JOHNSTONE CENTER RE-ROOF

JOHNSTONE HALL 100 W.
HARRISON ST, BOZEMAN, MT

ISSUE DATE: 10/30/2026



PPA No. 26-1535

A&E + SMA PRJECT NO. 26130.00

MONTANA STATE UNIVERSITY

MSU-CPDC
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100% BIDDING DOCUMENTS

JOHNSTONE CENTER
RE-ROOF

a&e SMA

DRAWN BY:	JB	
REVIEWED BY:	CF	
REV.	DESCRIPTION	DATE

STATE OF MONTANA
BILLINGS
DUSTIN W. EATON
3280
LICENSED ARCHITECT

PPA #:	26-1535
A/E #	26-1535
A&E PROJ #:	23123.00

SHEET TITLE
COVER SHEET

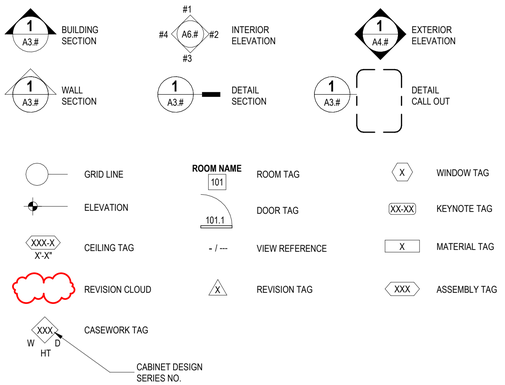
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DATE
10/30/2026

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
A/C	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
AWN	AWNING
B/	BOTTOM OF
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM OR BENCHMARK
BRG	BEARING
BTWN	BETWEEN
BUR	BUILT-UP ROOF
CAB	CABINET
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CG	CORNER GUARD
CPT	CARPET
CSMT	CASEMENT
CT	CERAMIC TILE
D	DEEP
DF	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIM(S)	DIMENSIONS
DISP	DISPENSER
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
E	EAST
EA	EACH
EC	EXISTING COLUMN
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXT	EXTERIOR
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
F.F.	FINISH FLOOR
FIN	FINISH
FIXT	FIXTURE
FLR	FLOOR
FND	FOUNDATION
FP	FIRE PROTECTION
FR	FRAME
FRMG	FRAMING
FT	FEET/FOOT OR FIRE TREATED
FTG	FOOTING
FTNG	FOOTING
FRP	FIBERGLASS REINFORCED PANEL
FRT	FIRE RETARDANT TREATED
GA	GAUGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HC	HANDICAP
HDR	HEADER
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HTD	HEATED
HVAC	HEATING/VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
INFO	INFORMATION
ISO	ISOCYANURATE
INSUL	INSULATE / INSULATED / INSULATION
INT	INTERIOR
INV	INVERT
JT	JOINT
J-BOX	JUNCTION BOX
KIT	KITCHEN
L	LONG / LENGTH
LAM	LAMINATE(D)
LAV	LAVATORY
LF	LINEAR FEET
LT	LIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANIC(AL)
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
N	NORTH
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER OR OVERFLOW DRAIN
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OVHD	OVERHEAD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
POLY	POLYESTER OR POLYOLEFIN
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED OR POINT
PVMT	PAVEMENT
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
R	RADIUS
RA	RETURN AIR
RB	RUBBER BASE
RD	ROOF DRAIN
RECY	RECYCLE(D)
REF	REFERENCE
REFRIG	REFRIGERATOR OR REFRIGERATION
REINF	REINFORCE
REQD	REQUIRED
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
S	SOUTH
SC	SOLID CORE
SCH	SCHEDULE
SCHED	SCHEDULED
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAY APPLIED FIRE RESISTIVE MATERIAL
SGL	SINGLE
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SPECS	SPECIFICATIONS
SOD	SLAB ON DECK
SOG	SLAB ON GRADE
SOH	SAME OPPOSITE HAND
SS	STAINLESS STEEL
ST	STONE TILE
STD	STANDARD
STND	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
TEMP	TEMPERED
THK	THICK
THRESH	THRESHOLD
T.O.	TOP OF
T.O.BM.	TOP OF BEAM
T.O.P.	TOP OF PLATE
T.O.S.	TOP OF STEEL
T/	TOP OF
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
THK	THICK
TRANS	TRANSOM
TV	TELEVISION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VP	VENEER PLASTER
VR	VAPOR RETARDER
VT	VINYL TILE
VWC	VINYL WALL COVERING
W	WIDE OR WEST
W/	WITH
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WG	WALL GUARD
WH	WATER HEATER
W/IN	WITHIN
W/O	WITHOUT
WP	WATERPROOF
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
#	NUMBER OR POUND
@	AT

EXPLANATION OF SYMBOLS



TYPICAL SHEET VIEW NUMBERING LAYOUTS

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

ARCH D (24"x36")

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

ARCH E1 (30"x42")

DISCLAIMER:

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ASBESTOS INSPECTION CORE ASSEMBLIES

THE INFORMATION BELOW IS PROPERTY OF AND PROVIDED BY TETRA TECH. REFER TO OWNER PROVIDED ASBESTOS REPORT AND ROOF CORE LAYERS.

CORE SAMPLE: CR-M1.1
BUILDING AREA: **COLTER**
DEPTH: 9 INCHES
MATERIALS:
- ASPHALT ROOF FIELD/BLACK ROOFING SHINGLE WITH GRAY GRAVEL
- BLACK TAR AND BLACK FELT LAYERS
- TAN INSULATION
- YELLOW FOAM INSULATION

CORE SAMPLE: HR-M1.1
BUILDING AREA: **HARRISON EAST, WEST AND LOWER**
DEPTH: 10 INCHES
MATERIALS:
- RUBBER ROOF MEMBRANE/BLACK FIBROUS PANELING (HR-M1.1)
- BLACK VINYL COVERING (HR-M1.1)
- WHITE SHEETROCK WITH WOVEN COVERING (HR-M1.1)
- BLACK SEALANT (HR-M1.1)
- OFF-WHITE FOAM INSULATION WITH FIBROUS COVERING (HR-M1.1)

CORE SAMPLE: HCR-M1.1
BUILDING AREA: **HARRISON UPPER**
DEPTH: 14 INCHES
MATERIALS:
- RUBBER ROOF MEMBRANE/BLACK RUBBER COVERING (HCR-M1.1)
- PINK SHEETROCK (HCR-M1.1)
- BLACK FIBROUS COVERING (HCR-M1.1)
- YELLOW FOAM INSULATION (HCR-M1.1)
- BLACK TAR (HCR-M1.1)
- WHITE PLASTER

