

MICHIGAN STATE UNIVERSITY

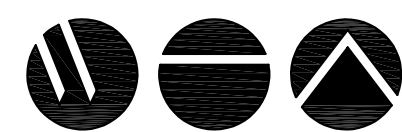
BRESLIN CENTER ARENA ROOF REPAIR CP25043

CONTACTS:

PROJECT LOCATION

MICHIGAN STATE UNIVERSITY
BRESLIN STUDENT EVENTS CENTER
534 BIRCH ROAD
EAST LANSING, MICHIGAN 48824

OFFICE OF THE ARCHITECT

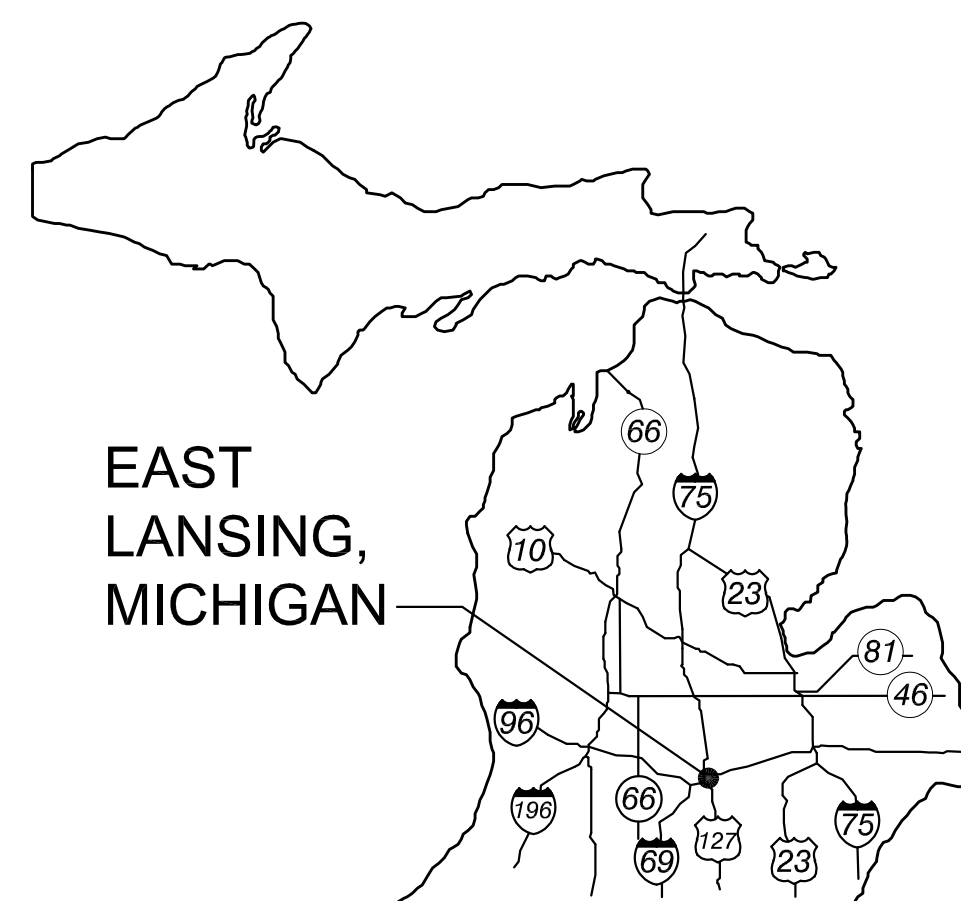


WTA ARCHITECTS
100 S. JEFFERSON AVENUE, SUITE 601
SAGINAW, MICHIGAN 48607
PHONE: (989) 752-8107
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MECHANICAL / ELECTRICAL ENGINEERS



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714 E. MIDLAND STREET
BAY CITY, MICHIGAN 48706
PHONE: (989) 894-4300
EMAIL: MAI@MACMILLANASSOCIATES.COM

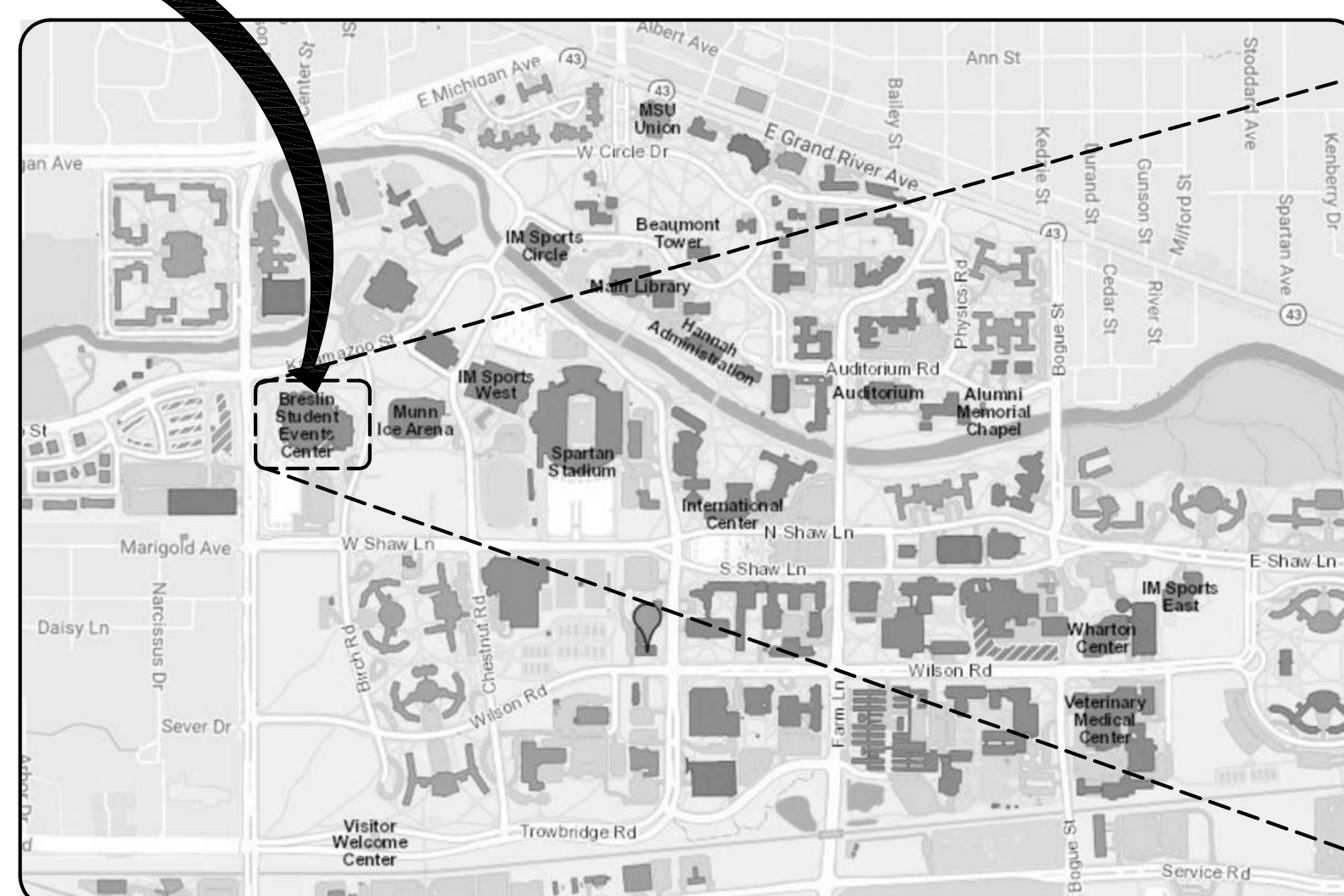


EAST
LANSING,
MICHIGAN



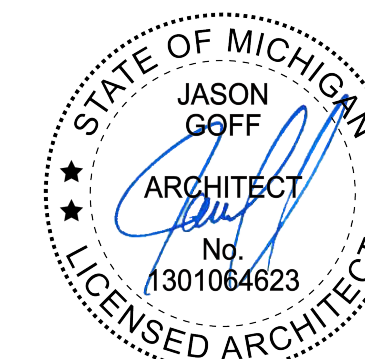
LOCATION MAP
NO SCALE

PROJECT SITE



CAMPUS MAP
NORTH NO SCALE

VICINITY MAP
NORTH NO SCALE



WTAARCH.COM
WTA ARCHITECTS
100 S. JEFFERSON AVE, SUITE 601
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ARCHITECT'S PROJECT NO. 2017015

INDEX OF DRAWINGS:

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ARCHITECTURAL	
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Infrastructure
Planning and Facilities

