

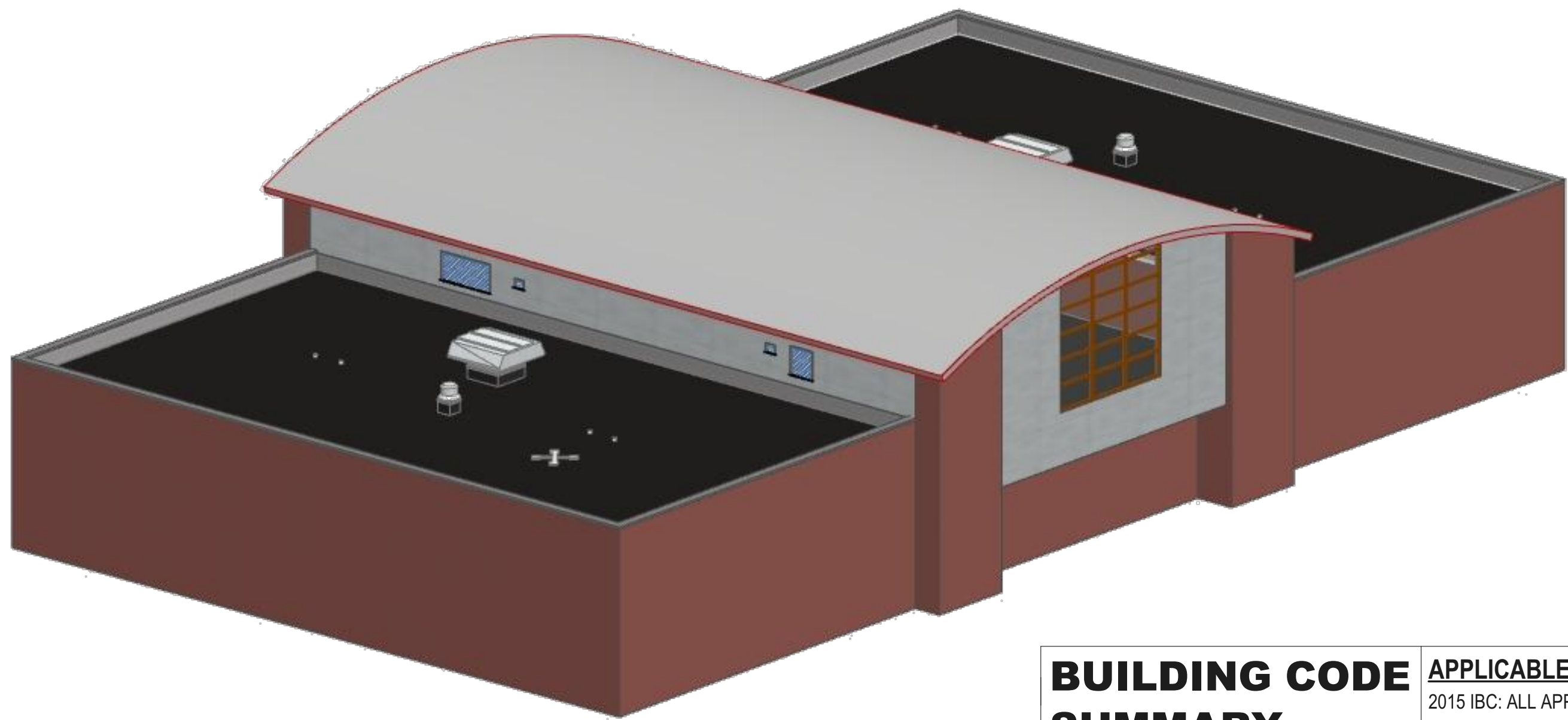
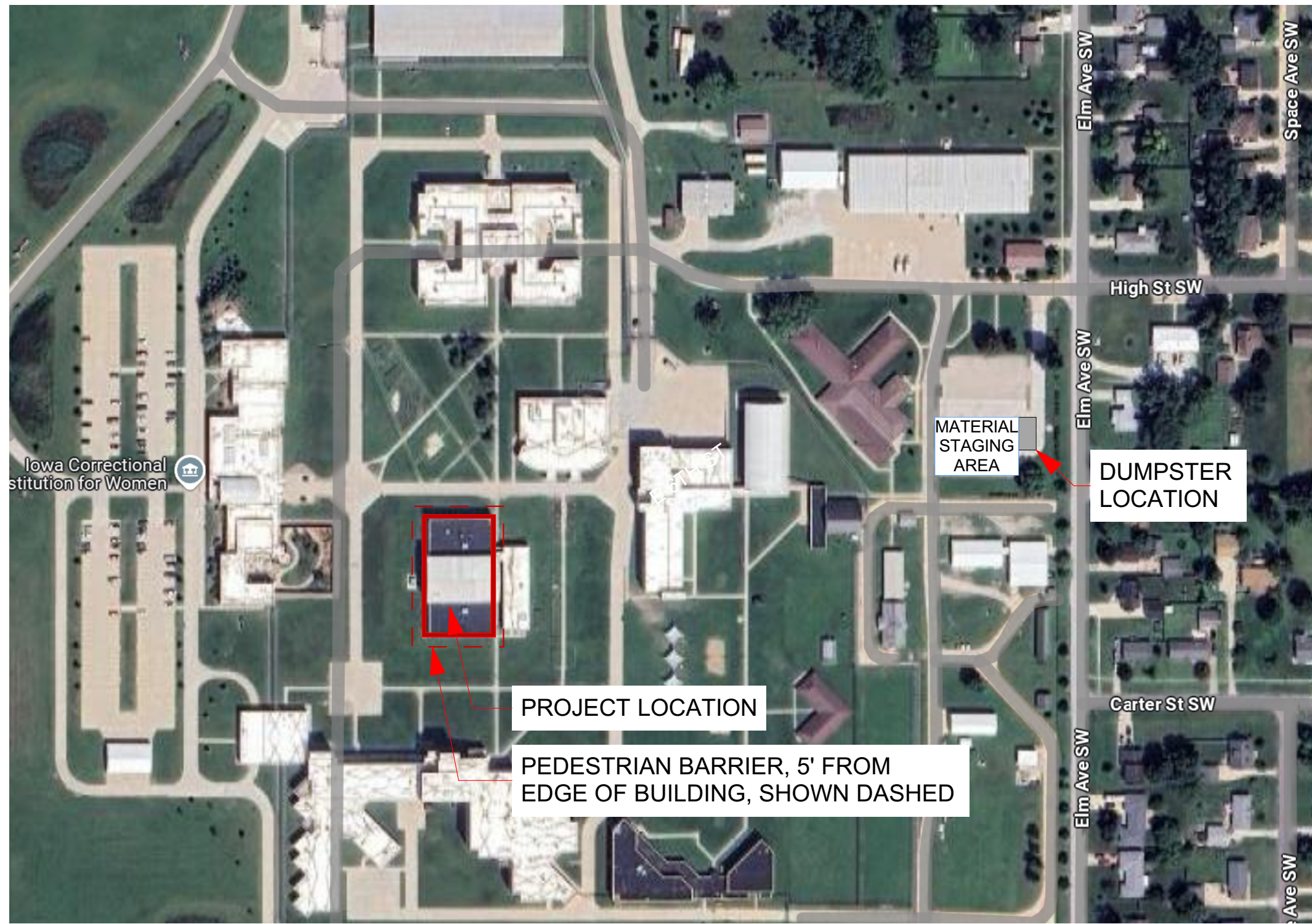
# ICIW BUILDING 9 ROOF REPLACEMENT

