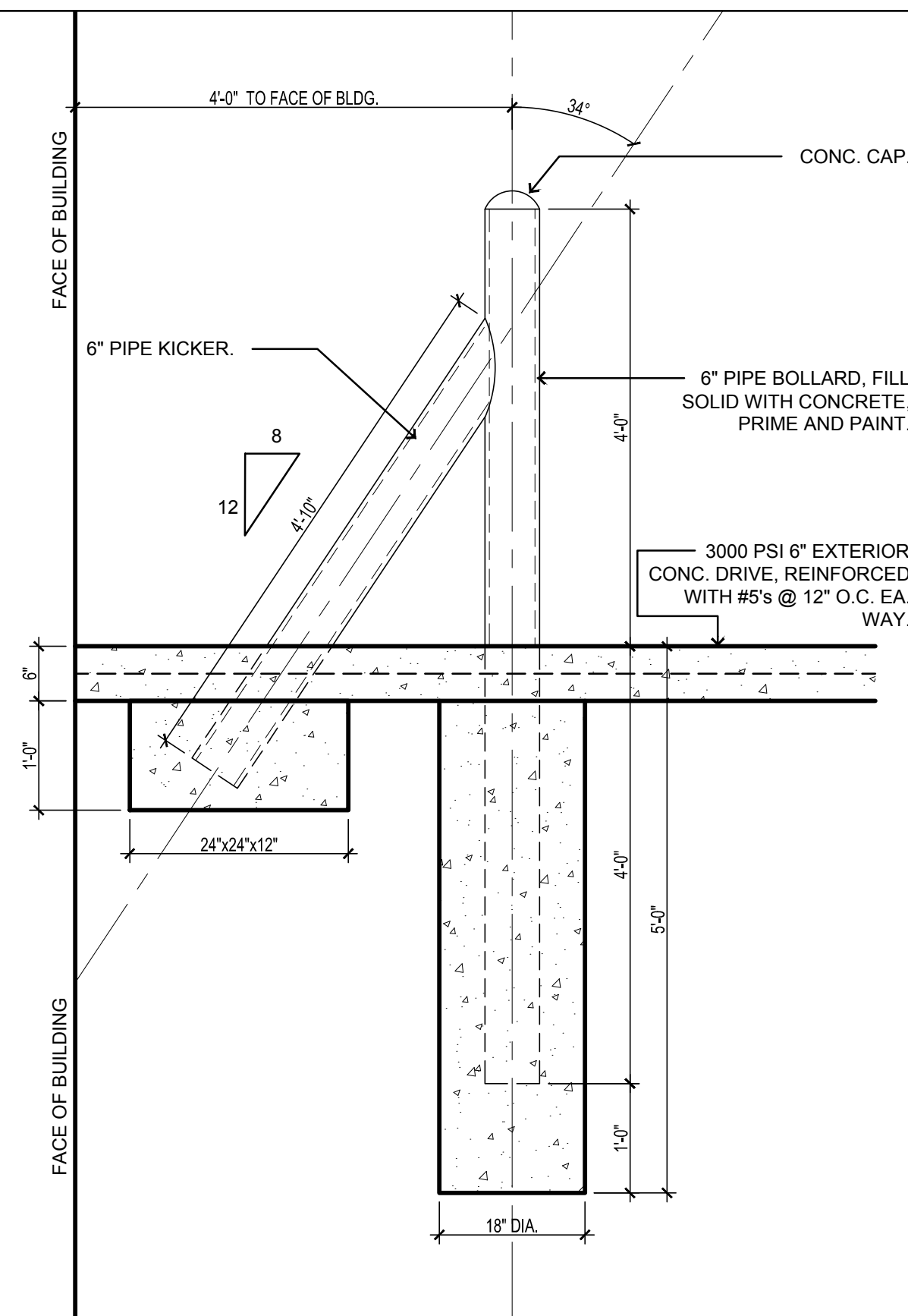
Project no: 22.11
Date: April 2023
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**BLDG. WALL
SECTIONS**

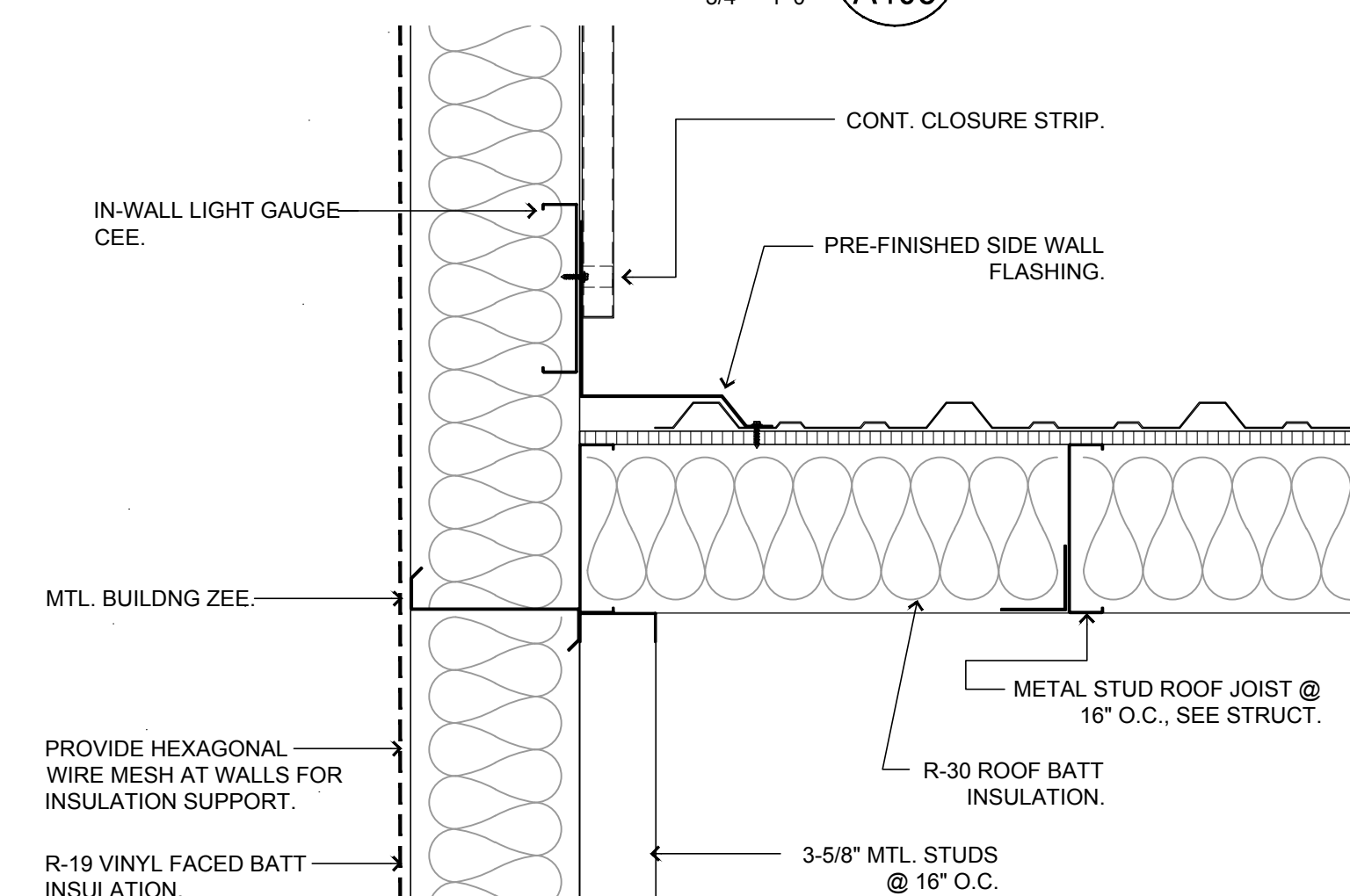
A403



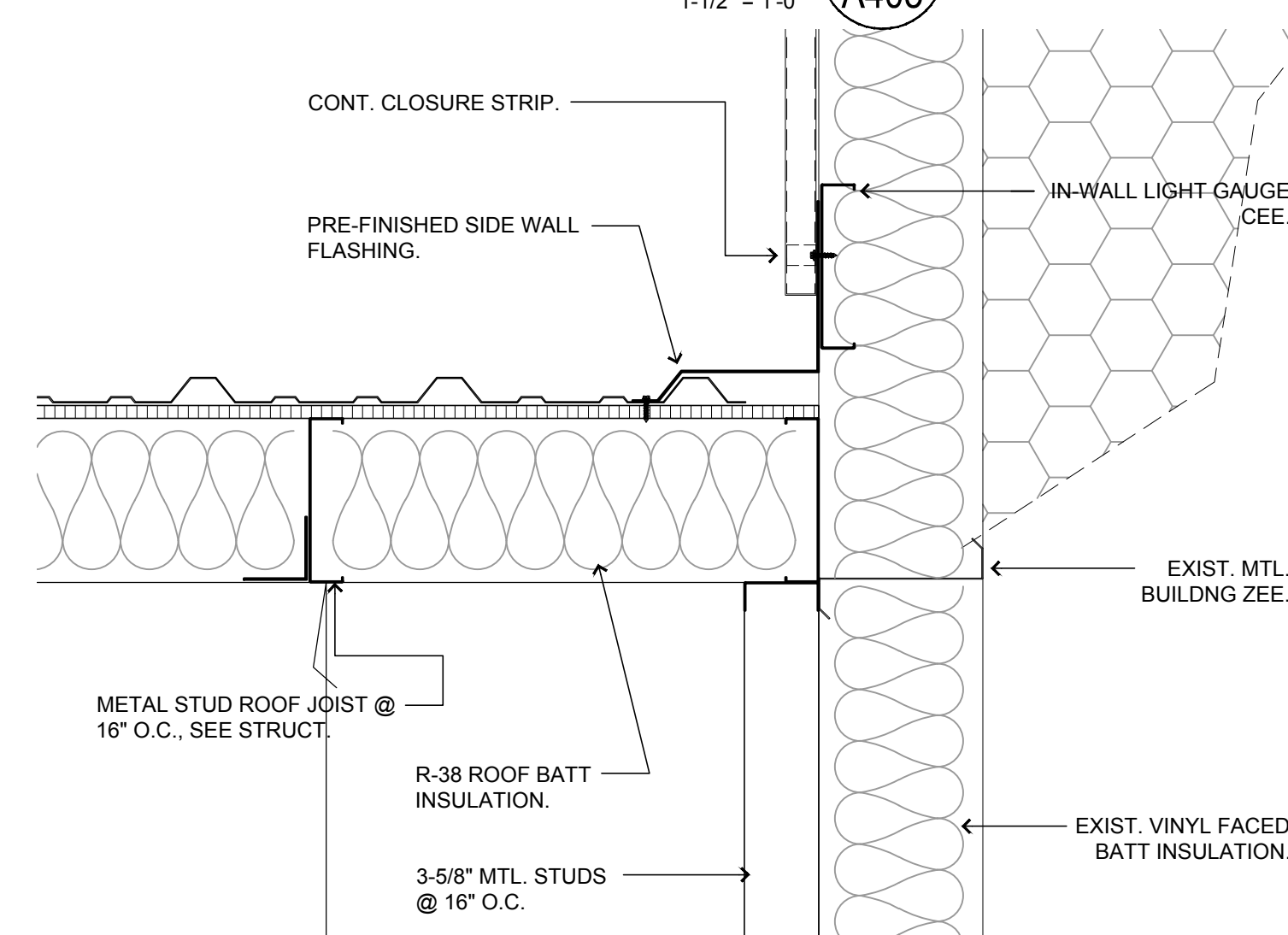
WALL SECTION 1
3/4" = 1'-0" A403



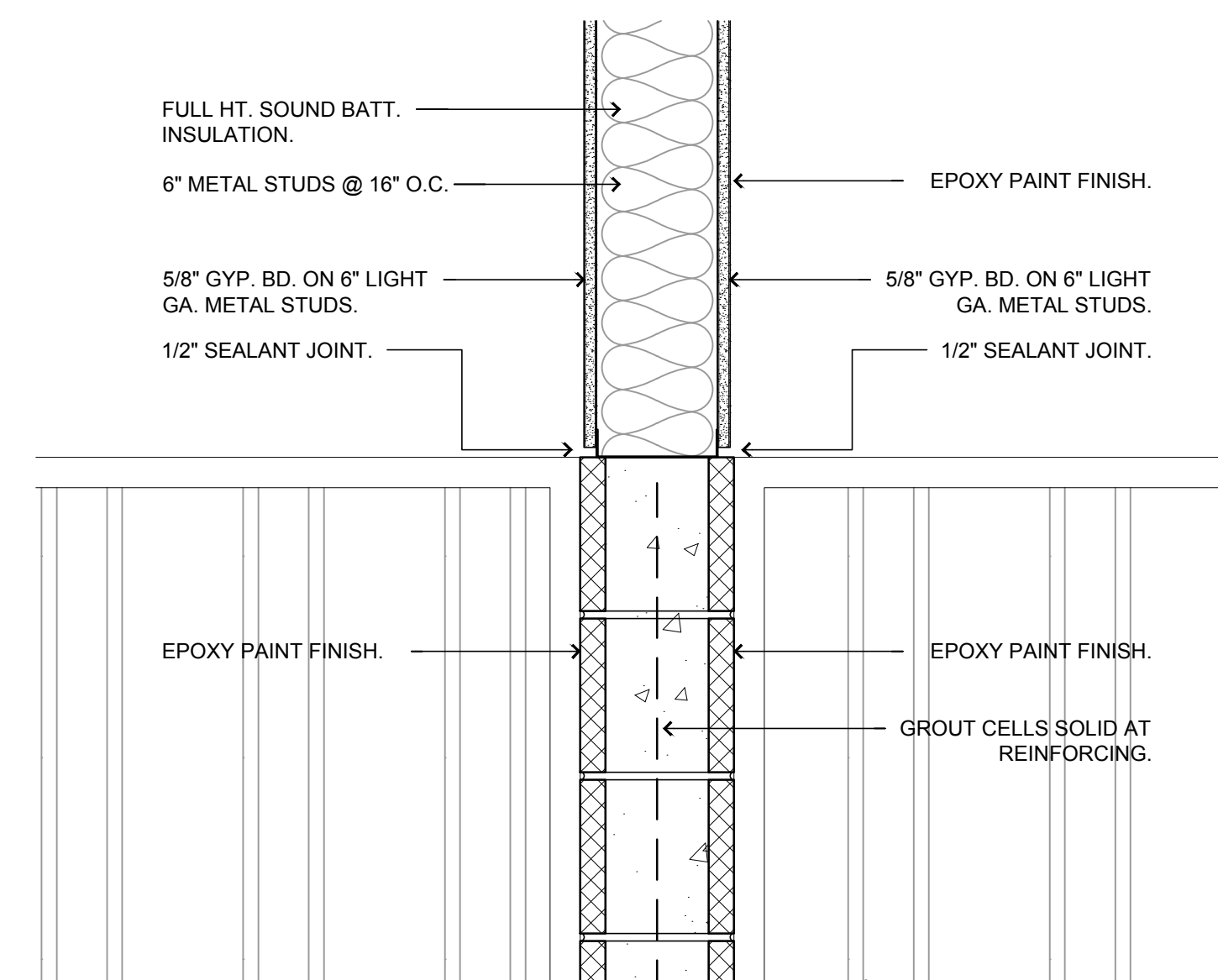
BOLLARD DETAIL 2
3/4" = 1'-0" A403



SIDE WALL DETAIL 3
1-1/2" = 1'-0" A403



SIDE WALL DETAIL 4
1-1/2" = 1'-0" A403



SIDE WALL DETAIL 5
1-1/2" = 1'-0" A403



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BUILDING ADDITION

Alamogordo Fire Station 6 Addition

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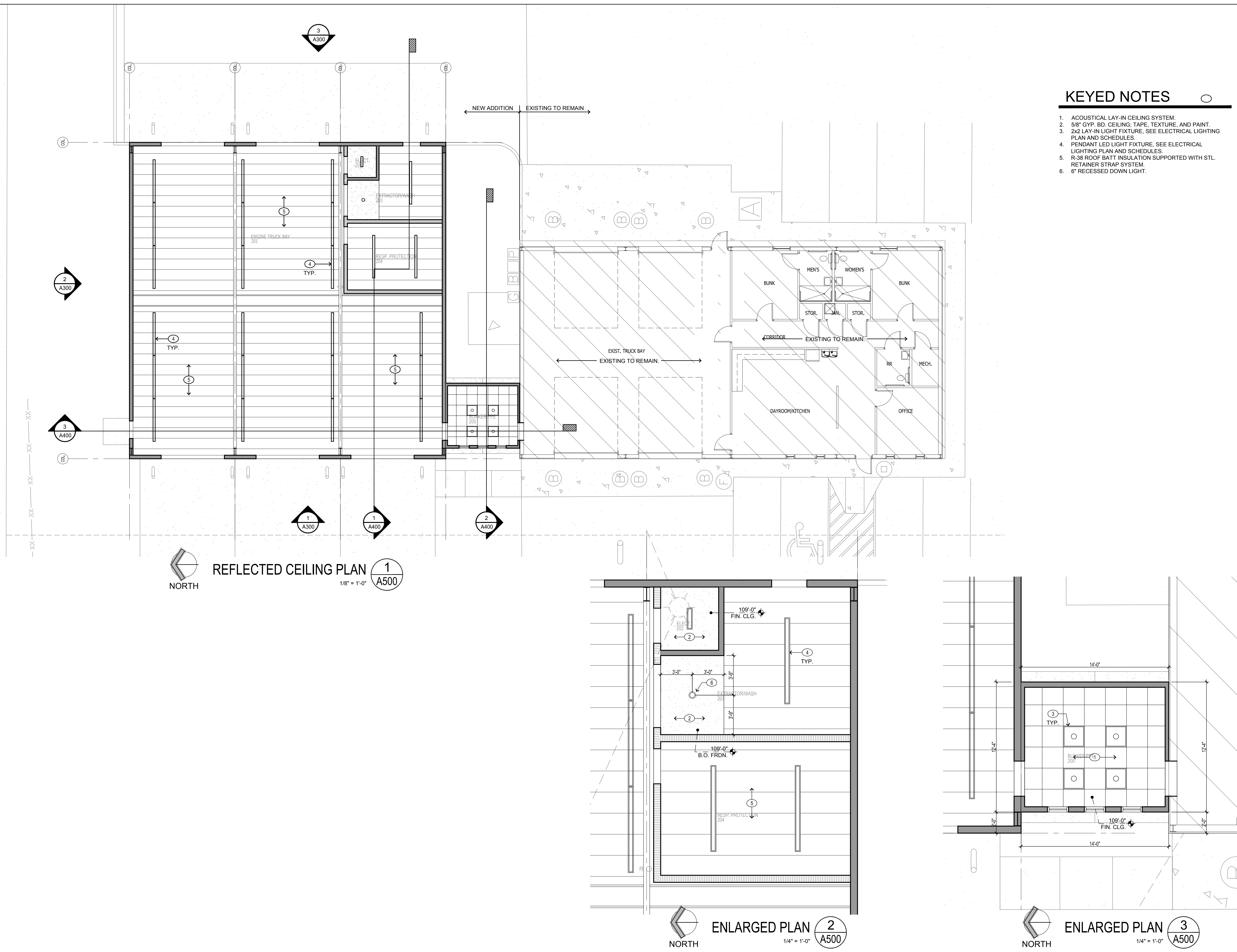
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REFLECTED CEILING PLAN

A500

KEYED NOTES

1. ACOUSTICAL LAY-IN CEILING SYSTEM.
2. 5/8" GYP. BD. CEILING, TAPE, TEXTURE, AND PAINT.
3. 2x2 LAY-IN LIGHT FIXTURE, SEE ELECTRICAL LIGHTING PLAN AND SCHEDULES.
4. PENDANT LED LIGHT FIXTURE, SEE ELECTRICAL LIGHTING PLAN AND SCHEDULES.
5. R-38 ROOF BATT INSULATION SUPPORTED WITH STL. RETAINER STRAP SYSTEM.
6. 6" RECESSED DOWN LIGHT.



