

# City of Madison

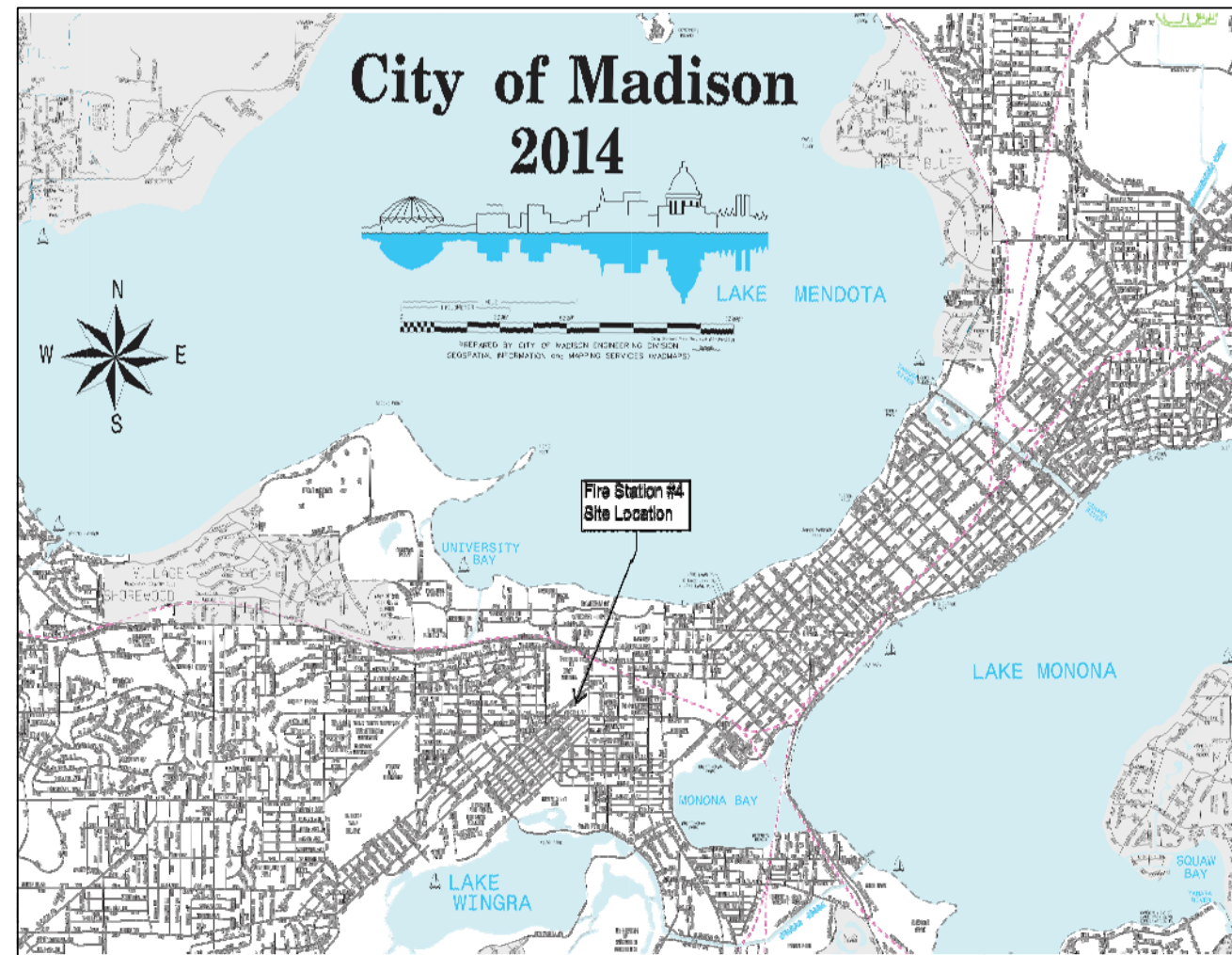
## Fire Station #4- Patio Addition

1437 Monroe Street, Madison, WI

Project # 53W 1805

Contract # 7333

- TS-1.0 Title Sheet
- A-1.0 Second Floor Plan
- A-1.1 First Floor Plan
- S-1 Structural Reinforcement
- RD-1.0 Roof Demolition Plan
- RP-1.0 Roof Plan
- RP-1.1 Roof Taper Plan
- D-1.0 Patio Banding Details
- D-1.1 Patio Handrail Details
- D-1.2 Patio Door Details
- D-1.3 Roofing Details
- D-1.4 Roofing/Ladder Details



City of  
Madison

Facilities & Sustainability  
Management  
210 Martin Luther King Jr. Blvd  
Room 115

Designed Prepared For:  
City of Madison  
Fire Department

Design & Project Engineer  
Paul Stauffer  
(608) 266-4366  
pstauffer@cityofmadison.com

Fire Station #4- Patio Addition  
1437 Monroe Street  
Madison, WI 53718  
Contract: 7333 Project: 53W1805

Sheet Number:

**TS-1.0**  
Title Sheet

Designed Prepared For:

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Fire Department

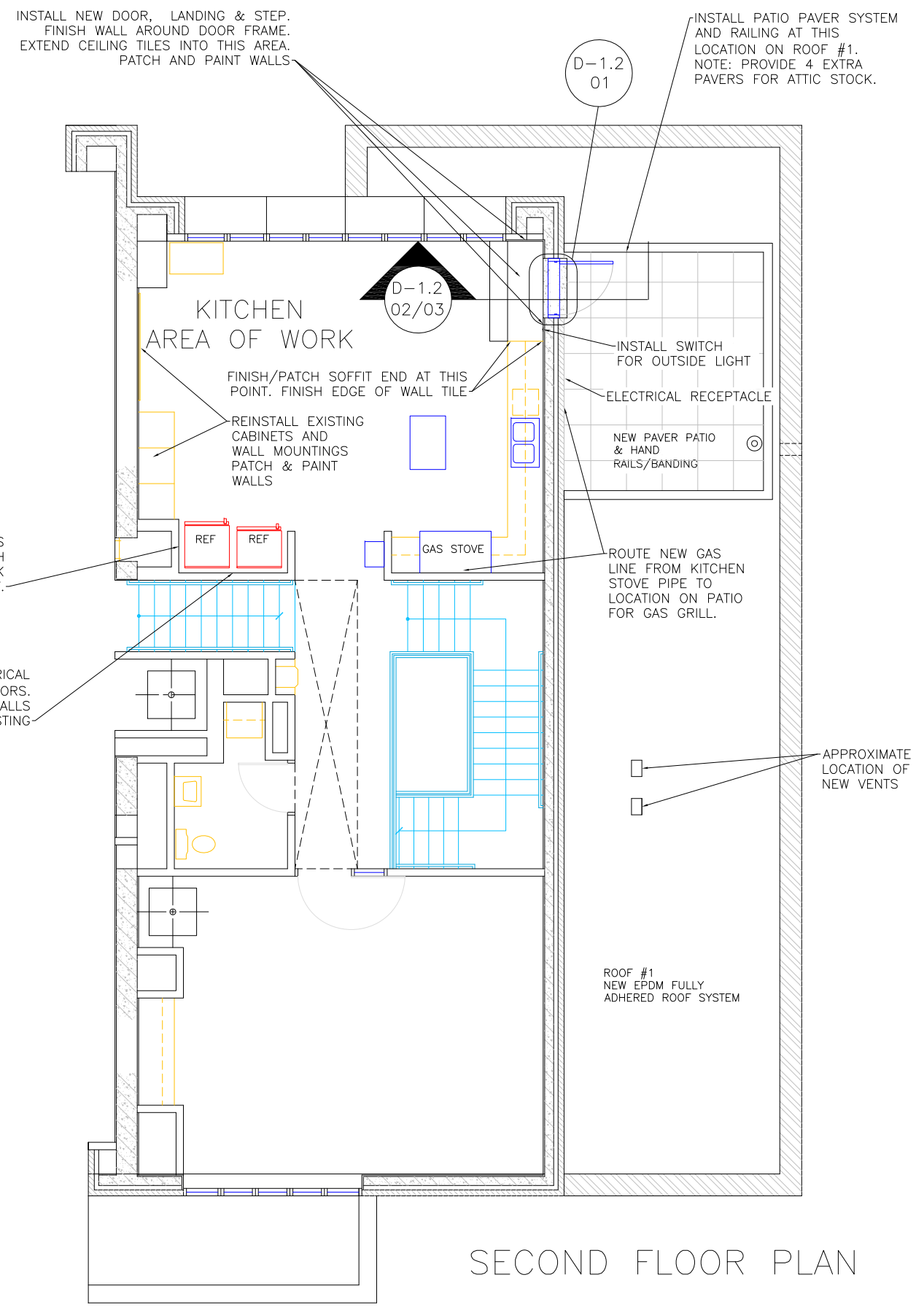
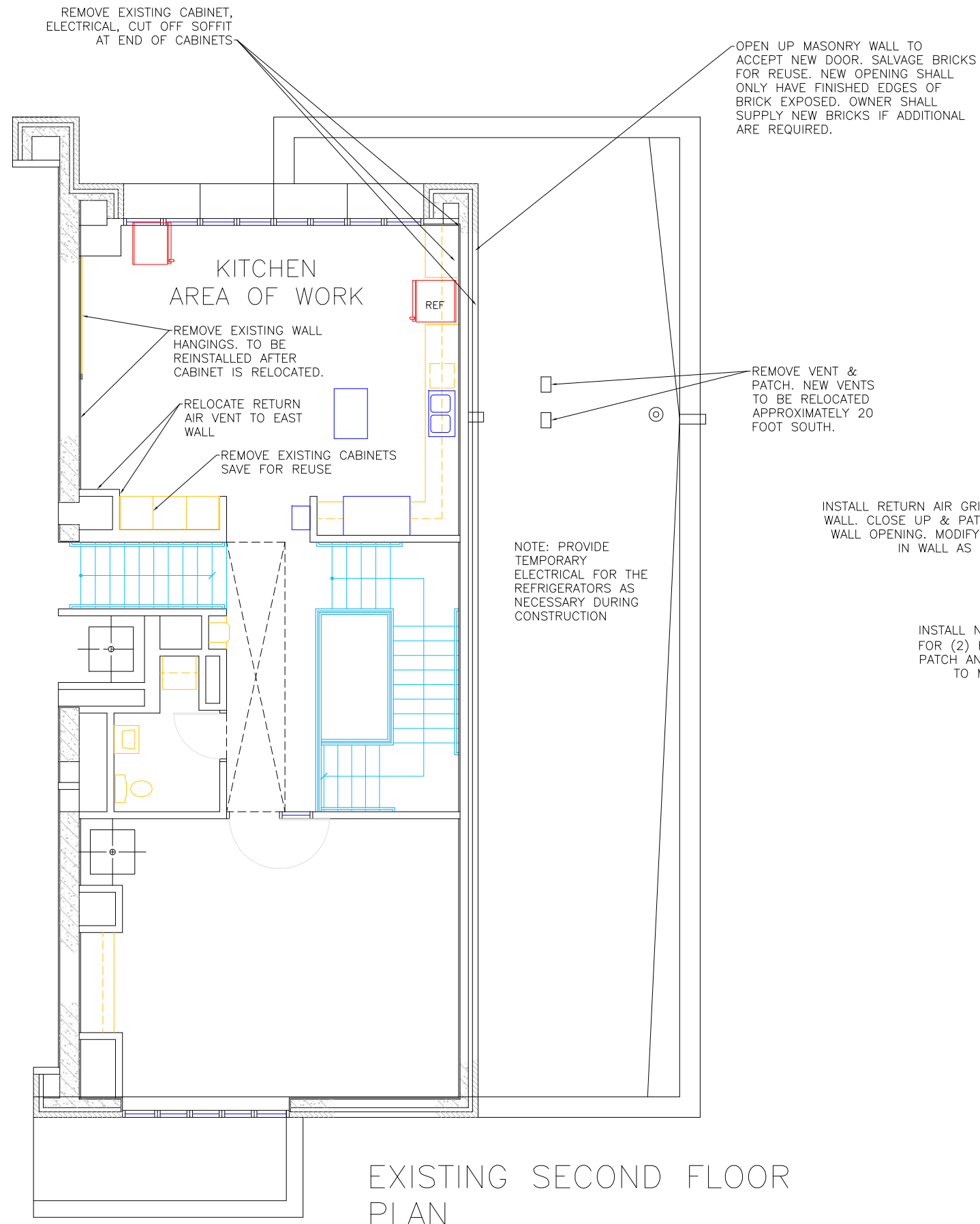
Design & Project Engineer