CORE SAMPLE: JR-M1.1
BUILDING AREA: **JOHNSTONE**
DEPTH: 4 INCHES
MATERIALS:
- RUBBER ROOF MEMBRANE/BLACK RUBBER COVERING (JR-M1.1)
- YELLOW FOAM INSULATION (JR-M1.1)
- TAN FIBROUS BACKING (JR-M1.1)

CORE SAMPLE: MR-M1.1
BUILDING AREA: **MULLAN**
DEPTH: 9 INCHES
MATERIALS:
- ASPHALT ROOF FIELD/VARIOUS BLACK TAR AND BLACK FELT LAYERS (MR-M1.1)
- BROWN INSULATION (MR-M1.1)
- YELLOW FOAM INSULATION (MR-M1.1)
- WHITE DRYWALL (MR-M1.1)

CORE SAMPLE: PR-M1.1
BUILDING AREA: **PRYOR**
DEPTH: 12 INCHES
MATERIALS:
- ASPHALT ROOF FIELD/BLACK RUBBER COVERING (PR-M1.1)
- YELLOW FOAM INSULATION (PR-M1.1)
- BLACK TAR AND BLACK FELT (PR-M1.1)
- YELLOW FOAM INSULATION (PR-M1.1)
- BLACK TAR AND FELT (PR-M1.1)
- GRAY SHEETROCK (PR-M1.1)

CORE SAMPLE: SB-M1.1
BUILDING AREA: **SKYBRIDGE**
DEPTH: 2 INCHES
MATERIALS:
- RUBBER ROOF MEMBRANE/WHITE VINYL COVERING (SB-M1.1)
- YELLOW FOAM INSULATION WITH WOVEN COVERING (SB-M1.1)
- WHITE SHEETROCK WITH BROWN PAPER (SB-M1.1)

ARCHITECTURAL DRAWINGS

SHEET NO.	SHEET NAME
G0.0	COVER SHEET
G0.1	GENERAL INFORMATION

SHEET NO.	SHEET NAME
D2.1	ROOF DEMOLITION PLAN

SHEET NO.	SHEET NAME
A2.3	ROOF PLAN
A2.4	ROOF PLAN - DIMENSION
A2.5	ROOF PLAN DETAILS
A2.6	ROOF PLAN DETAILS
A2.7	ROOF PHOTOS

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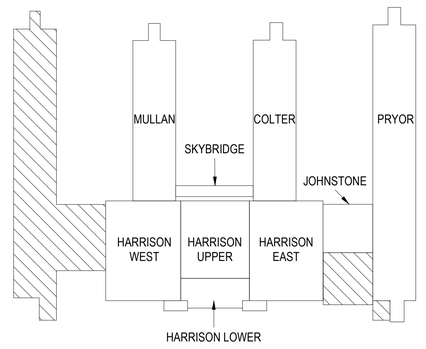
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CONTRACTOR

TO BE DETERMINED



ROOF PLAN AREA LEGEND

1/64" = 1'-0"

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THE GREAT SEAL OF THE STATE OF MONTANA

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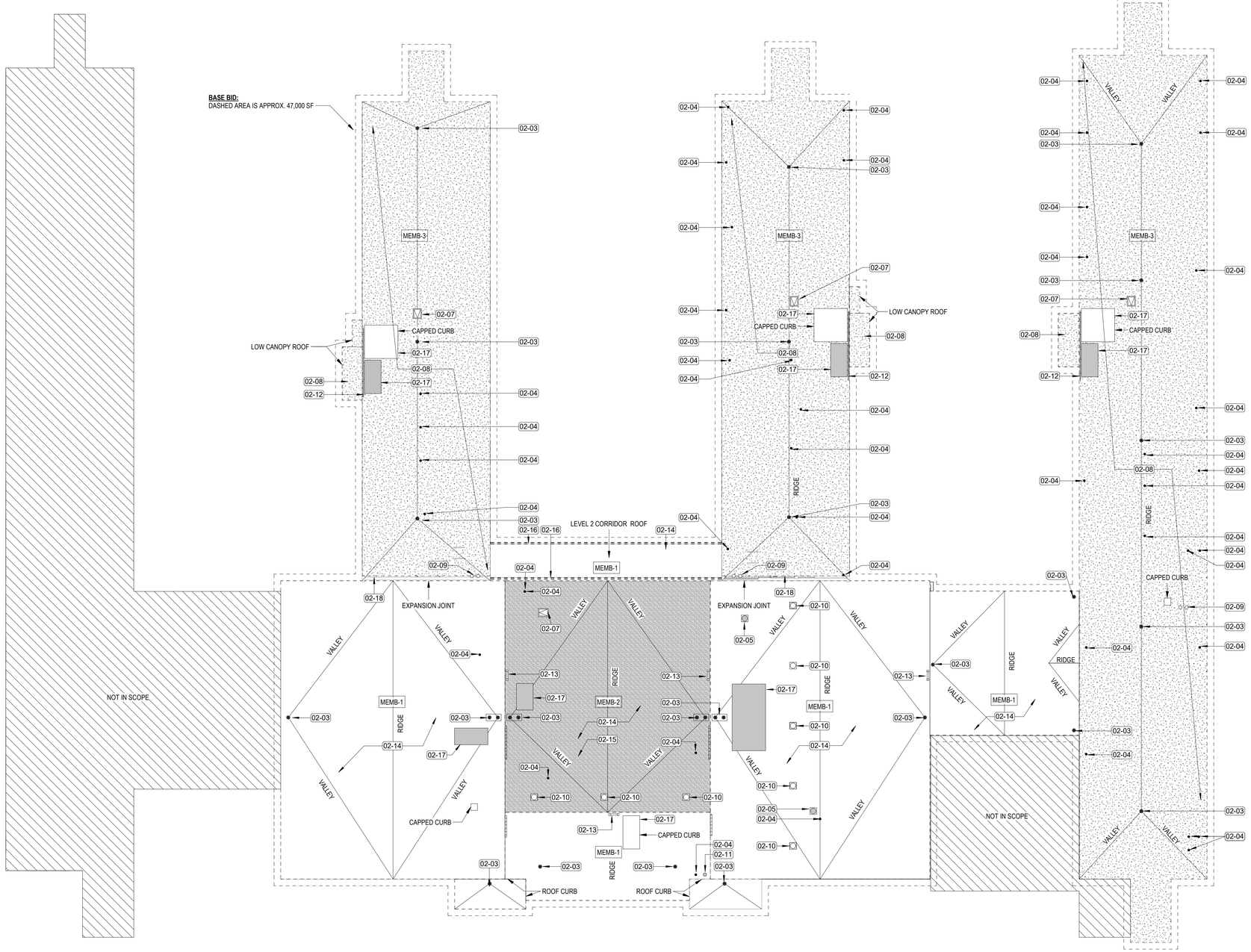
STATE OF MONTANA BILLINGS DUSTIN W. EATON 37380 MONTANA LICENSED ARCHITECT