REFLECTED CEILING PLAN 1
1/8" = 1'-0"
A500

ENLARGED PLAN 2
1/4" = 1'-0"
A500

ENLARGED PLAN 3
1/4" = 1'-0"
A500

Date: Apr 18, 2023 - 11:52am User: Station 5
 Drawing File: K:\2022 Projects\2211 Alamogordo Fire Station\DWG\Sheets\2211-A500.dwg
 Last Saved By: Station 5 Mar 20, 2023 - 5:43pm
 Layout Name: A100



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BUILDING ADDITION

Alamogordo Fire Station 6 Addition

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Alamogordo, New Mexico

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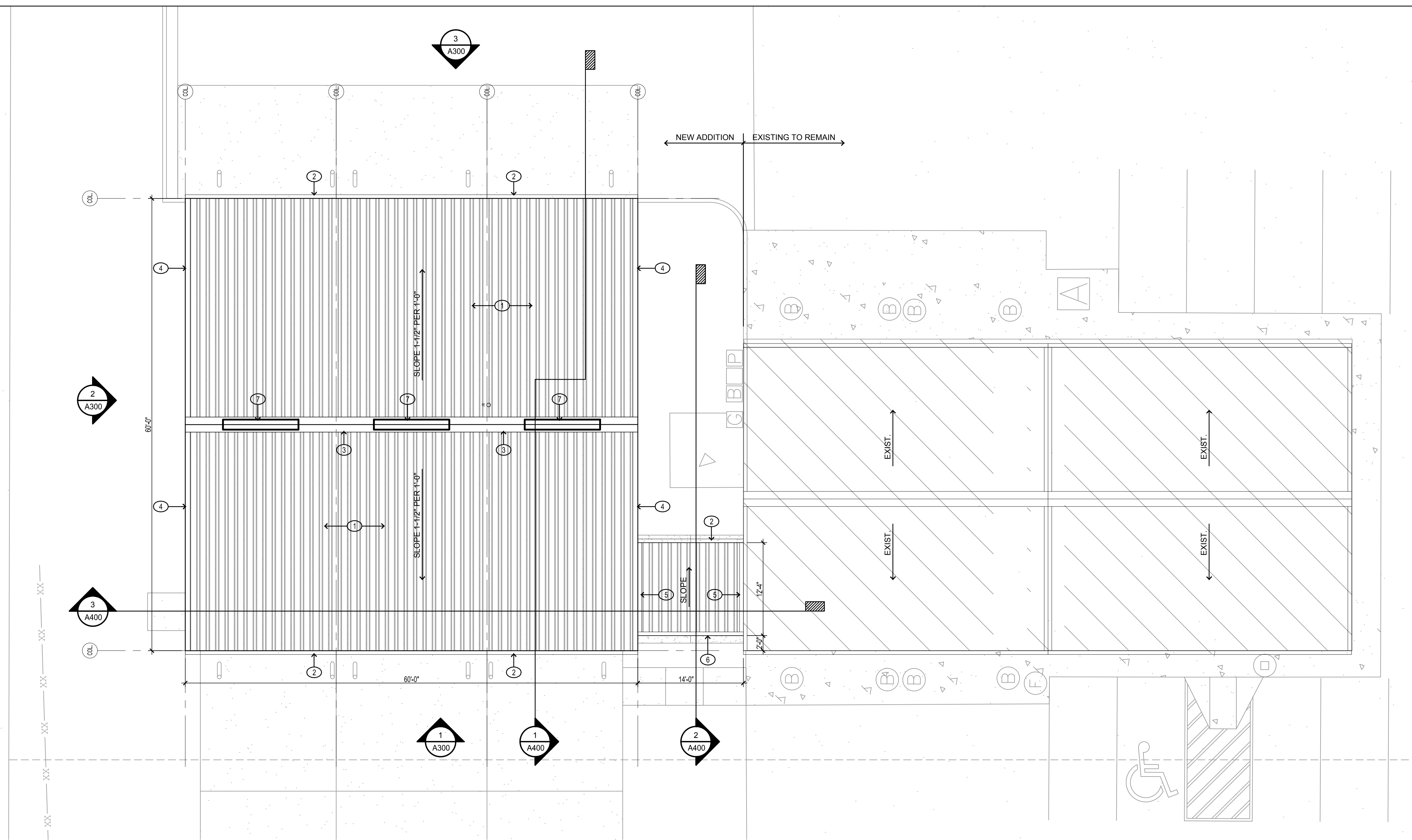
Project no: 22.11
Date: April 2023
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ROOF PLAN

A600

KEYED NOTES

1. PRE-FINISHED METAL ROOF PANEL BY METAL BUILDING MANUFACTURER.
2. PRE-FINISHED MTL. GUTTER AND DOWNSPOUT SYSTEM BY METAL BUILDING MANUFACTURER.
3. PRE-FINISHED RIDGE CAP BY METAL BUILDING MANUFACTURER.
4. PRE-FINISHED MTL. RAKE FLASHING BY METAL BUILDING MANUFACTURER.
5. PRE-FINISHED MTL. SIDE WALL FLASHING.
6. PRE-FINISHED MTL. PEAK FLASHING.
7. PRE-FINISHED METAL RIDGE VENT BY METAL BUILDING MANUFACTURER.



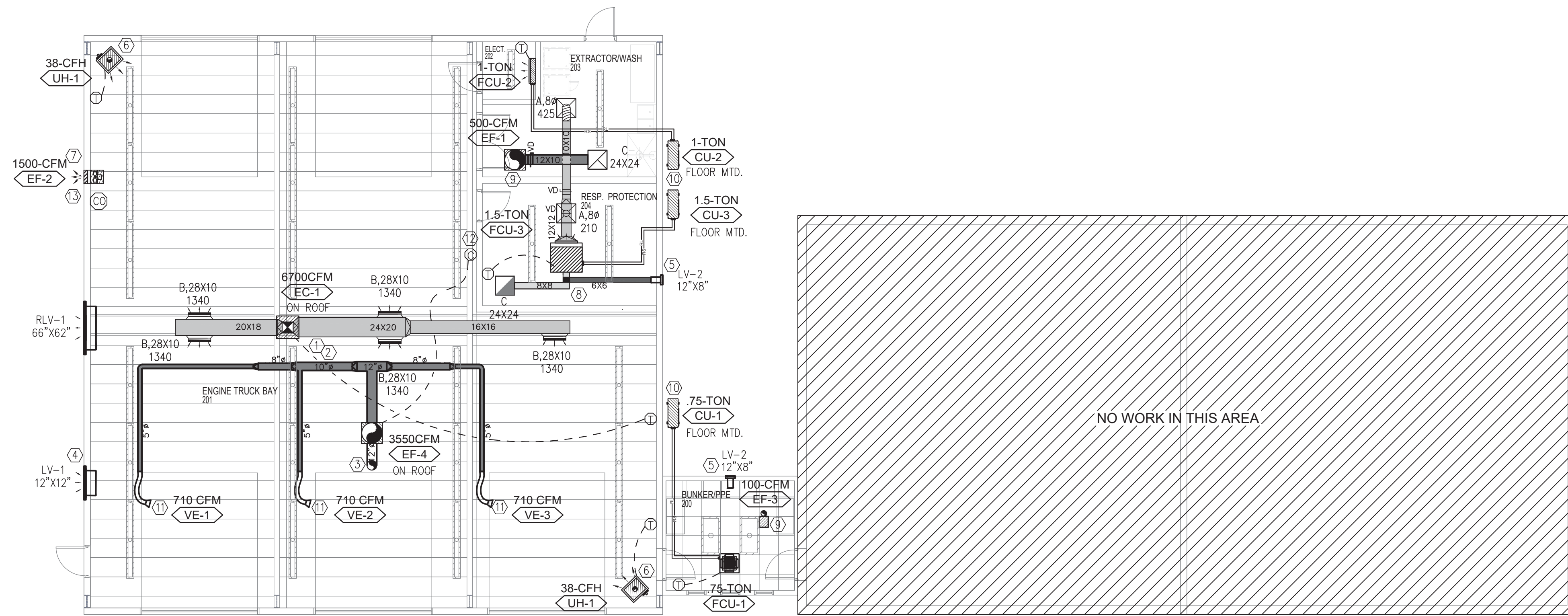
ROOF PLAN 1
1/8" = 1'-0" A600

KEYED NOTES

1. DUCT OPENING SHALL NOT BE MORE THAN 1/4" CLEARANCE AND CAULKED FULLY ABOVE AND BELOW, WITH ACOUSTICAL GRADE NON-HARDENING HUSH SEALANT.
2. SUPPLY DUCT OPENING SIZE 27" X 26-7/8" FROM UNIT.
3. FUTURE 12"Ø EXHAUST AIR DUCT UP THROUGH ROOF TO EF-4 BY OWNER.
4. PROVIDE AND INSTALL 42" X 30" WALL LOUVER WITH BAROMETRIC BACK DAMPER. COORDINATE WITH ARCHITECT FOR EXACT LOCATION PRIOR TO COMMENCING ANY WORK.
5. PROVIDE AND INSTALL 12" X 8" INTAKE WALL LOUVER WITH BAROMETRIC BACK DAMPER. COORDINATE WITH ARCHITECT FOR EXACT LOCATION PRIOR TO COMMENCING ANY WORK.
6. 4"Ø ROUND FLUE VENT THRU ROOF TO WEATHER CAP FROM UNIT HEATER.
7. 20" X 20" DUCT THRU WALL TO EXHAUST FAN.
8. PROVIDE AND INSTALL MIXING BOX MICROMETL OR APPROVED EQUAL.
9. 6"Ø ROUND DUCT THRU ROOF TO GOOSENECK FROM EXHAUST FAN
10. PROVIDE 4" CONCRETE PAD FOR FLOOR MOUNTED UNITS
11. FUTURE PLYMOVENT MAGNETIC NOZZLE FOR EFFECTIVE EXHAUST REMOVAL. MOUNT ON SLIDING BALANCER TRACK PLYMOVENT SBT-MAGNETIC COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK. FUTURE INSTALLATION BY OWNER.
12. PROVIDE AND INSTALL OS-3 AUTOMATIC SYSTEM CONTROL FOR VEHICLE EXHAUST SYSTEM. COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK.
13. CARBON MONOXIDE SHALL BE MOUNTED AT 48" A.F.F. SHALL BE INTER LOCKED WITH EF-2.

GENERAL NOTES

- A. FUTURE VEHICLE EXHAUST SYSTEM TO BE INSTALLED BY OWNER UNDER SEPARATE CONTRACT.



MECHANICAL PLAN
1 M200 1/8" = 1'-0"

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MECHANICAL PLAN

M200



COMcheck Software Version 4.1.5.5
Mechanical Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: ALAMOGORDO FIRE STATION 6 ADDITION
Location: Alamogordo, New Mexico
Climate Zone: 3b
Project Type: Addition

Construction Site: 3100 N FLORIDA AVE., ALAMOGORDO, NM 88310
Owner/Agent:
Designer/Contractor: JOSE MORALES, RAXIS ENGINEERING, LLC, 1712 TEXAS AVE., EL PASO, TX 79901, (915) 519-4340, jmorales@raxisengineering.com

Mechanical Systems List

Quantity System Type & Description

- CU-1/FCU-1 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 10 kBtu/h, Proposed Efficiency = 9.00 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 9 kBtu/h, Proposed Efficiency = 19.00 SEER, Required Efficiency = 14.00 SEER Fan System: None
- CU-2/FCU-2 (Single Zone): Cooling: 1 each - Split System, Capacity = 12 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 19.00 SEER, Required Efficiency = 13.00 SEER Fan System: None
- CU-3/FCU-3 (Single Zone): Split System Heat Pump Heating Mode: Capacity = 20 kBtu/h, Proposed Efficiency = 10.10 HSPF, Required Efficiency = 8.20 HSPF Cooling Mode: Capacity = 18 kBtu/h, Proposed Efficiency = 17.20 SEER, Required Efficiency = 14.00 SEER Fan System: None
- UH-1 (Single Zone): Heating: 1 each - Unit Heater, Gas, Capacity = 38 kBtu/h Proposed Efficiency = 80.00% Ec, Required Efficiency: 80.00% Ec Fan System: None

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

JOSE A. MORALES, P.E. Signature  Date 03-27-2023

| DIFFUSER AND GRILLE SCHEDULE | | | |
|------------------------------|----------------------|---|---|
| MARK | DESCRIPTION | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | REMARKS |
| A | SUPPLY SURFACE MOUNT | SHOEMAKER CB40 | SOFT WHITE FINISH, ALUMINUM CONSTRUCTION, ADJUSTABLE CURVED BLADE, 4-WAY PATTERN, 24" x 24" FACE |
| B | SUPPLY DUCT MOUNT | SHOEMAKER 904 | SOFT WHITE FINISH, ALUMINUM CONSTRUCTION, ADJUSTABLE FRONT AND REAR BLADES, FACE SIZE AS INDICATED. PROVIDE WITH OPPOSITE BLADE DAMPERS FOR AIRFLOW VOLUME ADJUSTMENT |
| C | RETURN SURFACE MOUNT | SHOEMAKER 800 | SOFT WHITE FINISH, ALUMINUM CONSTRUCTION, 1/2"x12"x12" LATTICE, EXTRUDED ALUMINUM FRAME, FACE SIZE AS INDICATED |
| D | RETURN LAY-IN | SHOEMAKER 800 | SOFT WHITE FINISH, ALUMINUM CONSTRUCTION, 1/2"x12"x12" LATTICE, EXTRUDED ALUMINUM FRAME, FACE SIZE AS INDICATED |

| EXHAUST FAN SCHEDULE | | | | | |
|----------------------|---|------------------|----------|-----------|--|
| MARK | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | EXHAUST FLOW CFM | DIAMETER | LENGTH FT | REMARKS |
| VE-1 | PLYMOVENT ST | 710 | 5'0" | 24' | PROVIDE WITH MAGNETIC GRABBER, TAIL PIPE CONNECTOR, AUTOMATIC SYSTEM CONTROL |
| VE-2 | PLYMOVENT ST | 710 | 5'0" | 24' | PROVIDE WITH MAGNETIC GRABBER, TAIL PIPE CONNECTOR, AUTOMATIC SYSTEM CONTROL |
| VE-3 | PLYMOVENT ST | 710 | 5'0" | 24' | PROVIDE WITH MAGNETIC GRABBER, TAIL PIPE CONNECTOR, AUTOMATIC SYSTEM CONTROL |
| VE-4 | PLYMOVENT ST | 710 | 5'0" | 24' | PROVIDE WITH MAGNETIC GRABBER, TAIL PIPE CONNECTOR, AUTOMATIC SYSTEM CONTROL |
| VE-5 | PLYMOVENT ST | 710 | 5'0" | 24' | PROVIDE WITH MAGNETIC GRABBER, TAIL PIPE CONNECTOR, AUTOMATIC SYSTEM CONTROL |

| EVAPORATIVE COOLER SCHEDULE | | | | | | | | |
|-----------------------------|---|------|------|-------|-------|-------|--------|---|
| MARK | MANUFACTURER AND MODEL NO OR APPROVED EQUAL | CFM | ESP | MOTOR | | | | REMARKS |
| | | | | HP | VOLTS | PHASE | # SPDS | |
| EC-1 | PMI AEROCOOL TD6500 MODEL | 6500 | 0.63 | 3/4 | 120 | 1 | 2 | 8" CELEDEK MEDIA, SINGLE INLET, NEW FRAME, CLEAN MACHINE, & DIGITAL THERMOSTAT. |

| EXHAUST FAN SCHEDULE | | | | | | | | | |
|----------------------|---|------|-------|-------|-------|-------|--------|-------|---|
| MARK | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | CFM | ESP | MOTOR | | | | SONES | REMARKS |
| | | | | HP | VOLTS | PHASE | # SPDS | | |
| EF-1 | PENNBARRY DX110 | 500 | 0.375 | 1/4 | 120 | 1 | 1 | 5.4 | PROVIDE WITH VIBRATION ISOLATORS, MANUFACTURER HINGED ROOF CURB AND GRAVITY BACKDRAFT DAMPER |
| EF-2 | PENNBARRY P18SA | 1500 | 0.25 | 1/4 | 120 | 1 | 1 | 8.9 | 20"x20" HEAVY ALUMINUM WALL FAN, PROVIDE WITH MANUFACTURER WALL HOUSING, GRAVITY DAMPER, BRD SCREEN AND WEATHERHOOD, DISCONNECT AND SPEED CONTROL, MOUNTED AND WIRED TO THE FAN. |
| EF-3 | PENNBARRY ZQ105 | 100 | 0.125 | 27 W | 120 | 1 | 1 | 0.9 | PROVIDE WITH VIBRATION ISOLATORS, BACKDRAFT DAMPER, ALUMINUM PERFORATED GRILLE, AND ROOF CAP, UNIT CONTROLLED BY SWITCH. |
| EF-4 | PLYMOVENT TEV-585 | 3550 | 5 | 7.5 | 208 | 3 | 1 | 85 | PROVIDE AND INSTALL MANUFACTURER RECOMMENDED UNIVERSAL FAN PLATFORM, DISCONNECT SWITCH NEMA 1 MOUNTED AND WIRED, PROVIDE WITH MOTOR COVER, FLEXIBLE INLET AND OUTLET TRANSITION CONNECTIONS. FAN SHALL BE CONTROLLED VIA SWITCH AND VFD CONTROL PANEL, SHALL BE ENABLED VIA POWER SWITCH. |

| GAS FIRED UNIT HEATER SCHEDULE | | | | | | | | | | |
|--------------------------------|---|-----|-------|--------|------|--------------|---------|-------|-------|---|
| MARK | MANUFACTURER AND MODEL NO OR APPROVED EQUAL | CFM | MBH | | FUEL | WEIGHT (LBS) | MOTOR | | | REMARKS |
| | | | INPUT | OUTPUT | | | HP | VOLTS | PHASE | |
| UH-1 | MODINE HD45A011FBAN | 720 | 38 | 31 | NG | 60 LBS | 1/15 HP | 115 | 1 | HIGH ALTITUDE KIT, SUPPORT FROM STRUCTURE, PIPE HANGER KIT, PROVIDE WITH SAFETY FINGER PROOF FAN GUARD, VERTICAL DEFLECTOR BLADES, 120V/24V CONTROL TRANSFORMER, SINGLE STAGE DIRECT SPARK IGNITION, ALUMINIZED STEEL HEAT EXCHANGER/BURNER |

| RELIEF LOUVER SCHEDULE | | | | | | | | | | |
|------------------------|---|-------|------------------|-----------------|------------------------|-----------------------------|---------------|--------|--------|--|
| MARK | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | CFM | APPLICATION | FREE AREA (FT²) | PRESSURE DROP (IN. WG) | FREE AREA VELOCITY (FT/MIN) | BPWP (FT/MIN) | SIZE | | REMARKS |
| | | | | | | | | W (IN) | H (IN) | |
| RLV-1 | GREENHECK EHH-601 | 7,000 | RELIEF / EXHAUST | 13.89 | 0.05 | 500 | 1,250 | 66 | 82 | PROVIDE WITH ALUMINUM INTERNAL INSECT SCREEN, 2" FLANGED FRAME AND MOUNTING ANGLE CLIPS. SHALL BE CONSTRUCTED OF ALUMINUM. PROVIDED WITH BAROMETRIC RELIEF DAMPER GREENHECK MODEL BR-30. |