MICHIGAN STATE
UNIVERSITY

BRESLIN CENTER
MAIN ARENA ROOF REPAIR

ROOM IDENTIFIER:	REFERENCE BUBBLES:
ROOM NAME A200	1 — LOCATION NUMBER A1.01 — SHEET NUMBER
ROOM NUMBER FLOOR NUMBER UNIT IDENTIFIER	7 — DETAIL MARK A7.07
KEYED NOTES:	5 — BUILDING SECTION A5.05
2 — ROOF PLAN KEYNOTE HEXAGON w/ NUMBER	5 — PHOTO DETAIL A5.05
DEMOLITION IDENTIFIER:	2 — ENLARGED DETAIL OR PLAN A2.02
--- ITEM TO BE REMOVED	ADDITIONAL IDENTIFIERS:
ALTERATION CLOUD:	W2 — WINDOW TYPE OVAL w/ "W" AND NUMBER
INDICATES A CHANGE TO THE CONSTRUCTION DOCUMENTS BY ADDENDA, BULLETIN, OR CHANGE ORDER	A2 — ADDENDA IDENTIFIER RHOMBUS w/ "A" AND NUMBER
	B2 — BULLETIN IDENTIFIER RHOMBUS w/ "B" AND NUMBER
	C2 — CHANGE ORDER RHOMBUS w/ "C" AND NUMBER

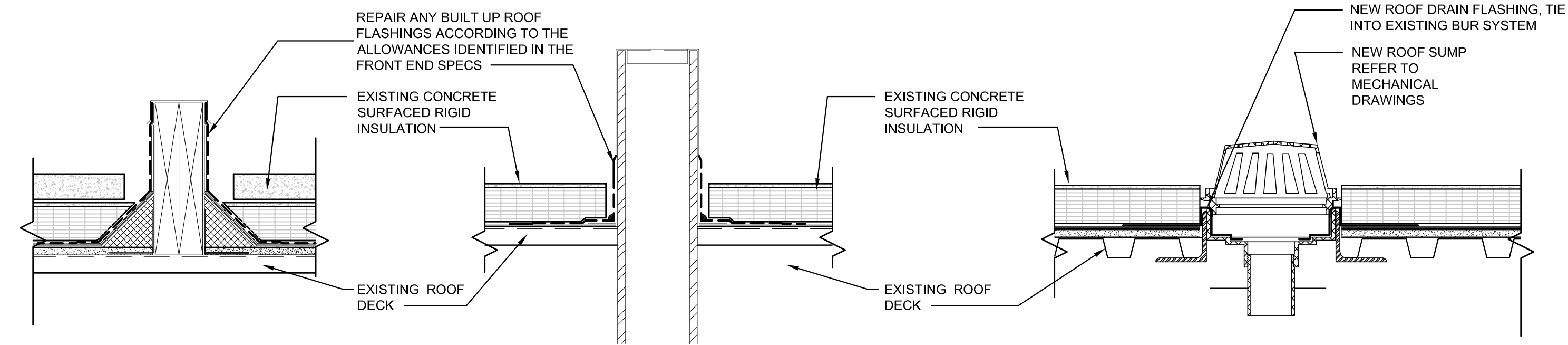
CAPITAL PROJ. NO.
CP25043

LEAD ARCH. MECH. ELEC. CIVIL L.A. INT. DES. CONST. REP. APPR. DATE SCALE REVISIONS
CORNILLIE
J. KASDORF
S. GOERGE
CORNILLIE
01.30.2026
AS NOTED