PROJECT # 9454.00

Iowa Department of Corrections Building 9  
Mitchellville, IA 50169

| SHEET INDEX |                      |
|-------------|----------------------|
| ID          | Name                 |
| C-101       | COVER SHEET          |
| C-102       | ROOF LOADING DIAGRAM |
| A-101       | DEMO ROOF PLAN       |
| A-102       | ROOF PLAN            |
| A-501       | ROOF DETAILS         |

|  |                                                                                                                                                                                                                               |           |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|  | I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED HEREIN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND RESPONSIBLE CHARGE. I AM A DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF IOWA. |           |
|  |                                                                                                                                                                                                                               | 2/17/2025 |
|  | MICHAEL NOLAN<br>LICENSE NUMBER 06926.                                                                                                                                                                                        | DATE      |
|  | MY LICENSE RENEWAL DATE IS JUNE 30, 2025.<br>PAGES OR SHEETS COVERED BY THIS SEAL: ALL                                                                                                                                        |           |



## BUILDING CODE SUMMARY

### APPLICABLE CODES AND ORDINANCES

2015 IBC: ALL APPLICABLE CHAPTERS  
ANSI 117.1, 2009 EDITION: ALL APPLICABLE CHAPTERS

### PROJECT SCOPE:

REPLACEMENT OF MEMBRANE ROOF ON BUILDING 9

### BUILDING AND PROJECT DATA

BUILDING DESCRIPTION AND USE 1 STORY BLDG + MEZZANINE. CORRECTIONAL, HOUSING

REFERENCE FULL BUILDING DRAWINGS FOR CODE INFORMATION ADDRESSING THE EXISTING BUILDING

|                                           | IBC 2015                  | REQUIRED/ALLOWED | PROVIDED       |
|-------------------------------------------|---------------------------|------------------|----------------|
| USE AND OCCUPANCY                         | CHAPTER 3                 |                  | I-3            |
| CONSTRUCTION TYPE                         | SECTION 602 AND TABLE 601 |                  | II A           |
| AUTOMATIC SPRINKLER SYSTEM                | SECTION 903               | YES              | YES            |
| BUILDING HEIGHT                           | TABLE 504.3               | 85' MAX.         | APPX. 45'-0"   |
| BUILDING STORIES                          | TABLE 504.4               | 3                | 1.5            |
| LARGEST FLOOR AREA / STORY/1ST FLOOR AREA | TABLE 506.2               | 45,000 SQ. FT.   | 18,280 SQ. FT. |
| MEZZANINE FLOOR AREA                      | SECTION 505               | 6,094 SQ. FT.    | 4,025 SQ. FT.  |

| OCCUPANCY CALCS | AREA           | REQUIRED                     | OCCUPANT LOAD |
|-----------------|----------------|------------------------------|---------------|
| 1ST FLOOR       | 18,280 SQ. FT. | 120 SQ. FT. / PERSON (GROSS) | 152           |
| MEZZANINE       | 4,025 SQ. FT.  | 120 SQ. FT. / PERSON (GROSS) | 34            |
| ALL OCCUPANCIES | 22,305 SQ. FT. |                              | 186           |

| FIRE RESISTANCE RATINGS         | IBC 2015                          | REQUIRED     | PROVIDED     |
|---------------------------------|-----------------------------------|--------------|--------------|
| PRIMARY STRUCTURAL FRAME        | TABLE 601 AND SECTION 704         | 1 HOURS      | 1 HOURS MIN  |
| BEARING WALLS                   |                                   |              |              |
| EXTERIOR                        | TABLE 601, 602, 721 & SECTION 705 | 1 HOURS      | 1 HOURS MIN  |
| INTERIOR                        | TABLE 601                         | 1 HOURS      | 1 HOURS MIN  |
| NONBEARING WALLS AND PARTITIONS |                                   |              |              |
| EXTERIOR                        | TABLE 601, 602 & SECTION 705      | 0 HOURS      | 0 HOURS MIN  |
| INTERIOR                        | TABLE 601                         | 0 HOURS      | 0 HOURS MIN  |
| FLOOR CONSTRUCTION              | TABLE 601                         | 1 HOURS      | 1 HOURS      |
| ROOF CONSTRUCTION               | TABLE 601                         | 1 HOURS      | 1 HOURS MIN  |
| EXTERIOR WALL OPENINGS          |                                   |              |              |
| UNPROTECTED                     | TABLE 705.8.3                     | NOT REQUIRED | NOT REQUIRED |
| PROTECTED                       | TABLE 705.8.2                     | NOT REQUIRED | NOT REQUIRED |

| MEANS OF EGRESS                      | IBC 2015                      | REQUIRED | PROVIDED |
|--------------------------------------|-------------------------------|----------|----------|
| MAXIMUM PATH OF COMMON EGRESS TRAVEL | SECTION 1006.2.1              | 100'     | <100'    |
| MAXIMUM EXIT ACCESS TRAVEL DISTANCE  | SECTION 1017 & TABLE 1017.2   | 200'     | <200'    |
| MINIMUM CORRIDOR WIDTH               | SECTION 1020                  | 44"      | 44"      |
| MAXIMUM DEAD END                     | SECTION 1020                  | 50'      | <50'     |
| MINIMUM NUMBER OF EXITS              | SECTION 1006 & TABLE 1006.3.2 | 2        | 8        |