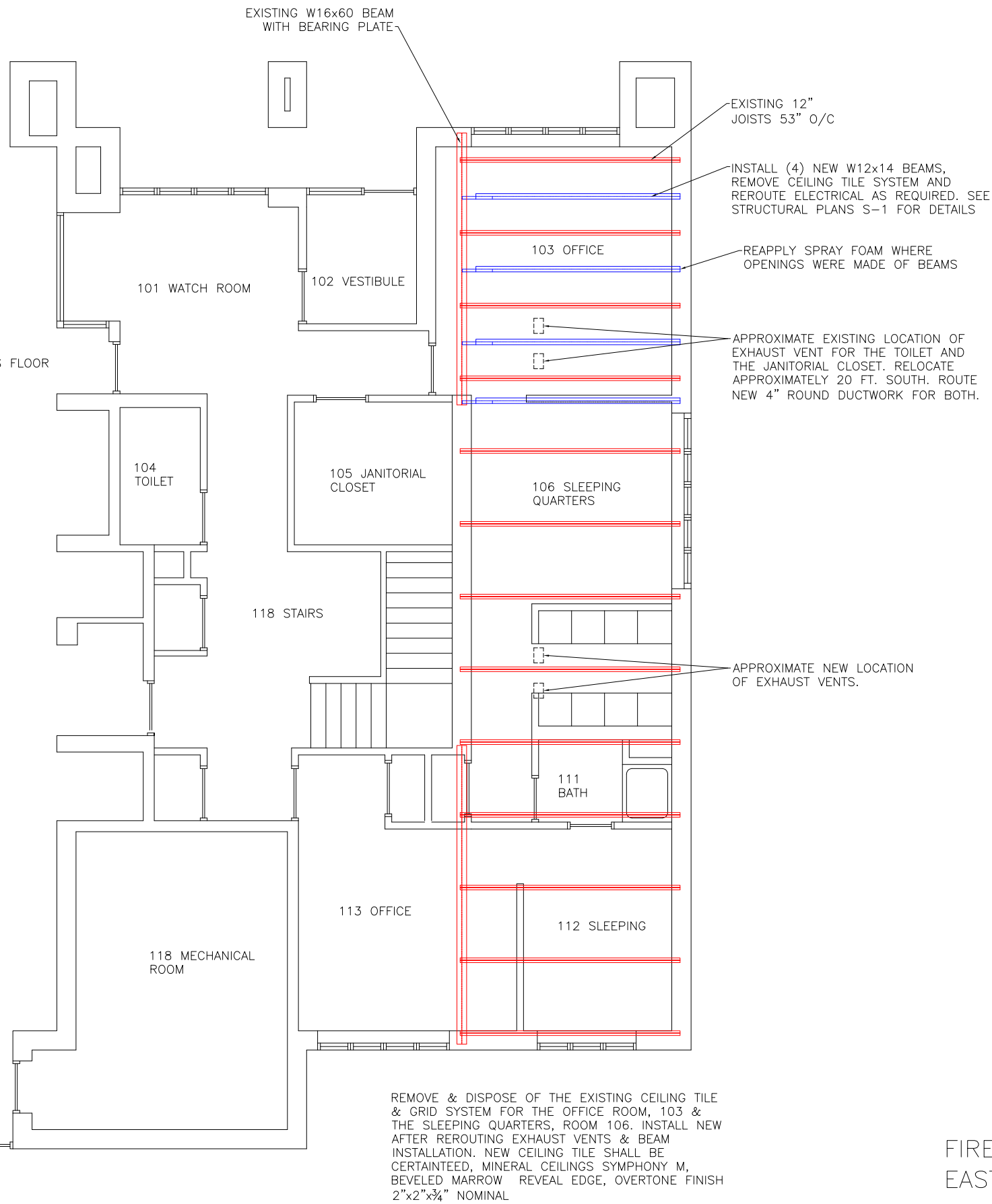
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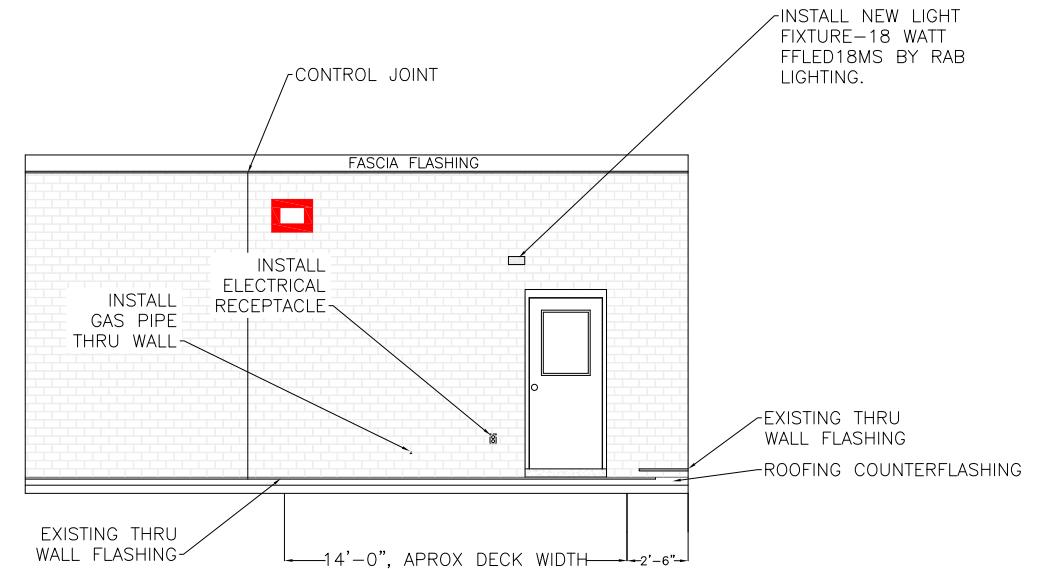
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**A-1.0**  
Second  
Floor Plan

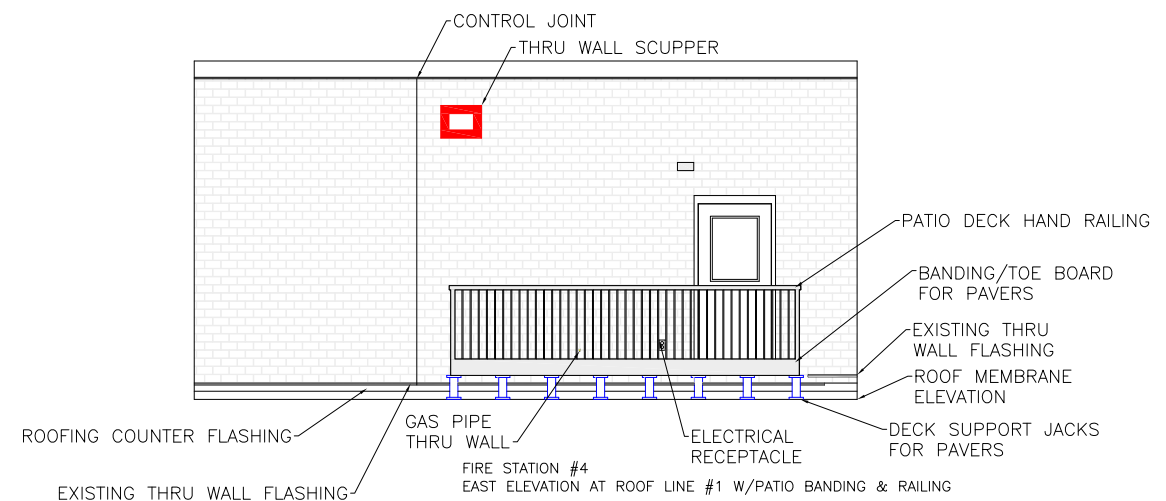




FIRST FLOOR PLAN



FIRE STATION #4  
EAST ELEVATION- SECOND FLOOR



FIRE STATION #4  
EAST ELEVATION AT ROOF LINE #1 W/PATIO BANDING & RAILING

- CIVIL ENGINEERING
- SURVEYING & MAPPING
- CONSTRUCTION SERVICES
- WATER RESOURCES
- PLANNING & DEVELOPMENT
- TRANSPORTATION ENGINEERING
- STRUCTURAL ENGINEERING
- LANDSCAPE ARCHITECTURE

MADISON REGIONAL OFFICE  
 161 HORIZON DRIVE, SUITE 101  
 VERONA, WISCONSIN 53593  
 608.848.5060 PHONE | 608.848.2255 FAX

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SERVICES PROVIDED TO:  
**CITY OF MADISON -  
 FACILITIES AND  
 SUSTAINABILITY**

210 MARTIN LUTHER KING JR.  
 MADISON, WI 53703

PROJECT:  
**FIRE STATION #4  
 PATIO ADDITION**

PROJECT LOCATION:  
 1437 MONROE STREET  
 MADISON, WI 53703

JSD PROJECT NO.: 13-5976

SEAL/SIGNATURE:

ALTHOUGH EVERY EFFORT HAS BEEN MADE IN PREPARING THESE PLANS AND CHECKING THEM FOR ACCURACY, THE CONTRACTOR AND SUBCONTRACTORS MUST CHECK ALL DETAIL AND DIMENSIONS OF THEIR TRADE AND BE RESPONSIBLE FOR THE SAME.

DESIGN: RHS 7/31/14  
 DRAWN: RHS 7/31/14  
 APPROVED: RHS 7/31/14

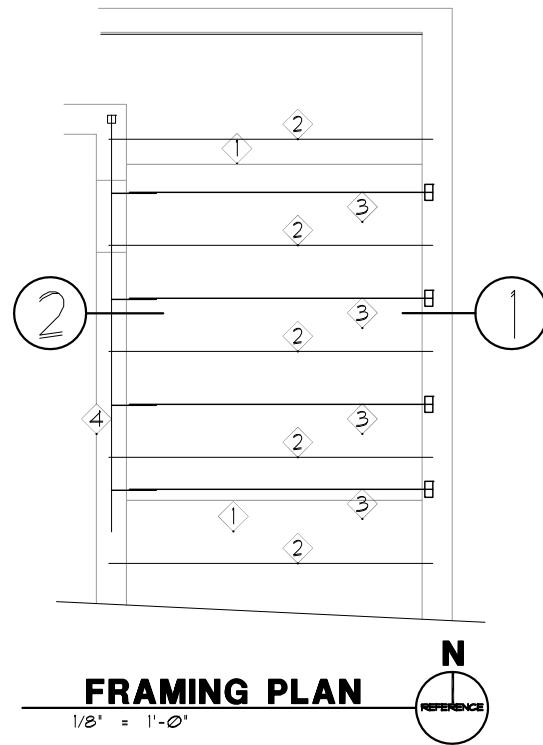
PLAN MODIFICATIONS: DATE:



Toll Free (800) 242-8511  
 Milwaukee Area (414) 258-1181  
 Hearing Impaired TDD (800) 542-2289  
[www.DiggersHotline.com](http://www.DiggersHotline.com)