ISSUED FOR BID 04.09.2026

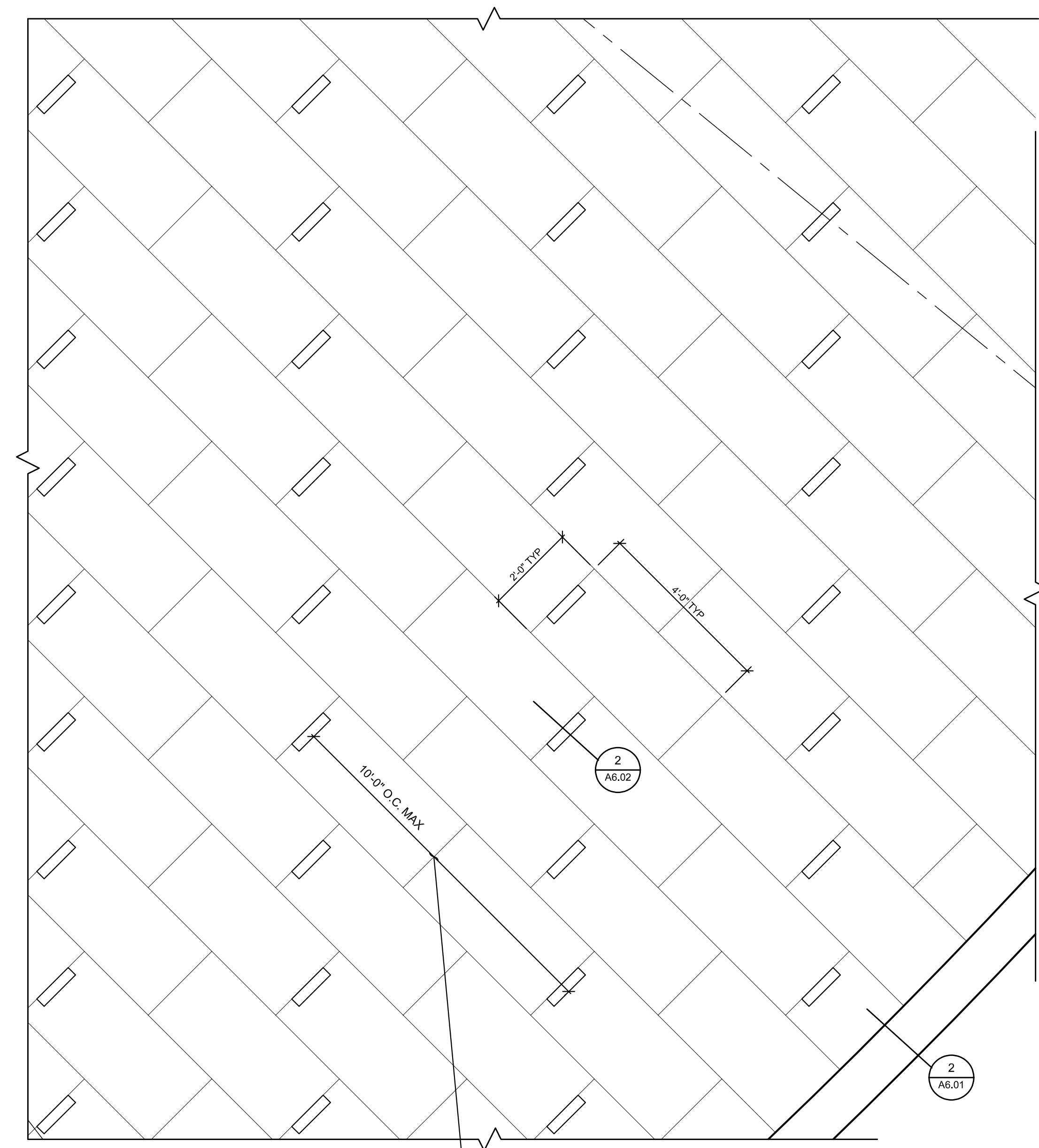
A.1.0

CAPITAL PROJ. NO.	CP25043
LEAD ARCH.	CORNILLIE
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CIVIL	
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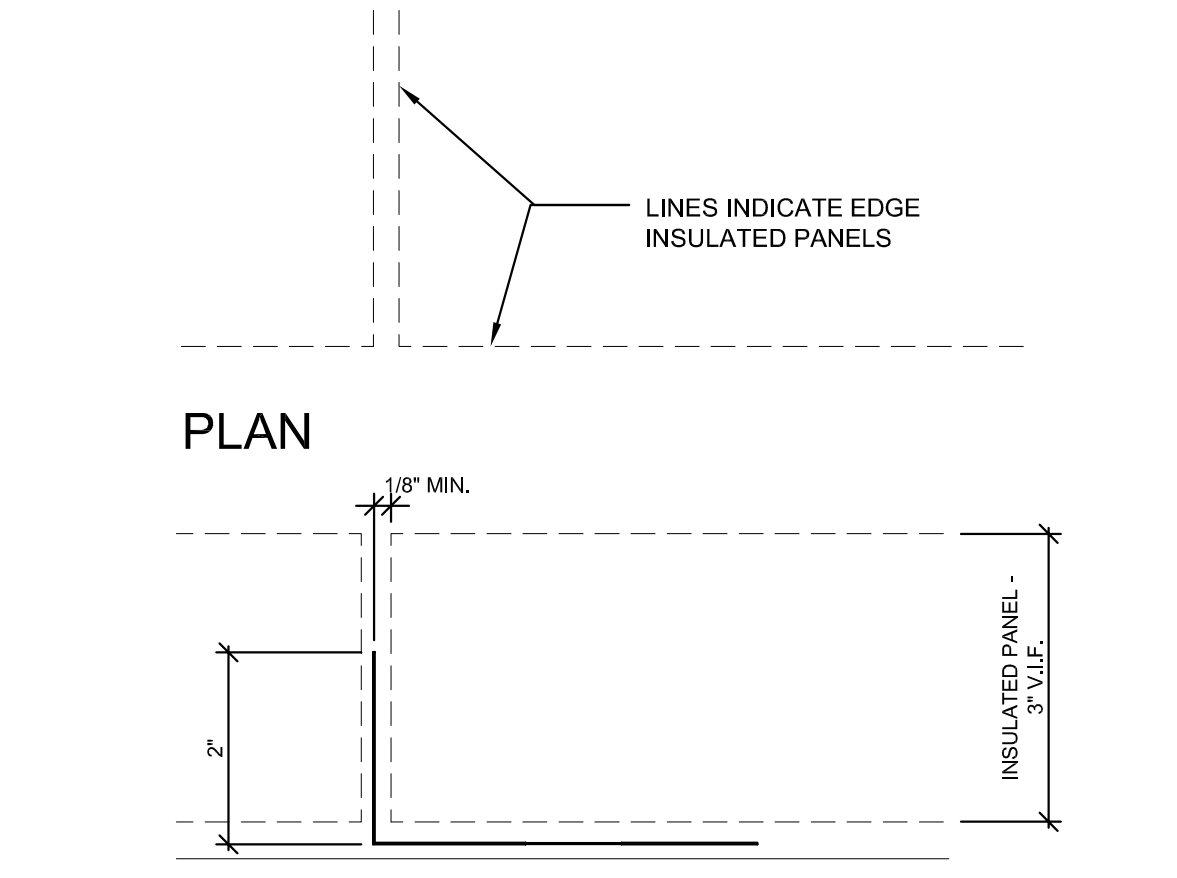
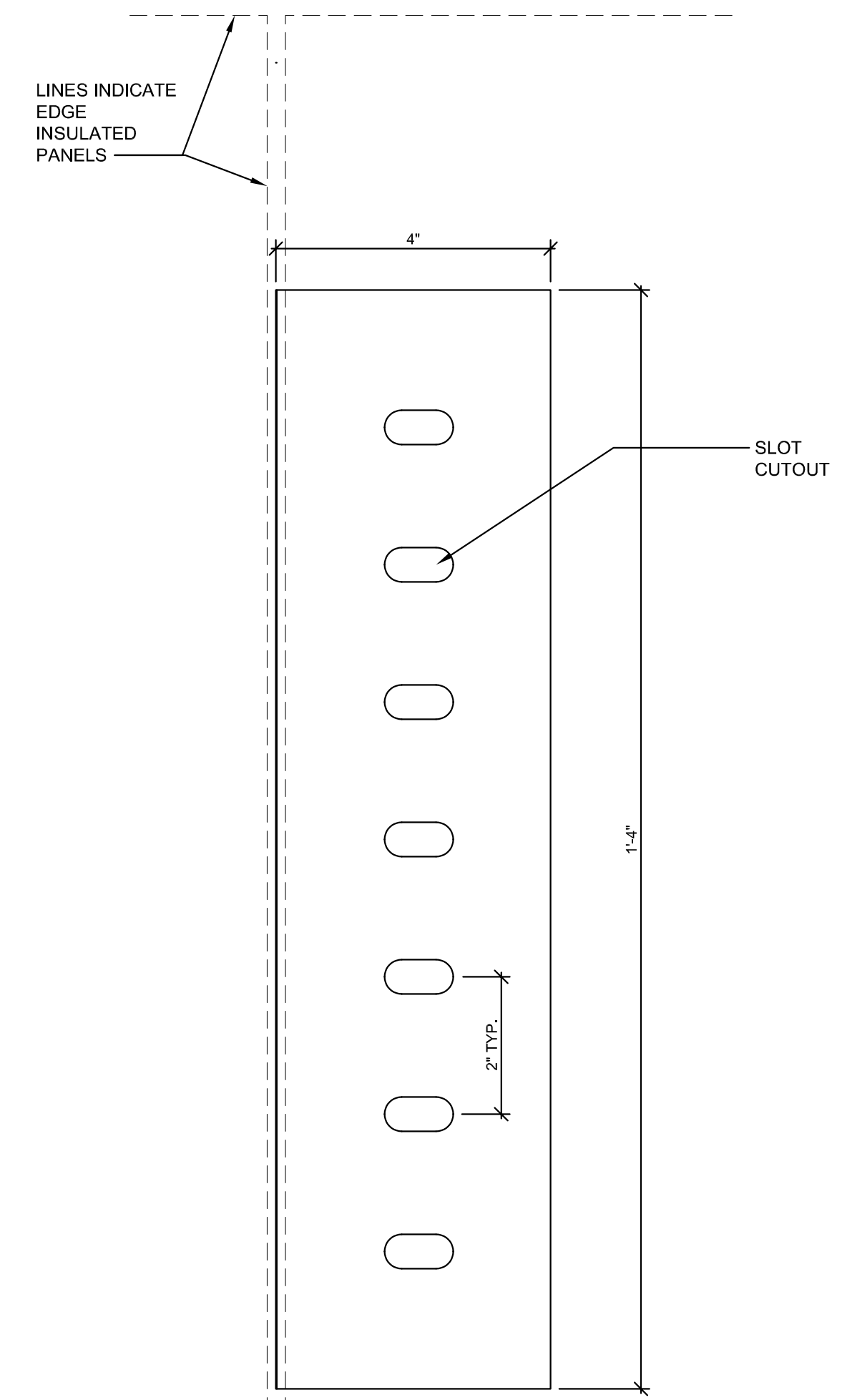


TYPICAL ROOF DETAILS

SCALE: 1-1/2" = 1'-0"



1 ENLARGED ROOF PLAN
 SCALE: 1/8" = 1'-0"
 GALVANIZED METAL CLEAT TO BE INSTALLED 10'-0" O.C. MAX. NOTE EXISTING CONCRETE SURFACED PANELS ARE 2'x4' TYPICAL



SECTION
 SUPPORT CLIP DETAILS
 SCALE: 6" = 1'-0"



REINSTALL SAWCUT PARTIAL PANEL
 PANEL CAN BE RE-INSTALLED FOLLOWING PATCH AND REPAIR; REFER TO TECH NOTE IN PROJECT MANUAL