## ABBREVIATIONS

|                             |                                           |                                |                                |                          |
|-----------------------------|-------------------------------------------|--------------------------------|--------------------------------|--------------------------|
| A.D. AREA DRAIN             | DN. DOWN                                  | HORIZ. HORIZONTAL              | PL. LAM. PLASTIC LAMINATE      | U.L. UNDERWRITERS        |
| ABV. ABOVE                  | DWG. DRAWING                              | HT. HEIGHT                     | QTY. QUANTITY                  | R. RISER                 |
| ADA. ACCESSIBLE / AMERICANS | DEPT. DEPARTMENT                          | INSUL. INSULATION / INSULATING | R. R.W.C. RAIN WATER CONDUCTOR | LABORATORIES             |
| WITH DISABILITIES ACT       | DBL. DOUBLE                               | ID. INSIDE DIAMETER            | REIN. REINFORCING / REINFORCED | VEST. VESTIBULE          |
| ADJ. ADJUSTABLE             | DM. DIMENSION                             | INCAND. INCANDESCENT           | REQ. REQUIRED                  | V.C.T. VINYL COMPOSITION |
| A.O.R. AREA OF REFUGE       | DR. DOOR                                  | JAN. JANITOR                   | REV. REVISED / REVISION        | TILE                     |
| ALUM. ALUMINUM              | EXIST. EXISTING                           | JT. JOINT                      | REFL. REFLECTED                | W. WITH                  |
| ALT. ALTERNATE              | EQ. ELECTRICAL CONTRACTOR                 | LBS. POUNDS                    | REC. RECESSED                  | W.C. WATER CLOSET        |
| A.F.F. ABOVE FINISHED FLOOR | E.C. ELECTRICAL                           | LAV. LAVATORY                  | RAD. RADIUS                    | WD. WOOD                 |
| AC. ACOUSTIC / ACOUSTICAL   | EL. ELEVATION                             | LAM. LAMINATE                  | REV. REVISED / REVISION        |                          |
| A.F. ALUMINUM FACE          | ELEV. ELEVATOR                            | L.P. LOW POINT                 | REF. REFLECTED                 |                          |
| APPX. APPROXIMATE /         | ELEC. ELECTRIC / ELECTRICAL               | MAX. MAXIMUM                   | REC. RECESSED                  |                          |
| APPROXIMATE                 | EXP. EXPANSION                            | MFR. MANUFACTURER /            | ST. STREET                     |                          |
| BD. BOARD                   | EXT. EXTERIOR                             | MANUFACTURED                   | SIM. SIMILAR                   |                          |
| BLK. BLOCK / BLOCKING       | EA. EACH                                  | MTL. METAL                     | STL. STEEL                     |                          |
| BLDG. BUILDING              | EQ. FLOOR DRAIN                           | MIN. MINIMUM                   | SQ. SQUARE                     |                          |
| B.O. BOTTOM OF              | F.E. FIRE EXTINGUISHER                    | MIRR. MIRROR                   | SAN. SANITARY                  |                          |
| B.O.S. BOTTOM OF STEEL      | F.E.C. FIRE EXTINGUISHER                  | MTD. MOUNTED                   | SAN. SANITARY                  |                          |
| CAB. CABINET                | CABINET                                   | M.O. MASONRY OPENING           | SUSP. SUSPENDED                |                          |
| C.C. CENTER-TO-CENTER       | FIN. FINISH / FINISHED                    | MISC. MISCELLANEOUS            | STD. STANDARD                  |                          |
| C.G. CEILING                | FLR. FLOOR                                | MECH. MECHANICAL               | SPEC. SPECIFICATION            |                          |
| CLOS. CLOSET                | F.O. FACE OF                              | N.C. NOT IN CONTRACT           | TEL. TELEPHONE                 |                          |
| C.M. CONSTRUCTION MANAGER   | FT. FEET / FOOT                           | NO. NUMBER                     | T.O. TOP OF                    |                          |
| CMU. CONCRETE MASONRY UNIT  | FLUOR. FLUORESCENT                        | N.T.S. NOT TO SCALE            | T.O.S. TOP OF STEEL            |                          |
| C.J. CONTROL JOINT          | GYP. GYPSUM                               | O.C. ON CENTER                 | T.O.W. TOP OF WALL             |                          |
| CONC. CONCRETE              | GALV. GALVANIZED                          | O.D. OUTSIDE DIAMETER          | TOIL. TOILET                   |                          |
| CORR. CORRIDOR              | GA. GAUGE                                 | OPP. OPPOSITE                  | TYP. TYPICAL                   |                          |
| COL. COLUMN                 | G.C. GENERAL CONTRACTOR                   | OPG. OPENING                   | THK. THICK                     |                          |
| CONT. CONTINUE / CONTINUOUS | HR. HOUR                                  | PLUMBING CONTRACTOR            | THP. THICK                     |                          |
| CONTR. CONTRACTOR           | H.P. HIGH POINT                           | P.C. PANEL FACE                | TEMP. TEMPERED                 |                          |
| DIA. DIAMETER               | HVAC. HEAT, VENTILATION, AIR-CONDITIONING | PR. PAIR                       | TEMPERED SAFETY                |                          |
| DTL. DETAIL                 |                                           | P.T. PRESSURE TREATED          | UNLESS OTHERWISE NOTED         |                          |

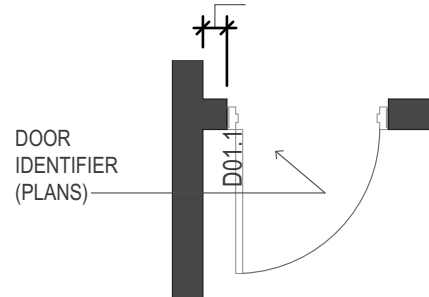
## GRAPHIC SYMBOLS

### WINDOW MARKER

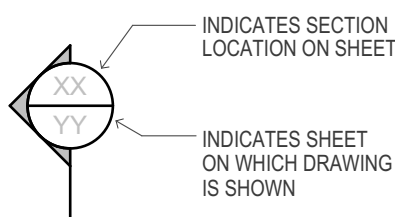
### SKYLIGHT MARKER

### DOOR IDENTIFIERS

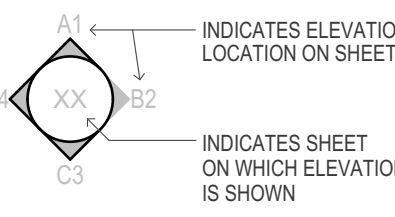
DOOR IDENTIFIER (ELEVATIONS/SECTIONS)  
6" TYPICAL, UNLESS OTHERWISE NOTED



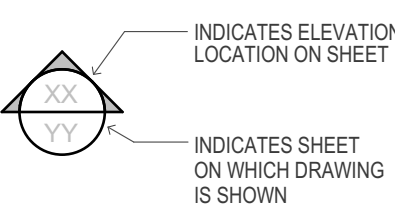
### SECTION / DETAIL MARKER



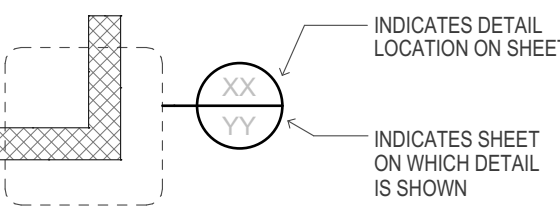
### INTERIOR ELEVATION MARKER



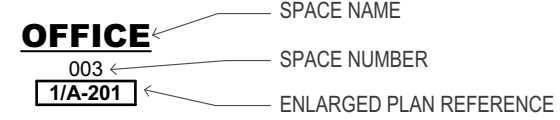
### ELEVATION / SECTION MARKER



### DETAIL / ENLARGED PLAN MARKER



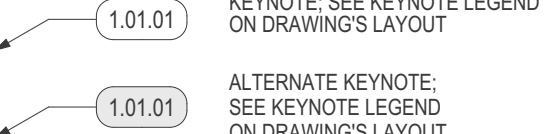
### SPACE DESIGNATION



### WALL TYPE MARKER

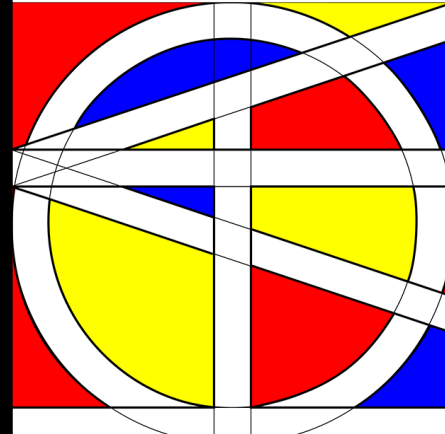


### KEYNOTE IDENTIFIER



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horizon.  
original.  
architecture.



IOWA CORRECTIONAL  
INSTITUTION FOR WOMEN  
ROOF REPLACEMENT

Iowa Department of Corrections  
Mitchellville, IA 50169

| PROJECT NO: | G24-036   |
|-------------|-----------|
| DATE:       | 2/11/2025 |
| DRAWN BY:   | LM        |
| COPYRIGHT   |           |