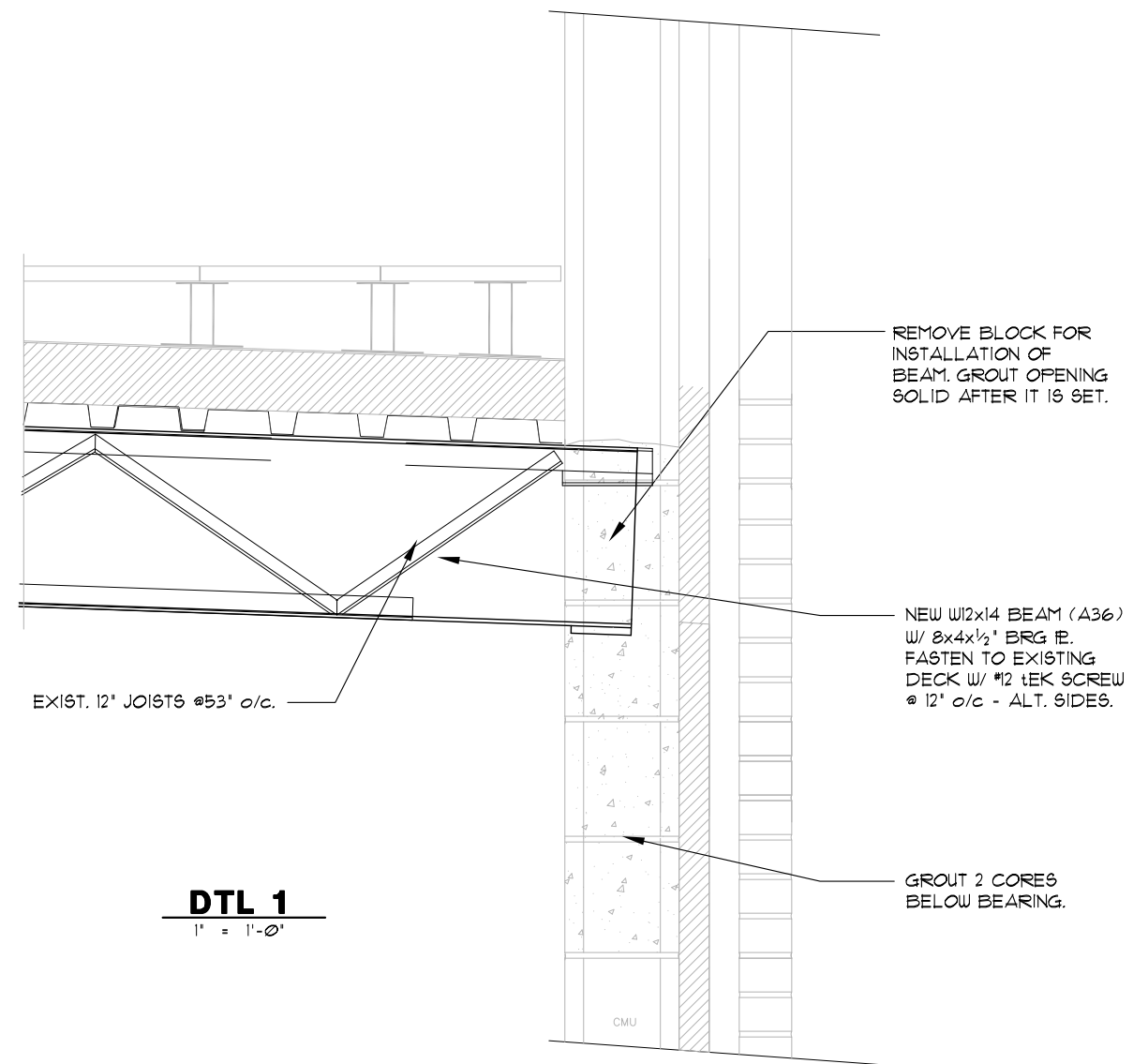
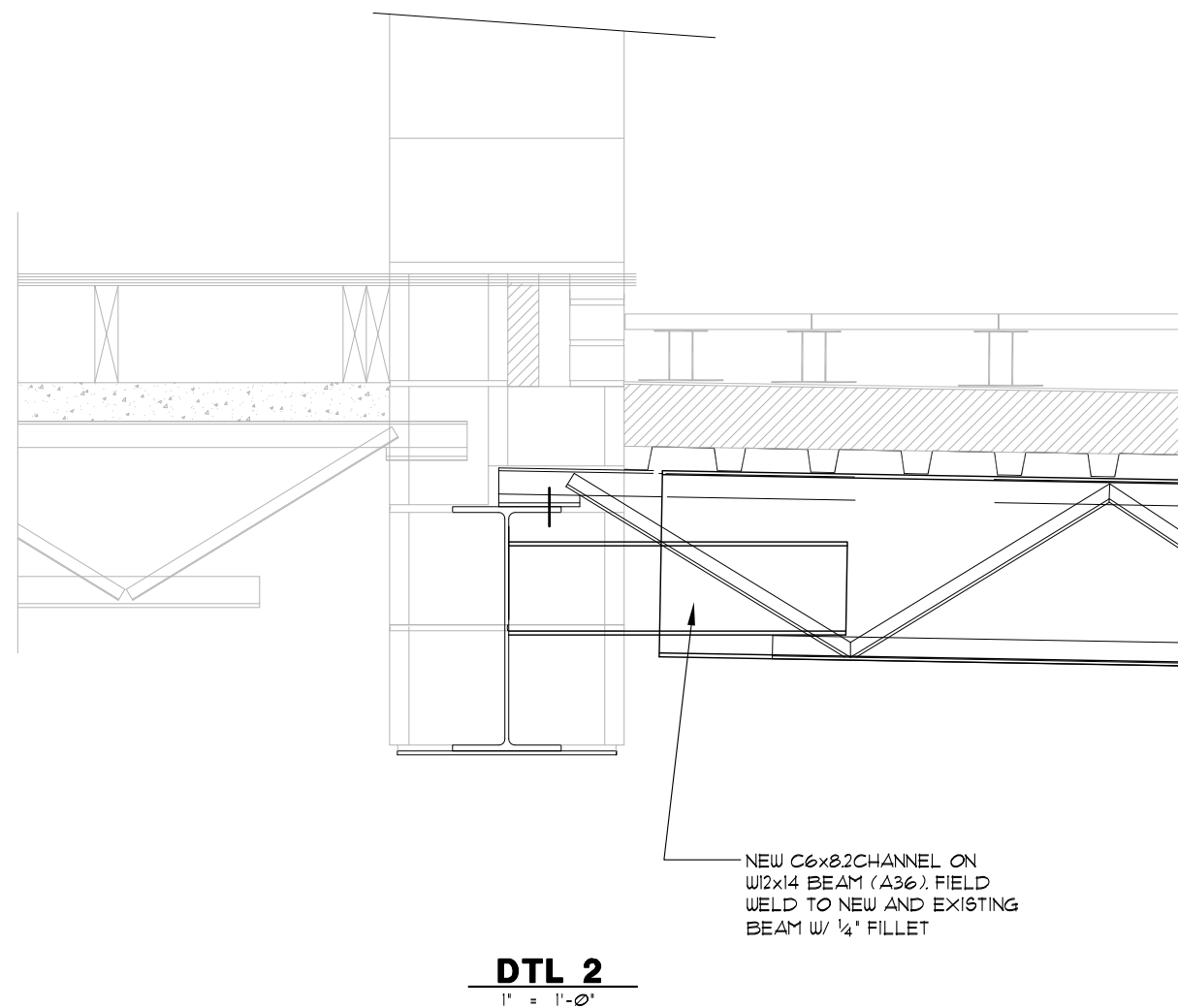
SHEET TITLE:  
**STRUCTURAL  
 REINFORCEMENT**

SHEET NUMBER:  
**S-1**



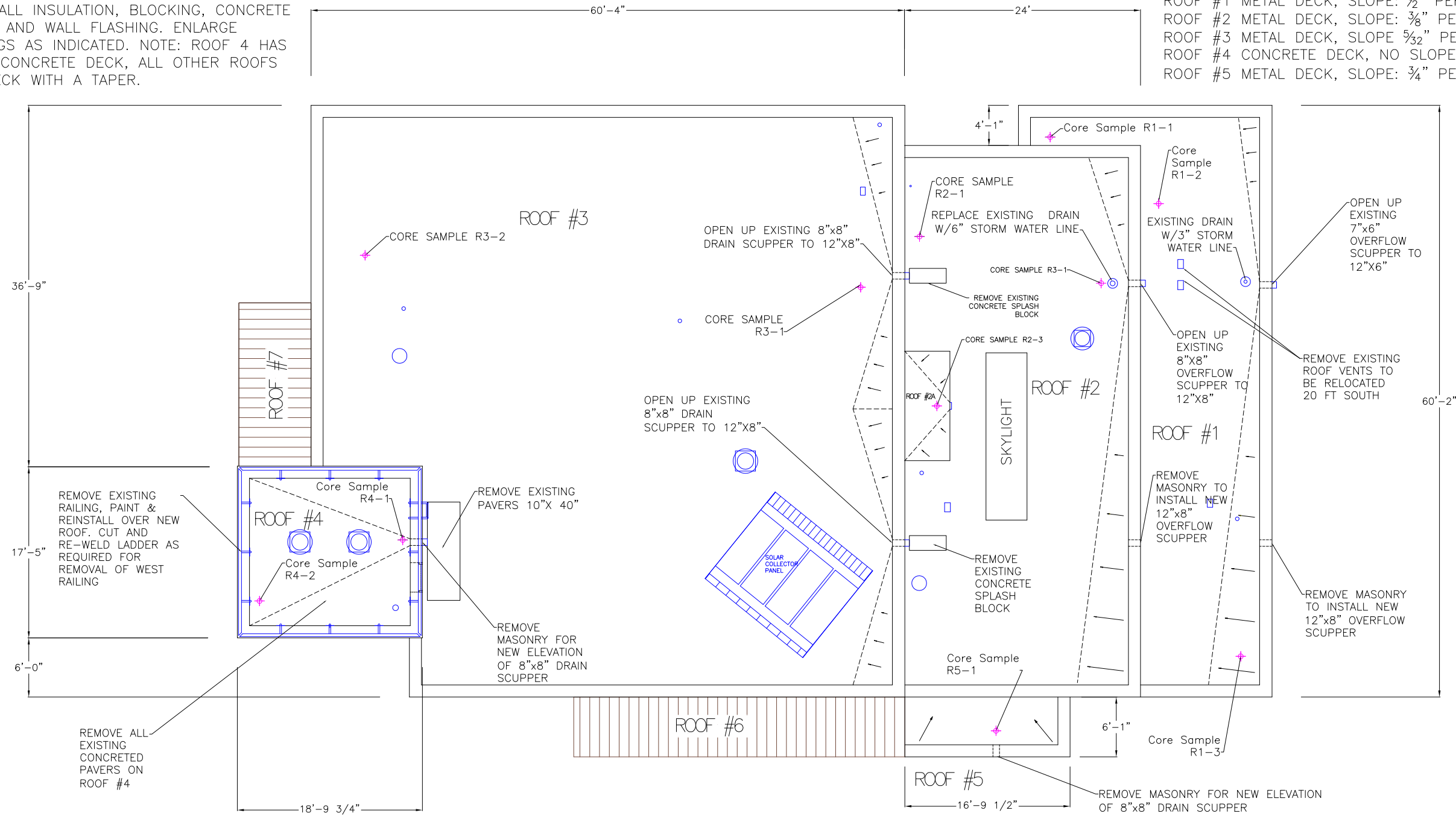
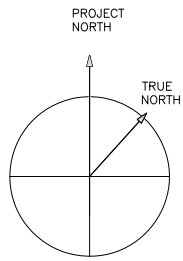
**PLAN NOTES**

- 1 NEW EXTERIOR PLATFORM 12'x14'
- 2 EXISTING 12' BAR JOISTS @ 53' o/c.
- 3 NEW W12x14 BEAMS BETWEEN EXISTING.
- 4 EXISTING W12 BEAM.
- 5 FIELD VERIFY ALL DIMENSIONS.



# FIRE STATION #4 ROOF DEMOLITION PLAN

FOR ROOFS 1,2,3,4&5: REMOVE THE EXISTING BALLASTED EPDM ROOFING SYSTEMS DOWN TO THE DECK INCLUDING ALL INSULATION, BLOCKING, CONCRETE PAVERS, PARAPET AND WALL FLASHING. ENLARGE SCUPPER OPENINGS AS INDICATED. NOTE: ROOF 4 HAS A NON-TAPERED CONCRETE DECK, ALL OTHER ROOFS HAVE A METAL DECK WITH A TAPER.



ARROWS INDICATE SLOPE DIRECTION OF EXISTING EPS INSULATION. SLOPE OF METAL DECK ARE LISTED BELOW:

- ROOF #1 METAL DECK, SLOPE: 1/2" PER FOOT.
- ROOF #2 METAL DECK, SLOPE: 3/8" PER FOOT.
- ROOF #3 METAL DECK, SLOPE 5/32" PER FOOT
- ROOF #4 CONCRETE DECK, NO SLOPE
- ROOF #5 METAL DECK, SLOPE: 3/4" PER FOOT.

## ROOF #1 CORE CUT

- Core Sample R1-1  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R1-2  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R1-3  
Metal Deck, 2 3/4" plus 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof

## ROOF #2 CORE CUT

- Core Sample R2-1  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R2-2  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R2-3  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof

## ROOF #3 CORE CUT

- Core Sample R3-1  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R3-2  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof

## ROOF #4 CORE CUT

- Core Sample R4-1  
Concrete Deck, 4 1/4" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof
- Core Sample R4-2  
Concrete Deck, 8" of Expanded Polystyrene, 60 mil EPDM Membrane, Ballasted Roof

## ROOF #5 CORE CUT

- Core Sample R5-1  
Metal Deck, 3 3/4" of Expanded Polystyrene, 60mil EPDM Membrane, Ballasted Roof

NOTE:  
SCUPPERS DIMENSION REFER TO APPROXIMATE ROUGH OPENING IN MASONRY PARAPET WALL



**ROOFING SYSTEM:**

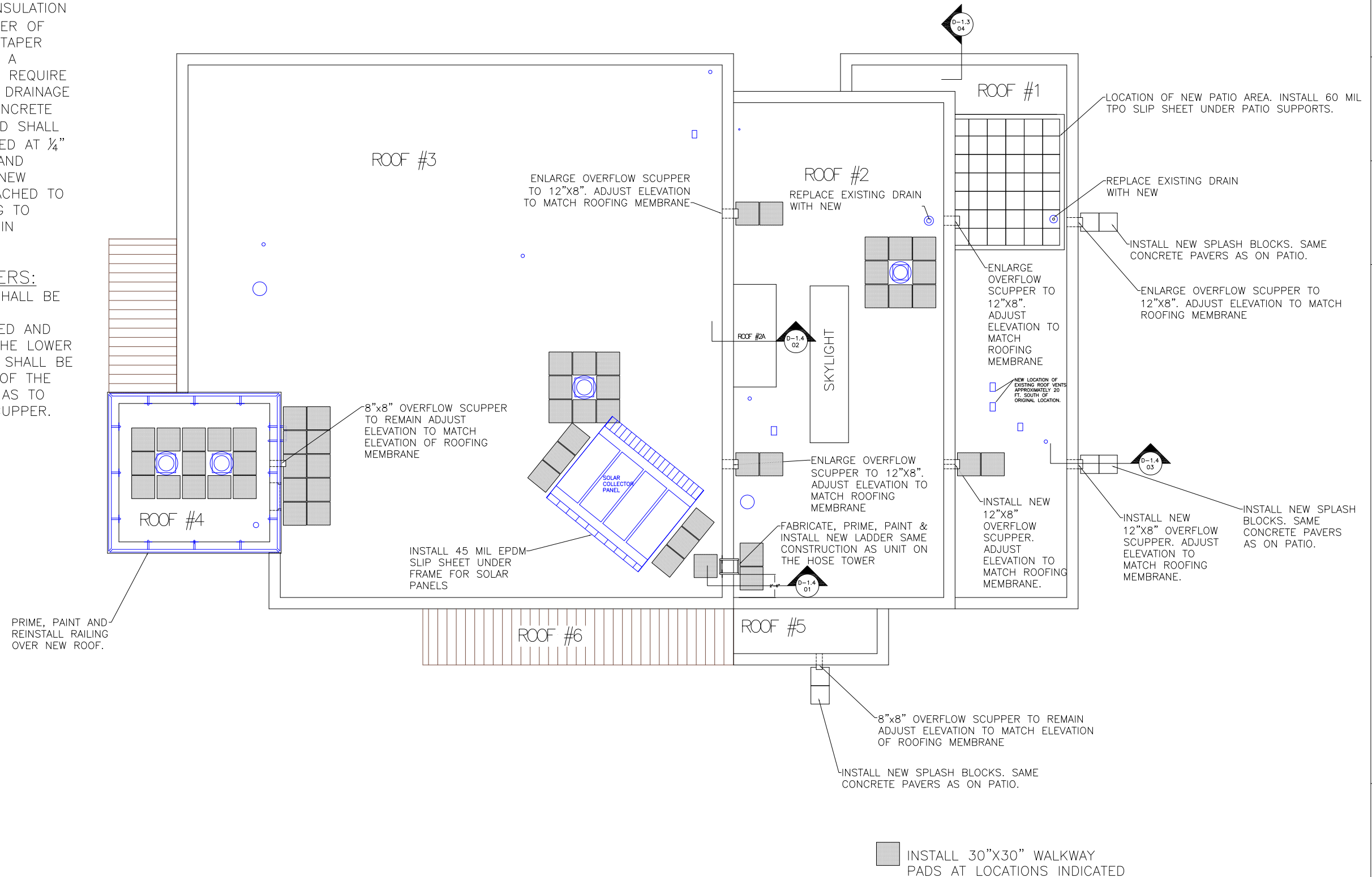
FOR ROOFS 1,2,3,4&5: INSTALL A FULLY ADHERED WHITE EPDM 90 MIL ROOFING SYSTEM WITH A 30 YEAR WARRANTY PER SPECIFICATIONS.