REINSTALL PANEL
 PANEL CAN BE RE-INSTALLED FOLLOWING PATCH AND REPAIR; REFER TO TECH NOTE IN PROJECT MANUAL



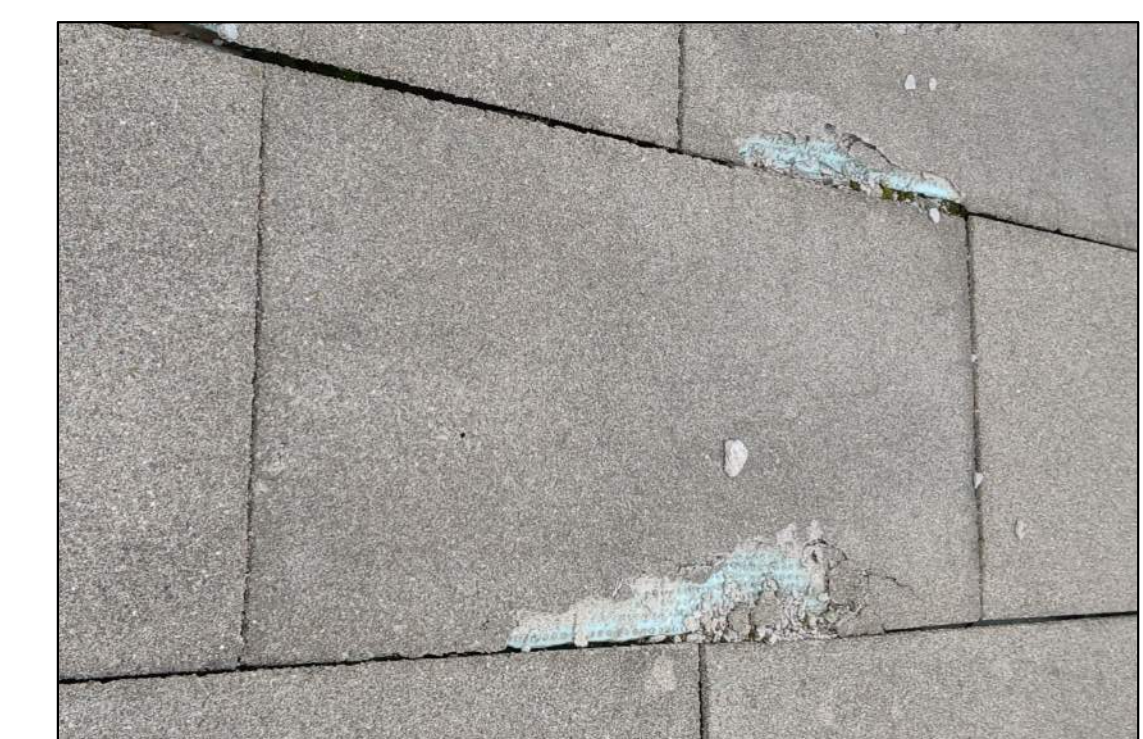
REMOVE AND DISCARD PANEL



REINSTALL PANEL
 PANEL CAN BE RE-INSTALLED FOLLOWING PATCH AND REPAIR; REFER TO TECH NOTE IN PROJECT MANUAL



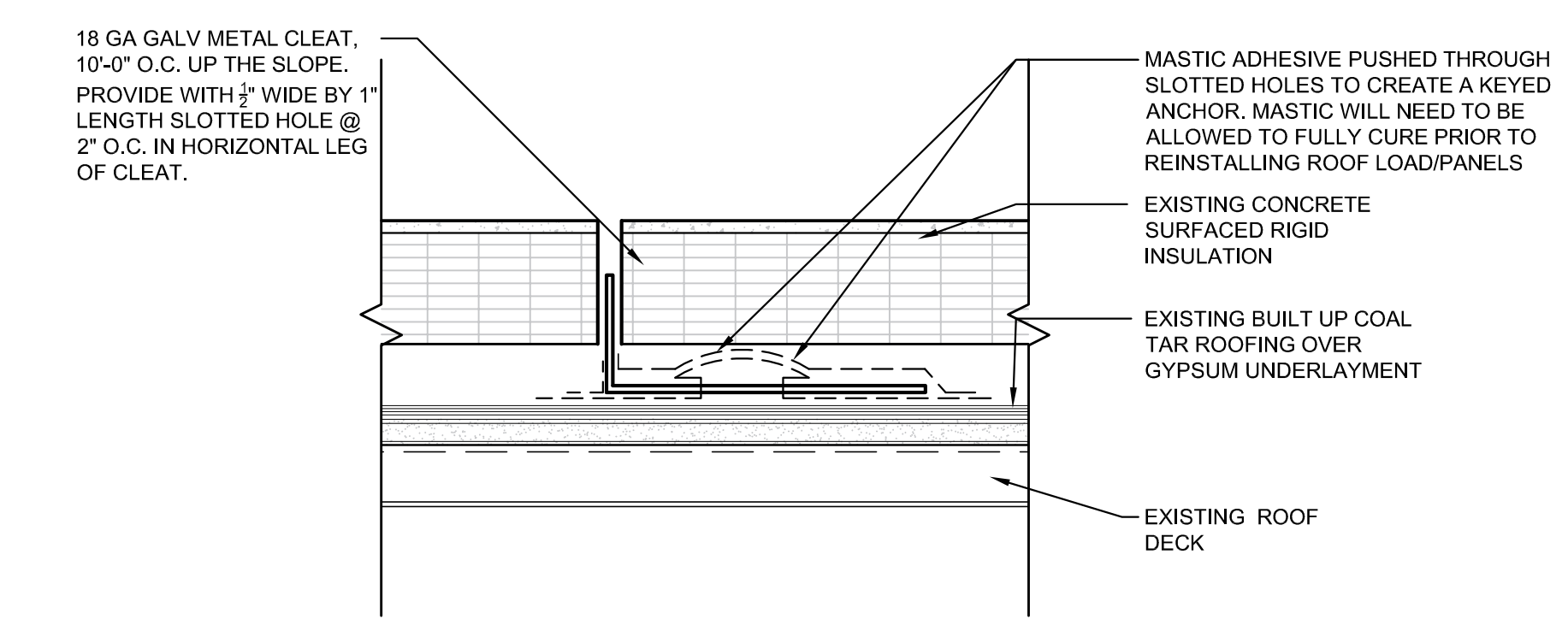
REMOVE AND DISCARD PANEL



REMOVE AND DISCARD PANEL

BENCHMARK REFERENCE;
 ROOF PANEL SALVAGE VS. REPLACEMENT

NO SCALE



2 CONCRETE SURFACE INSULATION PANELS SUPPORT CLEAT
 SCALE: 3" = 1'-0"

**BRESLIN CENTER
 MAIN ARENA ROOF REPAIR**



DECK MOUNTED LIGHTNING PROTECTION



WALL MOUNTED LIGHTNING PROTECTION



WALL MOUNTED LIGHTNING PROTECTION



WALL MOUNTED LIGHTNING PROTECTION



WALL MOUNTED LIGHTNING PROTECTION

REFERENCE PHOTOS

EXISTING LIGHTNING PROTECTION TO BE REMOVED AND
 REINSTALLED FOLLOWING INSTALLATION OF CONCRETE
 SURFACED INSULATION PANELS. COMPONENTS SHALL BE
 REINSTALLED WITH BONDING ADHESIVE - DO NOT
 PENETRATE EXISTING ROOFING WITH MECHANICAL
 FASTENERS

NOTE:

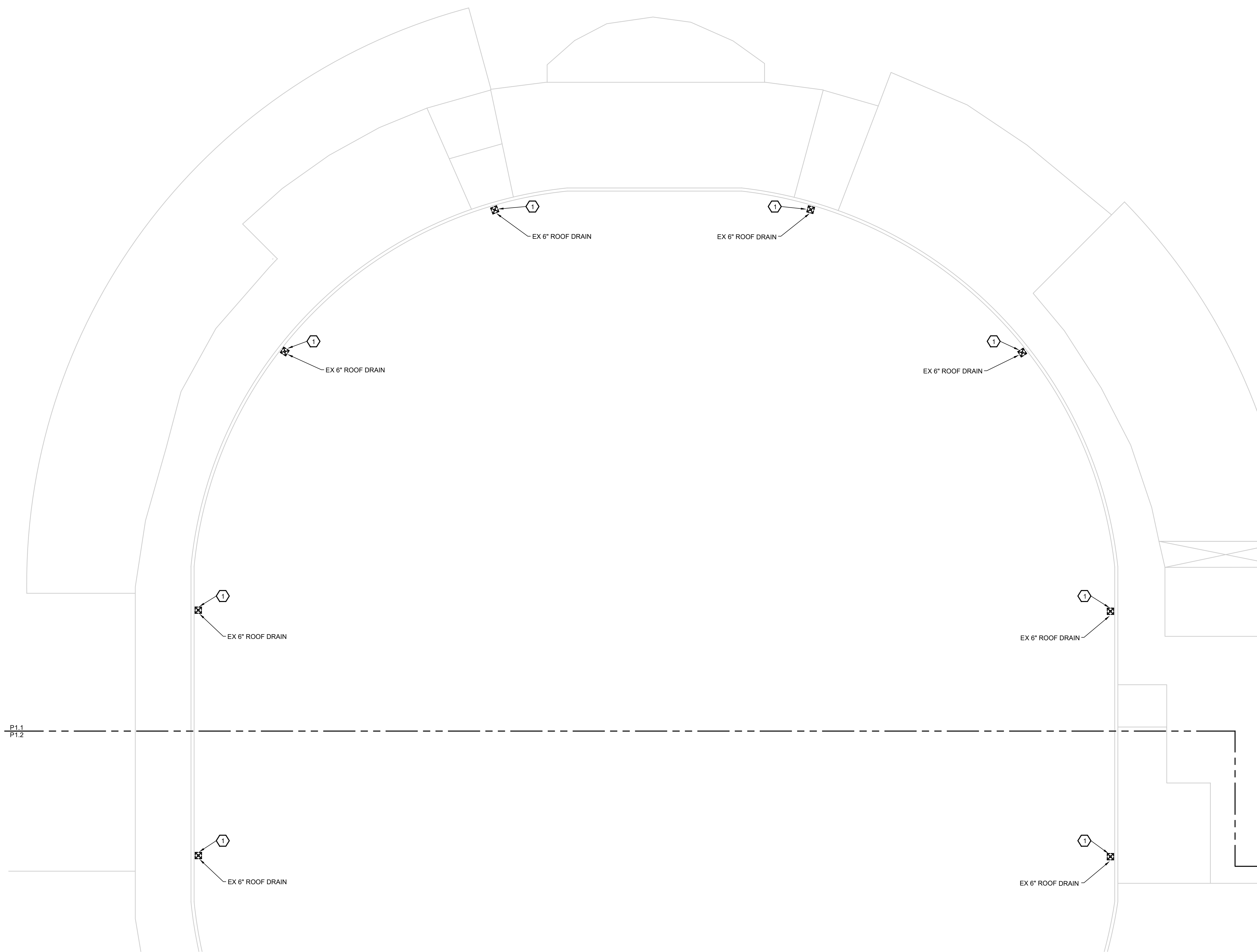
REFER TO PROJECT
 MANUAL CONTAINING
 EXISTING LIGHTNING
 PROTECTION SHOP
 DRAWING SUBMITTAL
 FOR REFERENCE

CAPITAL PROJ. NO.
 CP25043



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APPR.	
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A6.3



PLUMBING SYMBOL LIST

-  ROOF DRAIN ON ROOF (FLOOR PLAN)
-  ROOF DRAIN ON ROOF (ROOF PLAN)
- ST — STORM PIPING ABOVE FLOOR
- RD ROOF DRAIN

PLUMBING KEYED NOTES

- 1 REMOVE EXISTING ROOF DRAIN. ONCE ROOF DRAIN IS REMOVED, CONTRACTOR SHALL VERIFY EXISTING DECK PLATE AND CONFIRM SPECIFIED ROOF DRAIN WILL BE COMPATIBLE WITH EXISTING DECK PLATE. PRIOR TO SUBMITTING ON NEW ROOF DRAIN, EXISTING STORM PIPING BELOW TO REMAIN (SEE SHEET P2.1).