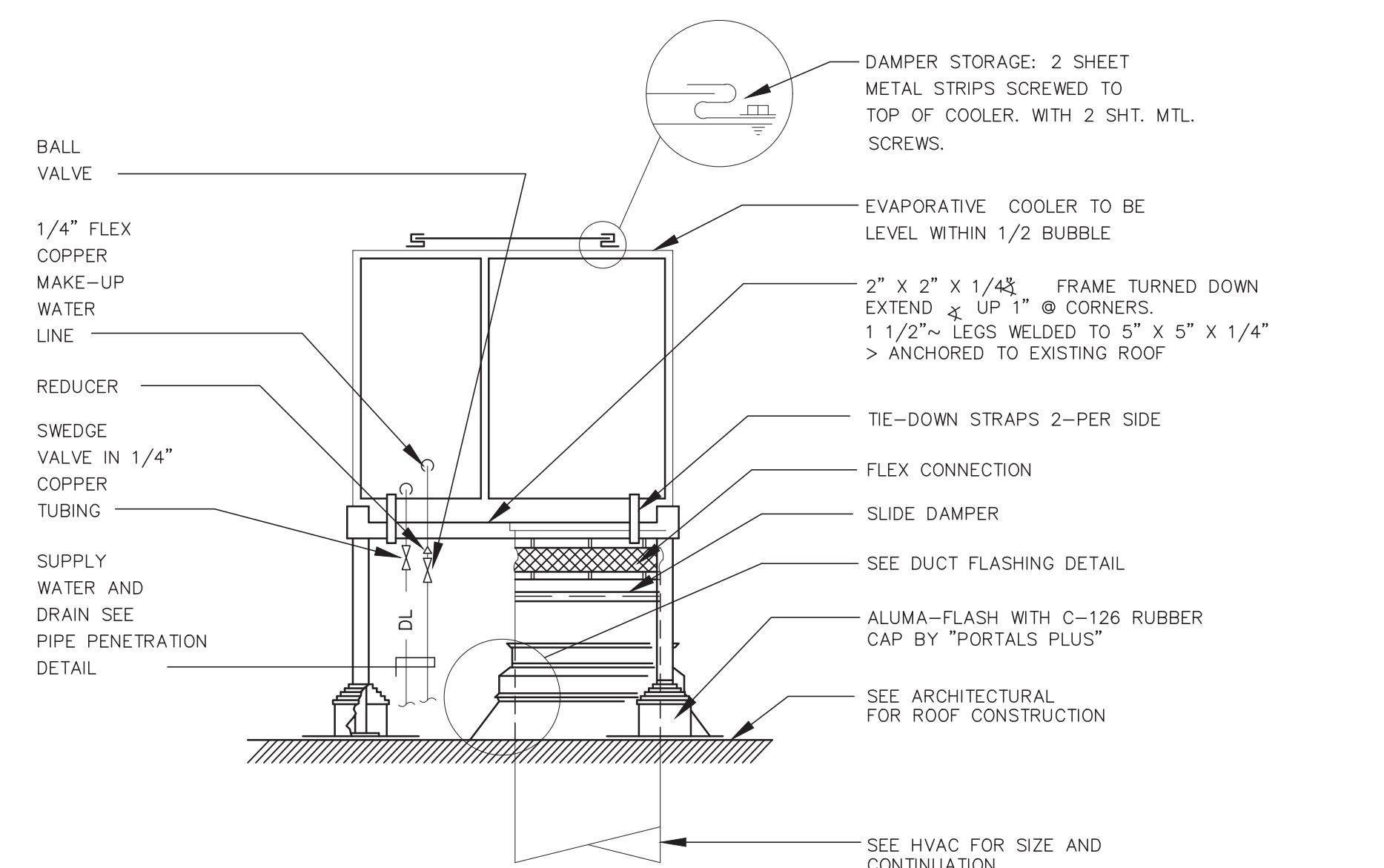
| INTAKE LOUVER SCHEDULE | | | | | | | | | | |
|------------------------|---|-------|-------------|-----------------|------------------------|-----------------------------|---------------|--------|--------|---|
| MARK | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | CFM | APPLICATION | FREE AREA (FT²) | PRESSURE DROP (IN. WG) | FREE AREA VELOCITY (FT/MIN) | BPWP (FT/MIN) | SIZE | | REMARKS |
| | | | | | | | | W (IN) | H (IN) | |
| LV-1 | GREENHECK EHH-601 | 1,500 | INTAKE | 3.92 | 0.05 | 503 | 1,250 | 42 | 30 | PROVIDE WITH ALUMINUM INTERNAL INSECT SCREEN, 2" FLANGED FRAME AND MOUNTING ANGLE CLIPS. SHALL BE CONSTRUCTED OF ALUMINUM. PROVIDED WITH BACKDRAFT DAMPER GREENHECK MODEL WD-400. |
| LV-2 | GREENHECK EHH-601 | 100 | INTAKE | 2.04 | 0.05 | 481 | 1,250 | 12 | 8 | PROVIDE WITH ALUMINUM INTERNAL INSECT SCREEN, 2" FLANGED FRAME AND MOUNTING ANGLE CLIPS. SHALL BE CONSTRUCTED OF ALUMINUM. PROVIDED WITH BACKDRAFT DAMPER GREENHECK MODEL WD-400. |

| HEAT PUMP SPLIT SYSTEM SCHEDULE | | | | | | | | | | | | | |
|---------------------------------|--|----------------------------|-----|-----|---------------|------|-------------|--------|-------|------------|-------|-------|--|
| MARK | MANUFACTURER AND MODEL NO. OR APPROVED EQUAL | SERVICE | CFM | ESP | TOTAL COOLING | SEER | HEATING MBH | | | ELECTRICAL | | | REMARKS |
| | | | | | | | INPUT | OUTPUT | FUEL | MCA | VOLTS | PHASE | |
| CU-1 FCU-1 | DAIKIN FFQ9Q2VJU - (INDOOR) DAIKIN RQ9R9M3JU - 75 TON - (OUTDOOR) | BUNKER | 378 | - | 9 | 20.9 | 7 KW | 9.7 | ELEC. | 15 | 208 | 1 | PROVIDE CASSETTE MOUNTED INDOOR UNIT, FACTORY INSTALLED CONDENSATE PUMP, HARD WIRED 7 DAY PROGRAMMABLE CONTROLLER, LOW AMBIENT TO 0 DEGREES, INDOOR POWERED BY OUTDOOR. |
| CU-2 FCU-2 | DAIKIN RK12AVJU - (OUTDOOR) DAIKIN FTK12AVJU - (INDOOR) | ELEC ROOM | 436 | - | 12 | 19 | - | 10.9 | ELEC. | 7.8 | 208 | 1 | PROVIDE WITH LOW AMBIENT KIT, FACTORY REFRIGERANT LINES, CONDENSATE PUMP, REMOTE CONTROL, WALL MOUNTING BRACKET FOR INDOOR UNIT, AND MOUNTING STAND FOR OUTDOOR UNIT, REMOTE CONTROLLER: BR044B2-A08 |
| CU-3 FCU-3 | DAIKIN RZR18TAVJU - (OUTDOOR) DAIKIN FBQ18PVJU - (INDOOR) | EXTRACTOR, RESP PROTECTION | 635 | - | 18 | 16.7 | 20 | 19 | ELEC. | 16.5 | 208 | 1 | PROVIDE DUCTED MOUNTED INDOOR UNIT, BUILT IN CONDENSATE PUMP, HARD WIRED 7 DAY PROGRAMMABLE CONTROLLER, LOW AMBIENT TO 0 DEGREES. |

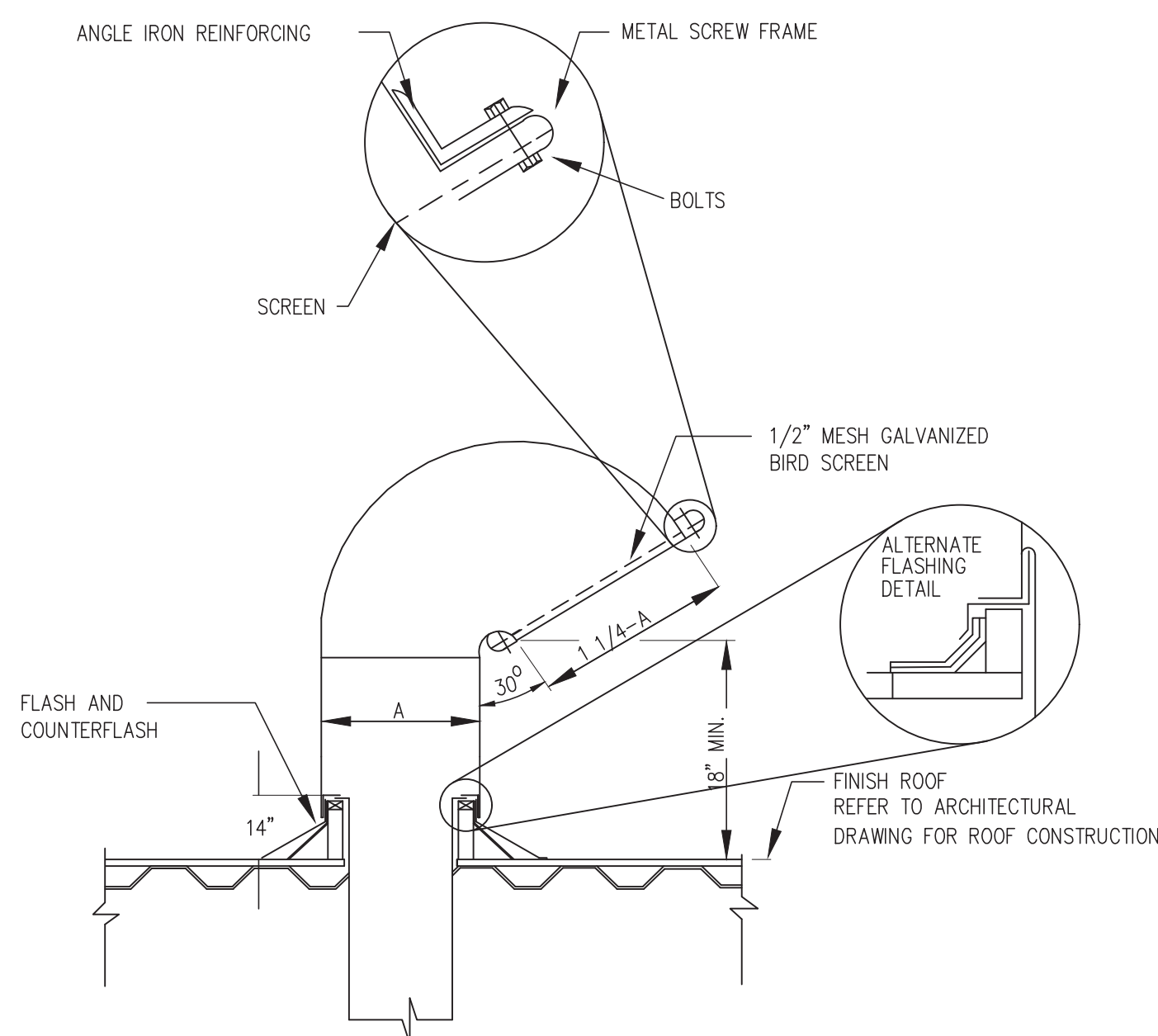
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MECHANICAL SCHEDULE

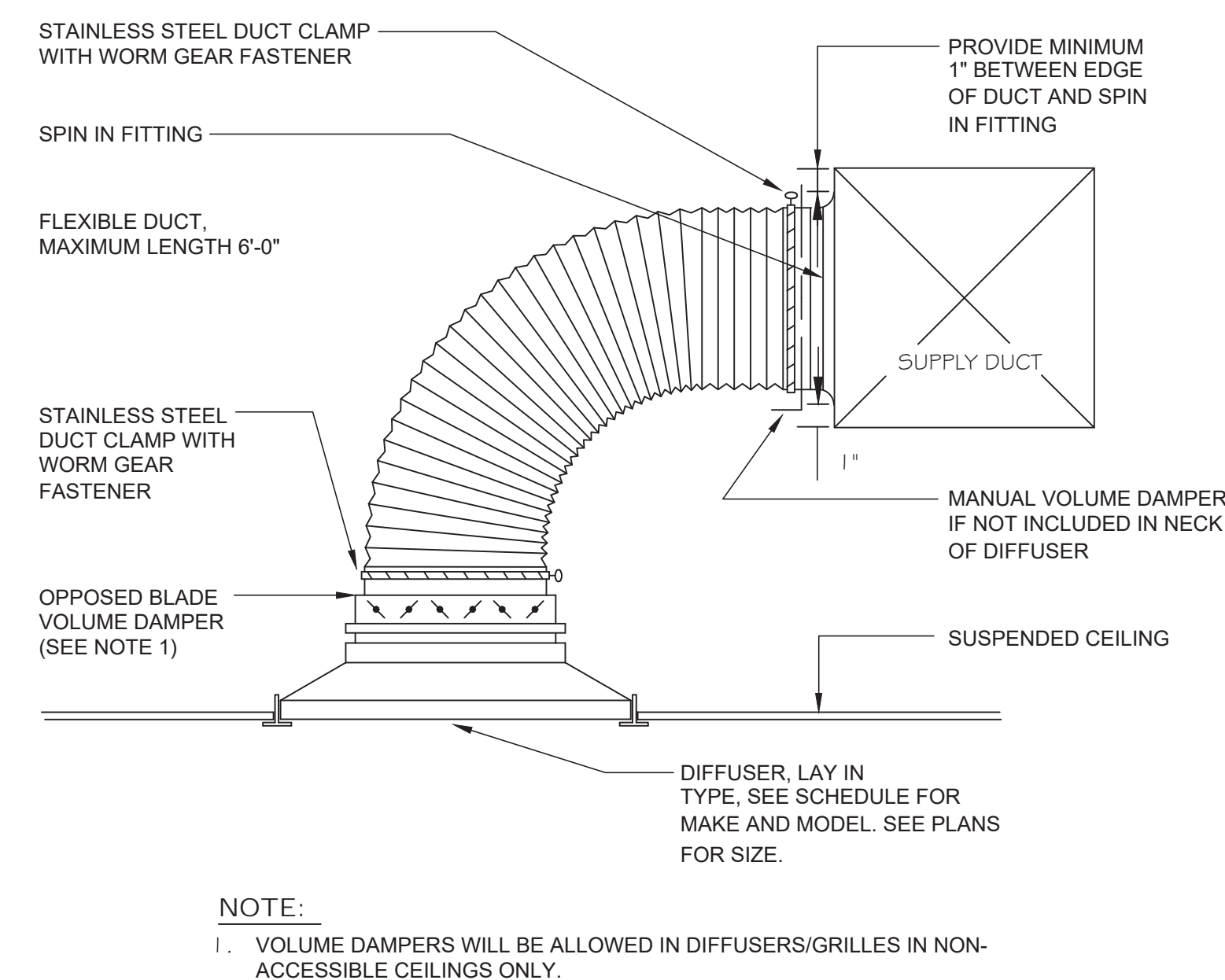
M201



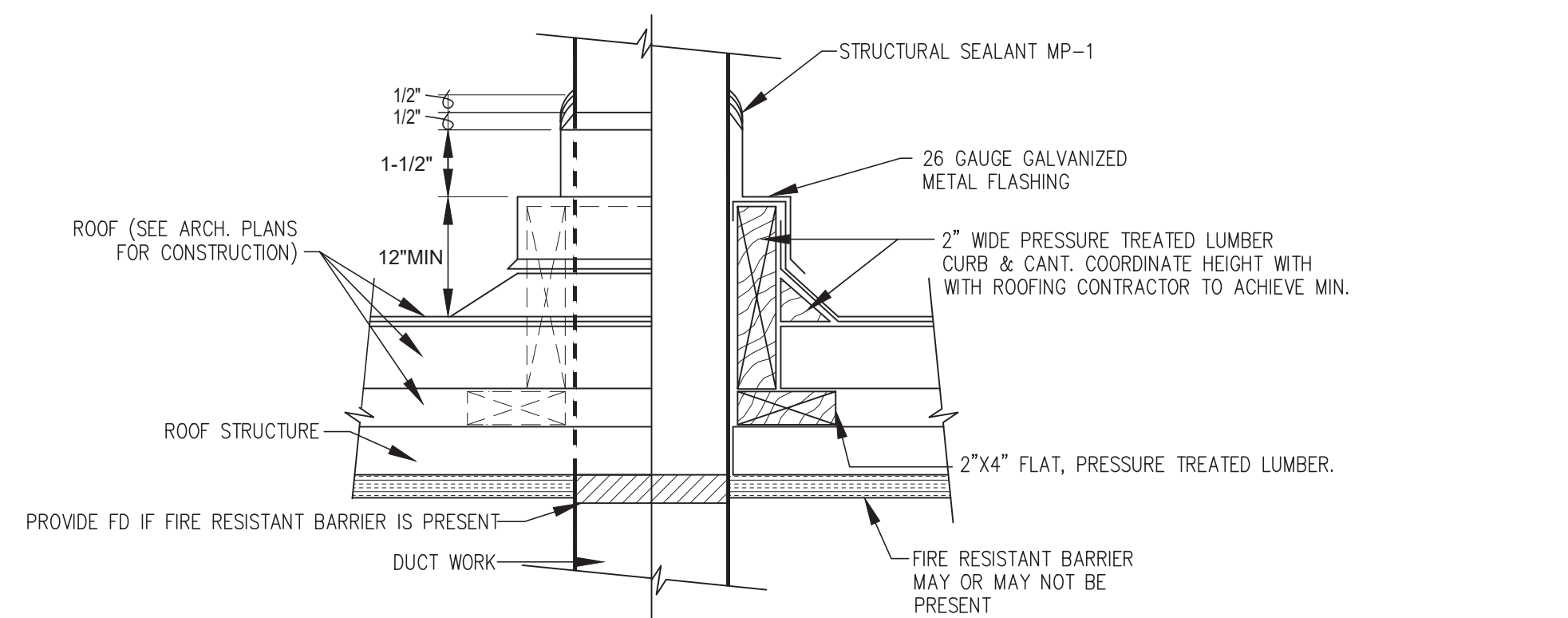
1 EVAPORATIVE COOLER DETAIL
M300 NOT TO SCALE



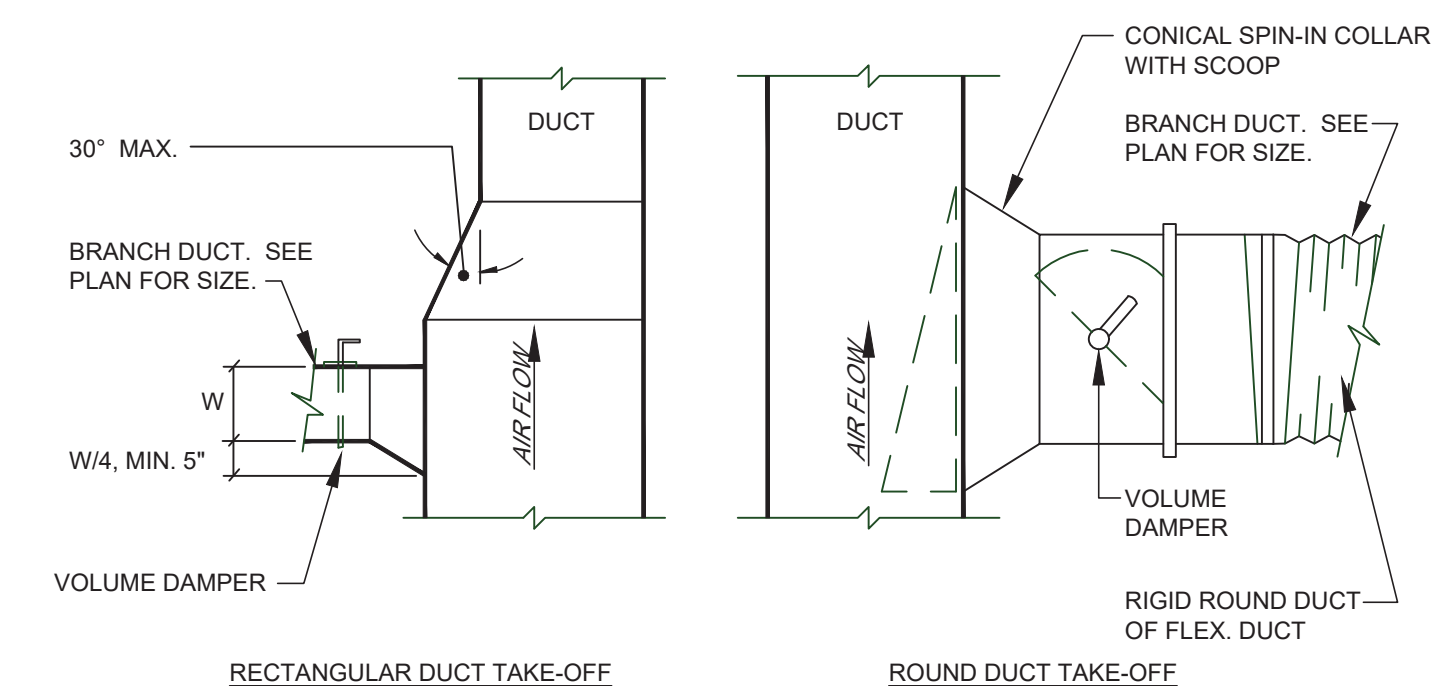
2 GOOSENECK DETAIL
M300 NOT TO SCALE



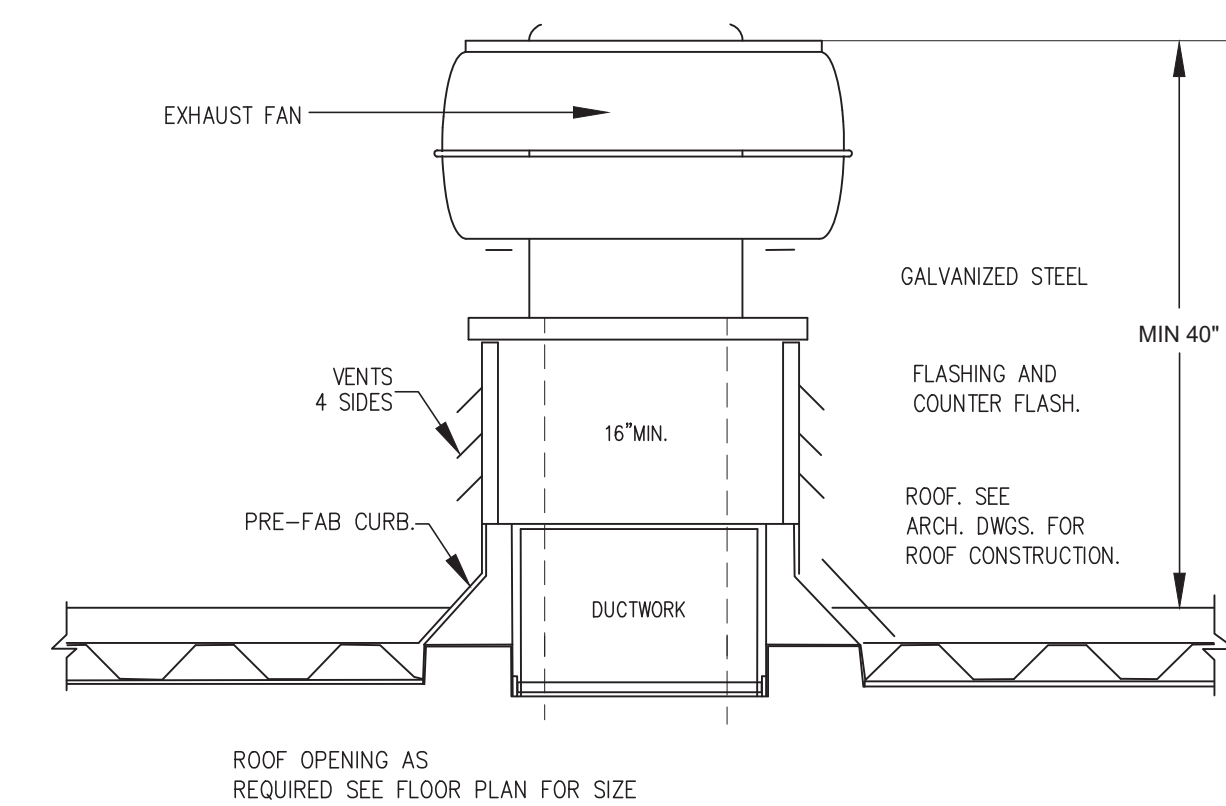
3 CEILING DIFFUSER SCHEMATIC
M300 NOT TO SCALE