**INSULATION AND TAPER:**

ALL ROOFS ARE TO RECEIVE A BASE LAYER OF 6 INCHES OF POLYISO FOAM INSULATION WITH A 1/4" PER FOOT CRICKET TAPER OF INSULATION AS INDICATED ON THE TAPER PLAN. ROOF DECKS 1,2,3,&5 HAVE A TAPERED METAL DECK & WILL NOT REQUIRE TAPERED INSULATION FOR PROPER DRAINAGE TO THE EAST. ROOF #4 HAS A CONCRETE DECK WITH NO EXISTING TAPER AND SHALL HAVE TAPERED INSULATION INSTALLED AT 1/4" PER FOOT. RAISE CURBS, DRAINS AND PENETRATIONS AS REQUIRED. THE NEW COUNTER FLASHING SHALL BE ATTACHED TO THE EXISTING THRU WALL FLASHING TO COMPENSATED FOR THE INCREASE IN THICKNESS OF INSULATION.

**ROOF DRAINS AND SCUPPERS:**

THE TWO EXISTING ROOF DRAINS SHALL BE REPLACED WITH NEW. ALL SCUPPERS SHALL BE REWORKED AND NEW ONES ADDED AS INDICATED. THE LOWER SECTION OF ALL SCUPPER SLEEVE SHALL BE LOCATED AT THE SAME ELEVATION OF THE FINAL ROOF MEMBRANE ELEVATION AS TO PREVENT PONDING BEFORE THE SCUPPER.

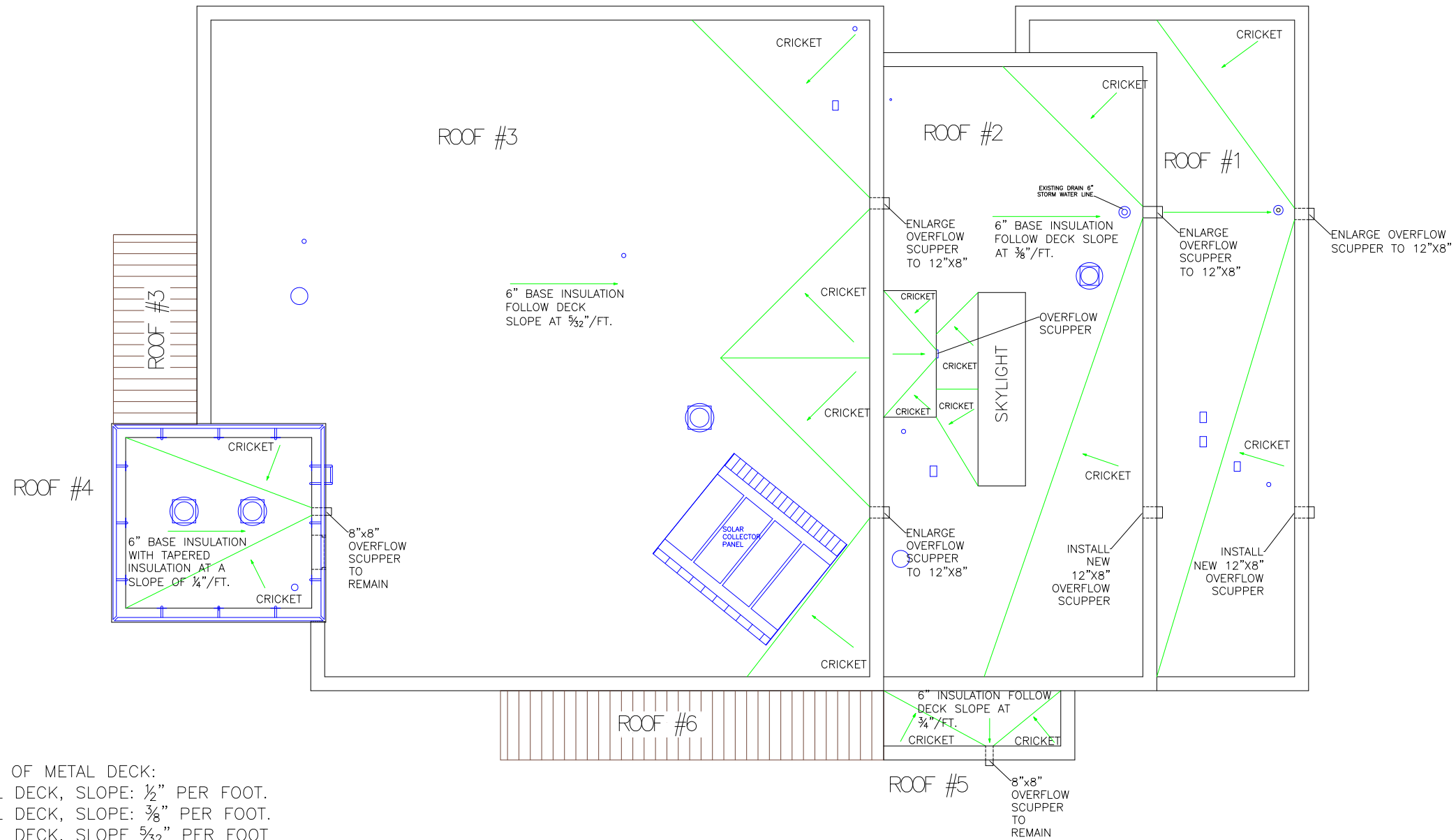


■ INSTALL 30"X30" WALKWAY PADS AT LOCATIONS INDICATED

**ROOF TAPER PLAN:**

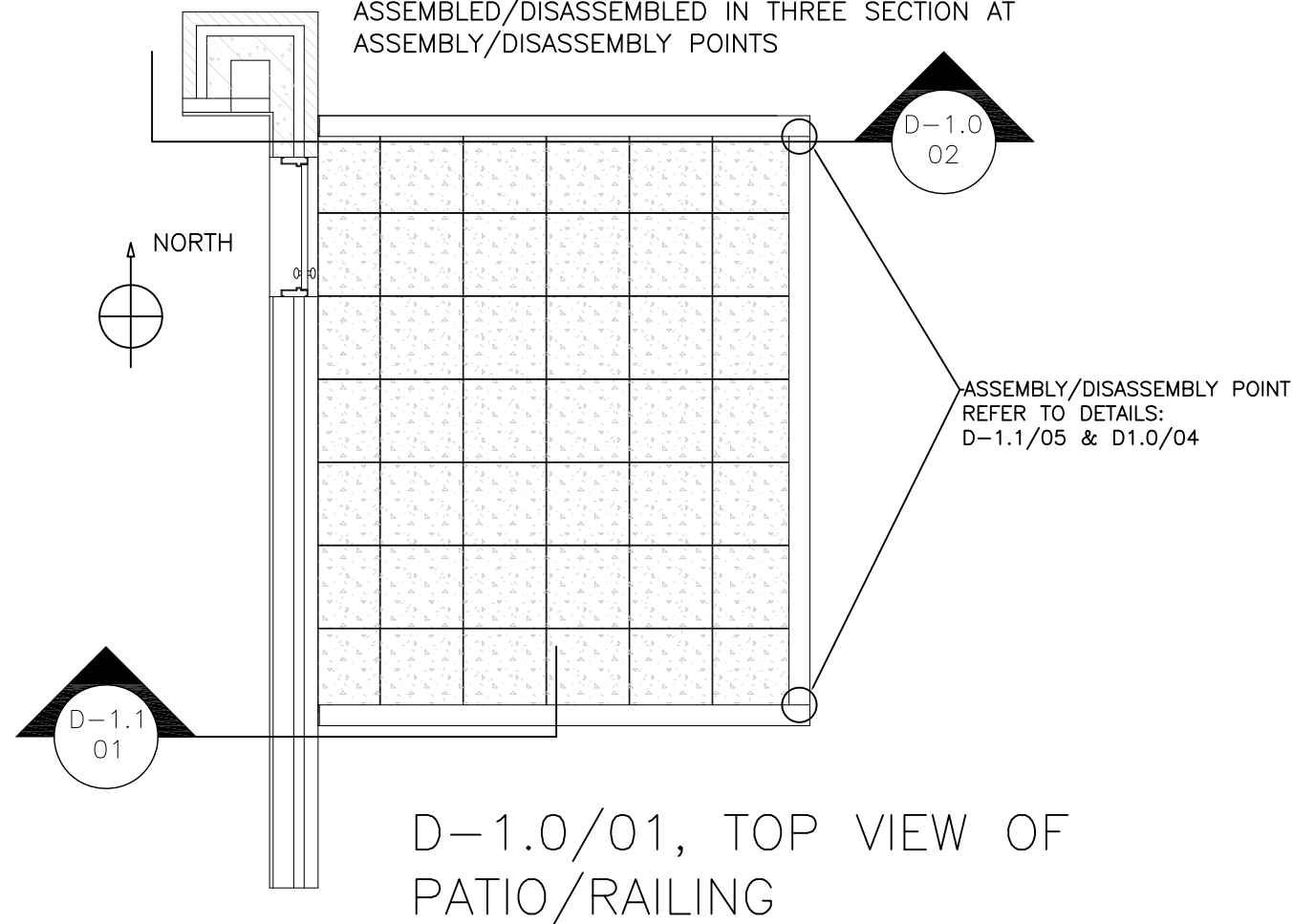
BASED ON THIS THIS DRAWING SUBMIT A TAPERED ROOF PLAN WITH AN OVERALL R-VALUE INDICATED FOR EACH ROOF.

ALL ROOFS ARE TO RECEIVE A BASE LAYER OF 6 INCHES OF POLYISO FOAM INSULATION. CRICKETS TO BE INSTALLED TO DIRECT WATER FLOW TO DRAINS/SCUPPERS WITH A 1/4" PER FOOT COUNTER/BACK TAPER OF INSULATION AS INDICATED ON THE TAPER PLAN.