GENERAL PLUMBING DEMOLITION NOTES:

1. EACH CONTRACTOR INVOLVED IN DEMOLITION SHALL REMOVE AND PROPERLY DISPOSE OF ALL REFUSE AND MATERIALS FROM DEMOLITION OPERATION, PER MSU STANDARDS.
2. FIELD VERIFY ALL EXISTING SYSTEMS SHOWN TO BE REMOVED OR RECONNECTED, TO VERIFY SIZE AND LOCATION.
3. REMOVE ANY DIRT AND DEBRIS FROM AND AROUND EXISTING ROOF DRAINS BEFORE REMOVAL, TO PREVENT IT FROM GOING DOWN INTO THE STORM PIPING.
4. ALL WORK SHALL MEET THE REQUIREMENTS OF MSU STANDARDS.

GENERAL PLUMBING NOTES

1. THE PLUMBING TRADES SHALL FAMILIARIZE THEMSELVES WITH ALL EXISTING AND NEW CONDITIONS, THESE DRAWINGS, ADDENDA & RELATED SPECIFICATIONS. THEY SHALL COMPLETELY SATISFY THEMSELVES AS TO THE CONDITIONS TO WHICH THE WORK IS TO BE PERFORMED BEFORE SUBMITTING THEIR BID.
2. DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW APPROXIMATE LOCATION AND GENERAL ARRANGEMENT OF SYSTEMS AND EQUIPMENT. DRAWINGS SHALL NOT BE SCALED FOR LOCATION OF SYSTEMS, EQUIPMENT, ETC. ALL LOCATIONS OF SYSTEMS AND EQUIPMENT SHALL BE VERIFIED IN FIELD AND COORDINATED WITH ALL OTHER TRADES AND EXISTING FIELD CONDITIONS. SOME SYSTEMS (PIPING, DUCTWORK, ETC.) AND EQUIPMENT LOCATIONS MAY REQUIRE CHANGES IN LOCATION DUE TO FIELD CONDITIONS AND COORDINATION WITH OTHER TRADES.
3. THE INSTALLATION OF ALL SYSTEMS, EQUIPMENT, ETC., IS SUBJECT TO CLARIFICATION WITH SUBMITTED SHOP DRAWINGS AND FIELD COORDINATION REQUIREMENTS. EQUIPMENT OUTLINES SHOWN ON DRAWINGS OR DIMENSIONED ON DRAWINGS ARE LIMITING DIMENSIONS. ANY EQUIPMENT THAT REDUCES THE INDICATED CLEARANCES OR EXCEEDS SPECIFIED OR SCHEDULED EQUIPMENT DIMENSIONS SHALL NOT BE USED.
4. THE PLUMBING TRADES SHALL TAKE OUT ALL PERMITS AND ARRANGE FOR NECESSARY INSPECTIONS AND SHALL PAY ALL FEES AND COSTS.
5. THE PLUMBING TRADES SHALL VERIFY AMOUNT OF EXISTING PIPING, VALVES, DUCTWORK, ETC. TO BE REMOVED OR RELOCATED TO ALLOW FOR INSTALLATION OF NEW PIPING, EQUIPMENT, ETC. ALL ABANDONED PIPING, VALVES, ETC., SHALL BE REMOVED.
6. THE PLUMBING TRADES SHALL COORDINATE ALL WORK WITH OTHER TRADES AND SHALL COORDINATE ANY SYSTEMS SHUT-DOWN WITH THE ARCHITECT/ENGINEER AND OWNER.
7. ATTACHMENTS OF MECHANICAL OR ELECTRICAL EQUIPMENT TO STRUCTURAL MEMBERS ARE THE RESPONSIBILITY OF THE INSTALLING TRADE. STRUCTURAL MEMBERS SHALL NOT BE FIELD CUT, WELDED OR OTHERWISE MODIFIED WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER. ATTACHMENT TO STEEL JOISTS SHALL BE MADE AT PANEL POINTS WHENEVER POSSIBLE. STEEL JOISTS SHALL BE REINFORCED FOR NON-PANEL POINT CONCENTRATED LOADS IN ACCORDANCE WITH THE STRUCTURAL DETAILS. THIS WORK SHALL BE PERFORMED BY CERTIFIED WELDERS AND IS THE RESPONSIBILITY OF THE TRADE INSTALLING THE SUBJECT LOAD. STRUCTURAL MEMBERS SHALL NOT BE OVERLOADED AS A RESULT OF ATTACHMENTS. ATTACHMENT/EQUIPMENT LOADING FOR ALL TRADES RESULTING IN TOTAL LOAD GREATER THAN AN EQUIVALENT UNIFORM 5 PSF FOR ANY MEMBER SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW.
8. SEE SPECIFICATION FOR FURTHER INFORMATION.

**BRESLIN CENTER
 MAIN ARENA ROOF REPAIR**

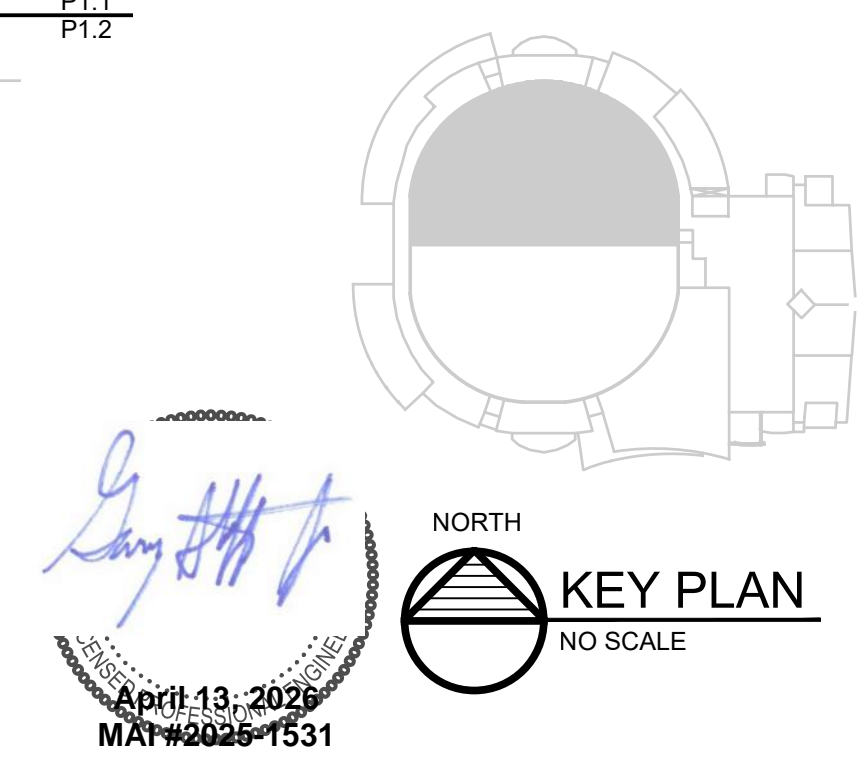
CAPITAL PROJ. NO.
CP25043


LEAD	M. CORNILLIE
ARCH.	J. KASDORF
MECH.	S. GOERGE
ELEC.	
CIVIL	
L.A.	
INT. DES.	
REP.	M. CORNILLIE
APPR.	
DATE	01.30.2026
SCALE	AS NOTED
ISSUED	

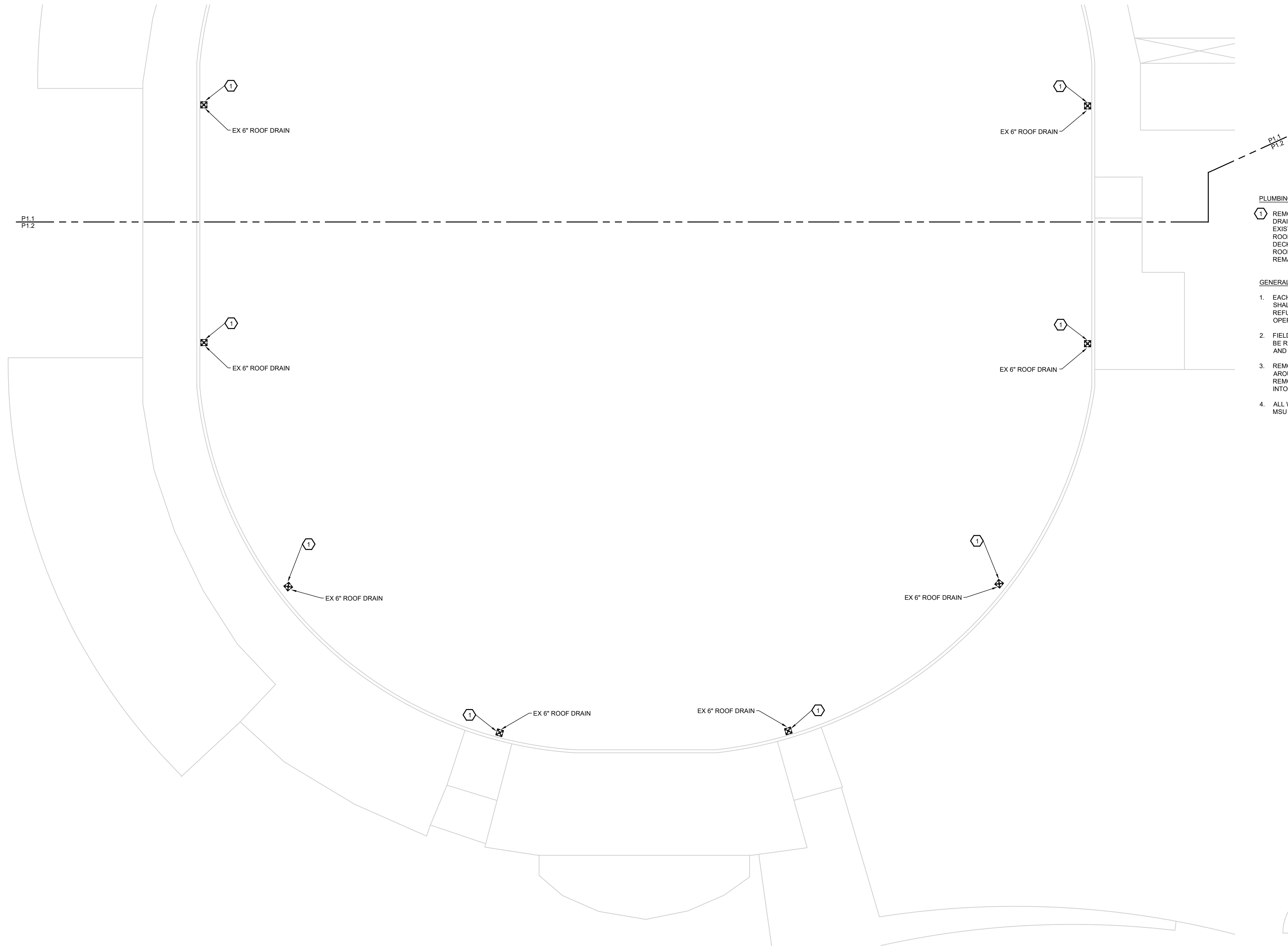
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NORTH