4 DUCT THRU ROOF DETAIL
M300 NOT TO SCALE



5 DUCT CONNECTION SCHEMATIC
M300 NOT TO SCALE



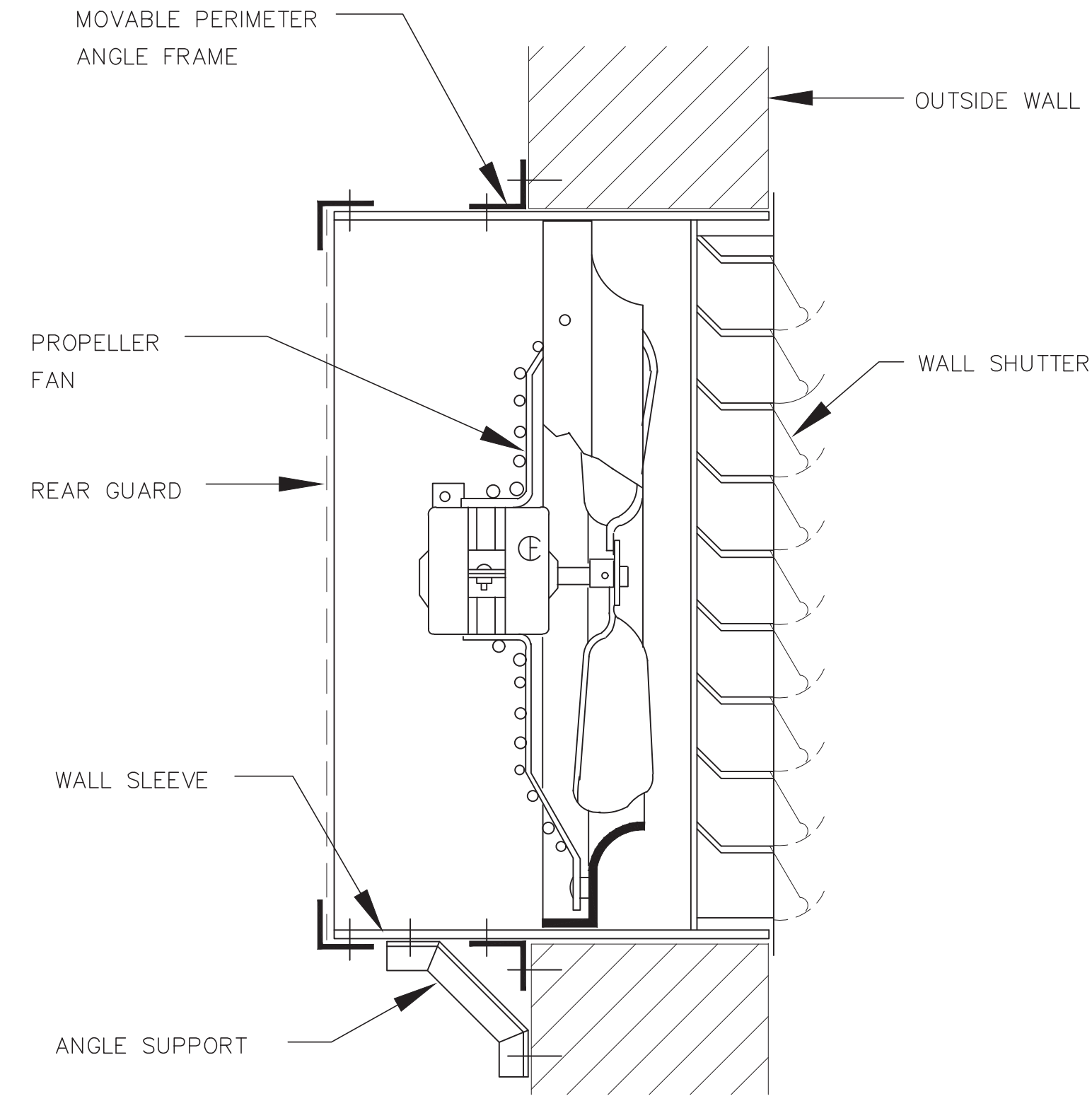
6 ROOF EXHAUST FAN SCHEMATIC
M300 NOT TO SCALE

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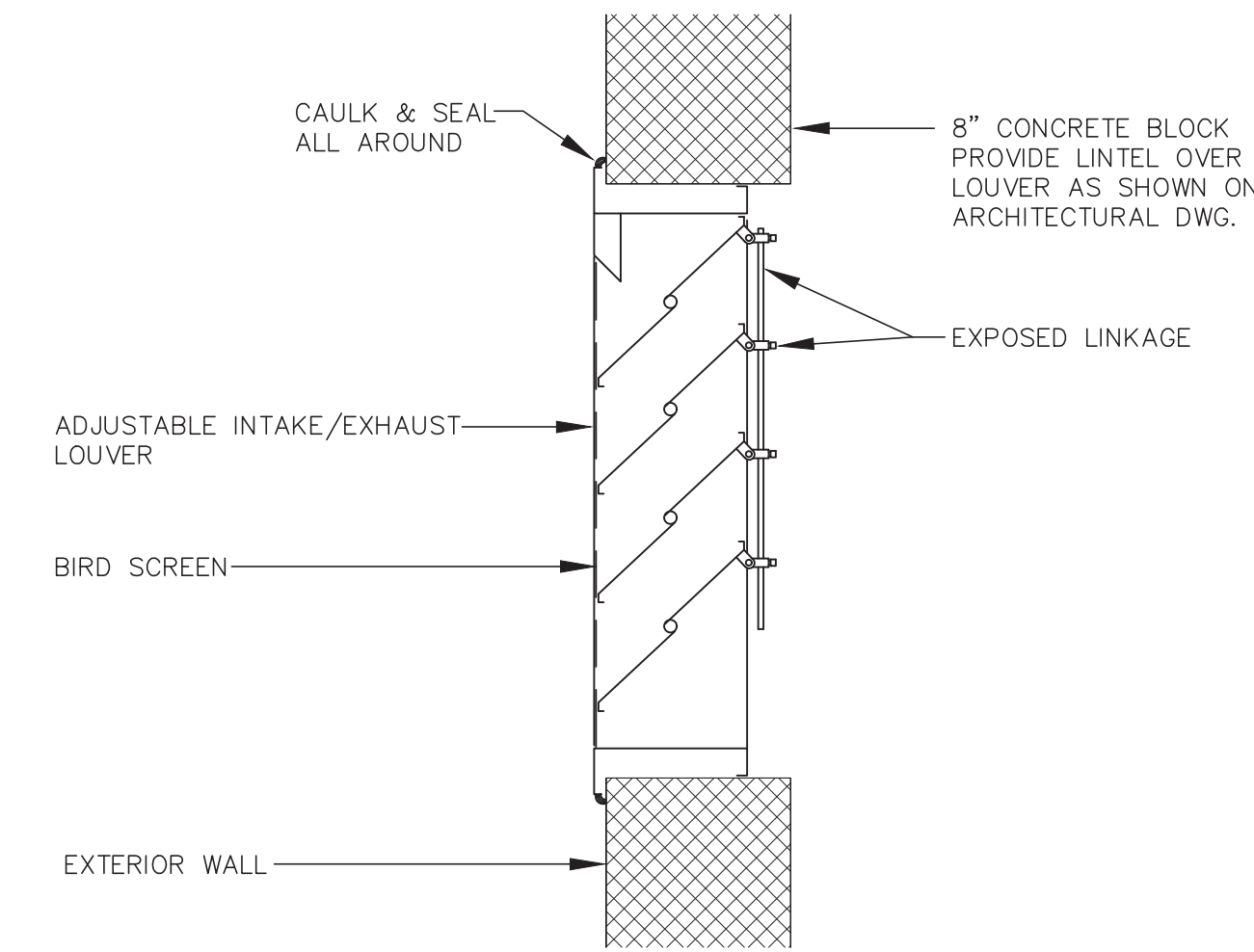
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**MECHANICAL
DETAILS**

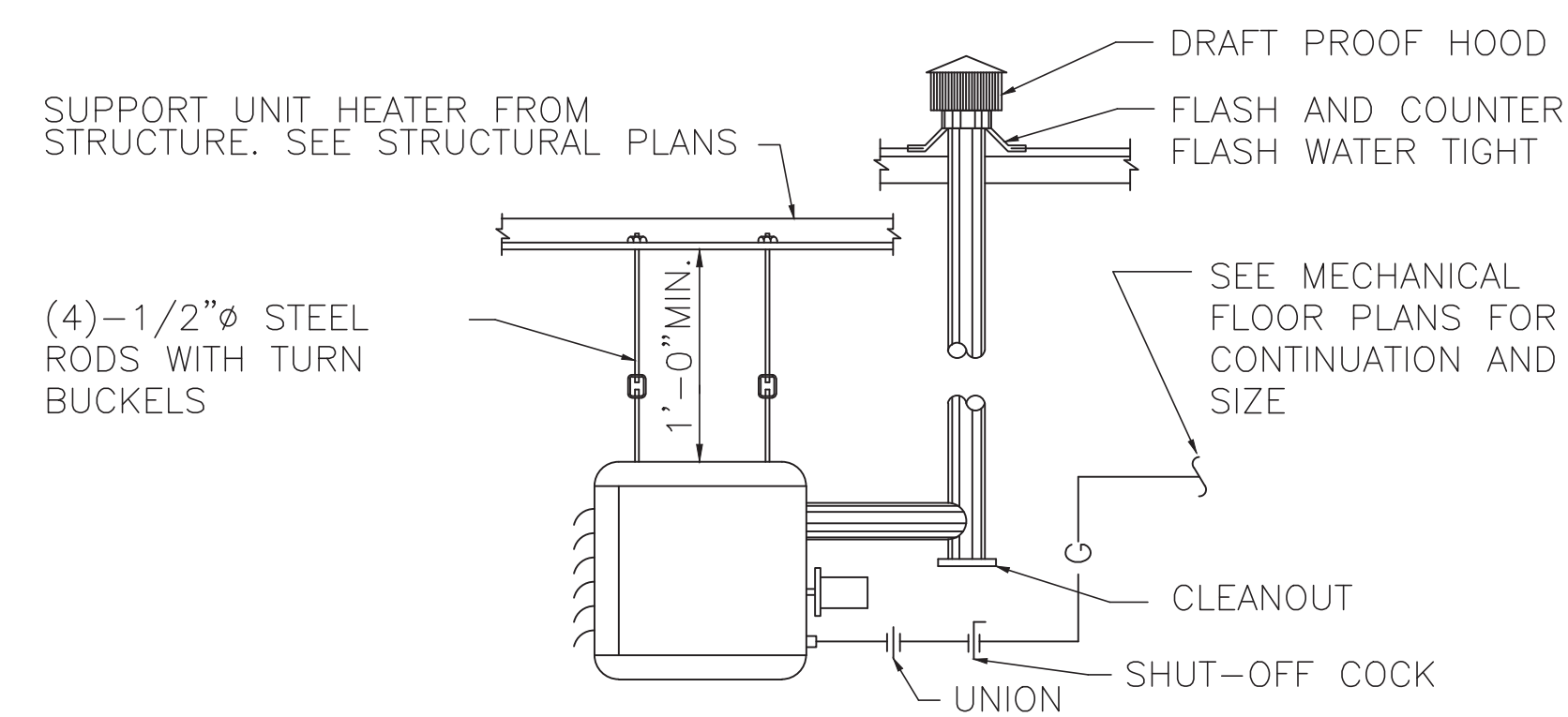
M300



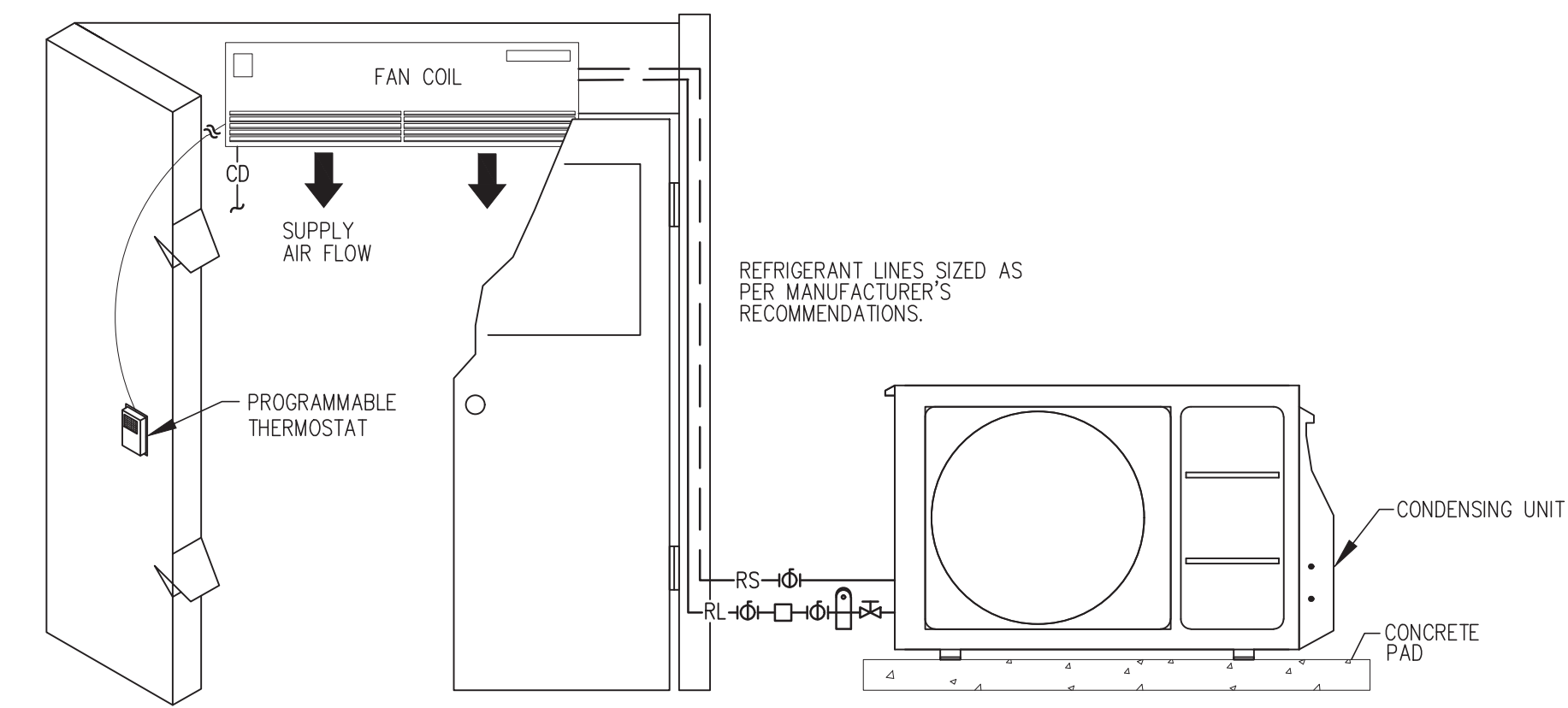
1 WALL MOUNTED PROPELLER FAN DETAIL
M301 NOT TO SCALE



2 LOUVER DETAIL
M301 NOT TO SCALE



3 GAS FIRED UNIT HEATER DETAIL
M301 NOT TO SCALE



4 MINI-SPLIT SYSTEM SCHEMATIC
M301 NOT TO SCALE

| REVISION | DATE |
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| | |

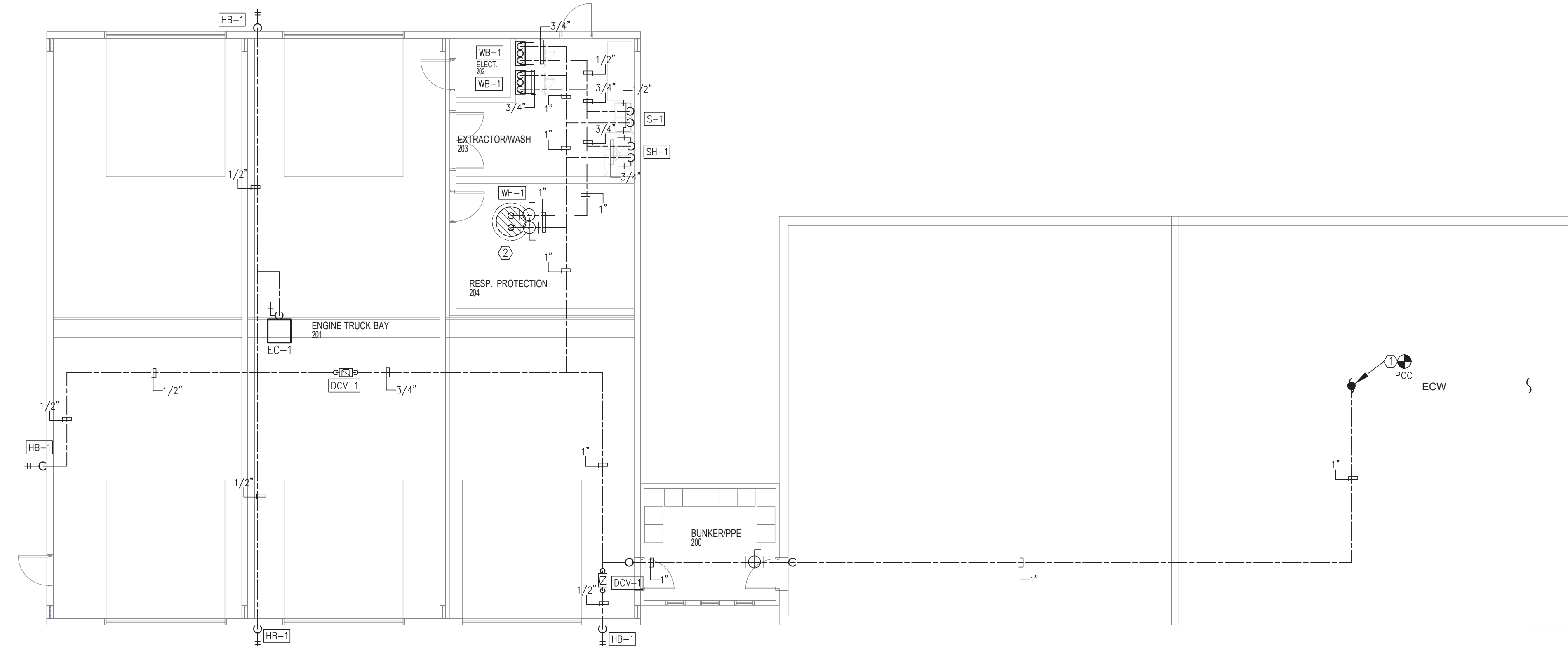
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**MECHANICAL
DETAILS**

M301

KEYED NOTES

1. POINT OF CONNECTION - PLUMBING CONTRACTOR TO CONNECT NEW DOMESTIC WATER LINES TO EXISTING 1-1/2" WATER MAIN LINE. FIELD VERIFY EXACT LOCATION OF EXISTING SERVICE WATER MAIN LINE PRIOR TO COMMENCING ROUGH IN WORK.
2. WATER HEATER TO BE LOCATED ON MEZZANINE LEVEL.