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1 ROOF DEMOLITION PLAN

1/16" = 1'-0"

NORTH

16' 8' 0' 16' 32'

SCALE : 1/16" = 1'-0"

KEYNOTES

02-03	REMOVE AND LEGALLY DISPOSE OF EXISTING ROOF DRAIN, FLASHING AND FASTENERS, IN THEIR ENTIRETY. EXISTING PIPING TO REMAIN IN PLACE AND BE CONNECTED TO NEW ROOF DRAIN.
02-04	PROTECT EXISTING PLUMBING VENT THROUGH ROOF AT APPROX. LOCATION TO REMAIN
02-05	PROTECT EXISTING EXHAUST FAN AT APPROX. LOCATION TO REMAIN
02-07	PROTECT EXISTING ROOF HATCH TO REMAIN
02-08	REMOVE EXISTING ASPHALT ROOFING. INSPECT EXISTING INSULATION AND REMOVE ANY DAMAGED INSULATION.
02-09	PROTECT EXISTING FIRE STANDPIPE AT APPROX. LOCATION TO REMAIN
02-10	PROTECT EXISTING SOLAR TUBE AT APPROX. LOCATION TO REMAIN
02-11	PROTECT EXISTING HEAT PIPE VENT/FLUE ASSEMBLY IN PLACE DURING ROOF DEMOLITION. REMOVE AND DISCARD EXISTING MEMBRANE FLASHING, BASE ROOF JACK, CLAMPS, AND STORM COLLAR WITHOUT DAMAGING VENT STRUCTURE OR SUBSTRATE PENETRATION.
02-12	REMOVE AND SALVAGE EXISTING METAL GUARDRAILS/SAFETY RAILINGS. STORE SAFELY ON-SITE AND PROTECT FROM DAMAGE DURING RE-ROOFING WORK FOR REINSTALLATION.
02-13	REMOVE AND SALVAGE EXISTING METAL LADDER. STORE SAFELY ON-SITE AND PROTECT FROM DAMAGE DURING RE-ROOFING WORK FOR REINSTALLATION.
02-14	REMOVE AND DISPOSE OF EXISTING MEMBRANE ROOF ASSEMBLY AND SUBSTRATE IN THEIR ENTIRETY, INCLUSIVE OF FLASHING, FASTENERS, GUTTERS, AND DOWNSOUTS. PREPARE SUBSTRATE FOR NEW ROOF ASSEMBLY. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCOVERED DAMAGE TO STRUCTURAL MEMBERS.
02-15	COORDINATE DISPOSAL OF BALLAST WITH OWNERSHIP
02-16	REMOVE AND LEGALLY DISPOSE OF EXISTING ROOF GUTTER, LEADER, FLASHING AND FASTENERS, IN THEIR ENTIRETY.
02-17	REMOVE EXISTING ROOFING MEMBRANE, FLASHING, AND FASTENERS IN THEIR ENTIRETY FROM RAISED MEMBRANE ROOF CURB / CAPPED CURB. PREPARE SURFACES TO RECEIVE NEW ROOF MEMBRANE ASSEMBLY AND RELATED FLASHING COMPONENTS.
02-18	REMOVE EXISTING ROOF EXPANSION JOINT ASSEMBLY AT PARAPET AND SALVAGE/PROTECT ADJACENT CONSTRUCTION. PROVIDE NEW ROOF EXPANSION JOINT SYSTEM MATCHING EXISTING CONDITIONS AND ROOF MANUFACTURER WARRANTY REQUIREMENTS AS NEEDED.

DEMOLITION LEGEND

HATCH INDICATES AREA NOT IN SCOPE OF WORK

INDICATES BUILT ITEM TO BE REMOVED

INDICATES LIGHT FIXTURE TO BE REMOVED

DEMOLITION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF/ HERSELF WITH THE SCOPE OF WORK.
2. THE DEMOLITION NOTES PROVIDE A GENERAL DESCRIPTION OF THE ITEMS AND AREAS REQUIRING REMOVAL. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL QUANTITIES AND LOCATIONS OF ALL INDICATED ITEMS AS NECESSARY TO COMPLETE THE SCOPE OF WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. COORDINATE WITH OWNER FOR ANY EQUIPMENT TO BE SALVAGED. UNLESS SPECIFICALLY SCHEDULED FOR REUSE, DEMOLISHED MATERIALS SHALL BECOME THE POSSESSION OF THE CONTRACTOR AND SHALL BE IMMEDIATELY REMOVED FROM THE SITE.
4. REMOVE MATERIALS FROM SITE AND DISPOSE OF IN A LEGAL MANNER AT NO ADDITIONAL EXPENSE TO OWNER
5. DEBRIS FROM THE DEMOLITION SHALL NOT BE ALLOWED TO ACCUMULATE WITHIN THE BUILDING OR ON THE SITE.
6. REMOVE FROM SITE ANY CONTAMINATED, VERMIN INFESTED, OR DANGEROUS MATERIALS ENCOUNTERED AND DISPOSE OF BY SAFE MEANS SO AS NOT TO ENDANGER HEALTH OF WORKERS AND PUBLIC.
7. BURNING OF MATERIALS ON SITE IS NOT PERMITTED.
8. CLEAN-UP: MUST MEET GOVERNING DUST CONTROL CODES.
9. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS.
10. CARRY OUT DEMOLITION WORK TO CAUSE AS LITTLE INCONVENIENCE TO ANY ADJACENT OCCUPIED BUILDING OR SITE AS POSSIBLE AND WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES. MAINTAIN PROTECTED EGRESS AND ACCESS AT ALL TIMES.
11. ALL PUBLIC UTILITIES TO REMAIN IN OPERATION THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ANY TEMPORARY SERVICES REQUIRED TO MAINTAIN BUSINESS OPERATIONS.
12. FIRE SAFETY MUST BE MAINTAINED FOR ALL PERSONNEL WORKING ON THE FLOOR. ALL FIRE STAIRS, ALARMS, SPEAKERS, ETC. MUST REMAIN ACCESSIBLE AND OPERABLE AT ALL TIMES. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT THIS EQUIPMENT. IMMEDIATELY NOTIFY BUILDING SECURITY AND BUILDING MANAGER OF DAMAGED OR DISABLED SYSTEMS AND REPAIR OR REPLACE DAMAGED SYSTEMS IMMEDIATELY. RELOCATION OF SMOKE DETECTORS, PUBLIC ADDRESS SPEAKERS AND FIRE ALARM EQUIPMENT, NECESSITATED BY NEW CONSTRUCTION, SHALL BE ACCOMPLISHED AS A FIRST PRIORITY, AND PER THE PLANS.
13. IF ANY QUESTIONS ARISE AS TO THE REMOVAL OF ANY MATERIAL, CLARIFY THE POINT IN QUESTION WITH THE OWNER BEFORE PROCEEDING. IMMEDIATELY STOP WORK IF HAZARDOUS MATERIALS ARE FOUND AND CONTACT THE OWNER'S REPRESENTATIVE.
14. REMOVAL OF ANY EQUIPMENT, CABLING SWITCHES, AND CONDUIT PERTAINING TO DATA/COMMUNICATIONS AND TELEPHONE SHALL BE VERIFIED WITH TELEPHONE COMPANIES, SERVICE OWNER OR TENANT DATA/COMMUNICATIONS REPRESENTATIVE AS REQUIRED TO PREVENT NEW CONSTRUCTION DELAYS.
15. PROVIDE FOR FIRE PROOFING REPAIR AS REQUIRED AT STRUCTURAL STEEL. TO THE ORIGINAL RATING WHERE CONSTRUCTION TRADES REMOVE EXISTING FIRE PROOFING. REPAIR ANY DAMAGE OR PENETRATIONS IN RATED ASSEMBLIES TO CONFORM TO THEIR ORIGINAL LISTING REQUIREMENTS AND TO MAINTAIN FIRE PROTECTION AND SEPARATION AS ORIGINALLY DESIGNED.
16. AT COMPLETION OF DEMOLITION WORK, THE CONSTRUCTION AREA(S) SHALL BE LEFT IN "BROOM CLEAN" CONDITION. ALL DEBRIS AND MISCELLANEOUS MATERIAL SHALL BE REMOVED.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND/OR REPAIRING ANY DAMAGE CAUSED BY HIM OR HIS SUBCONTRACTORS. REFINISH TO MATCH EXISTING ADJACENT FINISH, OR AS NOTED HEREIN.
18. FOR AREAS NOT IN DEMOLITION SCOPE OF WORK, PROTECT AS REQUIRED, ALL SURFACES, EQUIPMENT, FIXTURES AND HARDWARE DURING DEMOLITION AND/OR CONSTRUCTION.
19. PRIOR TO DEMOLITION, INVESTIGATE WALLS FOR CONCEALED PIPING AND INFORM OWNER/ARCHITECT OF ANY CONDITION NOT DOCUMENTED IN CONTRACT DRAWINGS. DEMO DESIGNATED WALL BASES, WALL FRAMING, BATT INSULATION AND GYPSUM BOARD. DEMO CONDUITS AND RECEPTACLES, REFERENCE ELECTRICAL DEMO PLAN FOR ADDITIONAL INFORMATION.