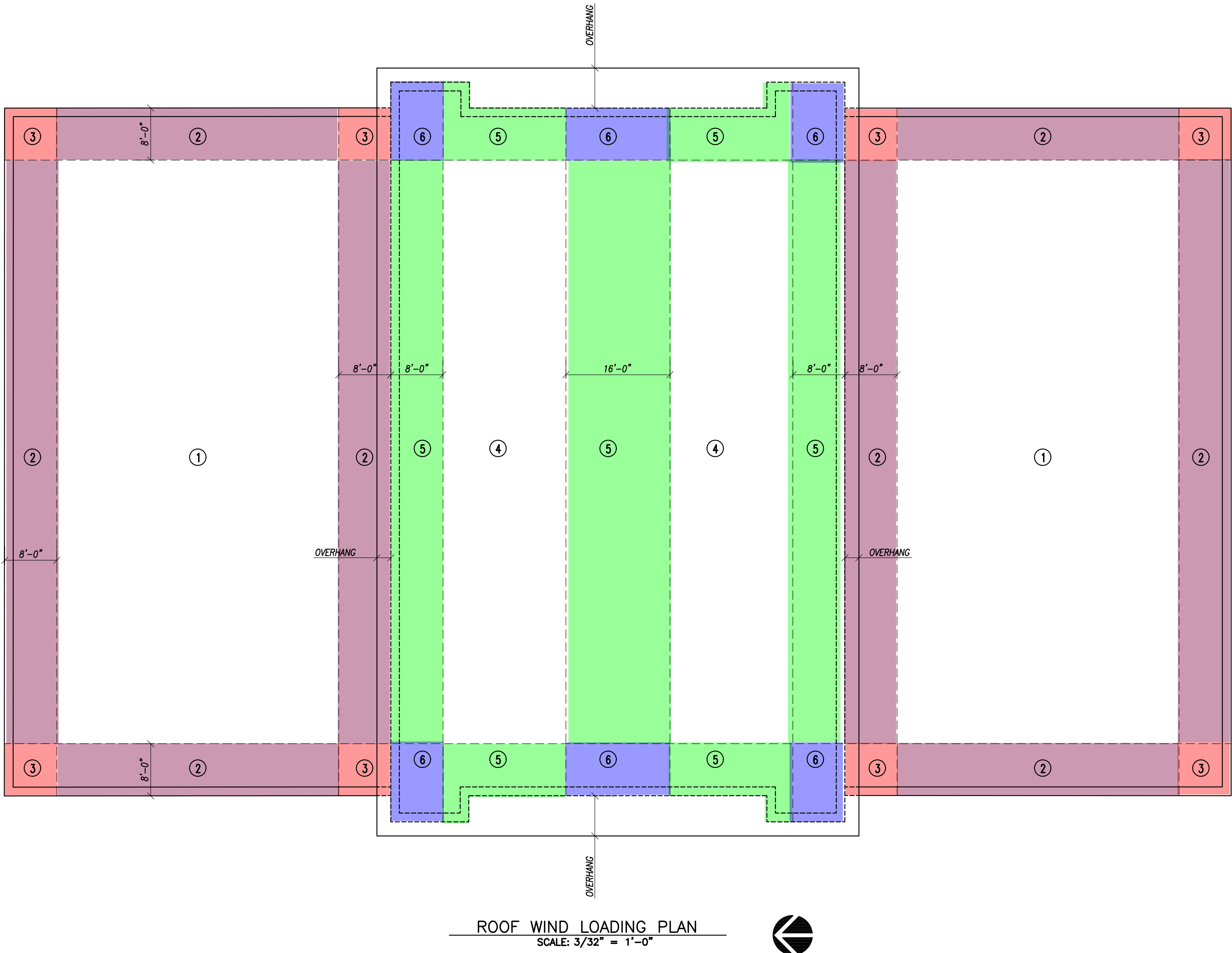
PROJECT NO: G24-036  
DATE: 2/11/2025  
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### SHEET TITLE

COVER SHEET

C-101





ROOF WIND LOADING NOTES

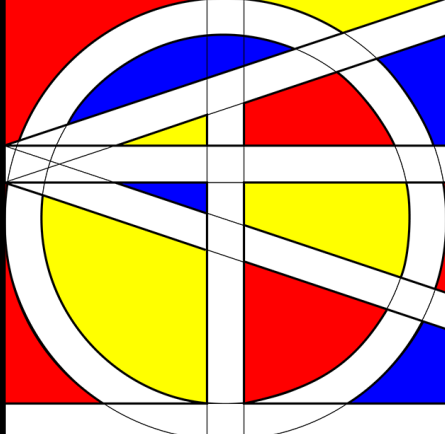
1. Design Code: International Building Code, 2015 Edition (IBC-2015), Building Risk Category "III".
2. Wind Load Criteria (ASCE 7-16):
- Nominal (Ult) Wind Speed ..... 120 MPH (3-Second Gust)
  - Risk Category ..... III
  - Wind Exposure ..... "C"
  - Internal Pressure Coefficient ... +/-0.18

| NOMINAL ROOF WIND LOADING |          |          |
|---------------------------|----------|----------|
| ZONE                      | INWARD   | OUTWARD  |
| ①                         | 16 psf   | 33.4 psf |
| ②                         | 16 psf   | 56.0 psf |
| ③                         | 16 psf   | 84.2 psf |
| ④                         | 22.2 psf | 35.2 psf |
| ⑤                         | 22.2 psf | 61.3 psf |
| ⑥                         | 22.2 psf | 90.6 psf |
| OVERHANG                  | 22.2 psf | 126 psf  |

Wind pressures indicated are Nominal (Ultimate) wind loads.  
Multiply pressures listed by 0.6 for Service (Allowable) wind loads.

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architecture.



IOWA CORRECTIONAL  
INSTITUTION FOR WOMEN  
ROOF REPLACEMENT

Iowa Department of Corrections  
Mitchellville, IA 50169

| MARK | DATE | DESCRIPTION |
|------|------|-------------|
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PROJECT NO: **G24-036**  
DATE: **2/11/2025**  
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SHEET TITLE  
**ROOF LOADING  
DIAGRAM**

C-102

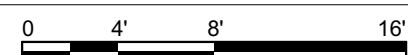


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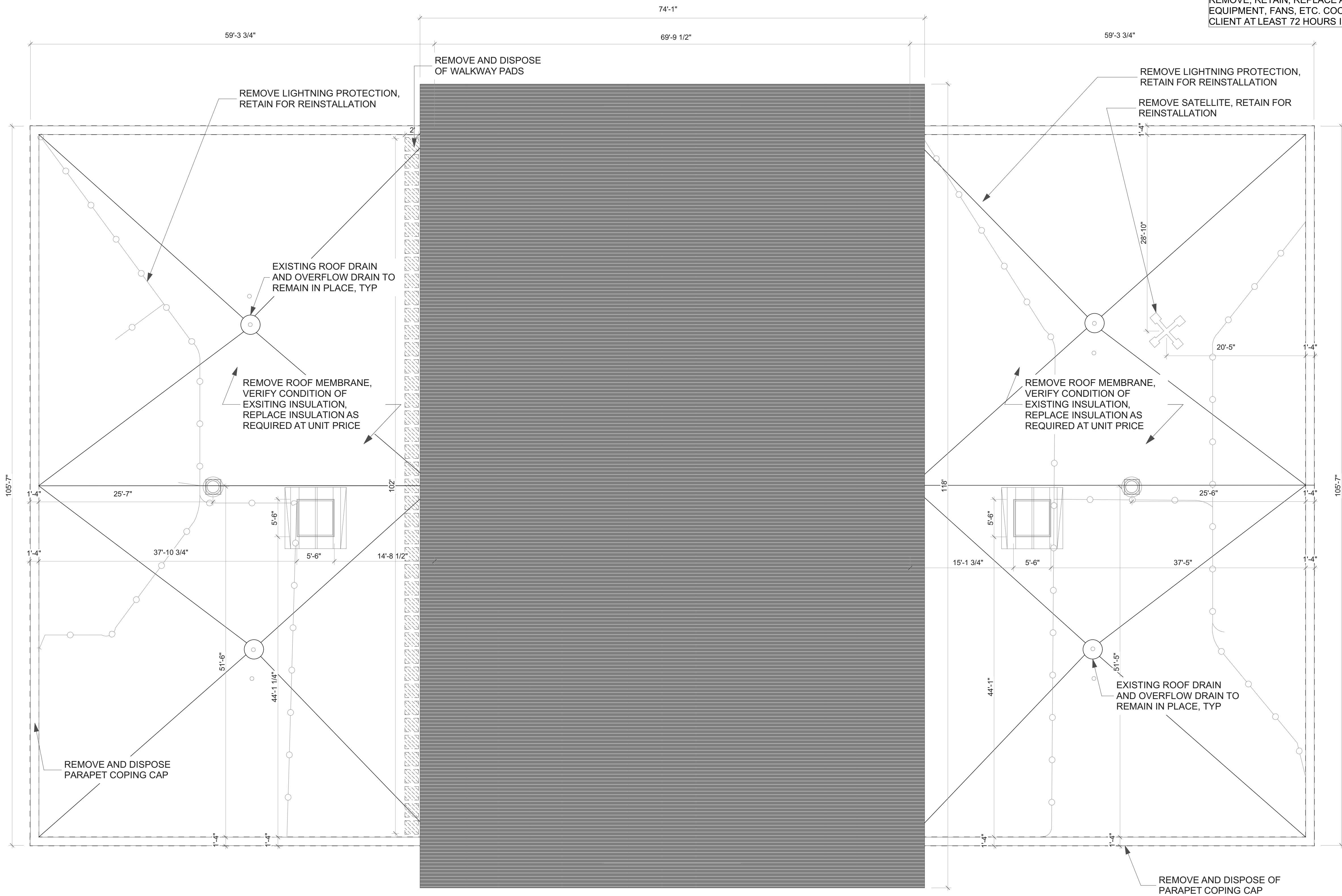
[illegible]