NORTH ROOF PLAN - PLUMBING DEMOLITION
 1/16"=1'-0"




 April 13, 2026
 MA#2025-1531



PLUMBING KEYED NOTES

① REMOVE EXISTING ROOF DRAIN. ONCE ROOF DRAIN IS REMOVED, CONTRACTOR SHALL VERIFY EXISTING DECK PLATE AND CONFIRM SPECIFIED ROOF DRAIN WILL BE COMPATIBLE WITH EXISTING DECK PLATE, PRIOR TO SUBMITTING ON NEW ROOF DRAIN. EXISTING STORM PIPING BELOW TO REMAIN (SEE SHEET P2.2).

GENERAL PLUMBING DEMOLITION NOTES:

1. EACH CONTRACTOR INVOLVED IN DEMOLITION SHALL REMOVE AND PROPERLY DISPOSE OF ALL REFUSE AND MATERIALS FROM DEMOLITION OPERATION.
2. FIELD VERIFY ALL EXISTING SYSTEMS SHOWN TO BE REMOVED OR RECONNECTED, TO VERIFY SIZE AND LOCATION.
3. REMOVE ANY DIRT AND DEBRIS FROM AND AROUND EXISTING ROOF DRAINS BEFORE REMOVAL, TO PREVENT IT FROM GOING DOWN INTO THE STORM PIPING.
4. ALL WORK SHALL MEET THE REQUIREMENTS OF MSU STANDARDS.

NORTH

SOUTH ROOF PLAN - PLUMBING DEMOLITION
 1/16"=1'-0"

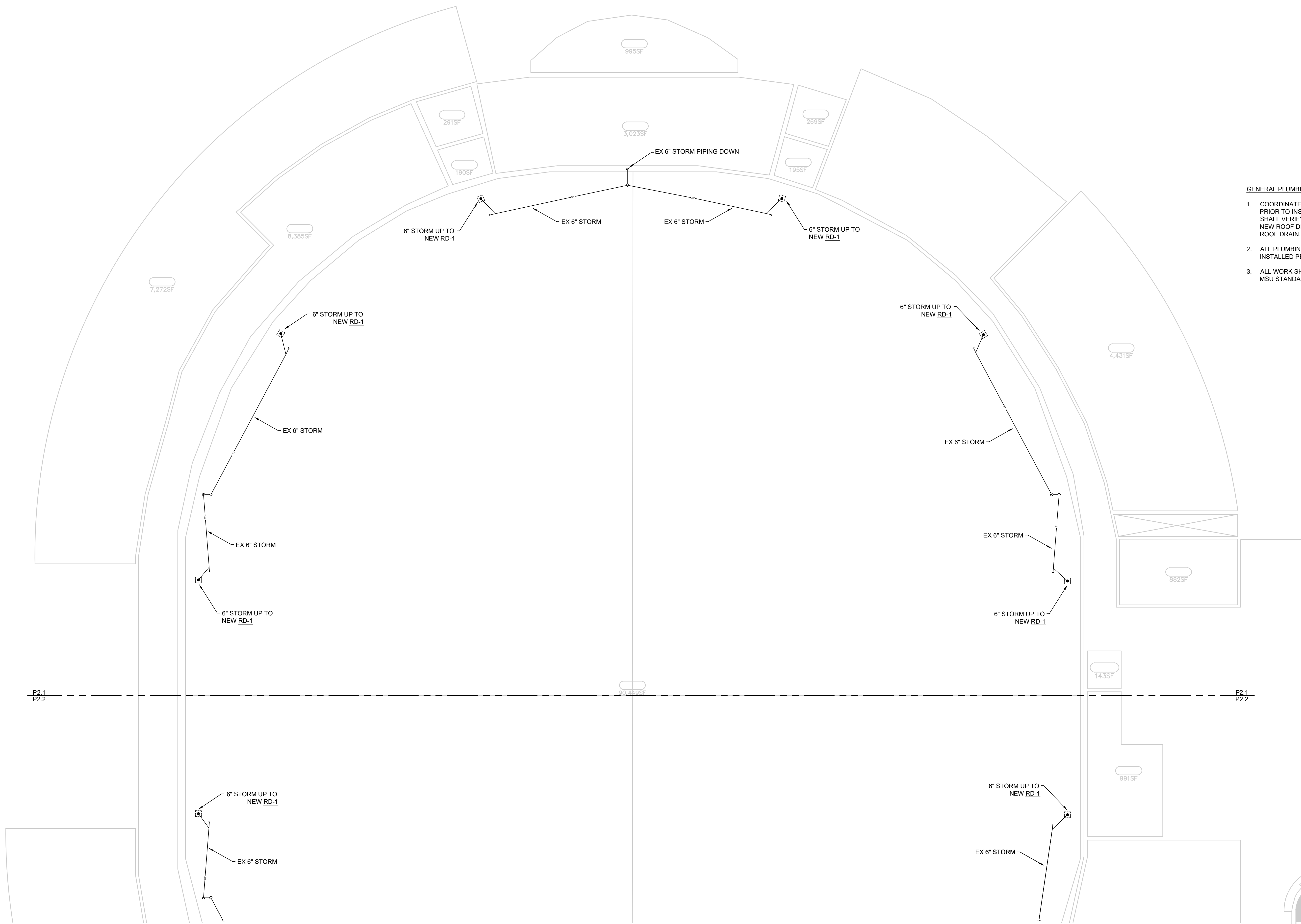
NORTH
KEY PLAN
 NO SCALE
 April 13, 2026
 MAT#2025-1531

CAPITAL PROJ. NO.
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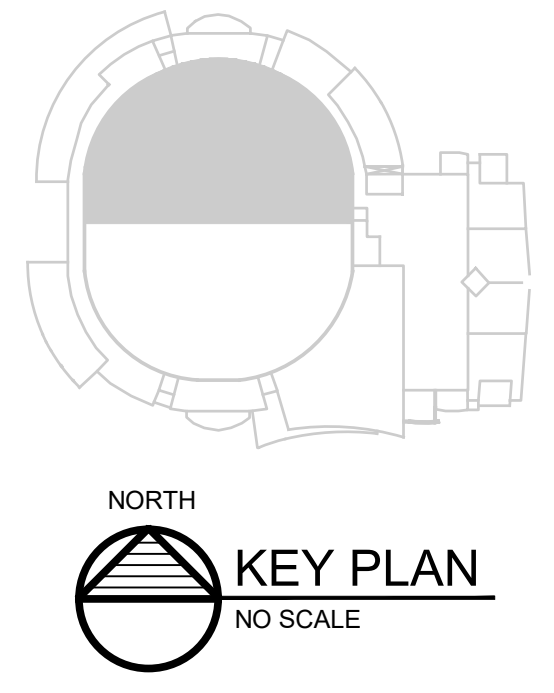
P1.2