DEMO ROOF PLAN LEGEND

MEMB-1 — EXISTING EPDM ROOFING

MEMB-2 — EXISTING EPDM ROOFING, BALLAST AGGREGATE FINISH

MEMB-3 — EXISTING MODIFIED BITUMEN ROLL ROOFING

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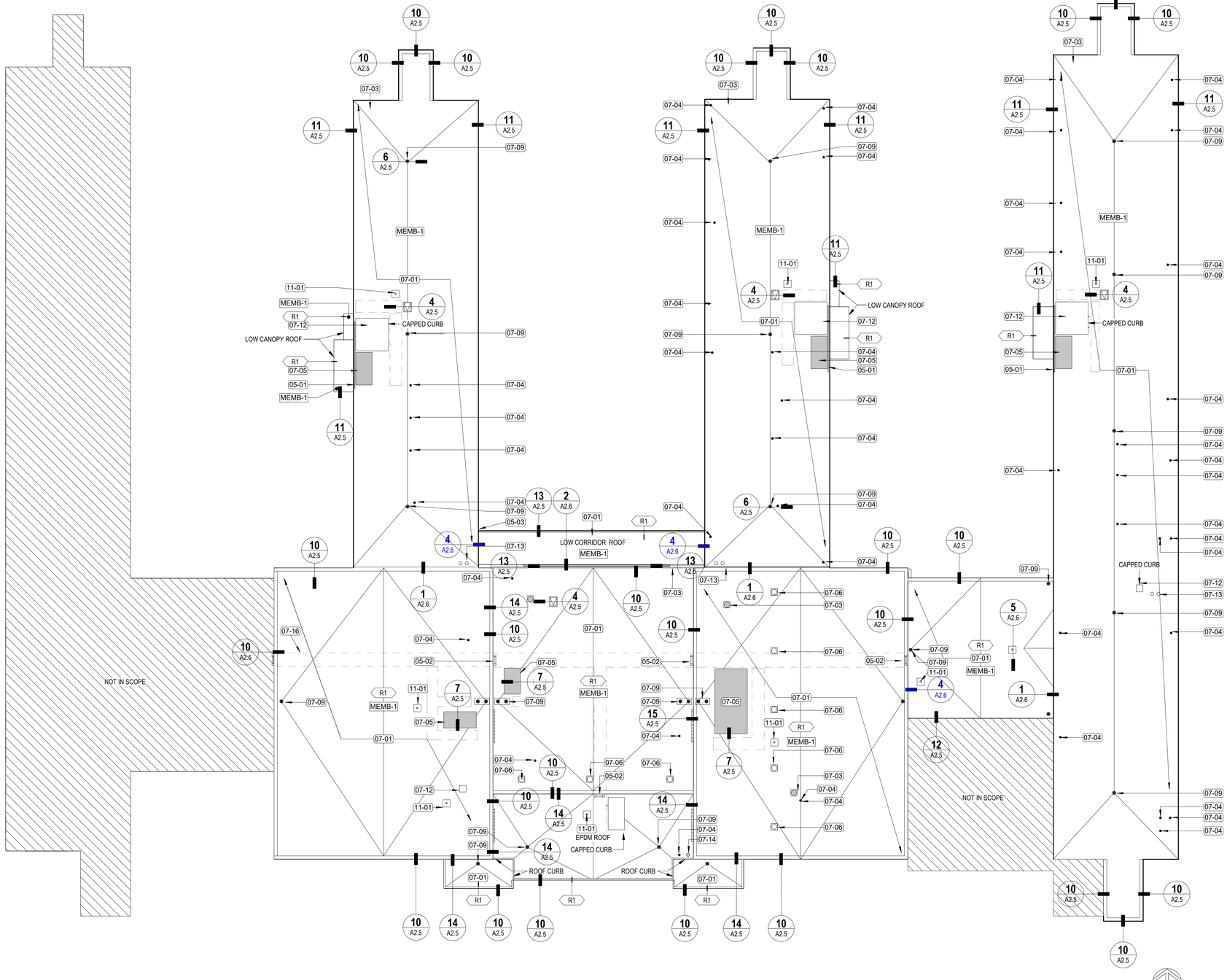
STATE OF MONTANA — BILLINGS — DUSTIN W. EATON — 3980 — LICENSED ARCHITECT — MONTANA

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SHEET TITLE
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1 ROOF PLAN
1/16" = 1'-0"

SCALE : 1/16" = 1'-0"

KEYNOTES

05-01 REINSTALL SALVAGED METAL GUARDRAILS/SAFETY RAILINGS AT DESIGNATED ROOFTOP LOCATIONS. CONTRACTOR TO CLEAN, INSPECT, AND PROVIDE NEW STAINLESS STEEL FASTENERS AND COMPATIBLE BASE MOUNTING HARDWARE. COORDINATE MOUNTING PENETRATIONS WITH ROOFING CONTRACTOR TO MAINTAIN MANUFACTURED MEMBRANE FLASHING AND WARRANTY REQUIREMENTS. PREP AND PAINT. VERIFY COLOR WITH OWNER.