|                           |
|---------------------------|
| SHEET TITLE               |
| <b>DEMO ROOF<br/>PLAN</b> |

A-101

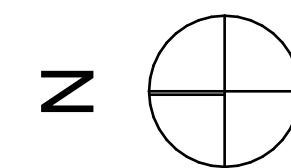
$$Z \quad \bigcirc$$


1. REMOVE ALL PARAPET COPING, DRIP EDGE, FLASHING, TERMINATION BARS AND DAMAGED ROOF EDGE BLOCKING.
2. REMOVE AND DISPOSE OF EXISTING ROOF MEMBRANE.
3. VERIFY CONDITION OF EXISTING INSULATION, REMOVE AND DISPOSE OF DAMAGED MATERIAL.
4. ROOF PENETRATIONS AND FIXTURE LOCATIONS SHOWN ARE APPROXIMATE ONLY TO BE FIELD LOCATED AND IDENTIFIED BY CONTRACTOR.
5. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. DIMENSIONS TO BE VERIFIED IN FIELD BY CONTRACTOR.
6. ALL ROOFTOP EQUIPMENT TO REMAIN IN OPERATION DURING CONSTRUCTION UNLESS COORDINATED OTHERWISE.
7. UNLESS OTHERWISE NOTED, ALL PENETRATIONS, EQUIPMENT, AND APPLIANCES ARE EXISTING TO REMAIN.
8. ROOF CONTRACTOR RESPONSIBLE FOR WORK REQUIRED TO DISCONNECT, REMOVE, RETAIN, REPLACE AND RECONNECT, ANY EXISTING ROOFTOP EQUIPMENT, FANS, ETC. COORDINATE ANY SERVICE INTERRUPTIONS WITH CLIENT AT LEAST 72 HOURS IN ADVANCE.



1) DEMO ROOF PLAN  
SCALE: 1/8" = 1'-0"





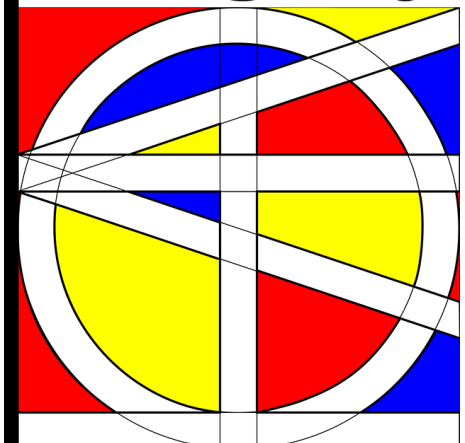
### **GENERAL NOTES**

1. ROOF TO BE FULLY ADHERED. 060 TPO MEMBRANE OVER MECHANICALLY FASTENED FIBERGLASS-REINFORCED POLYISOCYANURATE COVERBOARD (1/2" SECURESHIELD HD PLUS OR APPROVED EQUAL) FASTENED WITH 3" PLATES AND SCREWS AS REQUIRED TO ENSURE 1" MIN EMBEDMENT IN STEEL DECK.
2. 10 FASTENERS PER COVERBOARD OR AS REQUIRED TO MEET MANUFACTURER'S REQUIREMENT FOR FM-90, FM-150 AT CORNERS UPLIFT COMPLIANCE.
3. PROVIDE POSITIVE SLOPE OF AT LEAST 1/2" : 1'-0" WHERE CRICKETS ARE INDICATED ON ROOF PLAN.
4. MEMBRANE TO WRAP OVER THE TOP OF PARAPETS AT ALL LOCATIONS.
5. MEMBRANE TO EXTEND A MINIMUM OF 8" VERTICALLY AT ADJACENT SURFACES.
6. CONTRACTOR RESPONSIBLE FOR WORK REQUIRED TO REMOVE AND REPLACE ANY EXISTING ROOFTOP EQUIPMENT, FANS, ECT. COORDINATE ANY SERVICE INTERRUPTION WITH CLIENT AT LEAST 72 HOURS IN ADVANCE.
7. PROVIDE UNIT COST (48"x2") POLYISO FIELD INSULATION FOR DAMAGED/WET ROOF INSULATION ENCOUNTERED DURING DEMOLITION.

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A-102

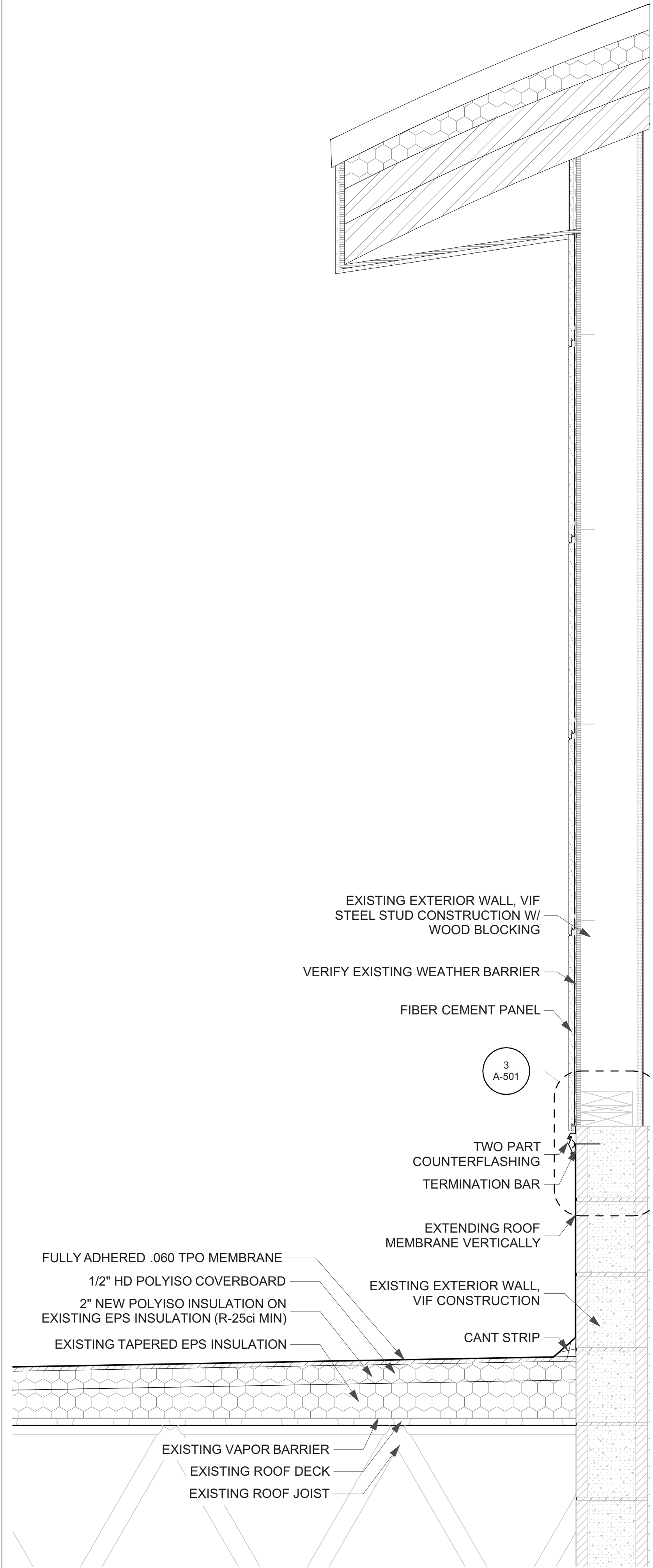
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Mitchellville, IA 50169