1 DOMESTIC WATER PLUMBING PLAN

1/8" = 1'-0"

PLUMBING FIXTURE SCHEDULE

| MARK | DESCRIPTION | MANUFACTURER AND MODEL NUMBER OR APPROVED EQUAL | ROUGH-IN REQUIREMENTS | | | | ACCESSORIES |
|-------|--|---|-----------------------|------------|------------|------------|--|
| | | | DRAIN | VENT | COLD | HOT | |
| S-1 | COMMERCIAL KITCHEN SINK STAINLESS STEEL 2 COMPARTMENT | REGENCY 600S21515G | 3" | 2" | 3/4" | 3/4" | SINK: 37" L X 20-1/2" W X 43-3/4" H, 16 GAUGE STAINLESS STEEL, TWO 3-1/2" IPS DRAIN CONNECTIONS AND TWO 3-1/2" BASKET STRAINERS INCLUDED. REGENCY WALL MOUNT FAUCET 600FW88GLL. REGENCY STRAINER 600DB35 |
| WB-1 | WASHER BOX | OATEY CENTRO II 38154 | 2" | 1-1/4" | 3/4" | 3/4" | BOX: 2 INCH HUBS 1/4 TURN, COPPER, HAMMER ARRESTOR INCLUDED, ASSEMBLED, CONTRACTOR PACK. |
| HB-1 | WALL HYDRANT WALL MOUNTED | ZURN Z1345 | - | - | 3/4" | - | HYDRANT: ZURN MODEL Z1345 EXPOSED NON-FREEZE ANTI-SIPHON DRAINING WALL FAUCET, EXTERIOR CHROME FINISH, BRASS CASING, ALL BRONZE INTERIOR PARTS AND HAND OPERATION. |
| FS-1 | FLOOR SINK | ZURN Z1752 | LINE SIZED | LINE SIZED | - | - | SINK: ZURN MODEL Z1752 12" x 12" x 10" DEEP, 16 GAGE, STAINLESS STEEL TYPE 304, LOOSE SET FULL GRATE WITH 1/2" SQUARE OPENINGS. |
| TD-1 | TRENCH DRAIN | ZURN Z886-HD | LINE SIZED | LINE SIZED | - | - | DRAIN: ZURN MODEL Z886, 6-1/4" WIDE, MODULAR 80° CHANNEL DRAIN. PROVIDE WITH STANDARD DGC (DUCTILE IRON SLOTTED GRATE - CLASS C) |
| OSI-1 | OIL & SOLIDS INTERCEPTOR ACID RESISTANT STEEL | MFAB MI-O-5 | 4" | 2" | - | - | INTERCEPTOR: MFAB MODEL MI-O-5, POWDER EPOXY COATED INSIDE AND OUTSIDE, 10 GAUGE STEEL OIL INTERCEPTOR. INCLUDE: SEDIMENT BUCKET WITH PERFORATED BAFFLE NEAR INLET, DEEP SEAL TRAP COVERED BY LID, SEWER GAS STOPPER, SECURING BOLT(S), REMOVABLE BAFFLE ASSEMBLY AND CROSS BAR, STAINLESS STEEL CALIBRATED ORIFICE PLATE, INTERNAL AIR RELIEF BY-PASS, ADJUSTABLE AUTOMATIC DRAW-OFF ASSEMBLY, DOUBLE VENT CONNECTION ON EACH SIDE, AND STEEL POWDER EPOXY COATED NON SKID RECTANGULAR LID. PROVIDE WITH HEAVY DUTY TRAFFIC COVER. DIMENSIONS: 51" L x 36" W x 36" H. INSTALL IN CONCRETE VAULT PROVIDED BY OTHERS. |
| MXV-1 | MIXING VALVE | ZURN ZW1070-XL | - | - | LINE SIZED | LINE SIZED | ZURN MODEL ZW1070-XL AQUA-GARD THERMOSTATIC MIXING VALVE, WITH BRONZE BODY AND INTEGRAL MOUNTING HOLES. TEMPERATURE ADJUSTMENT FROM 95-115°F. |
| FCO | FLOOR CLEANOUT | ZURN ZN1400-BZ1 | 2" TO 4" | - | - | - | ZURN MODEL Z1400-BZ1 CLEANOUT, DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, WITH GAS AND WATERTIGHT THREADED ABS TAPERED PLUG AND TOP ASSEMBLY. TYPE B* LIGHT DUTY SCORiated COVER. |
| WCO | WALL CLEANOUT | ZURN Z-1446 | 2" TO 4" | - | - | - | ZURN MODEL Z1446 CLEANOUT, DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT ABS TAPERED PLUG, AND ROUND, SMOOTH STAINLESS STEEL WALL ACCESS COVER WITH SECURING SCREW. |
| GCO | GRADE CLEANOUT | ZURN Z-1402-HD | 2" TO 4" | - | - | - | ZURN MODEL Z1402-HD TUF-TOP NON ADJUSTABLE FLOOR CLEANOUT WITH DURA-COATED CAST IRON BODY, WITH GAS AND WATERTIGHT ABS TAPERED THREADPLUG, AND ROUND SCORiated CAST IRON HEAVY-DUTY SECURED COVER AND FRAME. |
| SH-1 | SHOWER ENCLOSURE | DREAMLINE DLT-11-32540 | 2" | 2" | 3/4" | 3/4" | ACRYLIC SHOWER BASE CENTER DRAIN SINGLE THRESHOLD SHOWER TRIM KIT KOHLER MODEL KTS396-4-CP. WITH KOHLER MODEL K8304 VALVE AND AWAKEN B90 HANDHELD SHOWER KIT. PROVIDE SHOWER ARM 2 WAY DIVERTER MODEL K76331 AND EMERGECONY SHOWER HEAD G164SSH. |
| DCV-1 | DUAL CHECK VALVE | ZURN 700XL | - | - | LINE SIZED | LINE SIZED | ZURN MODEL 700XL FOR LEAD-FREE APPLICATIONS, DESIGNED FOR INSTALLATION ON POTABLE WATER LINES TO PROTECT AGAINST BOTH BACKSIPHONAGE AND BACKPRESSURE OF POLLUTED WATER INTO THE POTABLE WATER SUPPLY. 80,000 BTUH INPUT, 115/10. |
| WH-1 | WATER HEATER NATURAL GAS (ATMOSPHERIC) 100 GALLON TANK | BRADFORD WHITE LG2100H803N | - | - | 1-1/4" | 1-1/4" | 78 GPH RECOVERY RATE AT 100°F RISE. ALL INTERNAL SURFACES OF THE TANK EXPOSED TO WATER SHALL BE GLASS-LINED WITH VITRAGLAS® VITREOUS ENAMEL WITH MICROBAN® ANTIMICROBIAL TECHNOLOGY THAT HAS BEEN FUSED TO STEEL BY FIRING AT A TEMPERATURE RANGE OF 1,600°F. |
| DGCO | DOUBLE GRADE CLEANOUT | ZURN Z-1402-HD | 2" TO 4" | - | - | - | ZURN MODEL Z1402-HD TUF-TOP NON ADJUSTABLE FLOOR CLEANOUT WITH DURA-COATED CAST IRON BODY, WITH GAS AND WATERTIGHT ABS TAPERED THREADPLUG, AND ROUND SCORiated CAST IRON HEAVY-DUTY SECURED COVER AND FRAME. |

PROPOSED WATER SUPPLY FIXTURE UNITS TABLE

| FIXTURE | OCCUPANCY | TYPE OF SUPPLY CONTROL | NUMBER OF FIXTURES | TOTAL WSFU | | | Total GPM |
|------------------------|---------------|------------------------|--------------------|--------------|--------------|-------------|---|
| | | | | COLD | HOT | TOTAL | |
| Dishwashing machine | Private | Automatic | 1 | 0 | 1.4 | 1.4 | Total GPM Cold Hot Total 20.2 18.1 22.9 |
| Kitchen sink | Private | Faucet | 1 | 1 | 1 | 1.4 | |
| Lavatory | Private | Faucet | 5 | 2.5 | 2.5 | 3.5 | |
| Service sink | Offices, etc. | Faucet | 1 | 2.25 | 2.25 | 3 | |
| Shower head | Private | Mixing valve | 3 | 3 | 3 | 4.2 | |
| Washing machine (15lb) | Public | Automatic | 2 | 6 | 6 | 8 | |
| Water closet | Private | Flush tank | 3 | 6.6 | 0 | 6.6 | |
| TOTALS | | | 16 | 21.35 | 16.15 | 28.1 | |

EXISTING WATER SUPPLY FIXTURE UNITS TABLE

| FIXTURE | OCCUPANCY | TYPE OF SUPPLY CONTROL | NUMBER OF FIXTURES | TOTAL WSFU | | | Total GPM |
|---------------------|---------------|------------------------|--------------------|--------------|-------------|-------------|---|
| | | | | COLD | HOT | TOTAL | |
| Dishwashing machine | Private | Automatic | 1 | 0 | 1.4 | 1.4 | Total GPM Cold Hot Total 16.7 12.9 18.6 |
| Kitchen sink | Private | Faucet | 1 | 1 | 1 | 1.4 | |
| Lavatory | Private | Faucet | 3 | 1.5 | 1.5 | 2.1 | |
| Service sink | Offices, etc. | Faucet | 1 | 2.25 | 2.25 | 3 | |
| Shower head | Private | Mixing valve | 2 | 2 | 2 | 2.8 | |
| Water closet | Private | Flush tank | 3 | 6.6 | 0 | 6.6 | |
| TOTALS | | | 11 | 13.35 | 8.15 | 17.3 | |

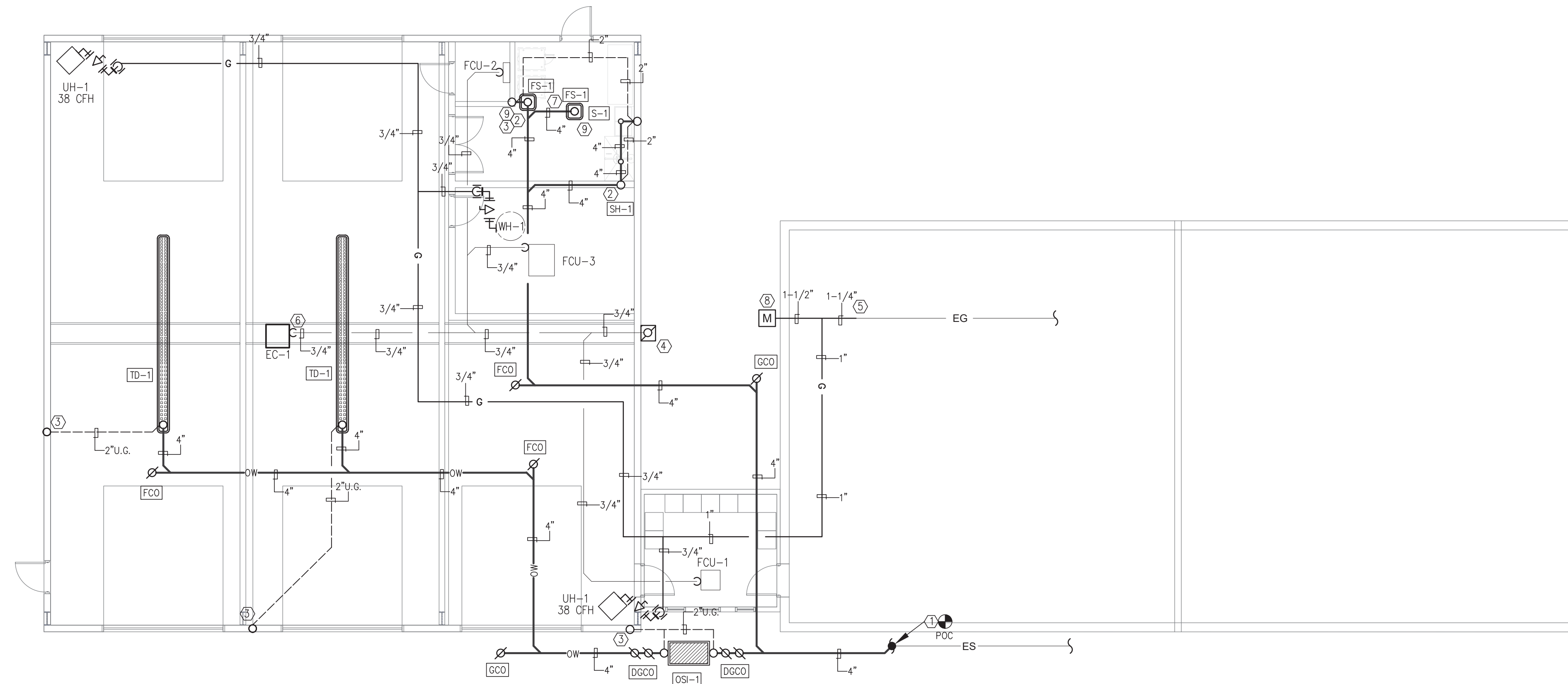
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DOMESTIC WATER PLUMBING PLAN
P200

KEYED NOTES

1. POINT OF CONNECTION – PLUMBING CONTRACTOR TO CONNECT NEW WASTE LINE TO EXISTING SEWER MAIN LINE. FIELD VERIFY EXACT INVERT AND LOCATION OF EXISTING SEWER MAIN LINE PRIOR TO COMMENCING ROUGH IN WORK.
2. PROVIDE FULL SIZE CLEANOUT.
3. PROVIDE 2" VENT THROUGH ROOF.
4. EXTEND AND DISCHARGE FULL SIZE DRAIN FROM CONDENSATE UNITS DOWN TO FRENCH DRAIN. REFER TO DETAILS 2/P300 & 3/P300.
5. CONNECT NEW 1-1/2" GAS LINE FROM METER TO THE EXISTING 1-1/4" GAS LINE.
6. FULL SIZE EVAPORATIVE COOLER WATER DISCHARGE THROUGH ROOF. PROVIDE ROOF FLASHING.
7. EXTEND EXTRACTOR DRAIN TO FLOOR SINK.
8. LOCAL NATURAL GAS UTILITY TO PROVIDE AND INSTALL NEW GAS METER AND REGULATOR ASSEMBLY WITH MINIMUM CAPACITY OF 371 CFH. PLUMBING CONTRACTOR TO COORDINATE WITH OWNER TO PAY FOR ALL FEES ASSOCIATED WITH THE INSTALLATION OF THE NEW NATURAL GAS METER.
9. PROVIDE FLOOR DRAIN/SINK TRAP SEALS.



GAS DEMAND CALCULATIONS

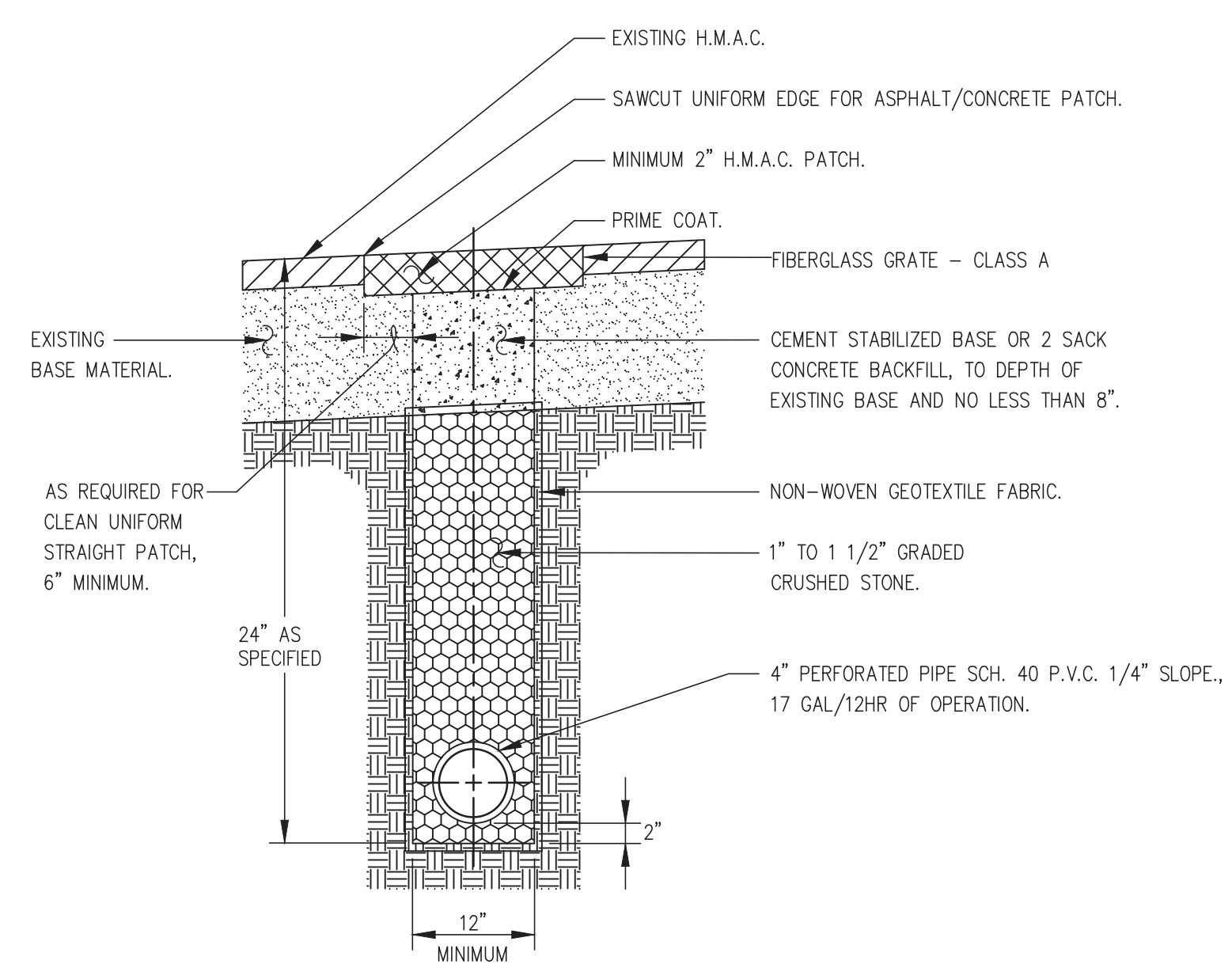
| EQUIPMENT | QUANTITY | DEMAND EACH, BTUH | TOTAL DEMAND (BTUH) |
|---------------------|----------|-------------------|---------------------|
| EXISTING LOAD | 1 | 215,000 | 215,000 |
| UH-1 | 2 | 38,000 | 76,000 |
| WATER HEATER | 1 | 80,000 | 80,000 |
| TOTAL DEMAND | | | 371,000 |

371,000 BTUH DIVIDED BY 1000 BTUH CU FT = 371.0 CFH. TOTAL DEVELOPED PIPING LENGTH FOR METER BANK EQUALS 200'. BASED ON TABLE 1216.2(1) OF THE 2015 EDITION OF THE UNIFORM PLUMBING CODE, A 1-1/2\" GAS LINE WILL CARRY 412.0 CFH OVER 200'. REMAINING BRANCH LINES WILL BE SIZED ACCORDING TO THE TOTAL DEVELOPED LENGTH, AND BASED ON TABLE 1216.2(1).