05-02 REINSTALL SALVAGED ROOFTOP ACCESS LADDER AT LOCATION SHOWN ON DRAWINGS. CONTRACTOR TO CLEAN, INSPECT, AND PROVIDE NEW STAINLESS STEEL FASTENERS AND COMPATIBLE BRACKET MOUNTING HARDWARE. COORDINATE ALL WALL/ROOF PENETRATIONS WITH ROOFING CONTRACTOR TO PROVIDE PROPER FLASHING, SEALANT, AND WEATHERPROOF TERMINATIONS TO MAINTAIN ROOF WARRANTY. PREP AND PAINT. VERIFY COLOR WITH OWNER.

05-03 PAINT NEW LEADER TO MATCH EXISTING PAINT SCHEME OF ADJACENT WALL

07-01 PROVIDE & INSTALL NEW R-30 CONTINUOUS INSULATION, 1/4" GYPSUM COVER BOARD, AND MECHANICALLY FASTENED TPO MEMBRANE OVER EXISTING ROOF MEMBRANE PER MANUFACTURER REQUIREMENTS. REFER TO PROJECT SPECIFICATIONS FOR ADD'L INFO.

07-03 PROVIDE & INSTALL NEW 24 GA PREFINISHED GALVANIZED STEEL ROOF EDGE COPING, W/ FASTENERS @ 12" OC TYP.

07-04 EXTEND EXISTING PVC VTR 12" MIN. ABOVE FINISHED ROOF SURFACING TO ACCOMMODATE NEW INSULATION DEPTH. PROVIDE NEW VTR BOOT AND BASE FLASHING PER DETAILED DRAWINGS AND MANUFACTURER REQUIREMENTS. REFER TO SPECS FOR ADD'L INFO.

07-05 PROVIDE & INSTALL NEW BLOCKING AS REQUIRED TO ACCOMMODATE INCREASED INSULATION ASSEMBLY DEPTH AND 24 GA PREFINISHED GALVANIZED STEEL CURB FLASHING AT EXISTING MECHANICAL ROOF CURBS W/ FASTENERS @ 12" O.C. TYP.

07-06 PROVIDE & INSTALL NEW BLOCKING AS REQUIRED TO ACCOMMODATE INCREASED INSULATION ASSEMBLY DEPTH AND 24 GA PREFINISHED GALVANIZED STEEL CURB FLASHING AT EXISTING SOLAR TUBE CURBS W/ FASTENERS @ 12" O.C. TYP.

07-09 PROVIDE & INSTALL NEW ROOF DRAIN, FASTENERS AND FLASHING PER DETAIL AND PLUMBING SPECIFICATION.

07-12 PROVIDE & INSTALL NEW 24 GA PREFINISHED GALVANIZED STEEL CAP FLASHING AT EXISTING CAPPED AND NON-MECHANICAL ROOF CURBS, W/ FASTENERS @ 12"" OC TYP. COORDINATE WITH NEW CURB FRAMING EXTENSION AND EPDM MEMBRANE BASE FLASHING

07-13 FLASHING AT FIRE STANDPIPE: PROVIDE PREFABRICATED RETROFIT SPLIT EPDM PIPE BOOT WITH STAINLESS STEEL CLAMPING RING AND LAP SEALANT. EXTEND FLASHING MIN. 8" ABOVE NEW FINISHED MEMBRANE SURFACE

07-14 FLASHING AT HEAT/SMOKE VENT: PROVIDE EPDM MEMBRANE BASE FLASHING OVER RAISED CURB ASSEMBLY. EXTEND MEMBRANE MIN. 8" ABOVE FINISHED ROOF SURFACE AND ADHERE TO VERTICAL CURB FACE. SEAL TOP EDGE UNDER EXISTING COUNTERFLASHING WITH CONTINUOUS TERMINATION BAR AND LAP SEALANT.

07-16 PROVIDE AND INSTALL ROOFTOP WALKWAY SYSTEM FROM ROOF ACCESS TO ALL SERVICEABLE MECHANICAL EQUIPMENT. SPACE WALKWAY SECTIONS 1" MINIMUM TO 3" MAXIMUM APART TO ALLOW FOR DRAINAGE. DO NOT EXTEND WALKWAY SECTIONS OVER ROOF VALLEYS; MAINTAIN 1" MINIMUM TO 3" MAXIMUM SPACING FOR DRAINAGE.

11-01 ROOFTOP FALL PROTECTION ANCHOR: SECURE TO CONCRETE DECK MIN. 6'-0" FROM EDGES NEAR HATCHES/EQUIPMENT; DO NOT LOCATE IN VALLEYS, SWALES, OR WITHIN 3'-0" OF DRAINS.

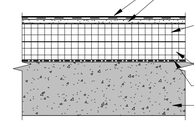
ROOF PLAN LEGEND

- VENT THROUGH ROOF
- ROOF DRAIN
- ROOF ACCESS HATCH
- SIDEWALL LOUVER
- MECHANICAL ROOF TOP UNIT
- FIRE STANDPIPE
- FALL PROTECTION ANCHOR
- LADDER
- SOLAR TUBE
- EXHAUST FAN
- HEAT PIPE VENT