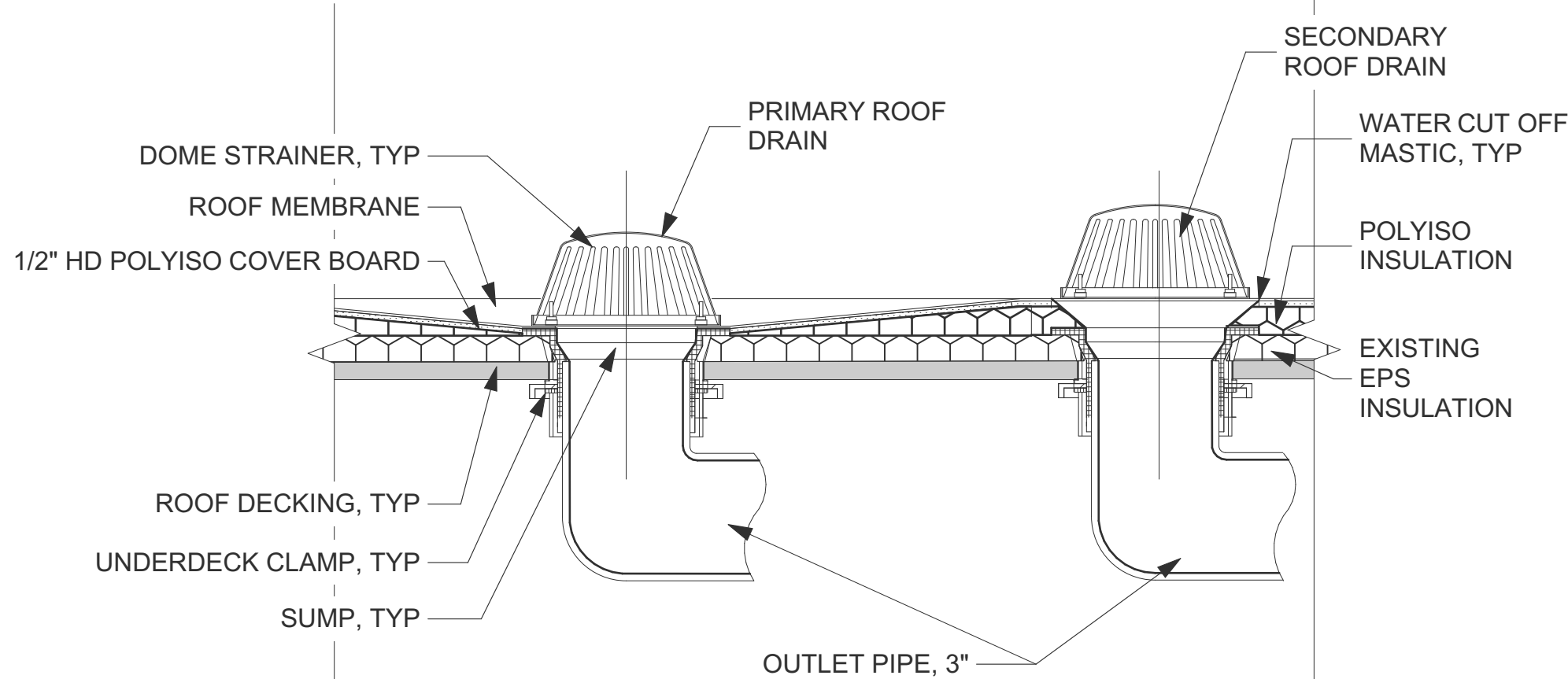
horizon.  
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architecture.