1 GAS CONDENSATE SEWER AND VENT PLUMBING PLAN

1
P300

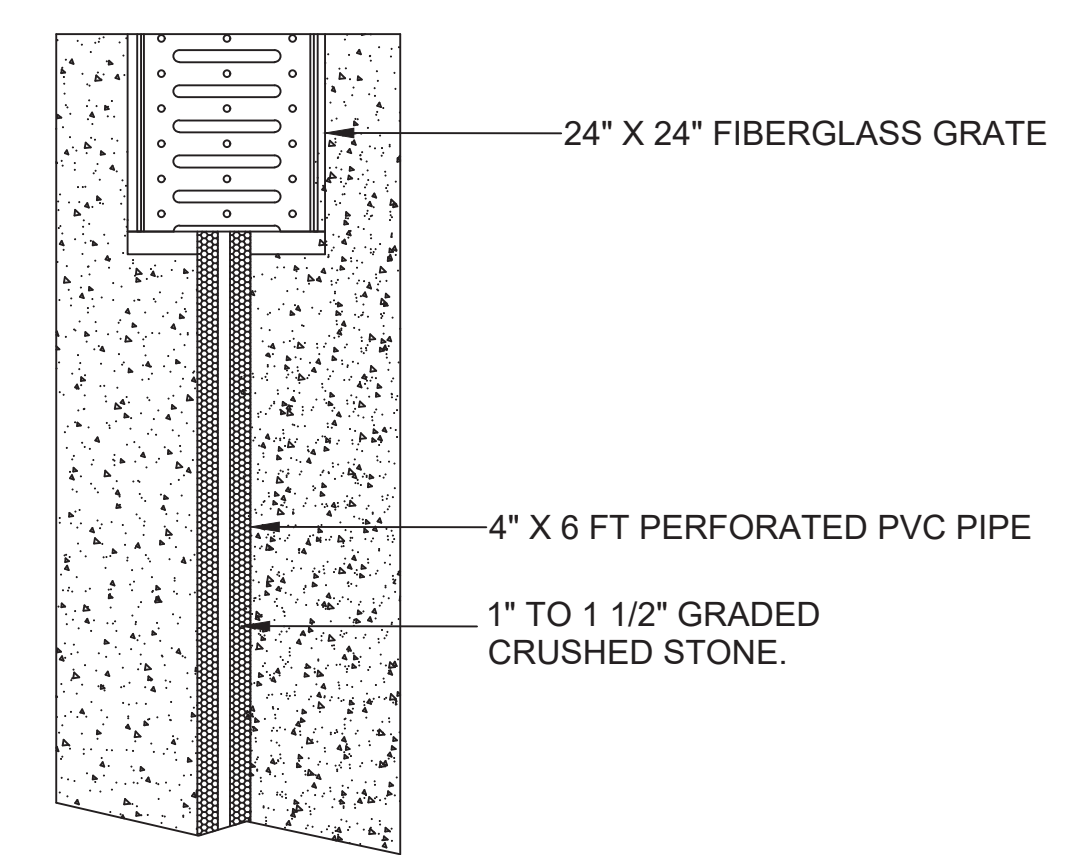
1/8\" = 1'-0\"



2 FRENCH DRAIN DETAIL

2
P300

NOT TO SCALE



3 FRENCH DRAIN TOP VIEW DETAIL

3
P300

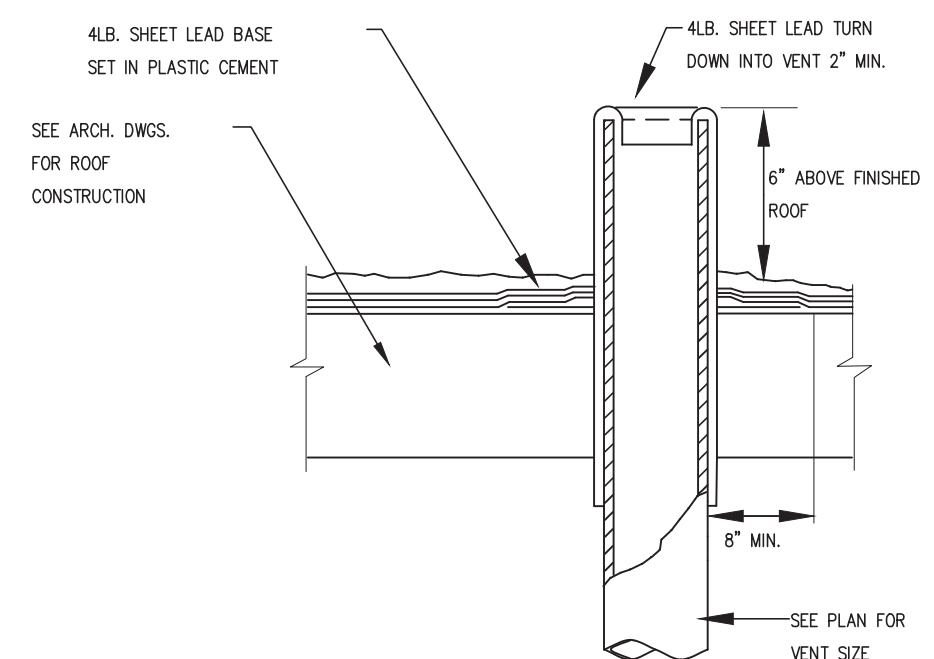
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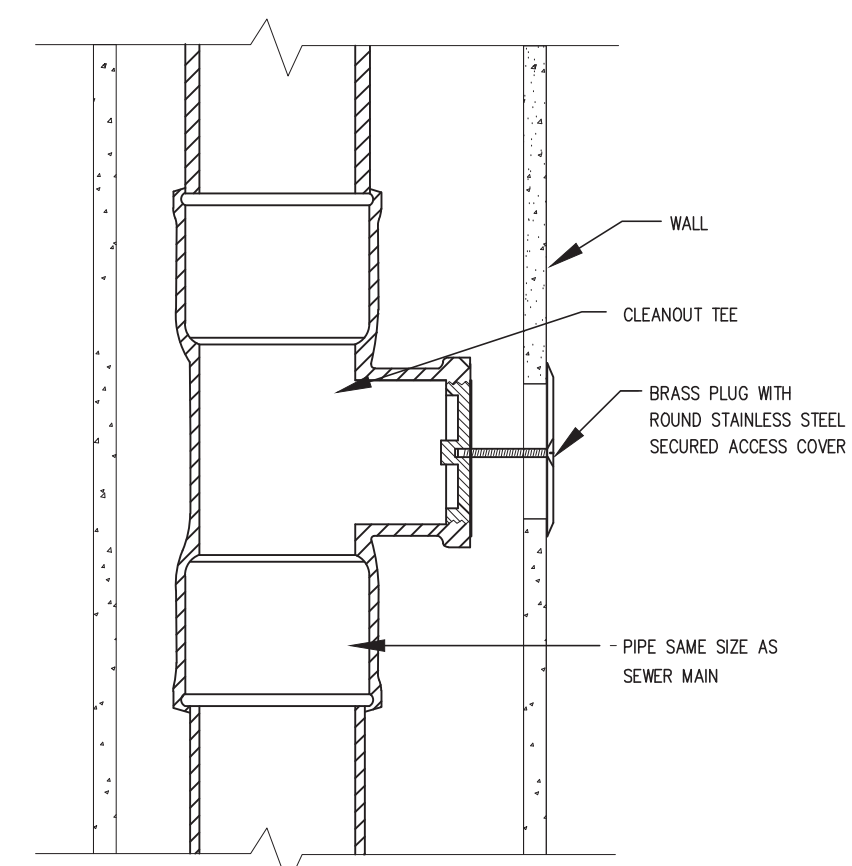
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GAS CONDENSATE SEWER & VENT PLUMBING PLAN
P300

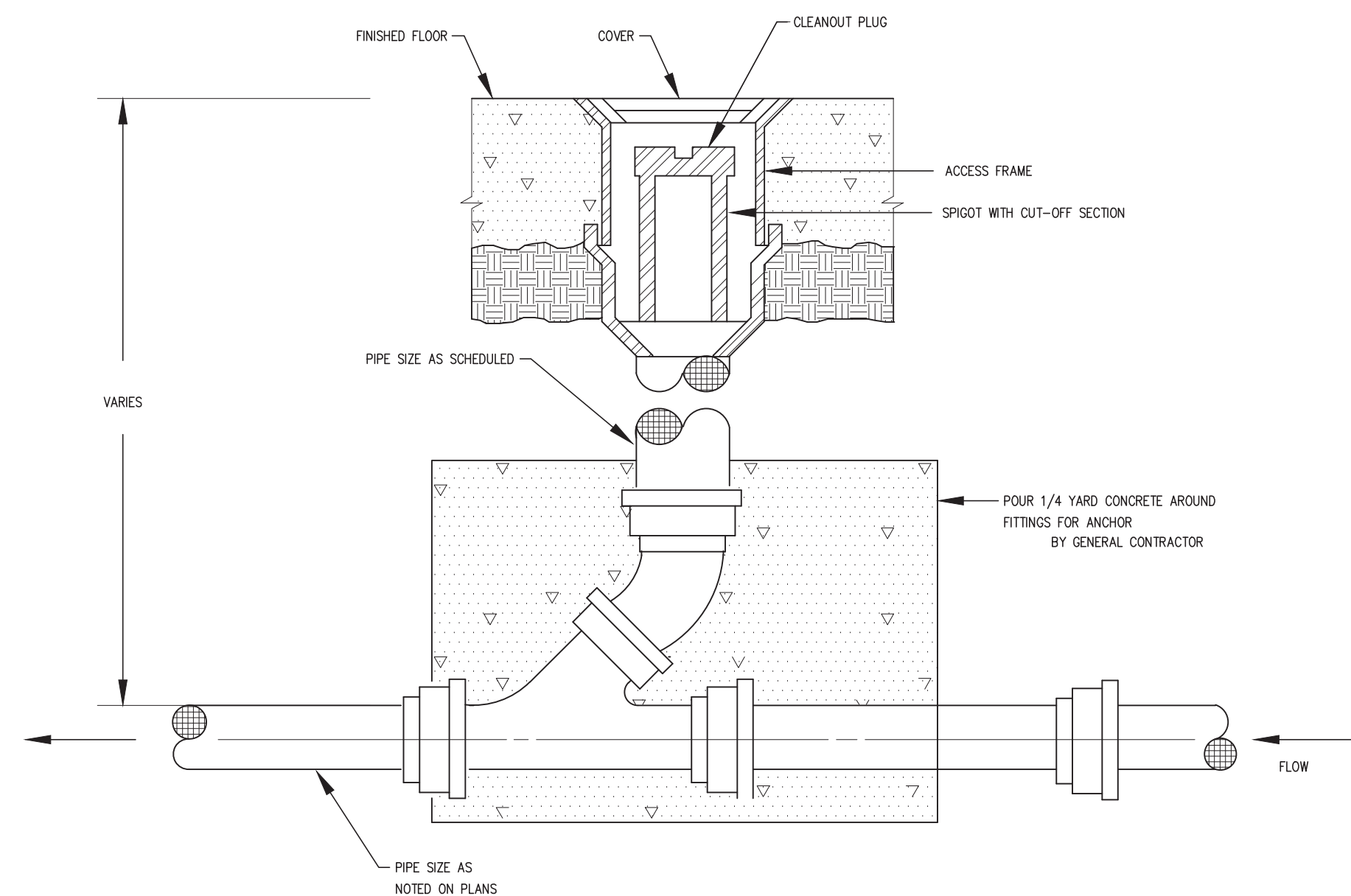




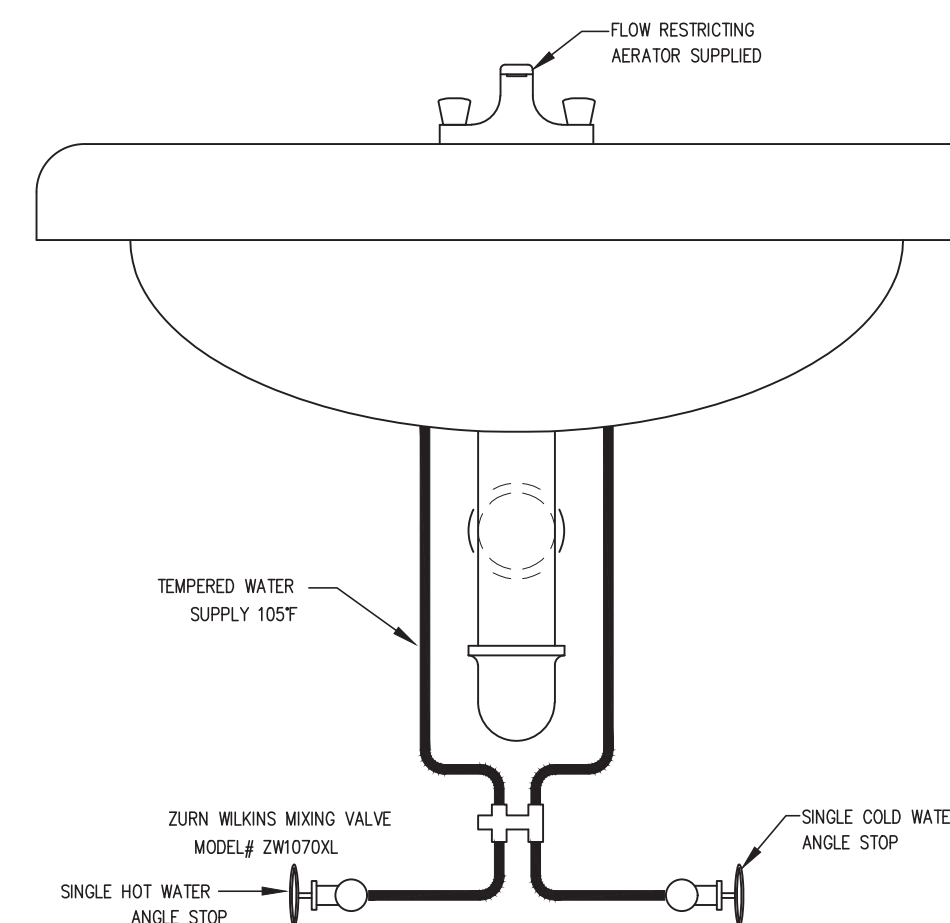
1 VENT THRU ROOF
P400 NOT TO SCALE



2 WALL CLEANOUT DETAIL
P400 NOT TO SCALE



3 FLOOR CLEANOUT DETAILS
P400 NOT TO SCALE



4 MIXING VALVE DETAIL
P400 NOT TO SCALE

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**PLUMBING
DETAILS**

P400



ELECTRICAL SYMBOL LEGEND

1. THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT. 2. ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR... PRECEDENCE OVER MOUNTED HEIGHTS LISTED BELOW.

Table with columns for SYMBOL, DESCRIPTION, MFG. HT., SYMBOL, DESCRIPTION, MFG. HT., SYMBOL, DESCRIPTION, MFG. HT. Includes sections for LIGHTING SYMBOLS, POWER SYMBOLS, SPECIAL SYSTEMS SYMBOLS, and FIRE ALARM SYSTEM SYMBOLS.

ELECTRICAL SYMBOL LEGEND

Table with columns A OR AMP, AMPERE, NEC, NATIONAL ELECTRIC CODE, and descriptions of electrical symbols like AF (AMP FUSED), AHU (AIR HANDLING UNIT), etc.

DEFINITIONS

Table defining terms such as CONTRACTOR (MEANS THE PERSON(S), FIRM OR COMPANY WHOSE TENDER FOR THE ELECTRICAL INSTALLATION...), DRAWINGS, EQUIPMENT SUPPLIER, and PROVIDE.

ELECTRICAL GENERAL NOTES

- A. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZED THEMSELVES WITH THE PROJECT CONDITIONS. B. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL ARCHITECTURAL AND MECHANICAL EQUIPMENT AND PROVIDE ELECTRICAL CONNECTIONS... C. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH PROJECT PRIOR TO THE BID OPENING... V. PROVIDE BLANK METAL COVERPLATE OVER ALL UNUSED OUTLET BOXES... W. OUTLET MOUNTING HEIGHTS INDICATED ON THE DRAWINGS ARE APPROXIMATE... X. ALL RECEPTACLES TO BE 20A COMMERCIAL GRADE... Z. FIRESTOPPING OF PENETRATIONS IN FIRE-RATED WALLS, FLOORS, etc. SHALL BE DONE BY A FIRESTOPPING CONTRACTOR...

ELECTRICAL SPECIFICATIONS

- 1. THE ELECTRICAL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE AND ADOPTED PROVISIONS OF THE NATIONAL ELECTRICAL CODE, ENERGY CODE AS ADOPTED AND INTERPRETED BY THE STATE OF NEW MEXICO AND THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) REGULATIONS... 2. ALL WORK SHALL CONFORM WITH FEDERAL, STATE, AND LOCAL CODES, RULES, AND REGULATIONS... 3. ALL MATERIALS SHALL BE NEW, EXCEPT WHERE NOTED OTHERWISE... 4. REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE...

- 17. ELECTRICAL PANELS SHALL BE PANELBOARDS, HAVE COPPER BUSS, BOLTED CIRCUIT BREAKERS, XRAY RATING AS NOTED... 18. ALL DISCONNECTS SHALL BE HEAVY DUTY RATED. 19. EMERGENCY EGRESS LIGHTING TO COMPLY WITH 2015 IBC SECTION 106 AND 2017 NEC 700.12. 20. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE ARCHITECT OFFICE... 21. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE ARCHITECT OFFICE... 22. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE A WRITTEN REPORT TO THE ARCHITECT OFFICE...

TYPICAL DEVICE MOUNTING HEIGHTS

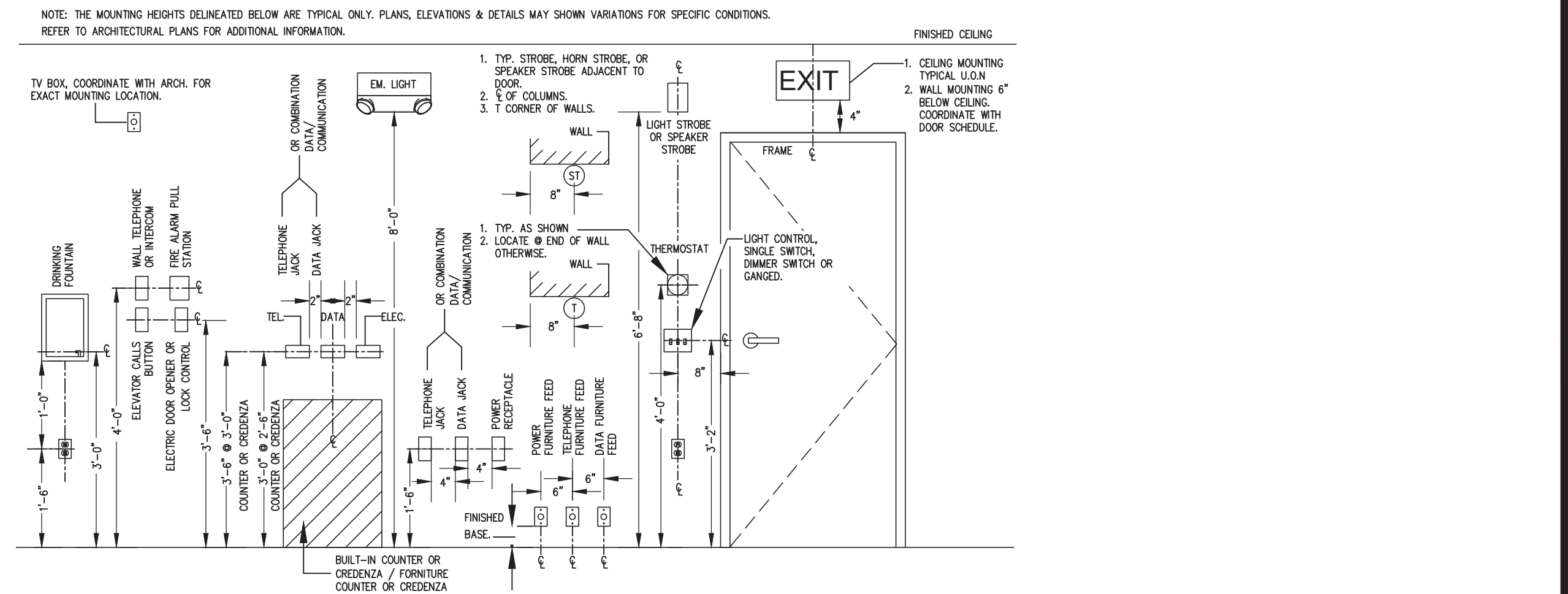


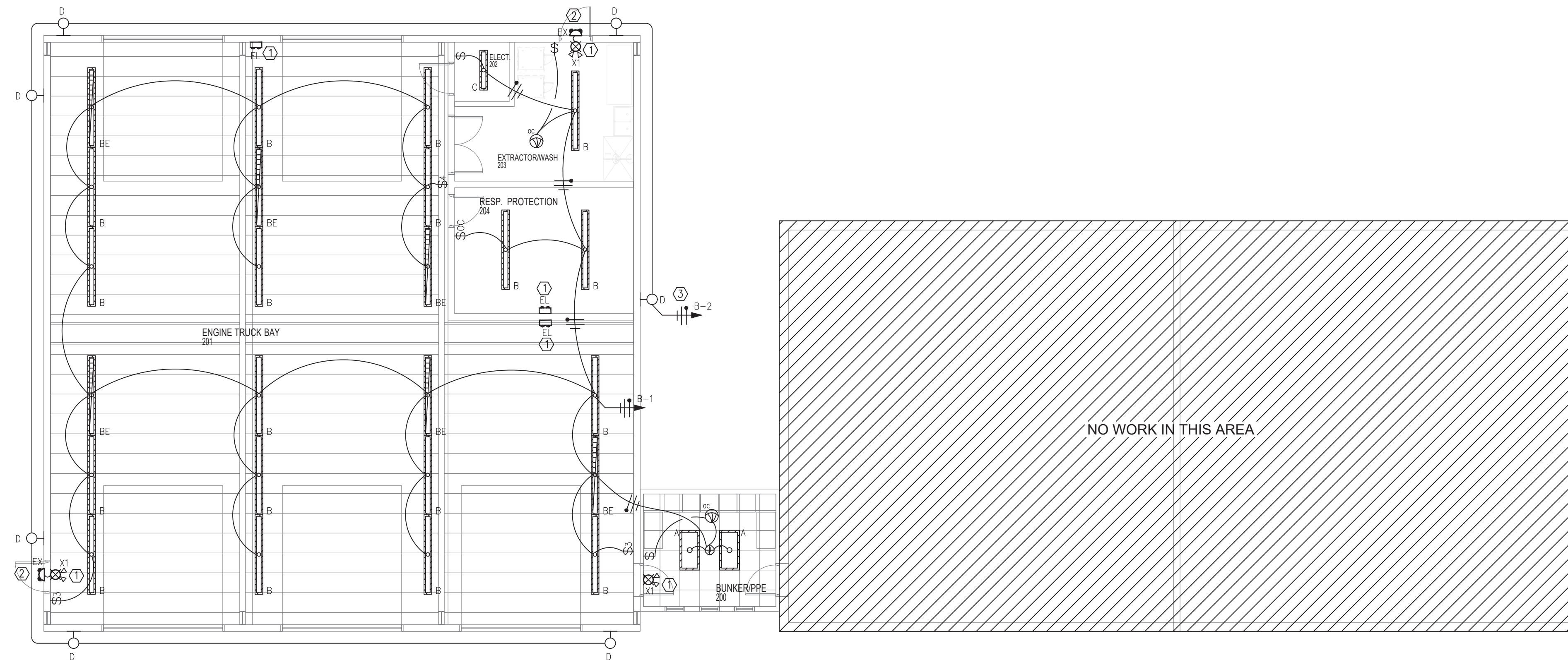
Table with columns REVISION and DATE.