ROOF PLAN NOTES

1. PROVIDE ROOF CRICKETS AT ALL UPSLOPE AREAS OF MECHANICAL EQUIPMENT, CURBS AND ROOF HATCHES.
2. CRICKETS TO SLOPE POSITIVELY 1/4" MINIMUM PER FOOT FROM HORIZONTAL PLANE.
3. MAINTAIN 1/8" PER FOOT MINIMUM FOR ALL CRICKET VALLEYS.
4. CRICKETS SHOWN ARE FOR REFERENCE ONLY; CONTRACTOR TO PROVIDE DETAILED LAYOUT PLAN FOR ARCHITECT'S REVIEW PRIOR TO INSTALLATION.
5. ROOF PENETRATIONS OF ANY KIND SHALL NOT BE LOCATED IN CRICKET VALLEYS.
6. IN ADDITION TO OPENING AND EQUIPMENT SHOWN ON THIS DRAWING, ANY OWNER PROVIDED MECHANICAL AND ELECTRICAL RECORD DRAWINGS, INDICATE ADDITIONAL ITEMS PENETRATING THE ROOF ASSEMBLY; PROVIDE APPROPRIATE FLASHING.
7. INDICATE ADDITIONAL ITEMS PENETRATING THE ROOF ASSEMBLY; PROVIDE APPROPRIATE FLASHING.
8. REFERENCE EXISTING CONDITIONS AND ARCH DRAWINGS FOR VENT LOCATIONS, EQUIPMENT LOCATIONS, AND ADDITIONAL INFORMATION, TYP.
9. IF NEW INSULATION INCREASES OVERALL PARAPET HEIGHT BY LESS THAN 3", PROVIDE ADDITIONAL/EXTENDED FLASHING AS REQUIRED TO MAINTAIN MINIMUM WATERPROOFING OVERLAPS AND SHINGLE-FASHION DRAINAGE. PREP, PAINT, AND FINISH TO MATCH EXISTING.

R-1 ASSEMBLY



- **MEMB-1** FULLY ADHERED 60 MIL TPO MEMBRANE
- **CB-1** FULLY ADHERED 1/2 DENSDECK COVERBOARD
- FULLY ADHERED TAPERED POLYISO INSULATION. AVERAGE R VALUE OF BOTH LAYERS TO EQUAL R-30. SLOPE TO DRAIN
- FULLY ADHERED POLYISO CI INSULATION
- FULLY ADHERED VAPOR RETARDER
- EXISTING PRECAST ROOF DECK

ROOF PLAN LEGEND

MEMB-1 FULLY ADHERED TPO

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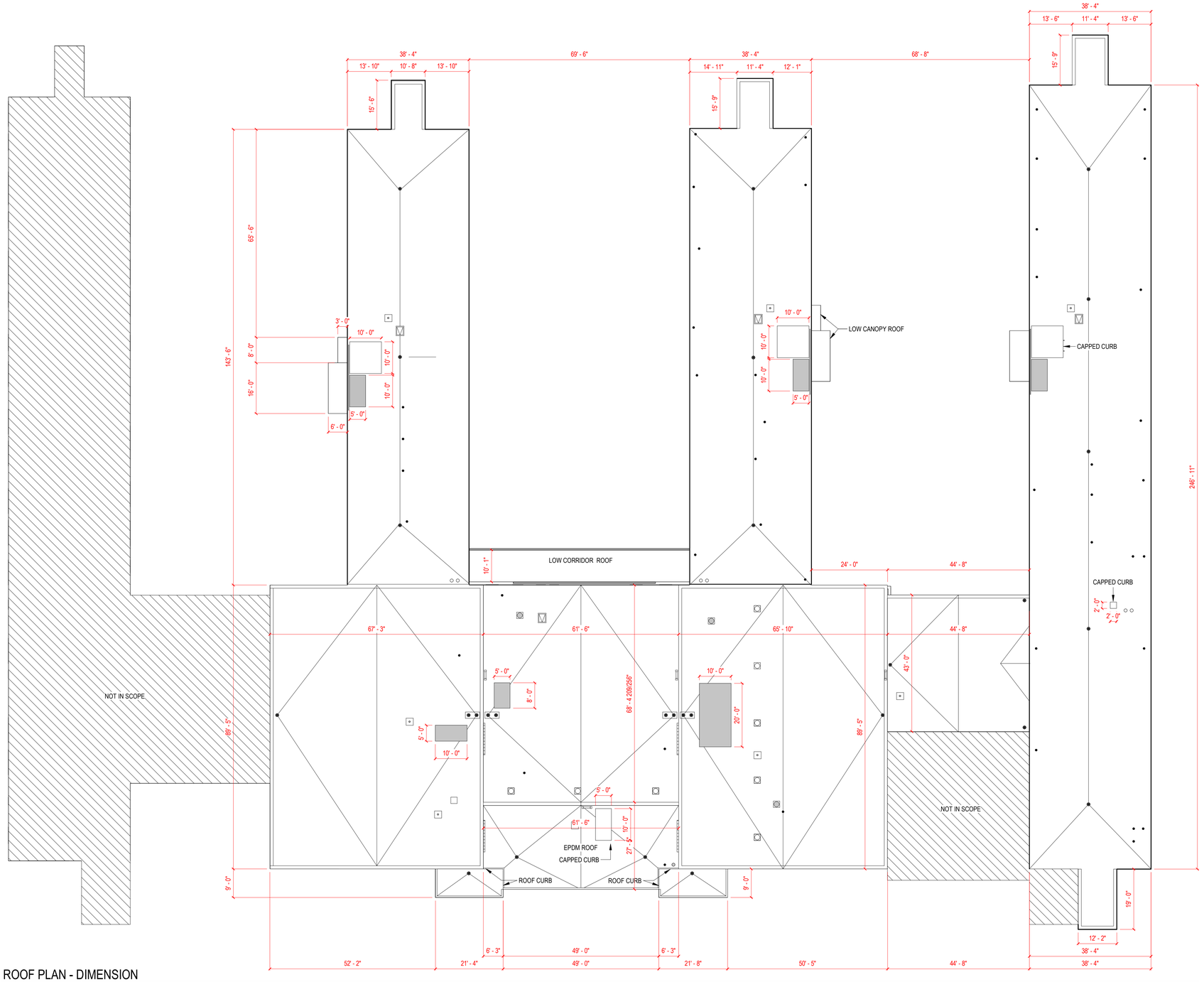
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SHEET TITLE
ROOF PLAN

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1 ROOF PLAN - DIMENSION

1/16" = 1'-0"

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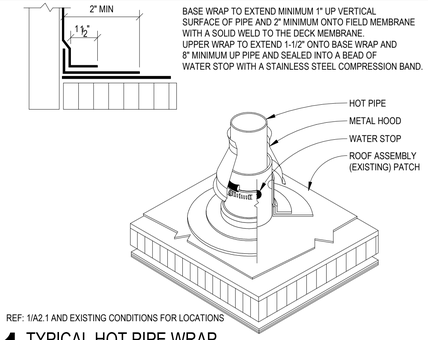
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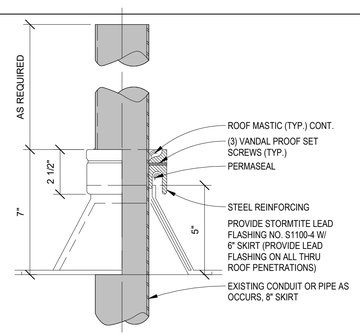
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ROOF PLAN - DIMENSION