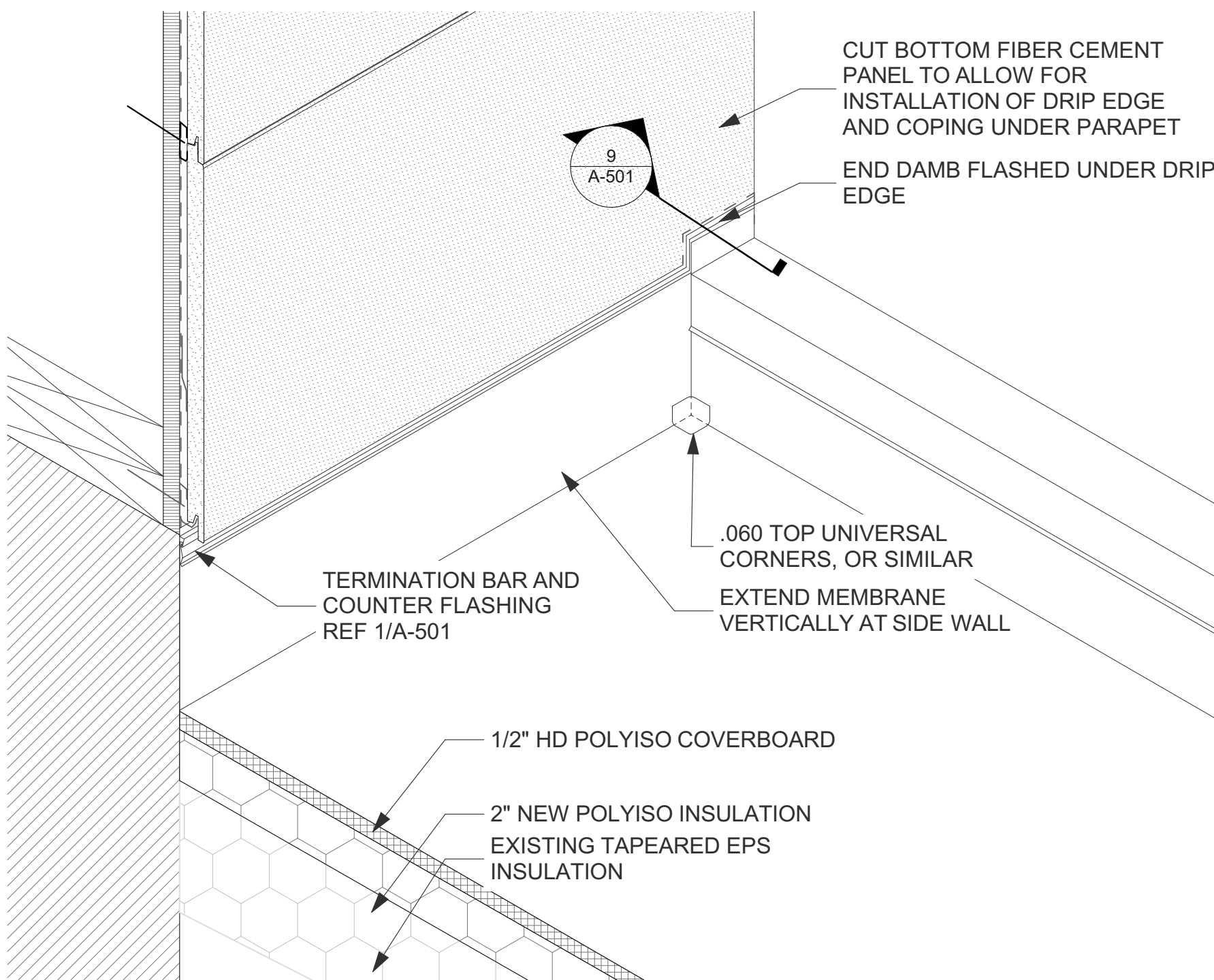
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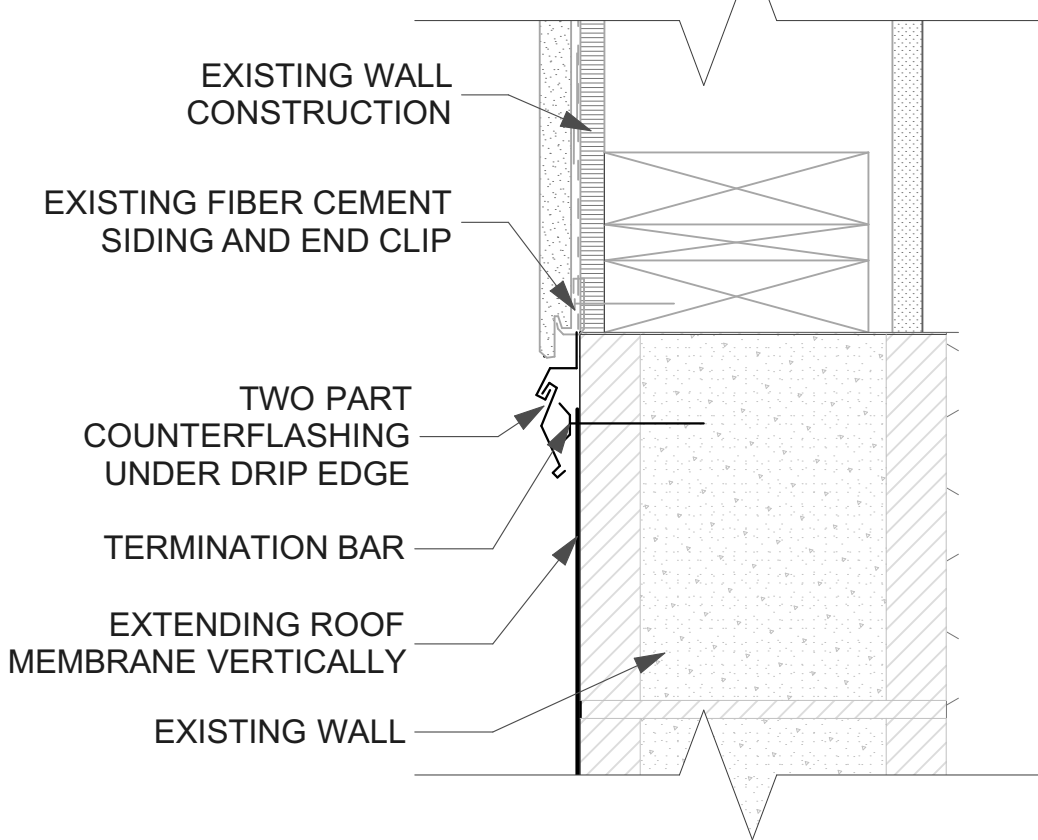
1 ROOF TO WALL TRANSITION  
SCALE: 1 1/2"= 1'-0"



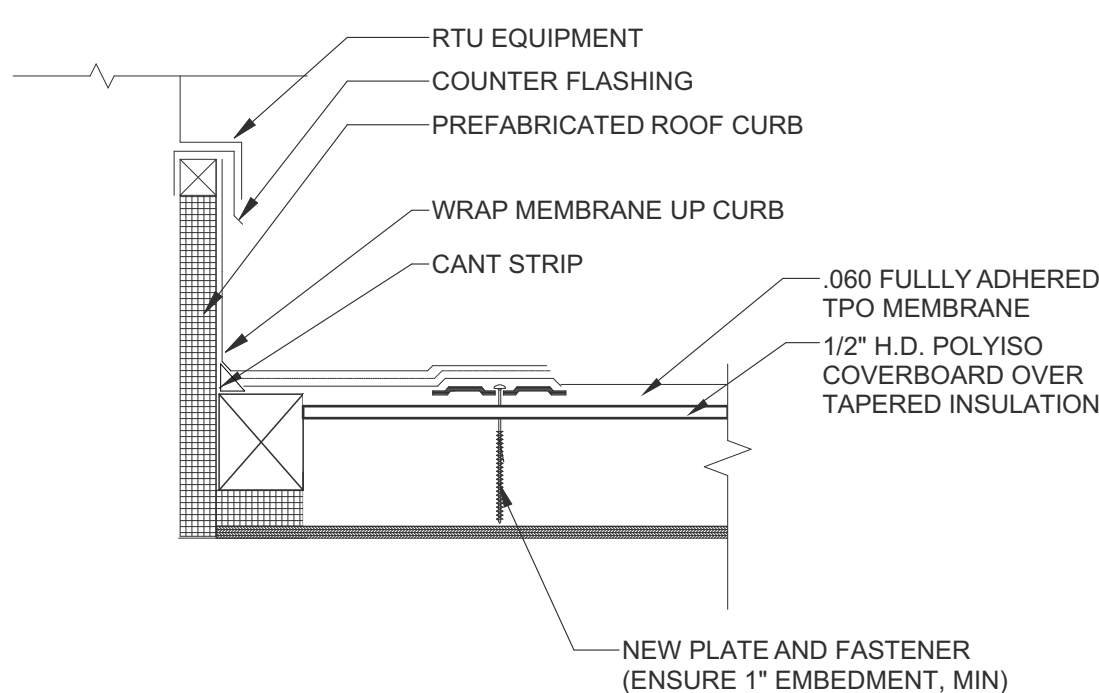
5 ROOF DRAIN DETAIL  
SCALE: 1 1/2"= 1'-0"



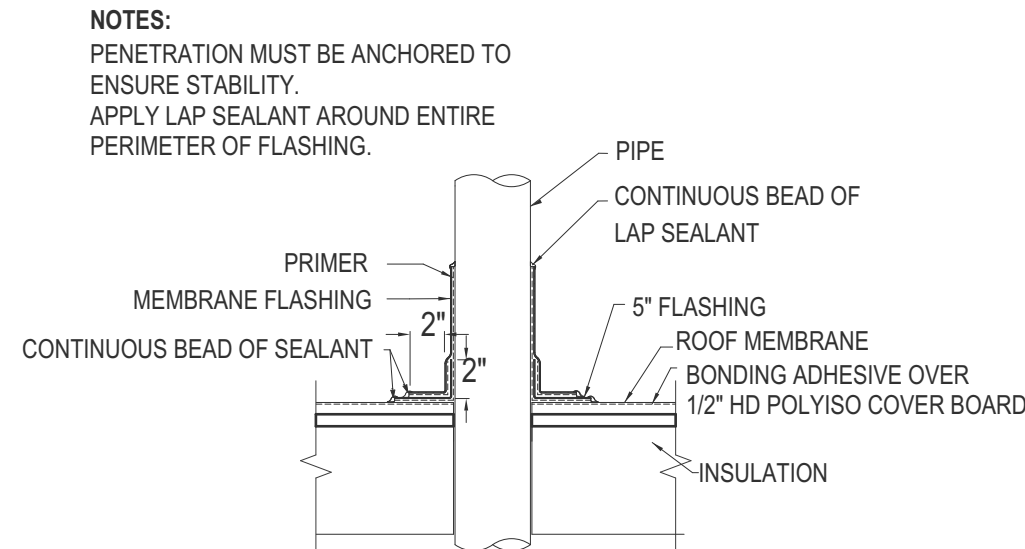
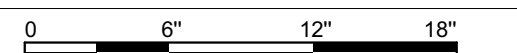
8 COPING AT SIDEWALL  
SCALE: 3" = 1'-0"