Project no: Date: Sheet:

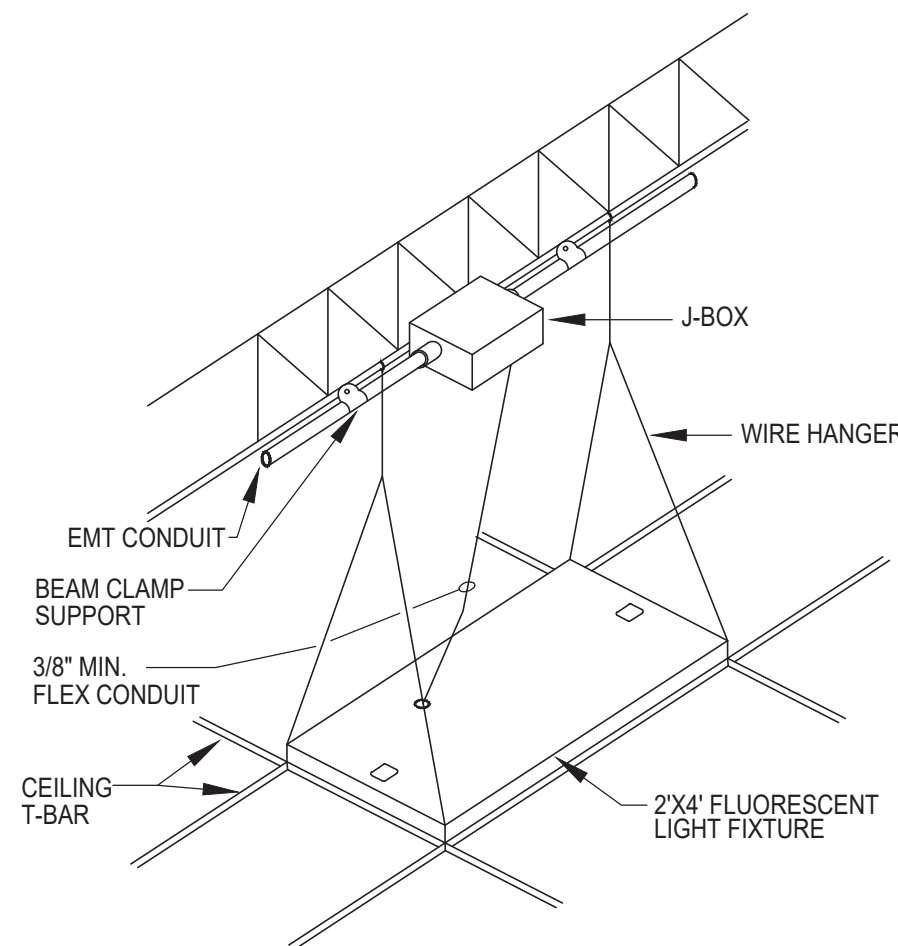
ELECTRICAL GENERAL NOTES E100

KEYED NOTES

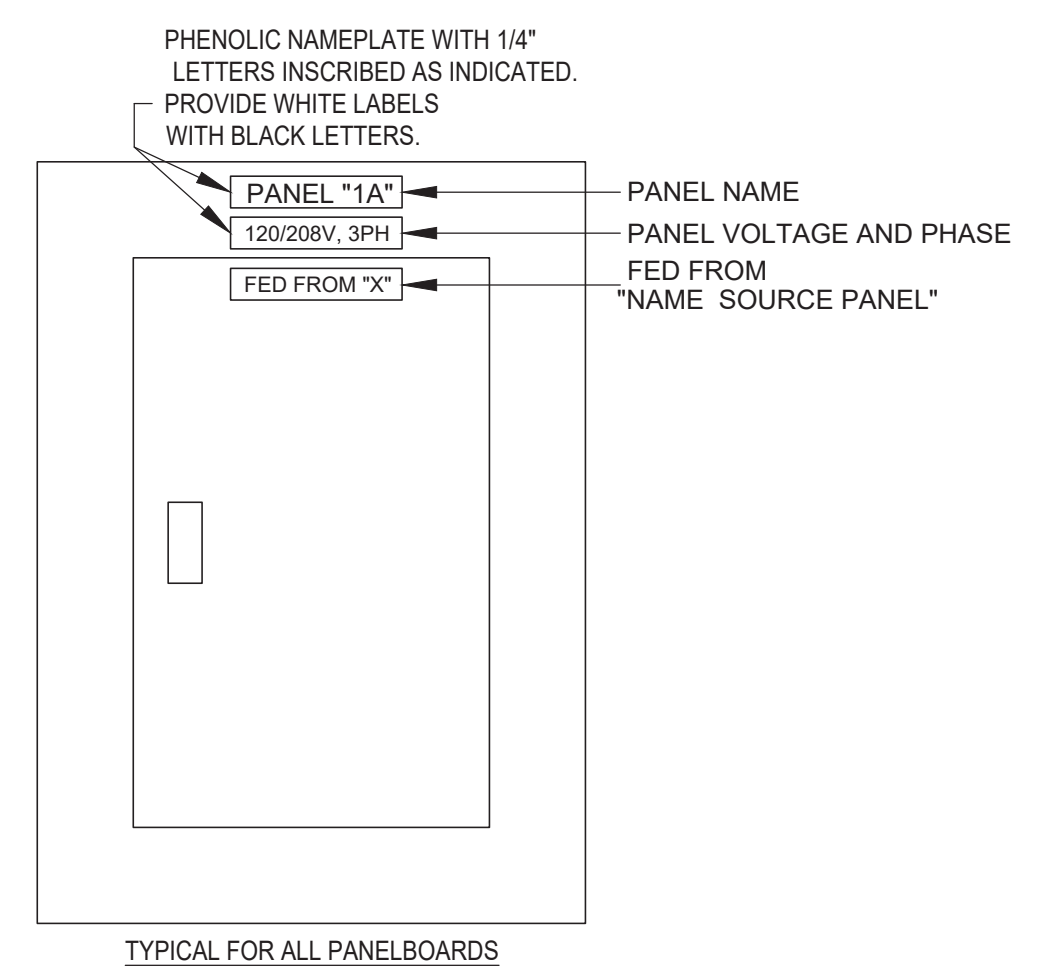
1. CONNECT ALL EXIT LIGHTS AND EMERGENCY LIGHTS TO UNSWITCHED HOT LEG OF NEAREST LIGHTING CIRCUIT.
2. INSTALL OUTDOOR REMOTE EMERGENCY HEAD ABOVE DOOR, CONNECT AS SHOWN.
3. THIS CIRCUIT TO BE WIRED THRU TIMER CONTACTOR, TIMER CONTACTOR TO BE CONTROLLED BY PHOTOCELL.



1 LIGHTING PLAN
E200 1/8" = 1'-0"



2 LAY-IN FIXTURE MOUNTING DETAIL
E200 NTS



3 PANELBOARD IDENTIFICATION SCHEMATIC
E200 NTS

| LIGHTING FIXTURE SCHEDULE | | | | | | | | | |
|---------------------------|--|---------|---------------|-------|-------|--------------|-----------------|-------|--|
| TYPE | MANUFACTURER/MODEL NO. | VOLTAGE | LED LAMP INFO | | COLOR | MOUNTING | MOUNTING HEIGHT | NOTES | |
| | | | WATTAGE | TEMP. | | | | | |
| A | DAYBRITE #2 CAX G 54L 840 4 DS UNV DIM | UNV | 48W LED | 40K | WHT | LAY-IN | | | |
| B | DAYBRITE #FSW 8 80L 840 UNV DIM | UNV | 59W LED | 40K | WHT | SURFACE | | | |
| BE | DAYBRITE #FSW 8 80L 840 UNV DIM EMLED | UNV | 59W LED | 40K | WHT | SURFACE | | | |
| C | DAYBRITE #FSW 4 55L 840 UNV DIM | UNV | 37W LED | 40K | WHT | SURFACE | | | |
| D | STONCO #LPW32 70 NW G3 3 UNV BRZ | UNV | 70W LED | 40K | CBA | WALL | 12FT A.F.F. | [3] | |
| D1 | STONCO #LPW32 70 NW G3 3 UNV BRZ | UNV | 70W LED | 40K | CBA | WALL | 10FT A.F.F. | [3] | |
| X1 | EELP XCLB2RW | UNV | INCLUDED | | WH | CEILING/WALL | ABOVE DOOR | [1] | |
| EL | EELP EMS LED WH | UNV | INCLUDED | | WH | WALL | 8FT A.F.F. | [1] | |
| EX | EELP DEM LED BR ACEM PC | UNV | INCLUDED | | WH | WALL | ABOVE DOOR | [2] | |

NOTES: [1] PROVIDE WITH 90 MIN. MINIMUM POWER LIFE BATTERY
[2] REMOTE MOUNTED EMERGENCY HEAD, CONNECT TO INTERIOR EXIT SIGN.
[3] COORDINATE WITH ARCHITECT FOR EXACT MOUNTING HEIGHT

GENERAL NOTES:
[A] FIXTURES SELECTED BASED ON PERFORMANCE AND AESTHETICS.
[B] ARCHITECT TO SELECT ALL FIXTURE FINISH/COLORS PRIOR TO ORDERING LIGHT FIXTURES.
[C] SUBSTITUTIONS MUST BE PRE-APPROVED. PROVIDE SUBSTITUTION SUBMITTALS FOR REVIEW 10 BUSINESS DAYS PRIOR TO BID DATE.
[D] CONTRACTOR MUST PROVIDE FULL PHOTOMETRIC STUDIES ON SUBSTITUTION FIXTURES.

COMcheck Software Version 4.1.5.5
Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: ALAMOGORDO FIRE STATION 6 ADDITION
Project Type: Addition

Construction Site: 3100 N FLORIDA AVE. ALAMOGORDO, NM 88310
Owner/Agent:
Designer/Contractor: JOSE MORALES RAXIS ENGINEERING, LLC 1712 TEXAS AVE. EL PASO, TX 79901 (915) 519-4340 jmorales@raxisengineering.com

| Area Category | B Floor Area (ft ²) | C Allowed Watts / ft ² | D Allowed Watts (B X C) | E |
|-----------------------|---------------------------------|-----------------------------------|-------------------------|---|
| | | | | |
| 1-Fire Station | 3773 | 0.53 | 2000 | |
| Total Allowed Watts = | | | 2000 | |

| Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B Lamps/ Fixture | C # of Fixtures | D Fixture Watt. | E (C X D) |
|--|------------------|-----------------|-----------------|-----------|
| | | | | |
| 1-Fire Station | | | | |
| A Other: | 1 | 2 | 48 | 96 |
| B Other: | 1 | 24 | 59 | 1416 |
| C Other: | 1 | 1 | 37 | 37 |
| Total Proposed Watts = | | | 1549 | |

Interior Lighting PASSES: Design 23% better than code

Interior Lighting Compliance Statement
Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

| REVISION | DATE |
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Project no:
Date:
Sheet:

LIGHTING PLAN

E200

SHORT CIRCUIT AVAILABILITY (SCA)

BASED UPON MAXIMUM BUILDING TRANSFORMER SC. LET THROUGH WITH UNLIMITED PRIMARY S.C. CURRENT (INFINITY BUS)

ASSUMING BUILDING TRANSFORMER RATING = 150 KVA
TRANSFORMER IMPEDANCE (%Z) = 3.75 %
SECONDARY VOLTAGE = 208 VOLTS
SECONDARY PHASE = 3 PHASE

$$FLA = \frac{KVA \times 1000}{E(I-I) \times \text{PHASE CORRECTION}} = \frac{150 \times 1000}{208 \times \text{SQRT}(3)}$$

FLA = 416.36 AMPS

$$\text{MULTIPLIER} = \frac{100}{3.75} = 26.67$$

SCA = AMPS X MULTIPLIER = 416.36 X 26.67

SCA = 11100 AMPS AT LOAD SIDE OF TRANSFORMER

FAULT CURRENT AT MAIN SERVICE

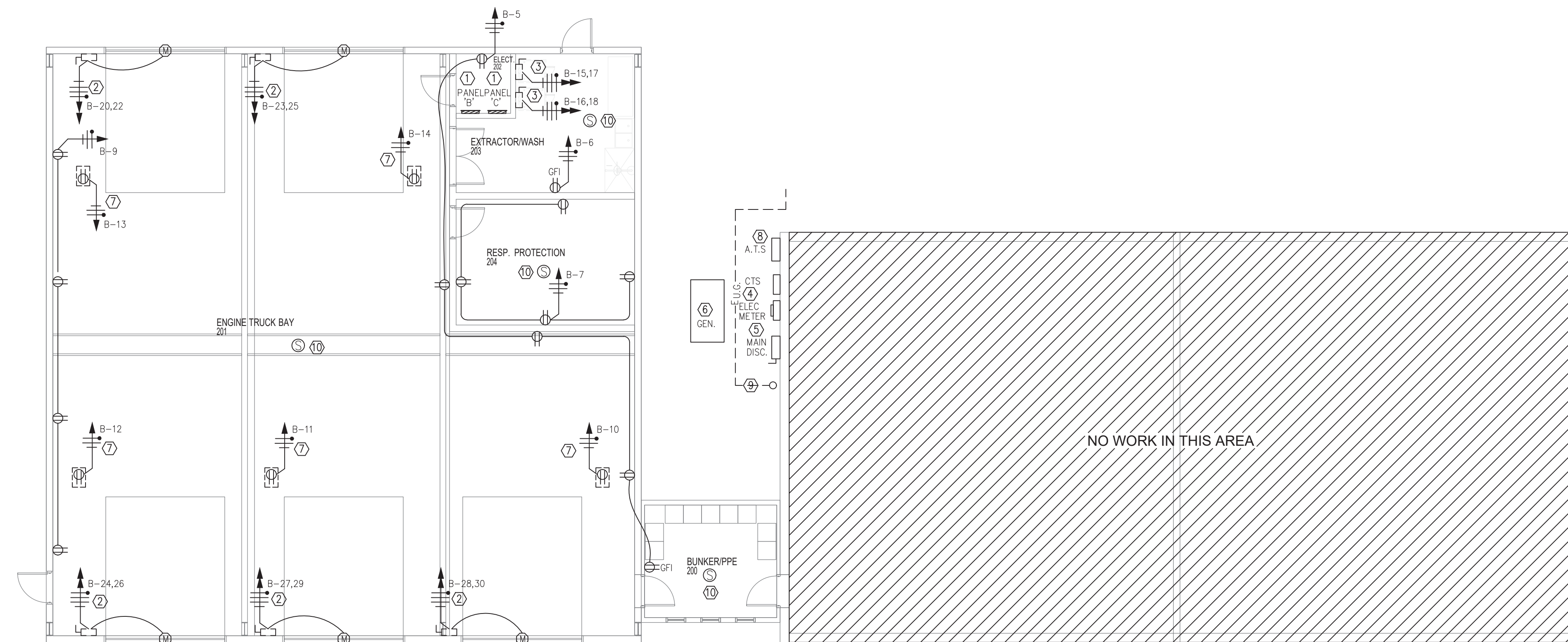
SCA AT SECONDARY = 11100 AMPS
LENGTH TO MAIN SERVICE = 50 FT
"C" (WIRE CONSTANT) = 26706
OF PARALLEL WIRES = 1

CALCULATE "F" FACTOR

$$F = \frac{\text{PHASE CORRECTION} \times \text{LENGTH (FEET)} \times \text{SCA}}{\text{\# OF PARALLEL WIRES} \times \text{"C" WIRE CONSTANT} \times \text{VOLTAGE L-L}}$$

F = 0.173054 M = $\frac{1}{1 + F}$
M = 0.852476

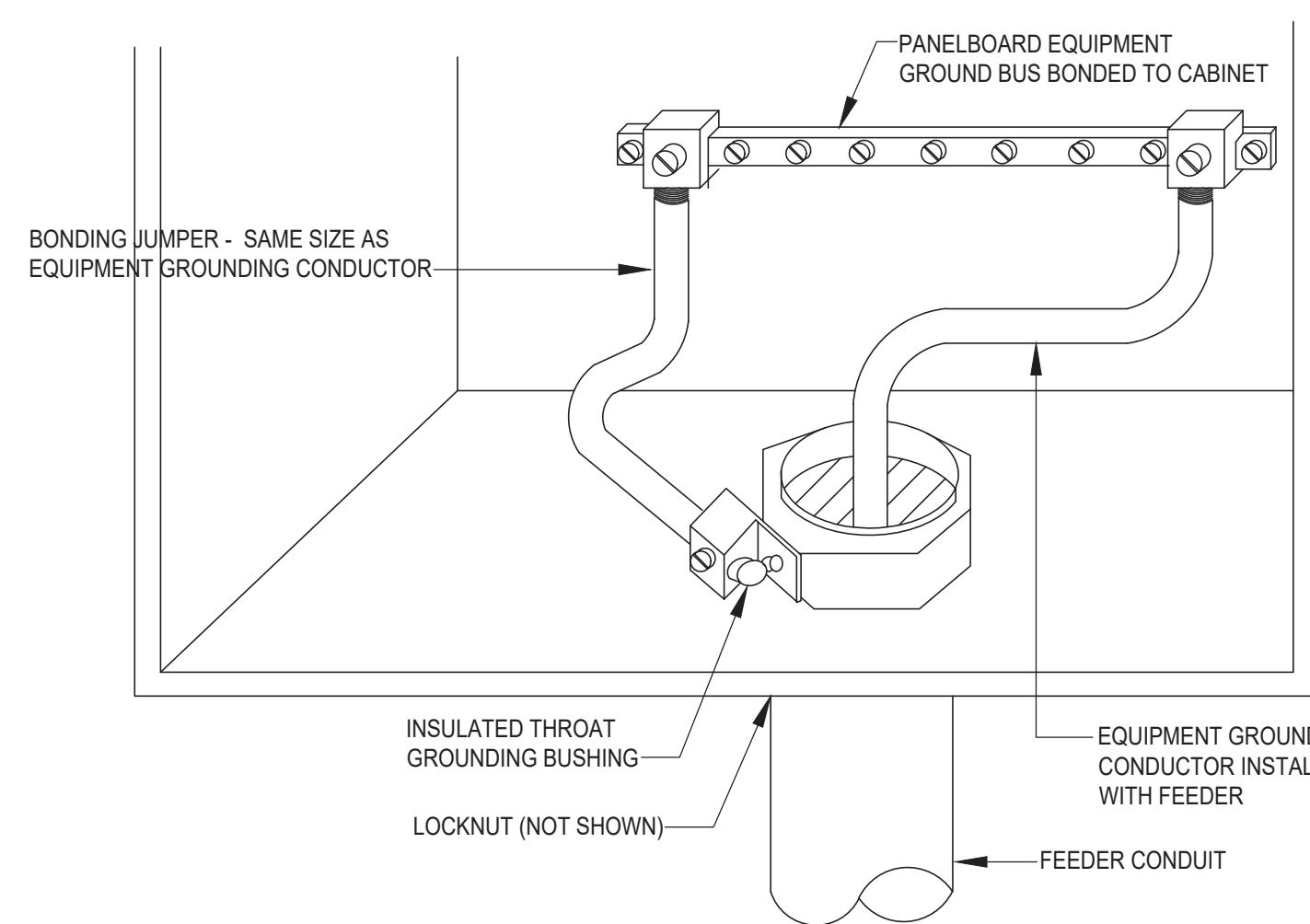
NEW SCA = SCA X M
SCA AT MAIN SERVICE = 9462.481 AMPS