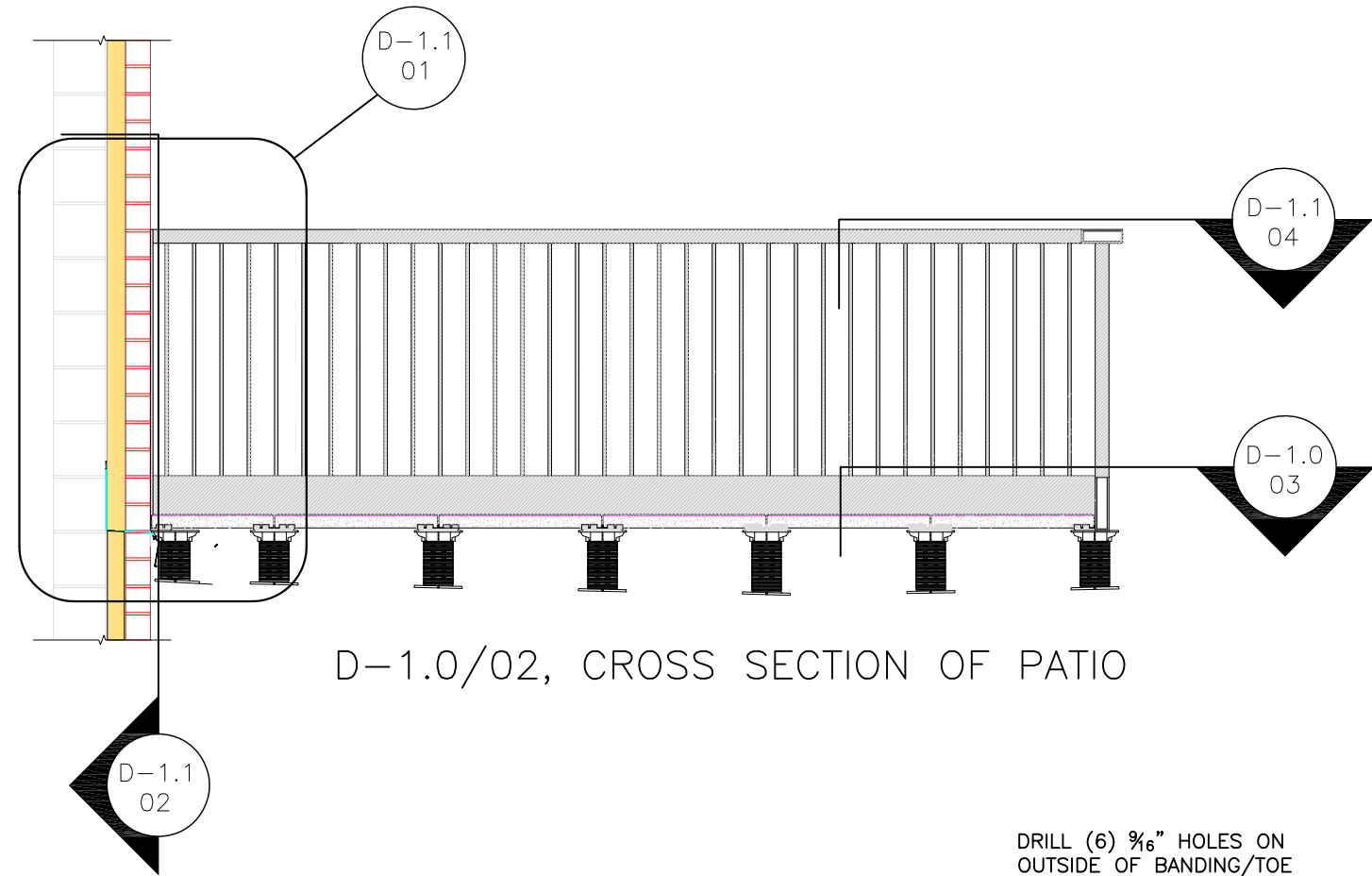


EXISTING SLOPE OF METAL DECK:  
 ROOF #1 METAL DECK, SLOPE: 1/2" PER FOOT.  
 ROOF #2 METAL DECK, SLOPE: 3/8" PER FOOT.  
 ROOF #3 METAL DECK, SLOPE 5/32" PER FOOT  
 ROOF #4 CONCRETE DECK, NO SLOPE  
 ROOF #5 METAL DECK, SLOPE: 3/4" PER FOOT.

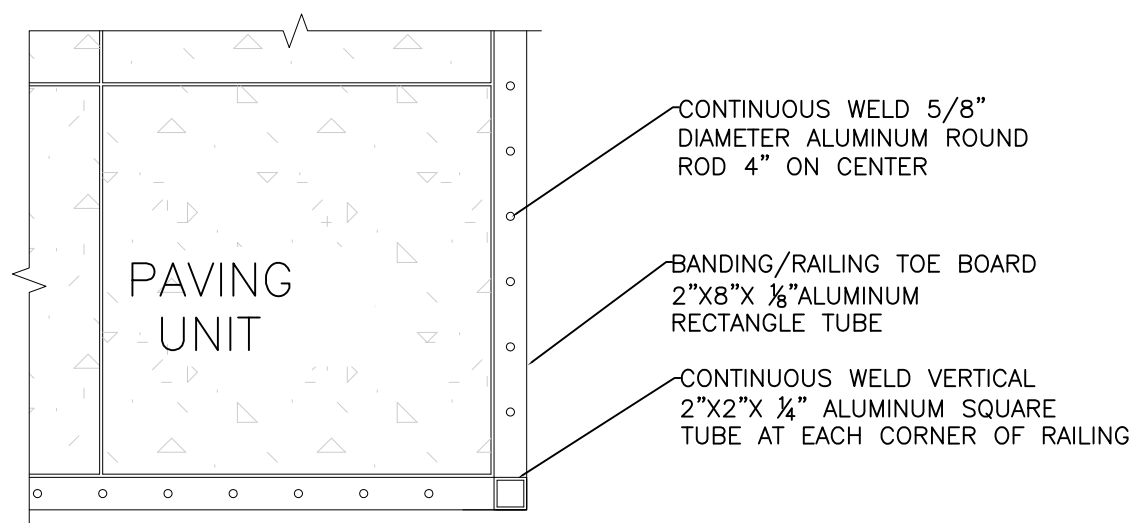
FABRICATE PATIO RAILING SYSTEM FROM 6063-T52 OR 6061-T6 ALUMINUM. FABRICATE SUCH THAT THE RAILING SECTIONS CAN BE ASSEMBLED/DISASSEMBLED IN THREE SECTION AT ASSEMBLY/DISASSEMBLY POINTS