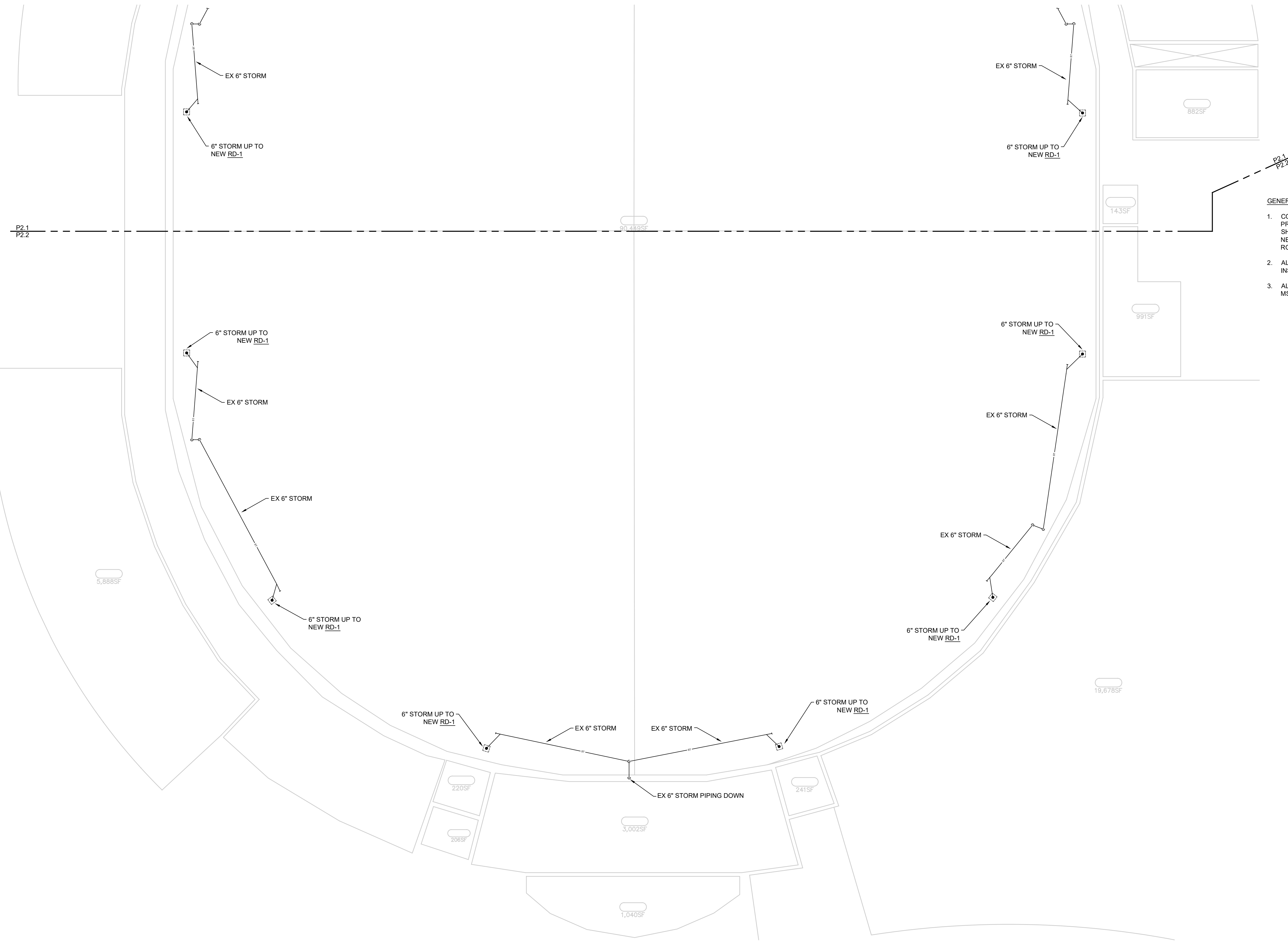
- GENERAL PLUMBING NOTES:
- COORDINATE ROUTING AND LOCATION OF PIPING PRIOR TO INSTALLING. PLUMBING CONTRACTOR SHALL VERIFY EXISTING PIPE SIZE TO CONNECT NEW ROOF DRAIN TO, PRIOR TO ORDERING NEW ROOF DRAIN.
 - ALL PLUMBING PIPING AND VENTING SHALL BE INSTALLED PER STATE/LOCAL CODES.
 - ALL WORK SHALL MEET THE REQUIREMENTS OF MSU STANDARDS.

NORTH
 NORTH FLOOR PLAN - ROOF DRAINS AND EXISTING STORM PIPING
 1/16"=1'-0"

Gay H. H. Jr.
 April 13, 2026
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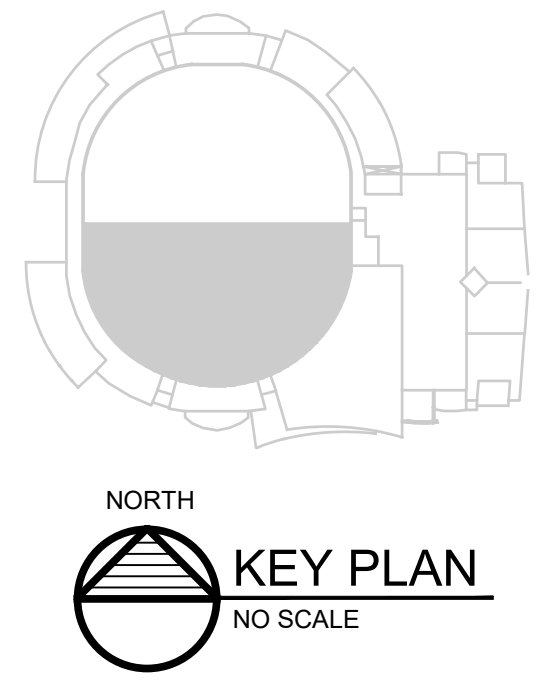
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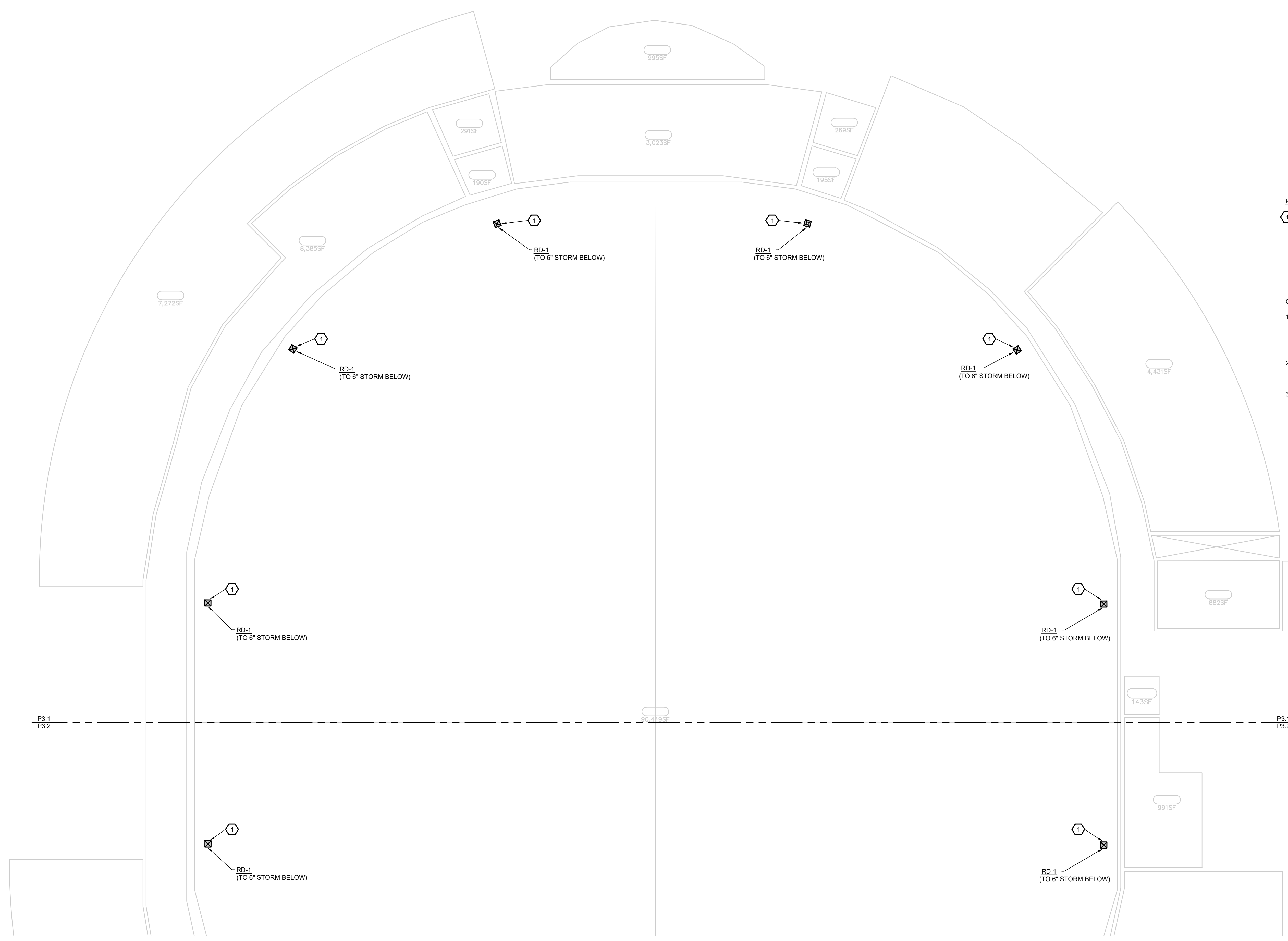
NORTH

SOUTH FLOOR PLAN - ROOF DRAINS AND EXISTING STORM PIPING
 1/16"=1'-0"

Gay H. H. Jr.
 April 13, 2026
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PLUMBING KEYED NOTES

- 1 NEW ROOF DRAIN TO CONNECT TO EXISTING STORM PIPING BELOW (SEE SHEET P2.1). COORDINATE INSTALLATION WITH ROOFING CONTRACTOR. CONTRACTOR SHALL VERIFY EXISTING DECK PLATE AND CONFIRM SPECIFIED ROOF DRAIN WILL BE COMPATIBLE WITH EXISTING DECK PLATE. PRIOR TO SUBMITTING ON NEW ROOF DRAIN.