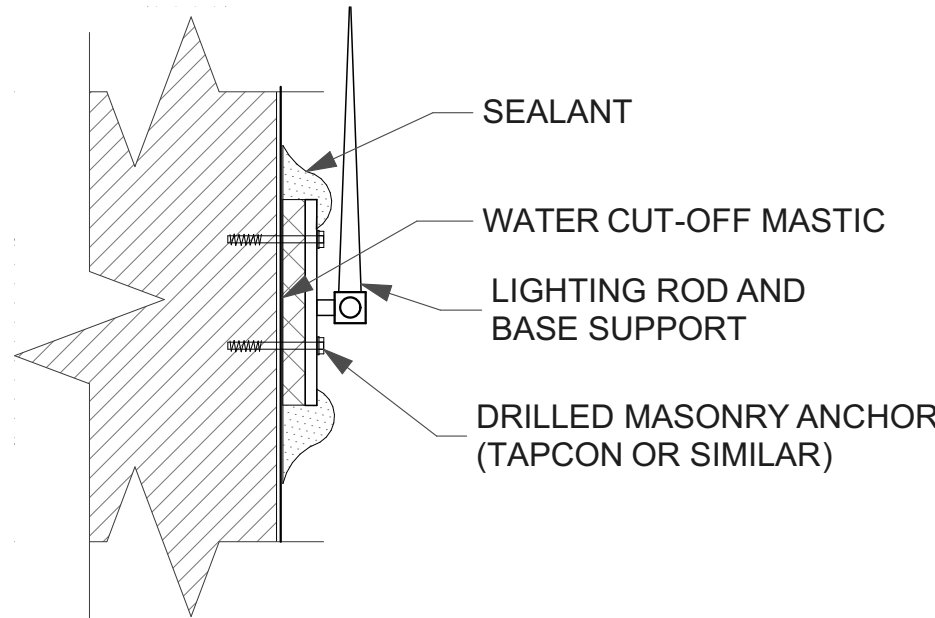
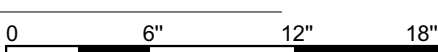
3 DETAIL  
SCALE: 3" = 1'-0"



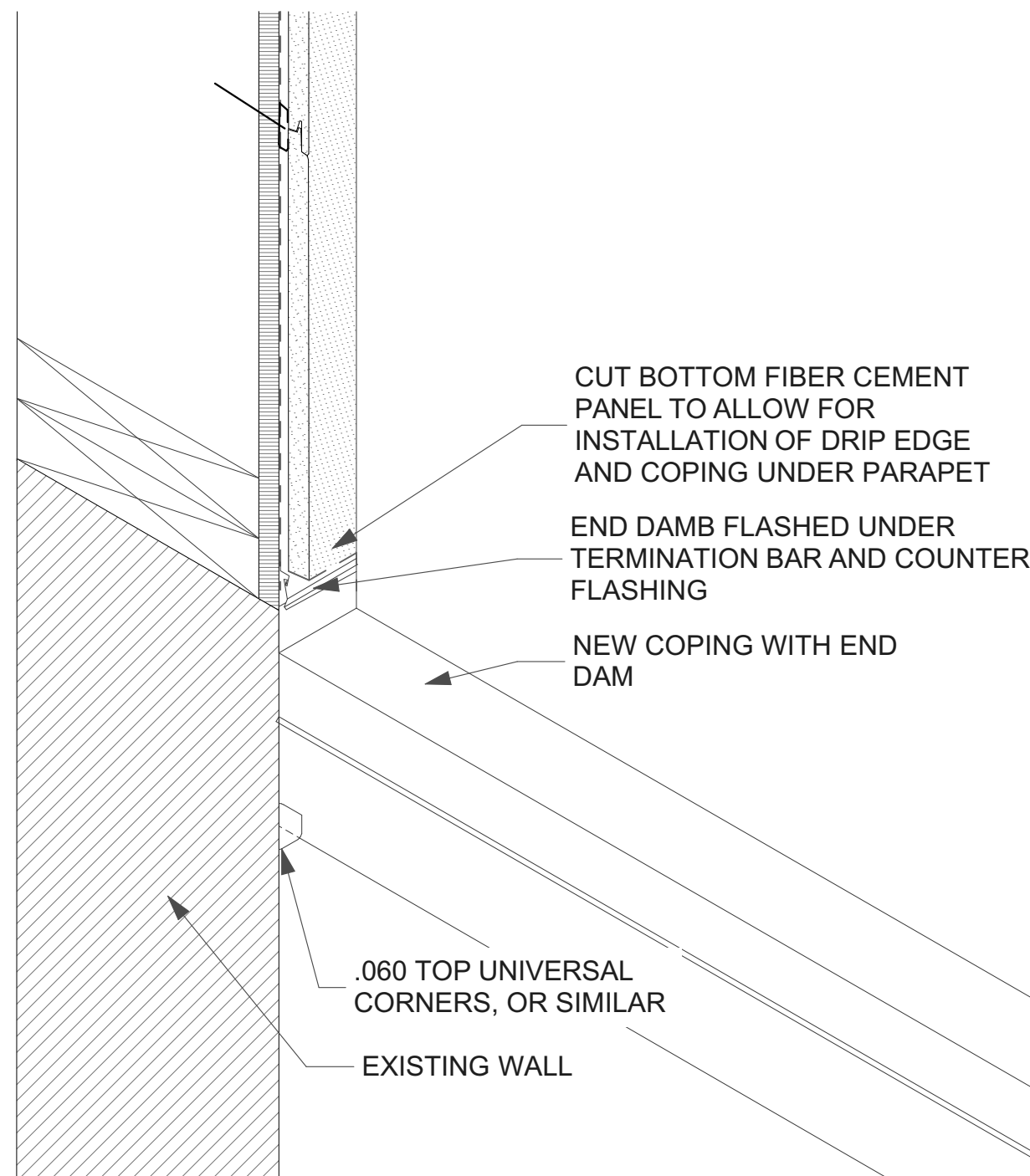
6 CURB FLASHING  
SCALE: 1 1/2"= 1'-0"



4 PIPE PENETRATION  
SCALE: 1 1/2"= 1'-0"



7 VERTICAL EQUIPMENT ATTACHMENT  
SCALE: 3" = 1'-0"

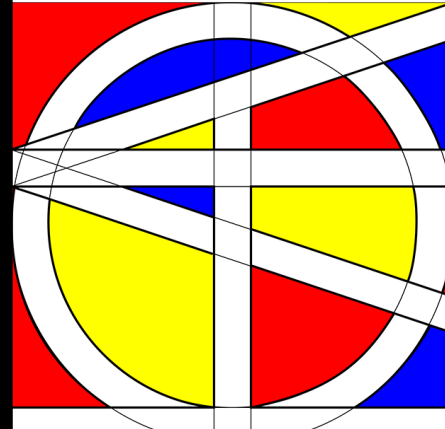


9 SECTION  
SCALE: 3" = 1'-0"



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horizon.  
original.  
architecture.



# IOWA CORRECTIONAL INSTITUTION FOR WOMEN ROOF REPLACEMENT

Iowa Department of Corrections  
Mitchellville, IA 50169

| DESCRIPTION | DATE | MARK |
|-------------|------|------|
|             |      |      |
|             |      |      |
|             |      |      |
|             |      |      |

PROJECT NO: **G24-036**  
DATE: **2/11/2025**  
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SHEET TITLE  
**ROOF DETAILS**

**A-501**