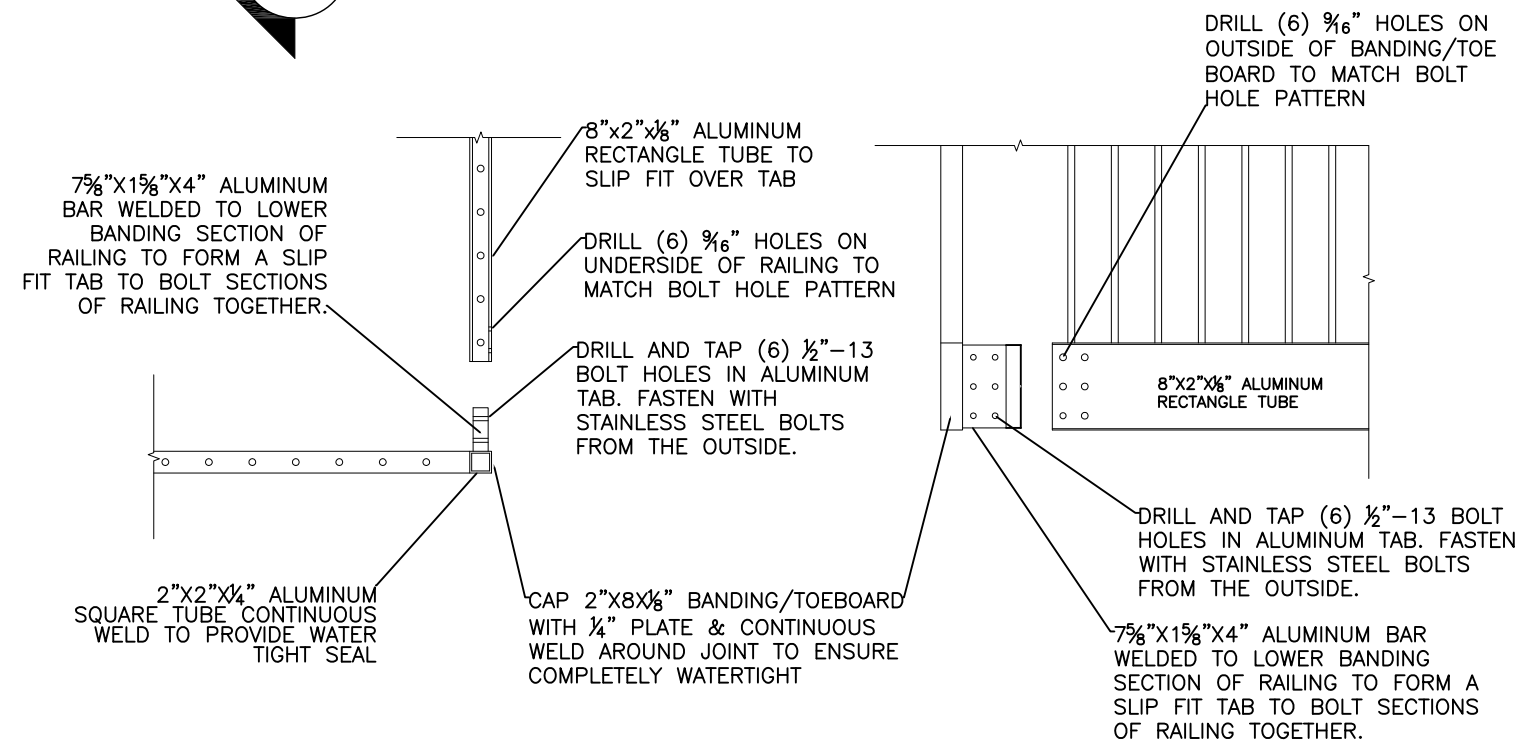
D-1.0/01, TOP VIEW OF PATIO/RAILING



D-1.0/02, CROSS SECTION OF PATIO

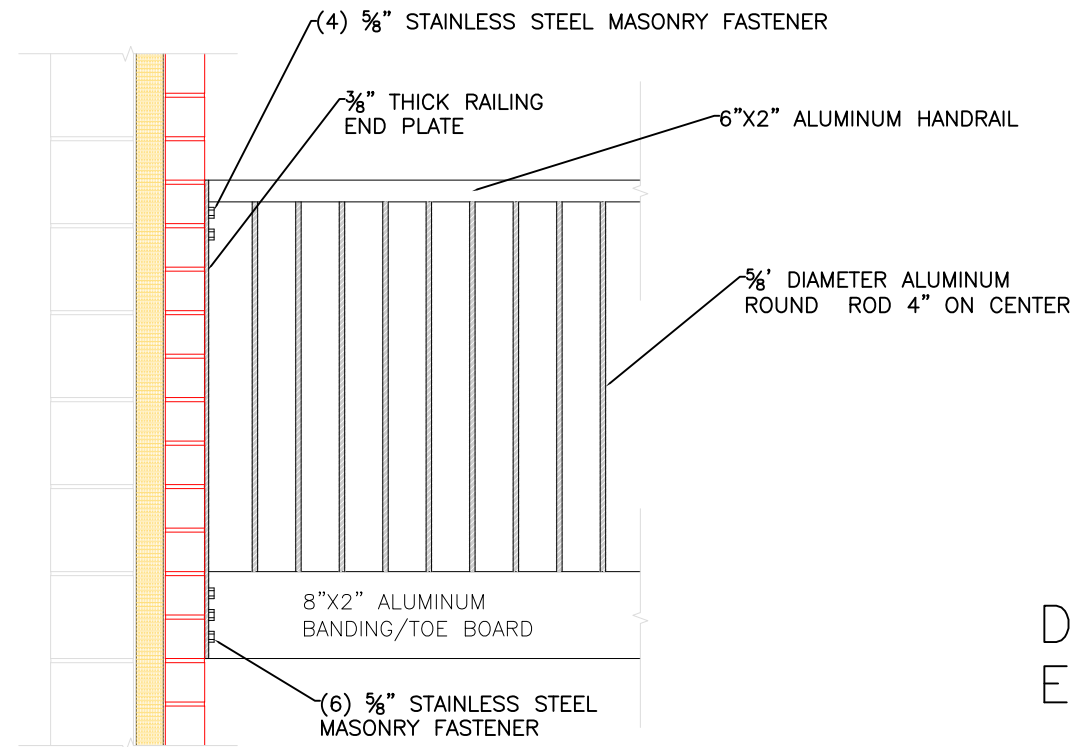


D-1.0/03, TOP VIEW OF RAILING-BANDING/TOEBOARD

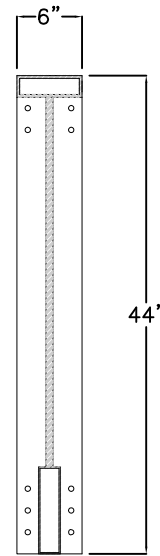


D-1.0/04, ASSEMBLY/DISASSEMBLY POINT FOR BANDING/TOEBOARD

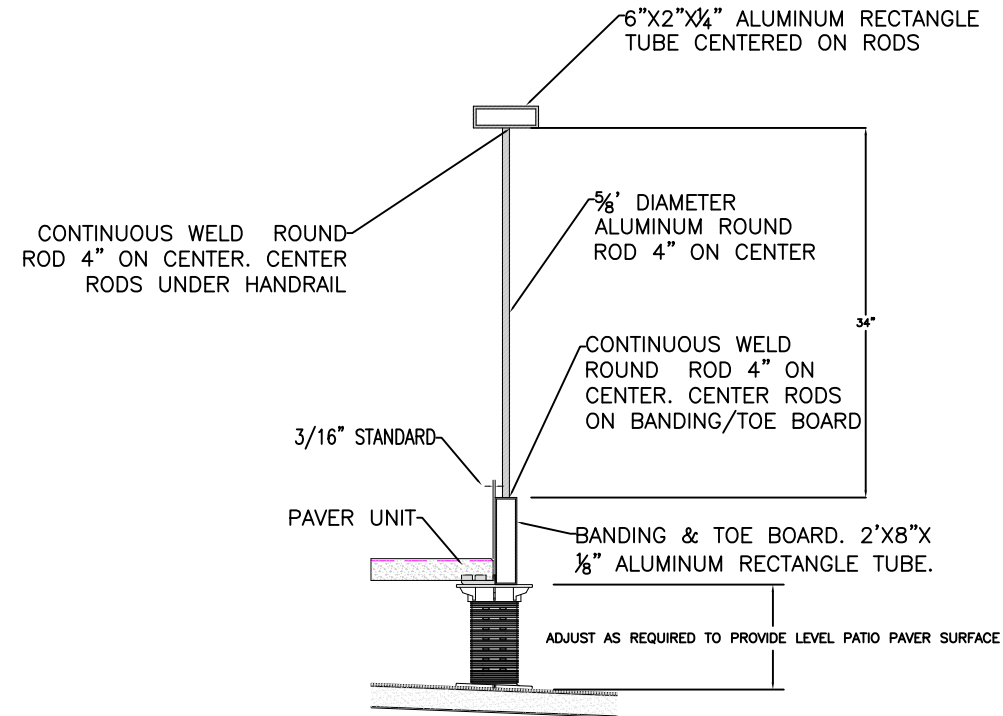




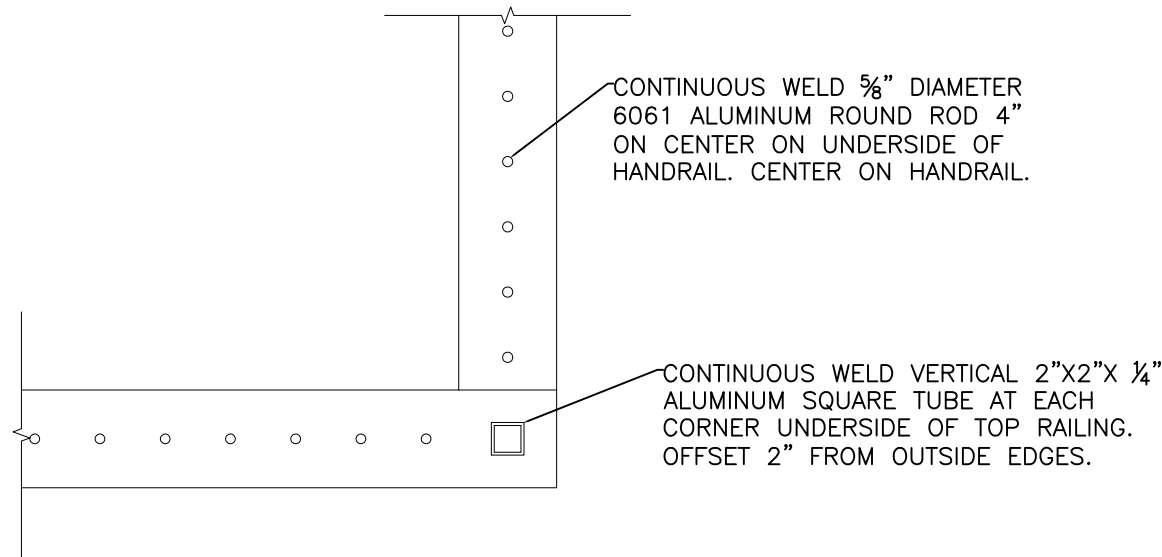
D-1.1/01, RAILING  
ATTACHMENT TO WALL



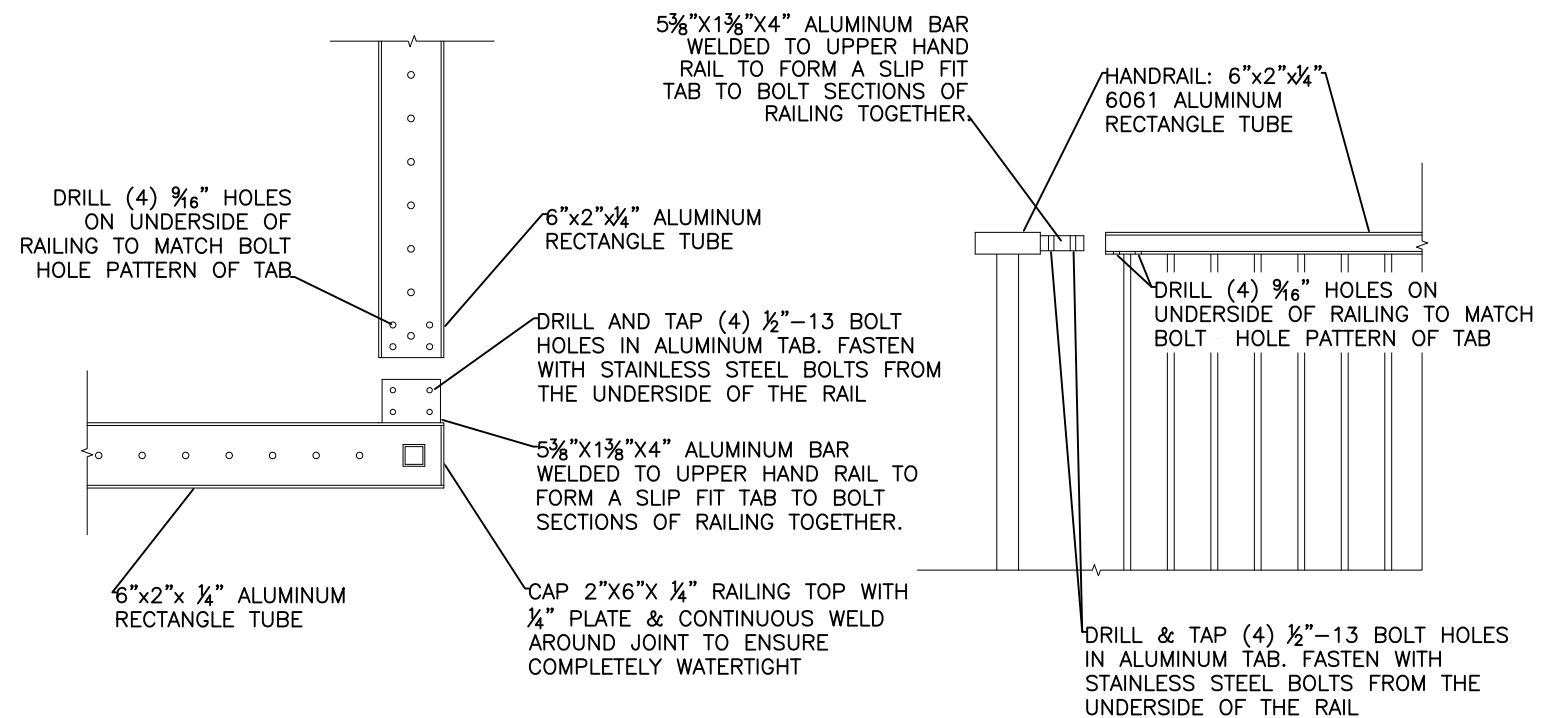
D-1.1/02, RAILING  
END PLATE



D-1.1/03, CROSS SECTION  
OF PATIO RAILING

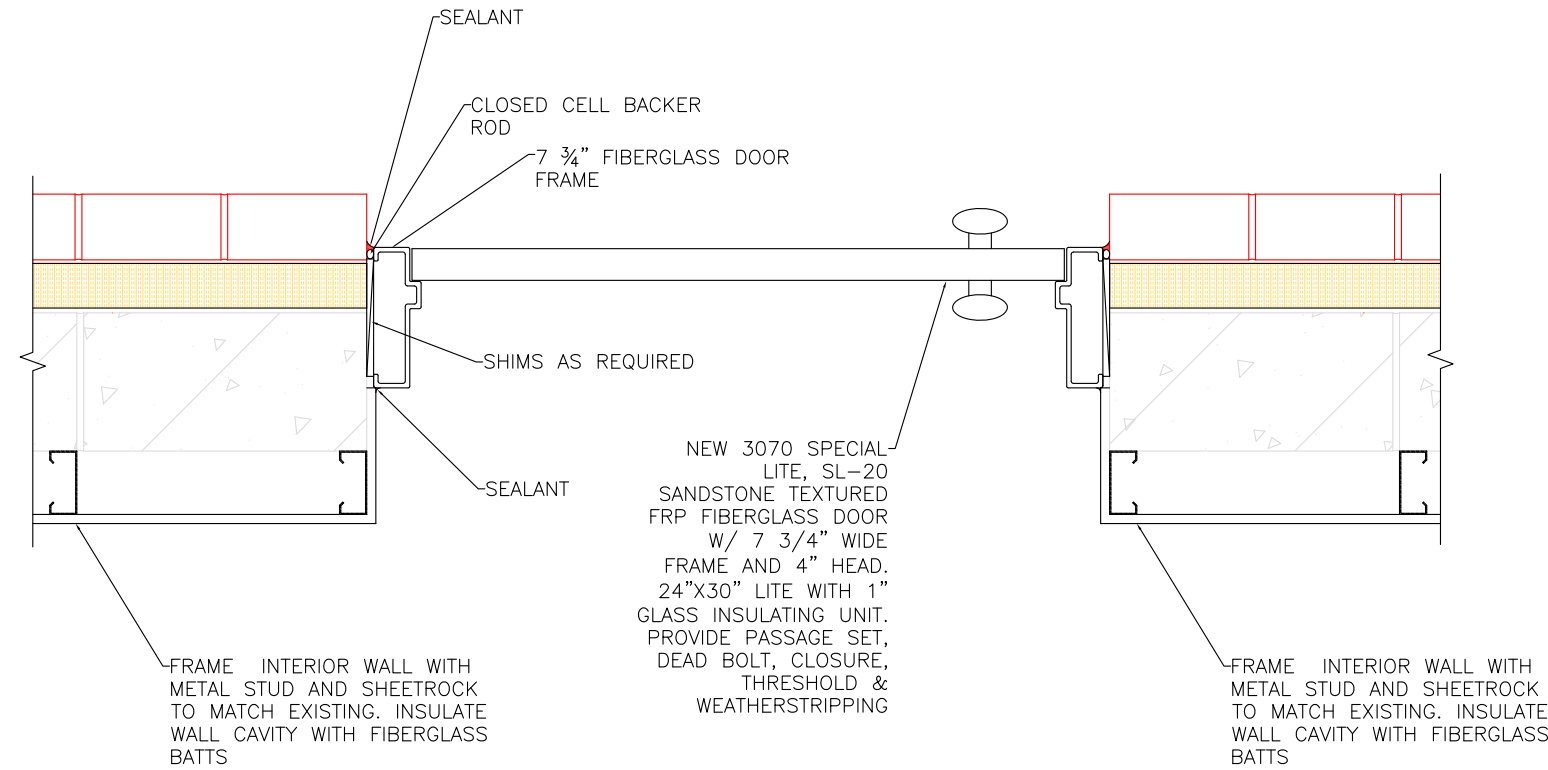


D-1.1/04, TOP VIEW OF  
RAILING-HANDRAIL

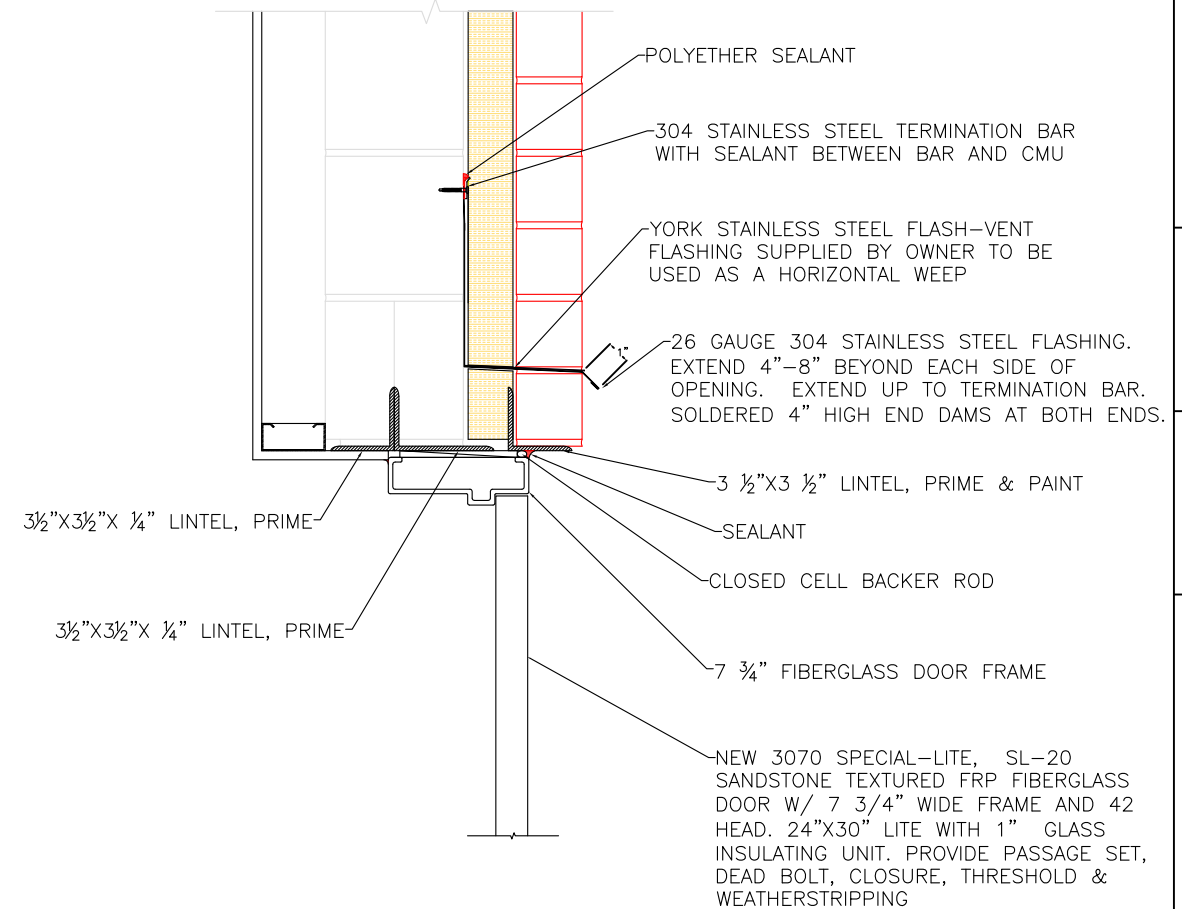