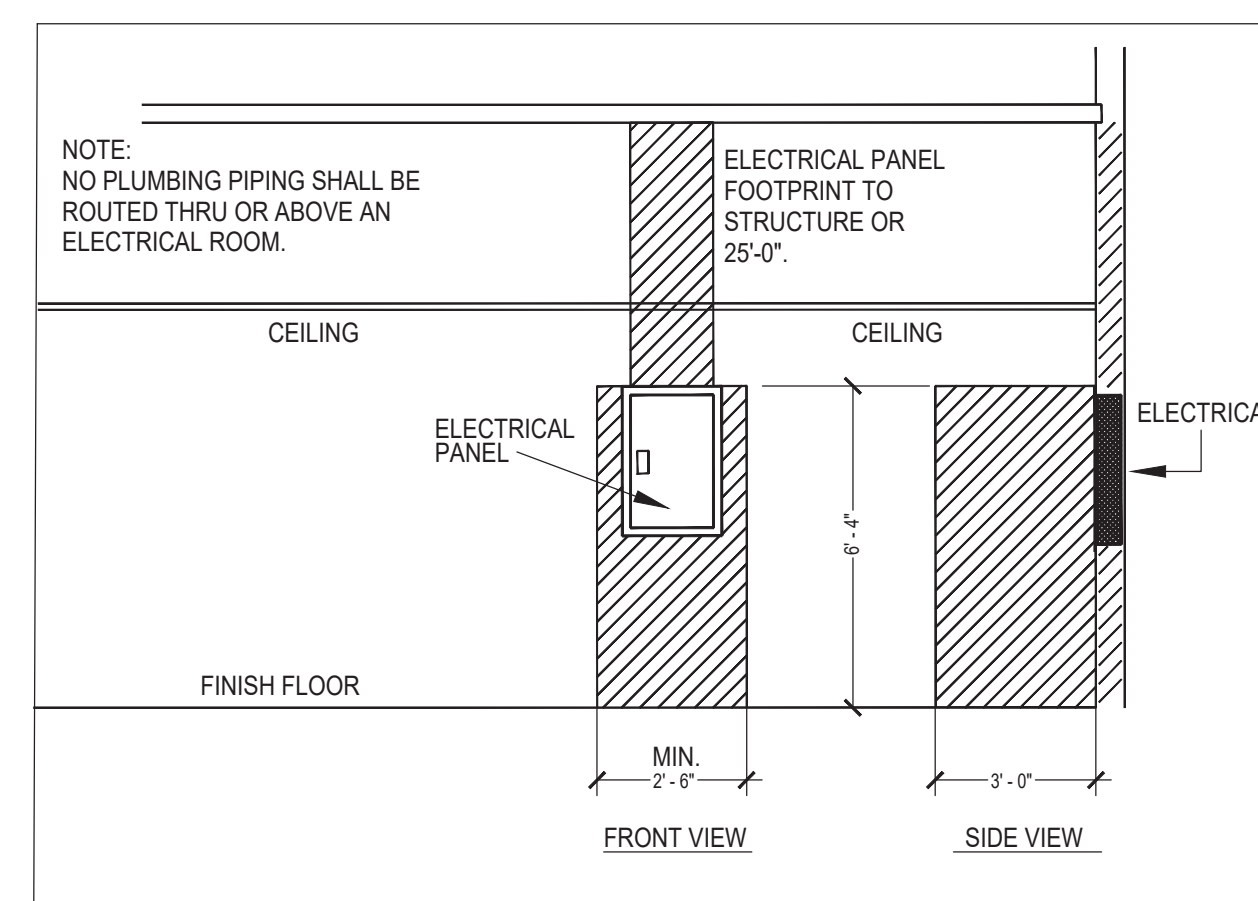
1
E.300
POWER PLAN
1/8" = 1'-0"

KEYED NOTES (X)

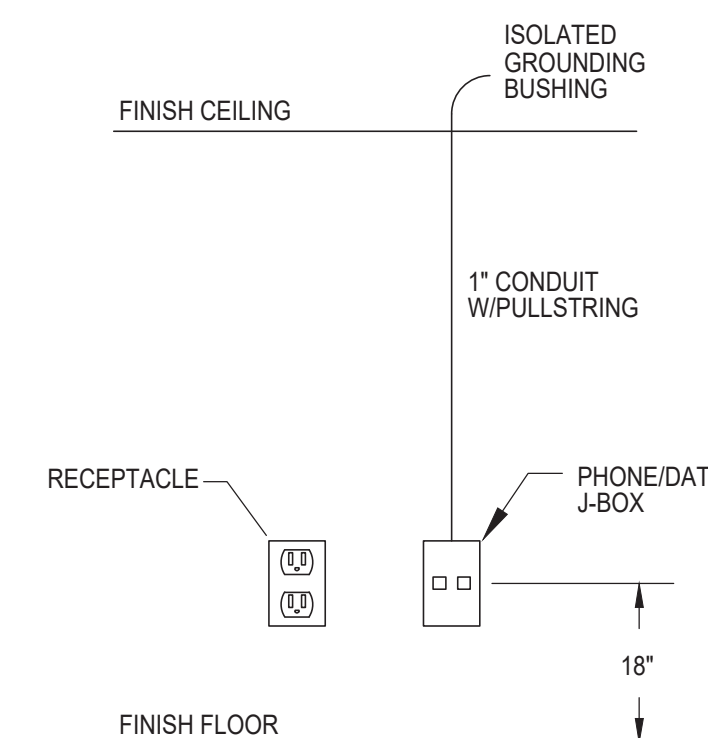
- COORDINATE WITH ARCHITECT TO PROVIDE 6" WALL FOR RECESS MOUNTING.
- PROVIDE AND INSTALL 30A, 208V, 1PH, 3 WIRE, HEAVY DUTY NEMA 3R NON-FUSED DISCONNECT, MAKE CONNECTIONS TO OVERHEAD DOOR. COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK.
- PROVIDE AND INSTALL 30A, 208V, 1PH 3 WIRE, HEAVY DUTY NEMA 3R NON-FUSED DISCONNECT, MAKE CONNECTION TO EXTRACTOR WITH WATER TIGHT FLEXIBLE CONDUIT. COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK.
- EXISTING ELECTRICAL METER TO BE REPLACED. REFER TO RISER DIAGRAM 1/E500.
- EXISTING DISCONNECT TO BE REPLACED. REFER TO RISER DIAGRAM 1/E500.
- EXISTING GENERATOR TO REMAIN.
- PROVIDE AND INSTALL CABLE REEL ON CEILING. CABLE REEL TO BE CRD123N50L20. PROVIDE WITH 20A RECEPTACLE, #12 AWG, MINIMUM, 50FT CABLE.
- EXISTING AUTOMATIC TRANSFER SWITCH TO REMAIN.
- PROVIDE AND INSTALL 2" CONDUIT WITH PULLSTRING FOR FUTURE AUTOMATIC TRANSFER SWITCH AND GENERATOR. COORDINATE WITH OWNER FOR EXACT LOCATION OF CONDUIT PRIOR TO COMMENCING ANY WORK.
- PROVIDE AND INSTALL SPEAKERS ON CEILING. CONNECT TO EXISTING NOTIFICATION CONSOLE FOR ALERTS. COORDINATE WITH OWNER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK.



2
E.300
PANELBOARD BONDING SCHEMATIC
NTS



3
E.300
ELECTRICAL CLEARANCE DETAIL
NTS



4
E.300
TYP. PHONE/DATA BOX
NTS

| REVISION | DATE |
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| | |

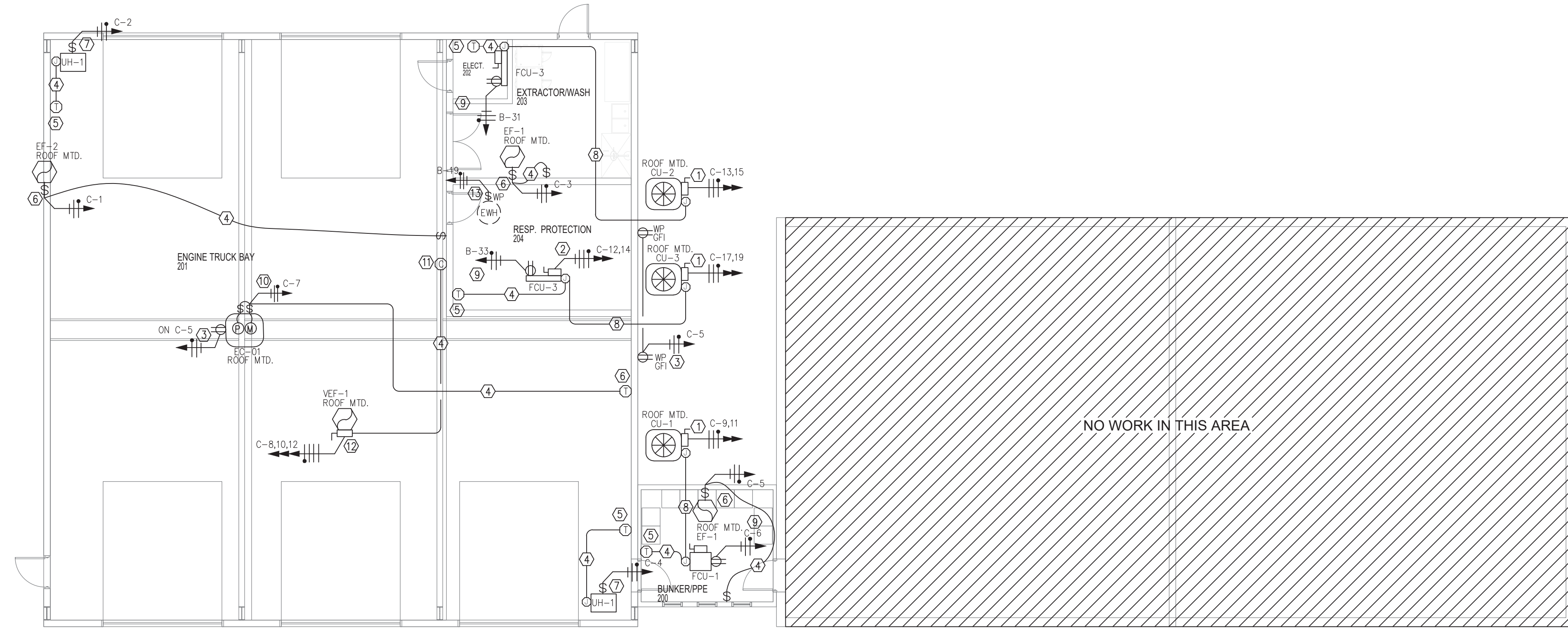
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POWER PLAN

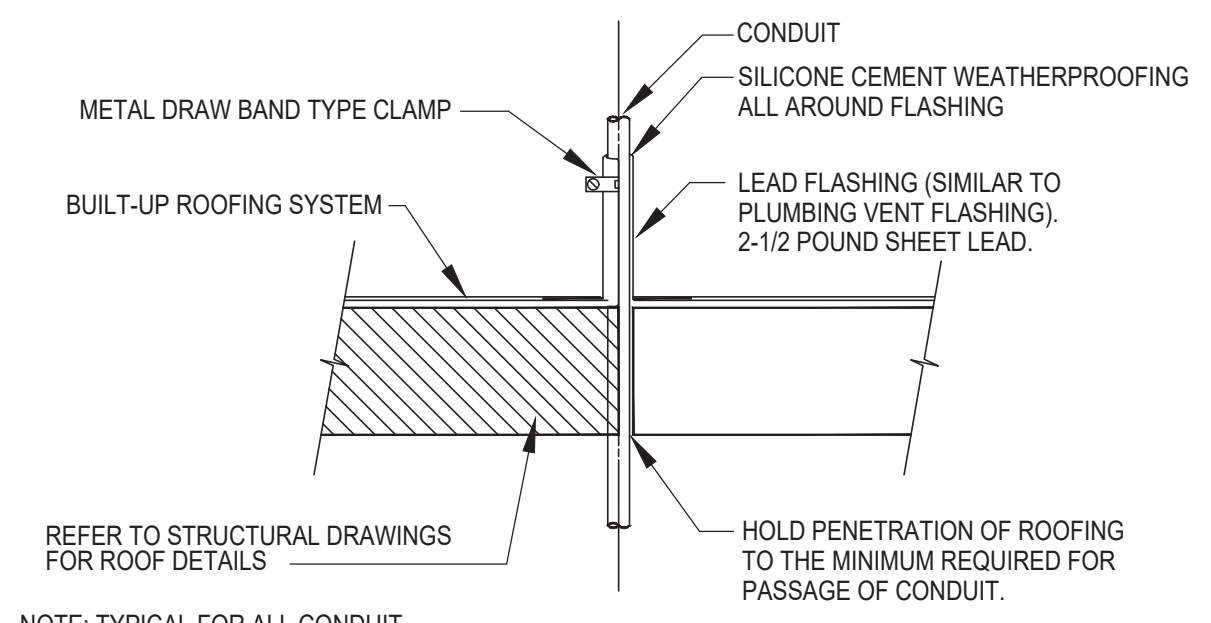
E300

KEYED NOTES

1. PROVIDE AND INSTALL 30A, 208V, 1PH, 3 WIRE, HEAVY DUTY, NEMA 3R NON-FUSED DISCONNECT. MAKE CONNECTIONS TO CONDENSER UNIT WITH WATER TIGHT FLEXIBLE CONDUIT.
2. PROVIDE AND INSTALL 30A, 208V, 1PH, 3 WIRE, HEAVY DUTY, NEMA 3R NON-FUSED DISCONNECT. MAKE CONNECTIONS TO FAN COIL UNIT WITH WATER TIGHT FLEXIBLE CONDUIT.
3. INSTALL WEATHER PROOF, GFI, RECEPTACLE WITH WEATHER PROOF COVER. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION.
4. 1/2" CONDUIT WITH PULLSTRING, COORDINATE WITH MECHANICAL CONTRACTOR.
5. LOCATION OF THERMOSTAT, PROVIDE 4" SQ. J-BOX WITH PLASTER RING. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION.
6. INSTALL WEATHER PROOF SWITCH AS DISCONNECTING MEANS FOR EXHAUST FAN, MAKE CONNECTING WITH WATER TIGHT FLEXIBLE CONDUIT. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION.
7. INSTALL WEATHER PROOF SWITCH AS DISCONNECTING MEANS FOR UNIT HEATER, MAKE CONNECTING WITH WATER TIGHT FLEXIBLE CONDUIT. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION.
8. 3/4" CONDUIT WITH ALL REQUIRED INTERCONNECTION WIRING, COORDINATE WITH MECHANICAL CONTRACTOR.
9. PROVIDE AND INSTALL RECEPTACLE FOR CONDENSATE PUMP. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION.
10. PROVIDE AND INSTALL 120V, 1PH SWITCH FOR EVAPORATIVE COOLER MOTOR. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION PRIOR TO COMMENCING ANY WORK.
11. FUTURE LOCATION OF OS-2 CONTROL PANEL FOR THE VEHICLE EXHAUST SYSTEM. COORDINATE WITH EQUIPMENT INSTALLER FOR EXACT REQUIREMENTS PRIOR TO COMMENCING ANY WORK. TO BE PROVIDED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT.
12. PROVIDE AND INSTALL FUTURE 60A, 208V, 1PH, 3 WIRE, HEAVY DUTY, NEMA 3R NON-FUSED DISCONNECT. MAKE CONNECTIONS TO VEHICLE EXHAUST SYSTEM WITH WATER TIGHT FLEXIBLE CONDUIT. TO BE PROVIDED AND INSTALLED BY OWNER UNDER SEPARATE CONTRACT.
13. INSTALL WEATHER PROOF SWITCH AS DISCONNECTING MEANS FOR WATER HEATER, MAKE CONNECTING WITH WATER TIGHT FLEXIBLE CONDUIT. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION.

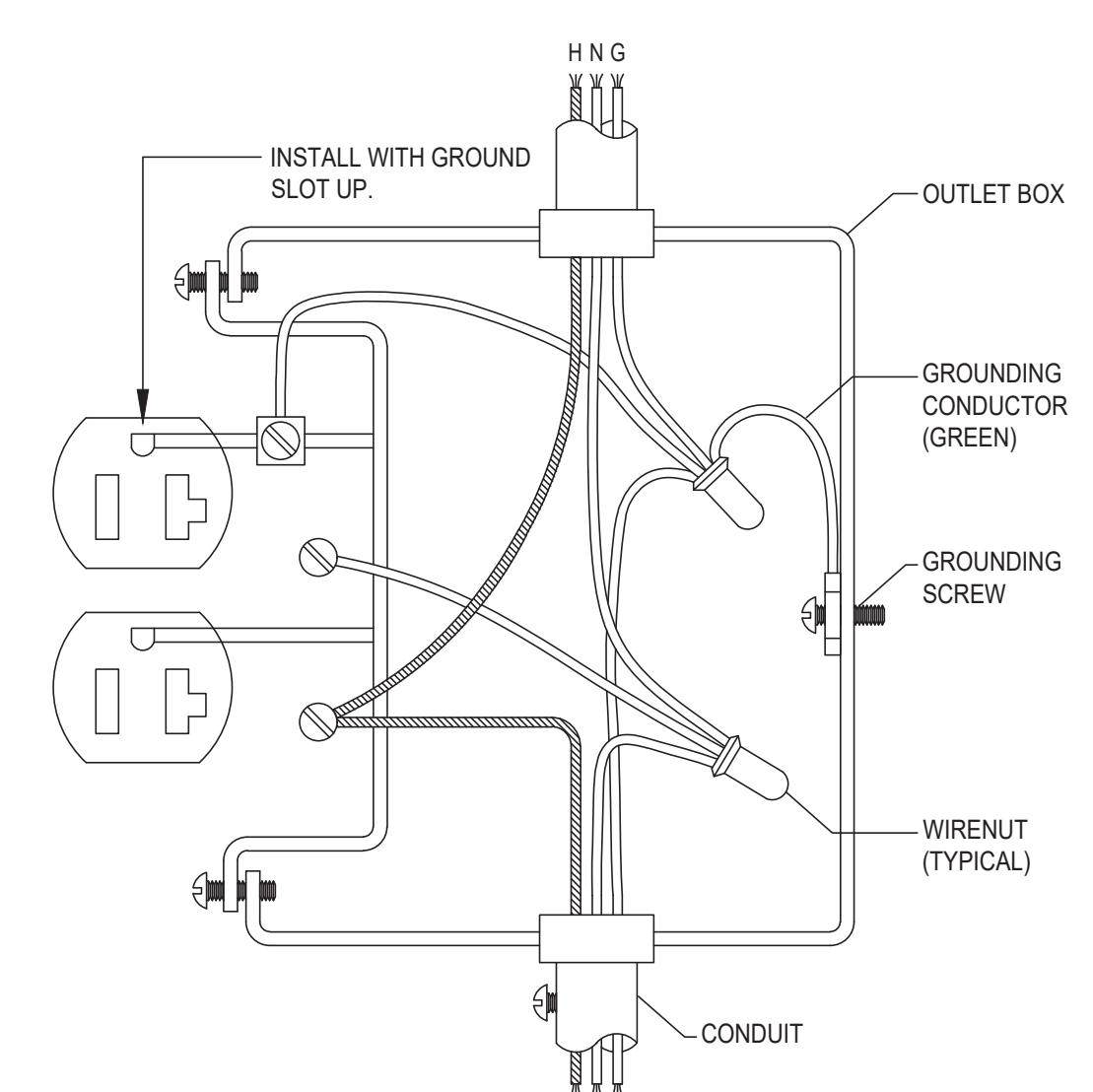


1 HVAC POWER PLAN
E400 1/8" = 1'-0"

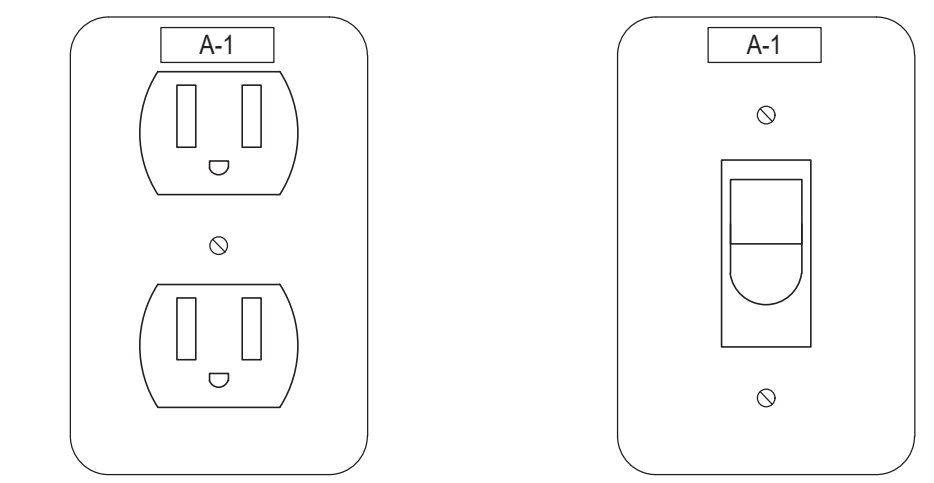


2 CONDUIT ROOF PENETRATION SCHEMATIC
E400 NTS

NOTE: CONTRACTOR TO COORDINATE WITH OWNER FOR ROOFING PENETRATIONS IN ORDER TO MAINTAIN ROOF WARRANTY IN EFFECT.



3 RECEPTACLE INSTALLATION
E400 NTS



4 RECEPTACLE AND SWITCH LABEL TYPICAL FOR ALL
E400 NTS

NOTE: PROVIDE WITH 1/8" BLACK LETTER WITH WHITE LABELS, INDICATING PANEL AND CIRCUIT FEEDING DEVICE.

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