SHEET
A2.4

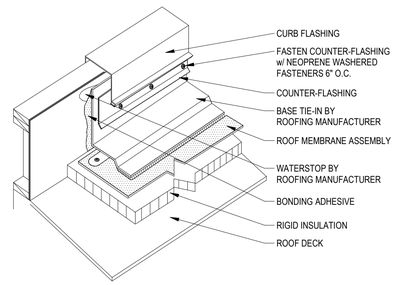
DATE
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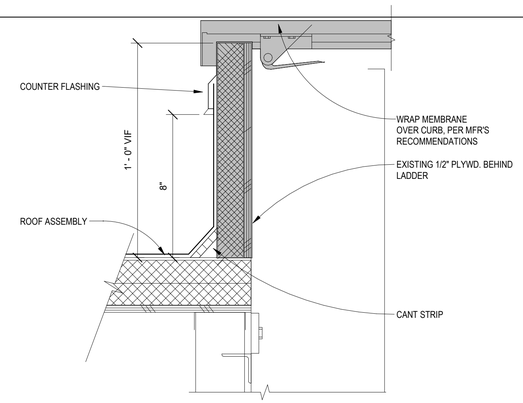
1 TYPICAL HOT PIPE WRAP
1" = 1'-0"



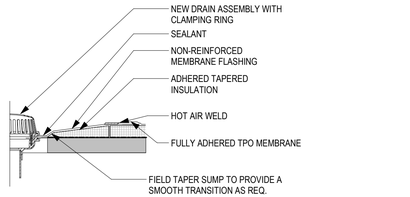
2 TYPICAL PIPE PENETRATION DETAIL
3" = 1'-0"



3 ROOF CURB FLASHING
1" = 1'-0"

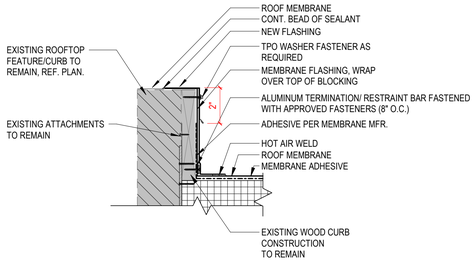


4 TYPICAL ROOF HATCH
3" = 1'-0"

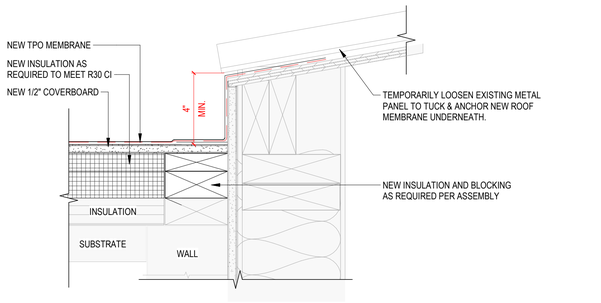


NOTE: USE TAPERED ROOF INSULATION (EDGE STRIPS) TO CREATE DRAIN SUMP. TOTAL INSULATION THICKNESS IS GREATER THAN 1 1/2 IN., TAPER 18 IN. FROM DRAIN CENTER.

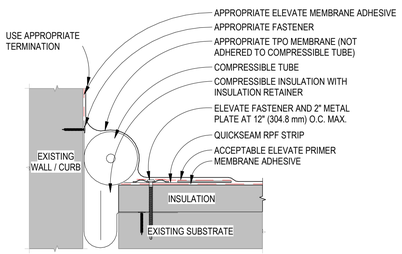
6 ROOF DRAIN
3" = 1'-0"



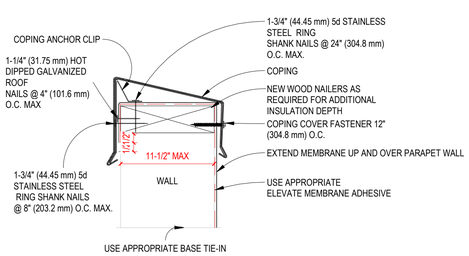
7 ROOF CURB
3" = 1'-0"



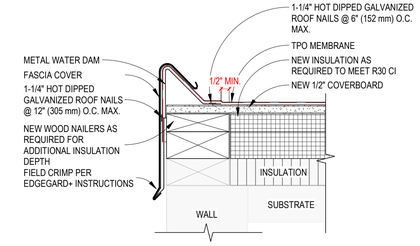
12 ROOF MEMBRANE TO EXISTING METAL ROOF DETAIL
3" = 1'-0"



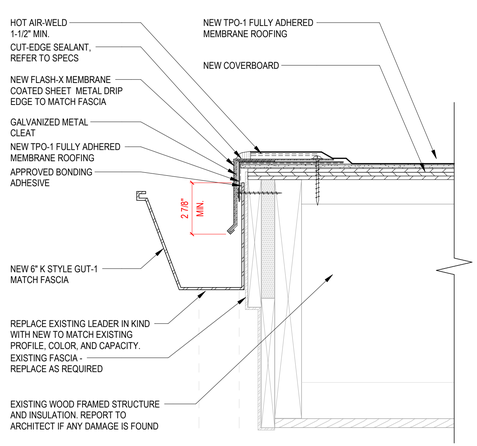
9 EXPANSION JOINT ROOF TO WALL DETAIL
3" = 1'-0"



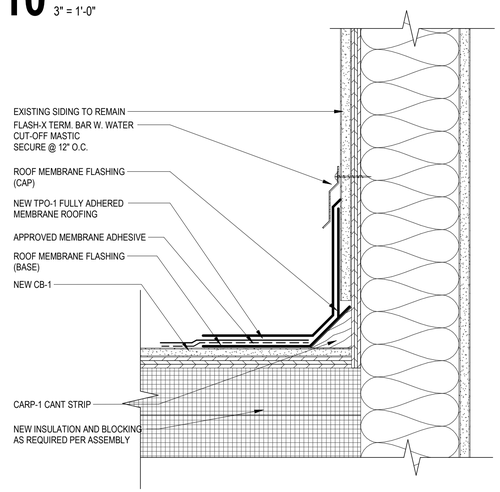
10 PARAPET COPING DETAIL
3" = 1'-0"



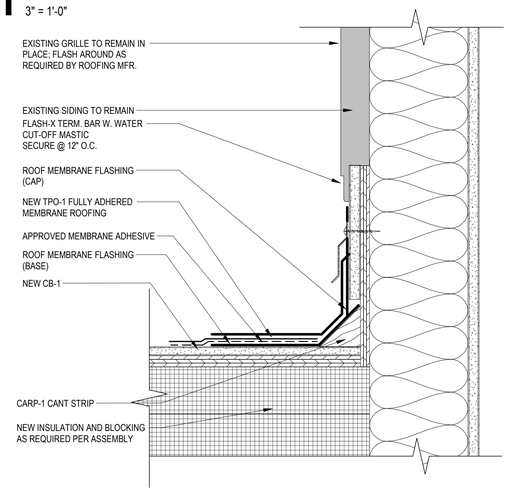
11 ROOF EDGE DETAIL
3" = 1'-0"