D-1.1/05, ASSEMBLY/DISASSEMBLY POINT FOR HANDRAIL

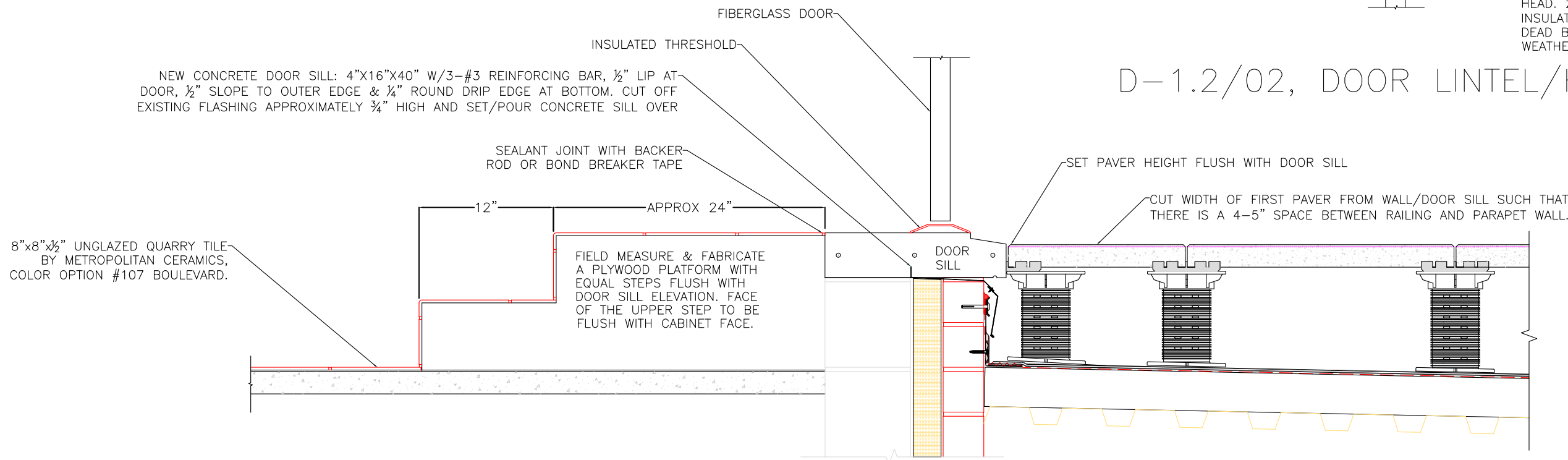
THE YORK FLASHINGS SHALL BE USED AS A HORIZONTAL WEEP AND LAID IN A BED OF UNIVERSEAL POLYETHER SEALANT OR EQUAL (SODASEAL 50 LM) UTILIZING SPECIALLY DESIGNED NOZZLE RECOMMENDED BY MANUFACTURER AND IT SHALL BE TOPPED WITH A FRESH FULL BED OF MORTAR. IT SHALL BE CARRIED THRU THE WALL AS INDICATED AND SHALL BE TRIMMED FLUSH WITH THE OUTSIDE OF THE WALL AFTER INSPECTION. THE STAINLESS STEEL FLASHING SHALL BE LAID IN A BED OF OUTWARD SLOPING MORTAR. THE ENDS SHALL EXTEND 4" TO 8" BEYOND EACH SIDE OF THE OPENING AND BE TURNED AT THE SIDES FORMING AN END DAM AND SOLDERED.



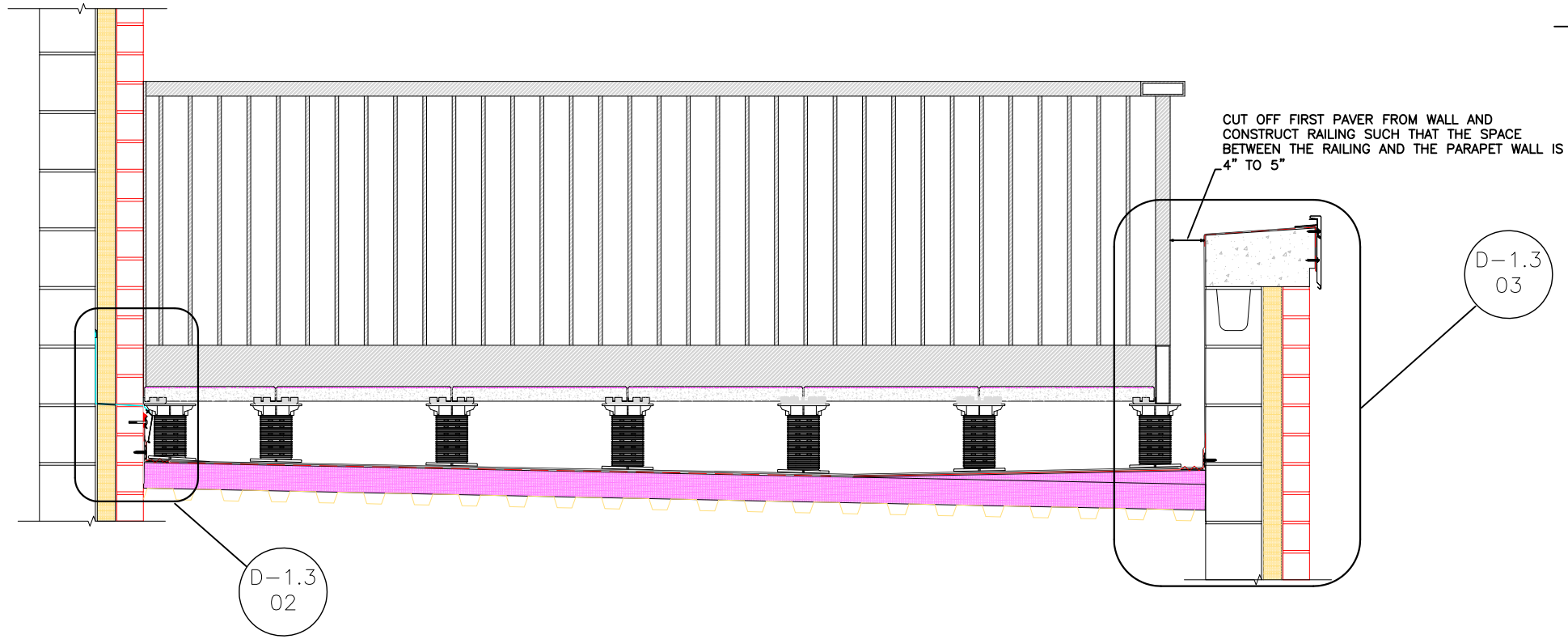
D-1.2/01, TOP VIEW OF PATIO DOOR



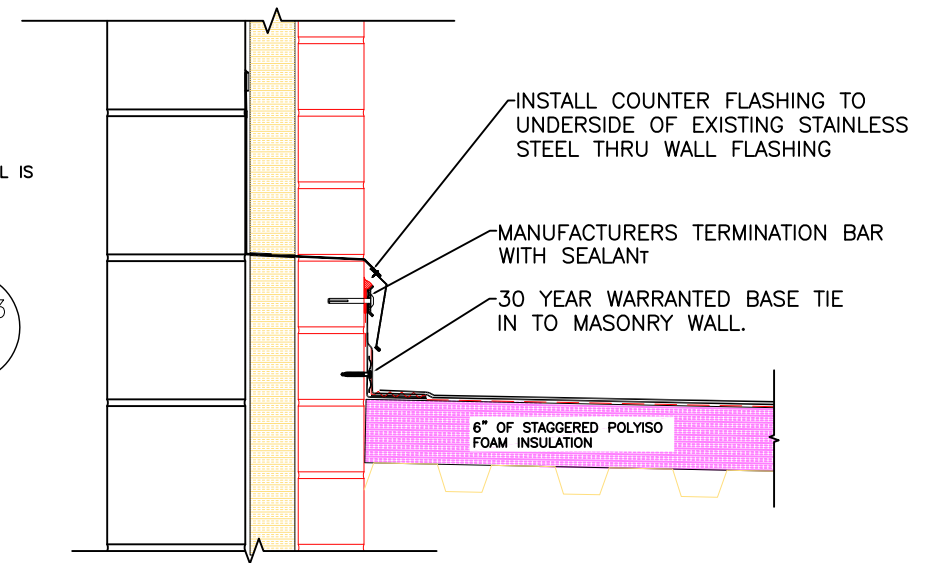
D-1.2/02, DOOR LINTEL/HEADER



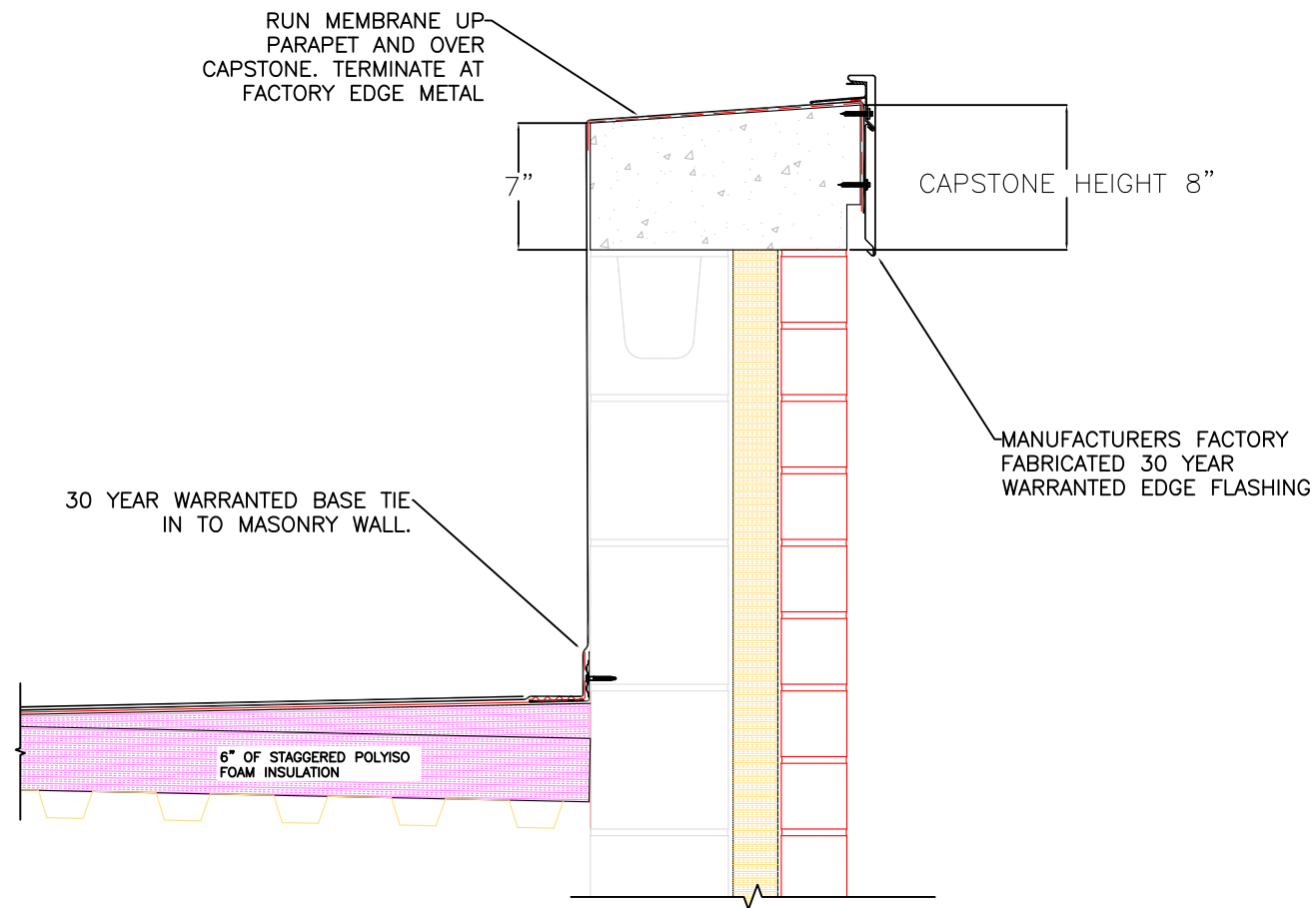
D-1.2/03, CROSS SECTION OF PATIO DOOR



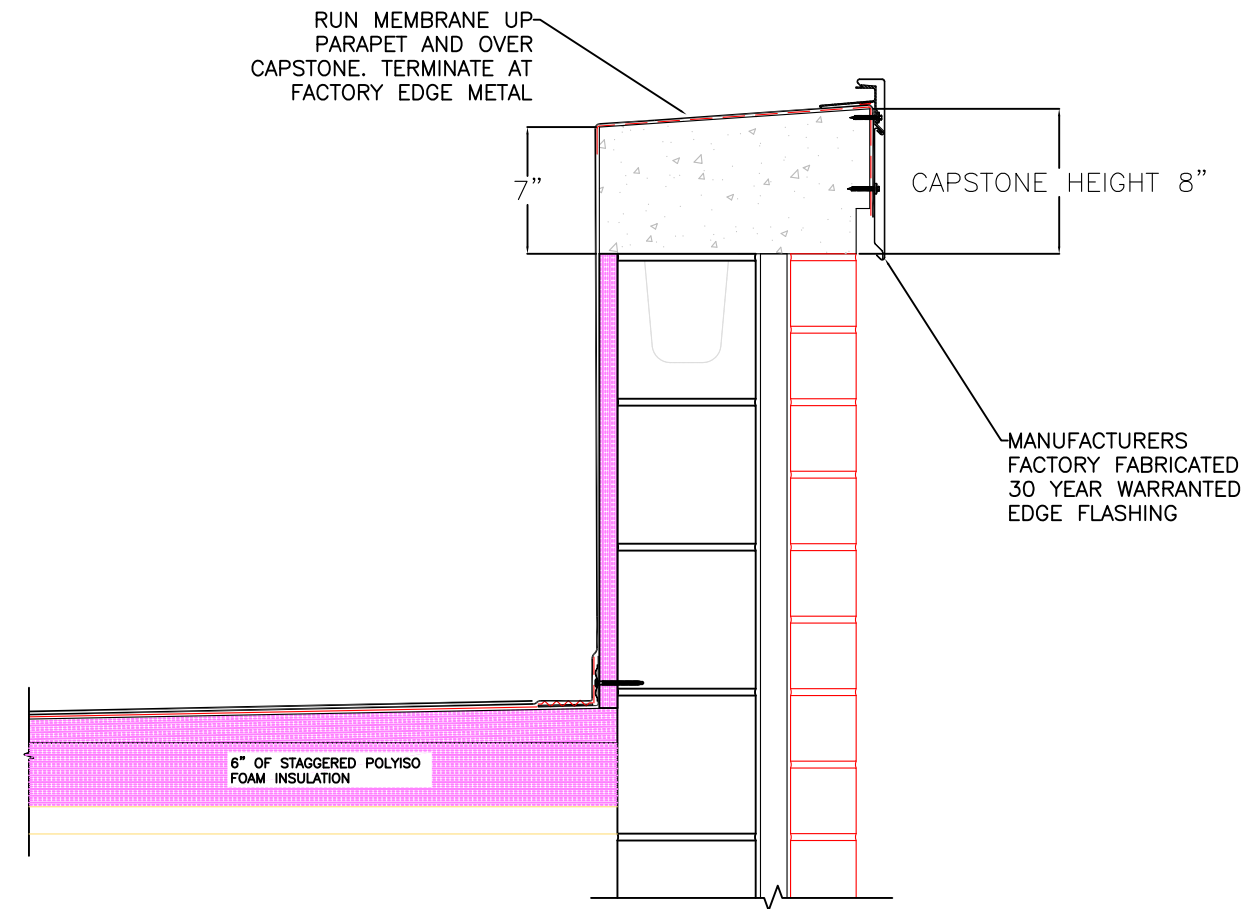
D-1.3/01, CROSS SECTION OF PATIO ROOFING DETAILS



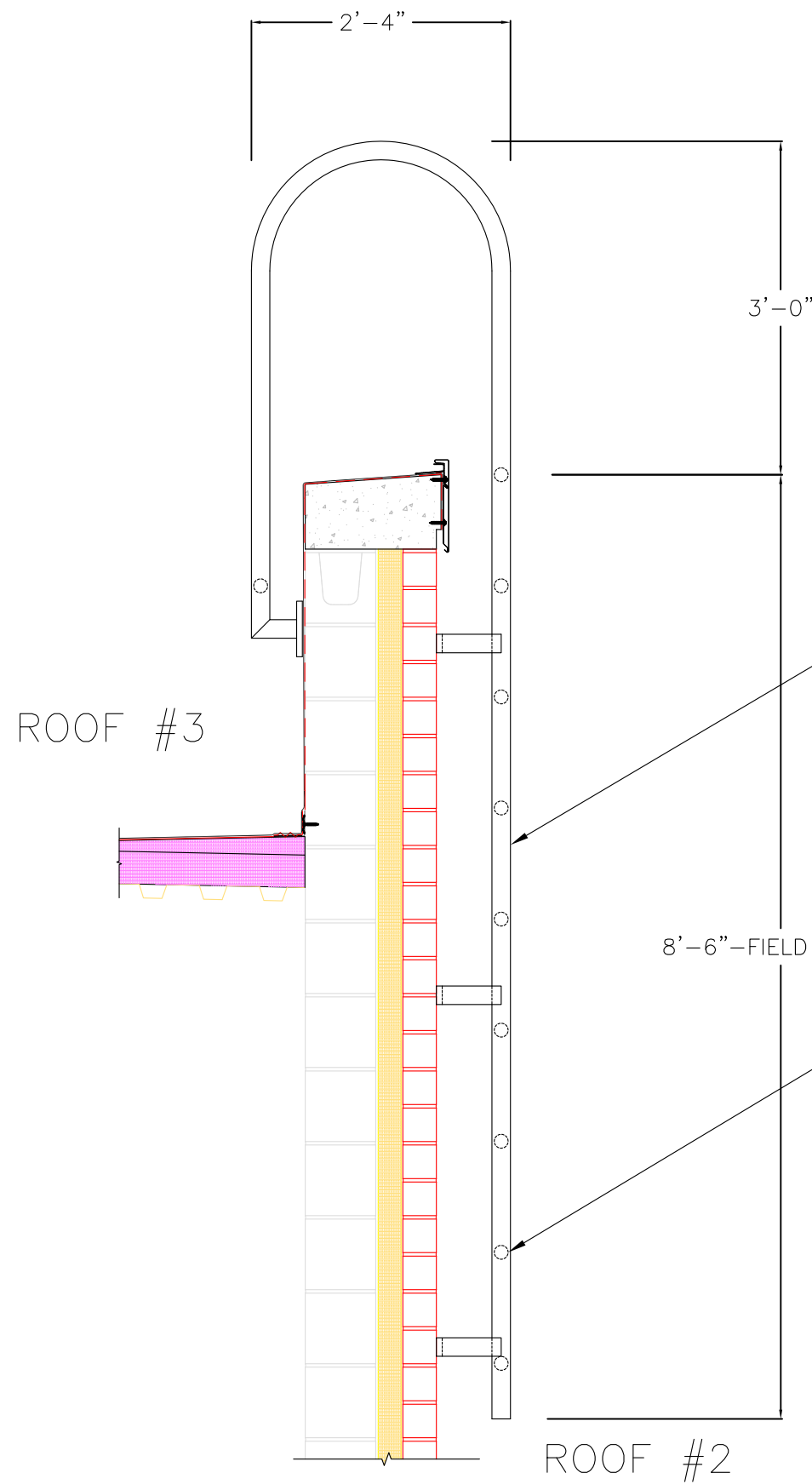
D-1.3/02, TYPICAL WALL FLASHING DETAIL



D-1.3/03, TYPICAL PARAPET WALL DETAIL



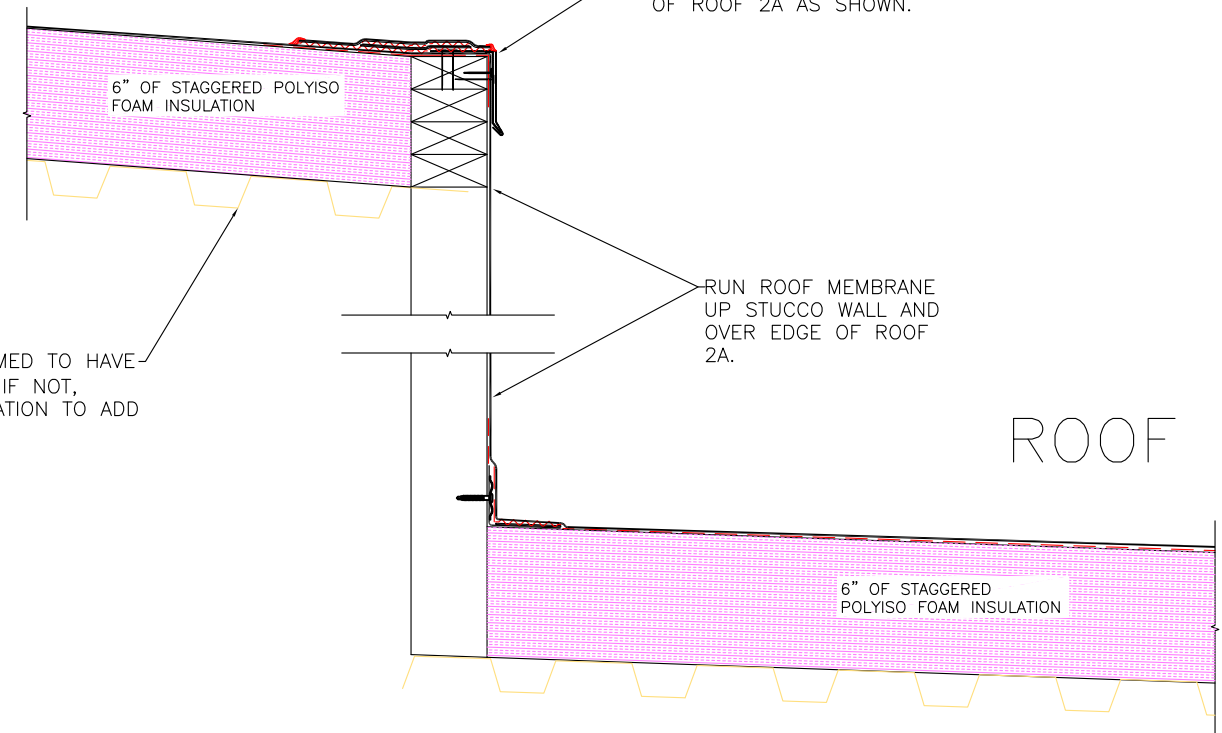
D-1.3/04, ROOF #1 - NORTH & WEST PARAPET WALL



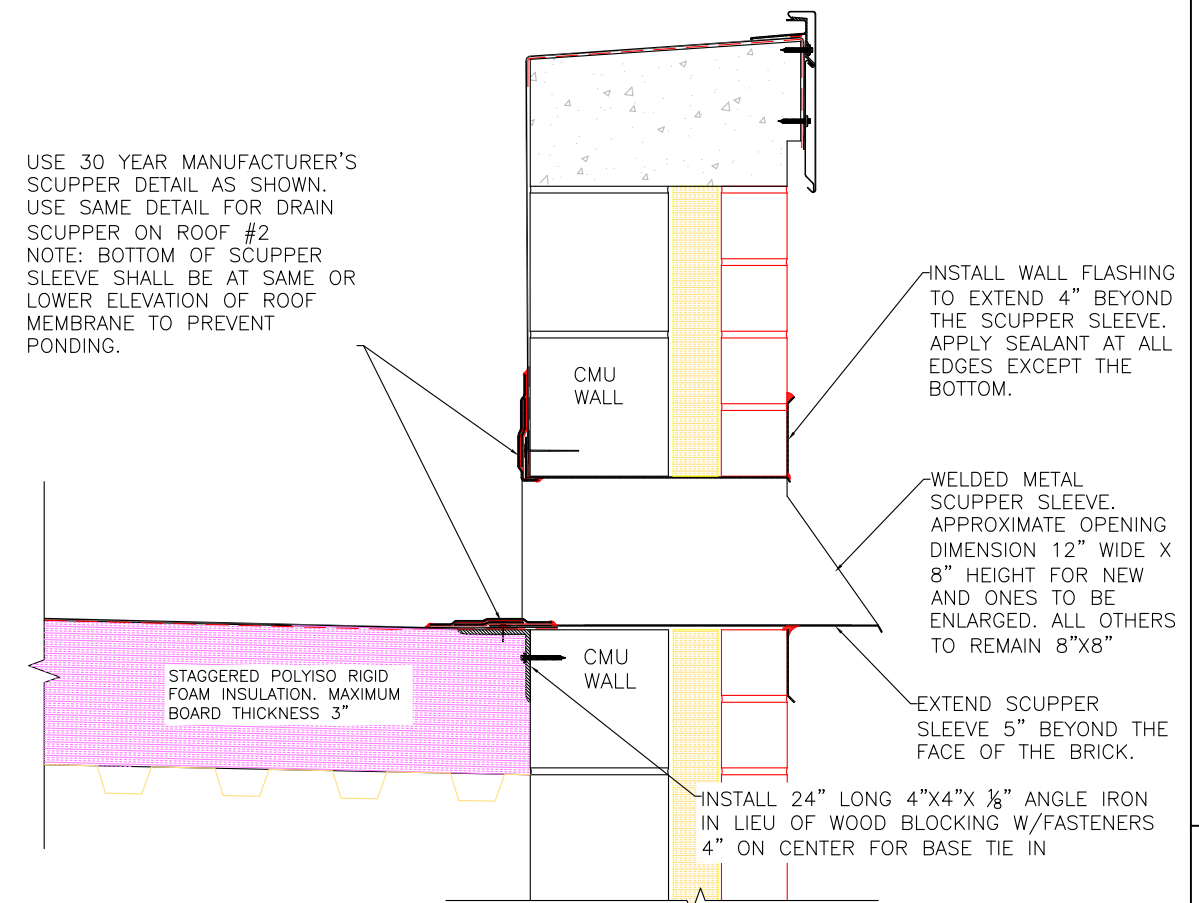
D-1.4/01, FABRICATE AND INSTALL NEW LADDER BETWEEN ROOFS 2&3 AT LOCATION INDICATED. PRIME & PAINT.

**ROOF #2A**

ROOF 2A DECK IS ASSUMED TO HAVE 1/4" OR GREATER SLOPE. IF NOT, PROVIDE TAPERED INSULATION TO ADD ADEQUATE SLOPE



D-1.4/02, TRANSITION BETWEEN ROOF 2 AND 2A



D-1.4/03, TYPICAL SCUPPER DETAIL