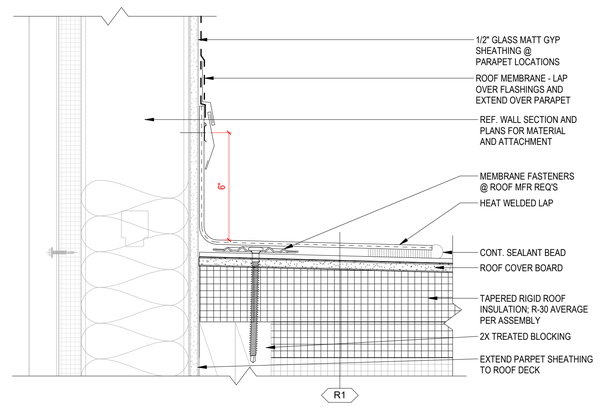
13 RAKE & GUTTER
3" = 1'-0"



14 TYP. SIDE WALL TERMINATION
3" = 1'-0"



15 TYP. SIDE WALL TERMINATION @ VENTS
3" = 1'-0"



16 TYPICAL ROOF MEMBRANE TO STUD PARAPET TRANSITION
3" = 1'-0"

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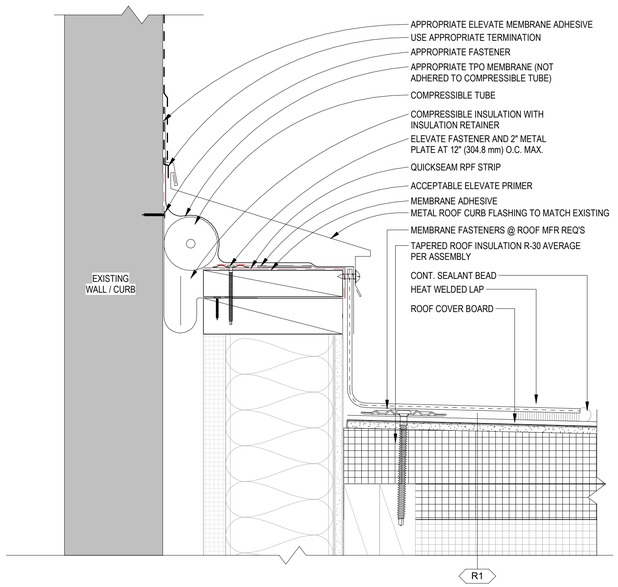
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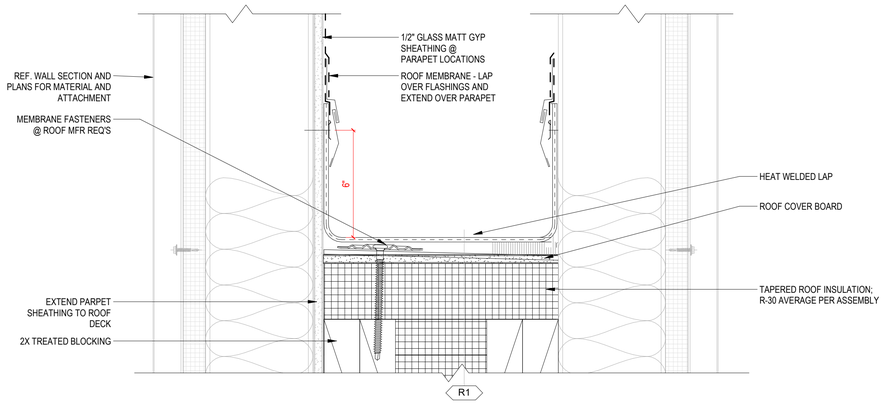
SHEET TITLE
ROOF PLAN DETAILS

SHEET
A2.5

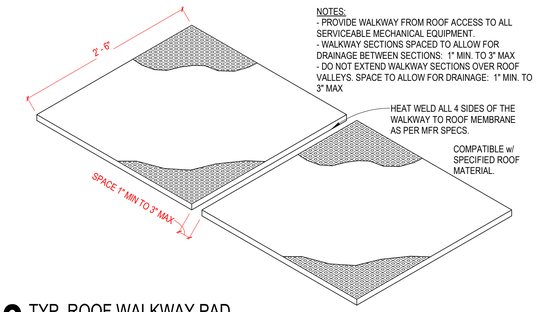
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1 EXPANSION JOINT DETAIL
3" = 1'-0"



2 TYPICAL ROOF MEMBRANE TO STUD PARAPET TRANSITION AT LOW CORRIDOR ROOF
3" = 1'-0"



3 TYP. ROOF WALKWAY PAD
1" = 1'-0"

4 TYP. PERIM FLASHING
3" = 1'-0"

5 FALL PROTECTION MOUNTING DETAIL
3" = 1'-0"

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SHEET TITLE
ROOF PLAN DETAILS

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A2.6

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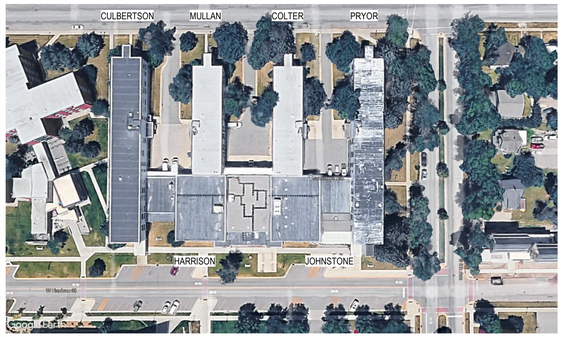


IMAGE 1: AERIAL

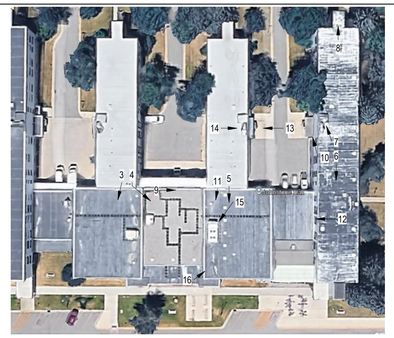


IMAGE 2: AERIAL SHOWING IMAGE LOCATIONS



IMAGE 3



IMAGE 4



IMAGE 5



IMAGE 6



IMAGE 7



IMAGE 8



IMAGE 9



IMAGE 10



IMAGE 11



IMAGE 12



IMAGE 13



IMAGE 14



IMAGE 15



IMAGE 16

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SHEET TITLE
ROOF PHOTOS

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