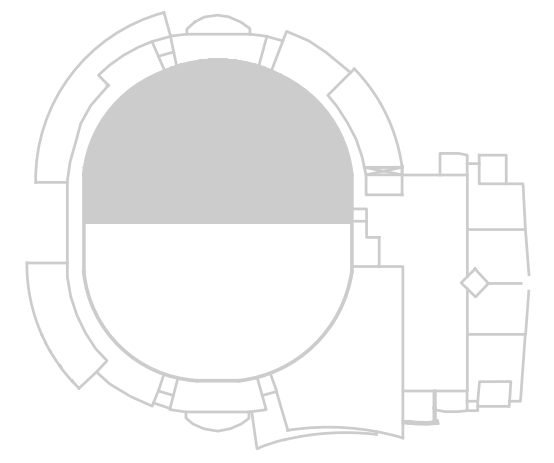
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2. FIELD VERIFY ALL EXISTING SYSTEMS SHOWN TO BE REMOVED OR RECONNECTED, TO VERIFY SIZE AND LOCATION.
3. ALL WORK SHALL MEET THE REQUIREMENTS OF MSU STANDARDS.

P3.1
 P3.2

NORTH

NORTH ROOF PLAN - NEW ROOF DRAINS
 1/16"=1'-0"



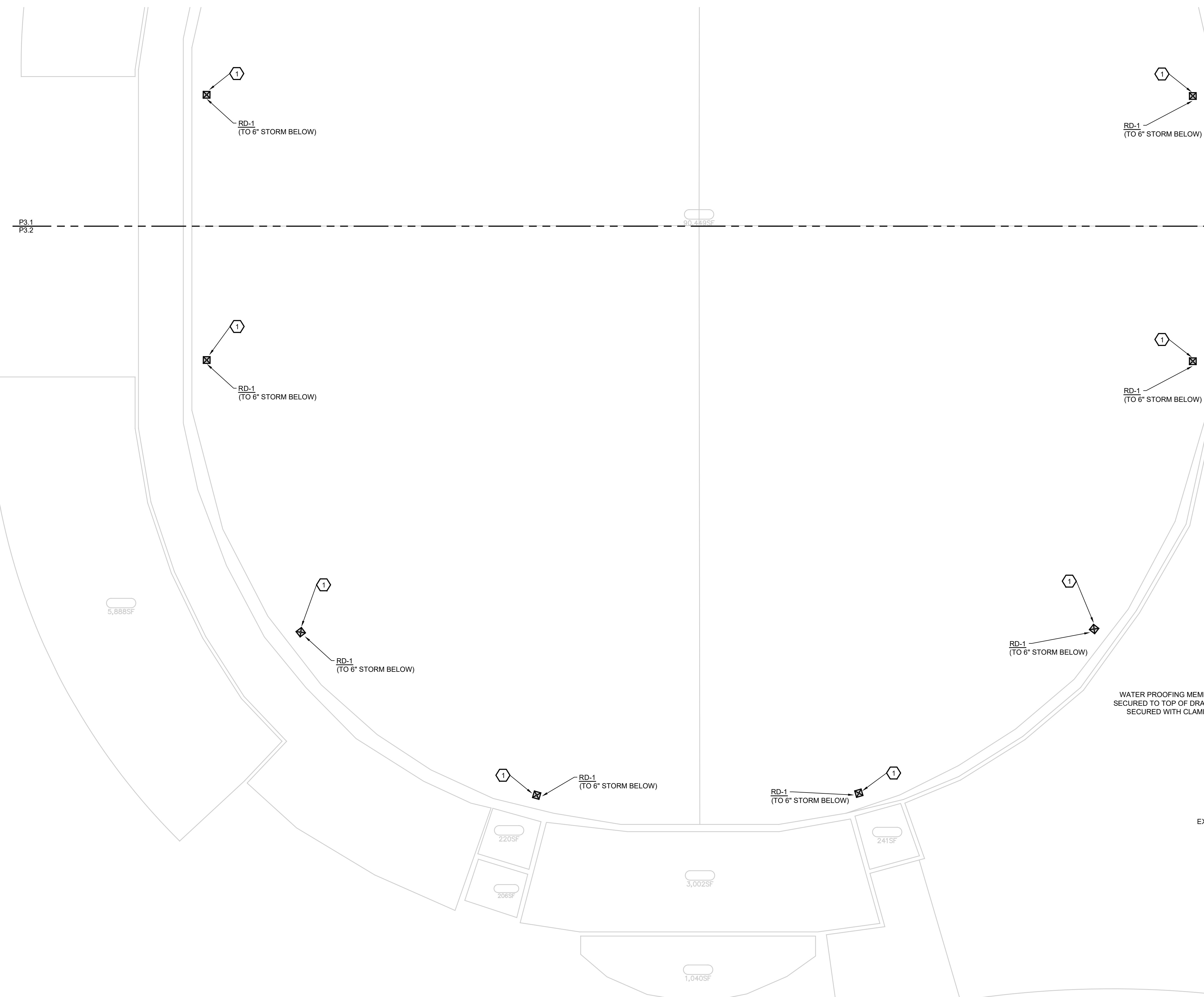
NORTH

KEY PLAN
 NO SCALE

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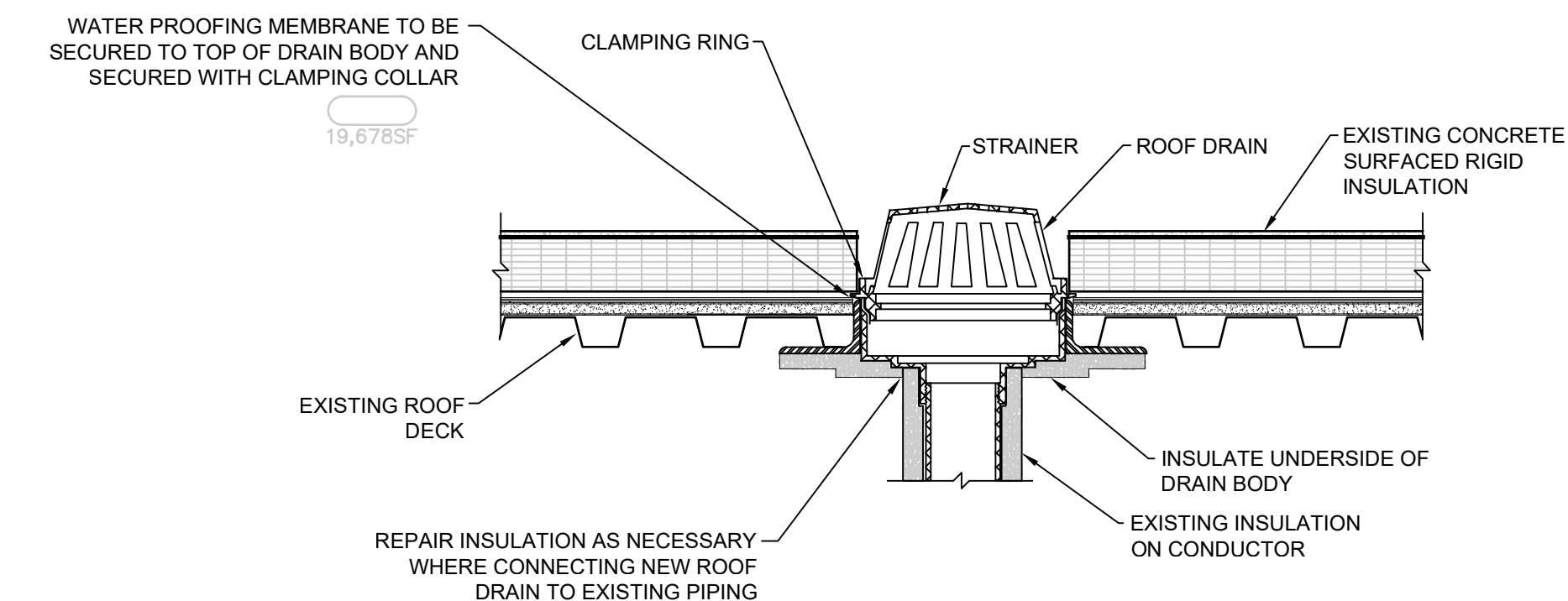


PLUMBING KEYED NOTES

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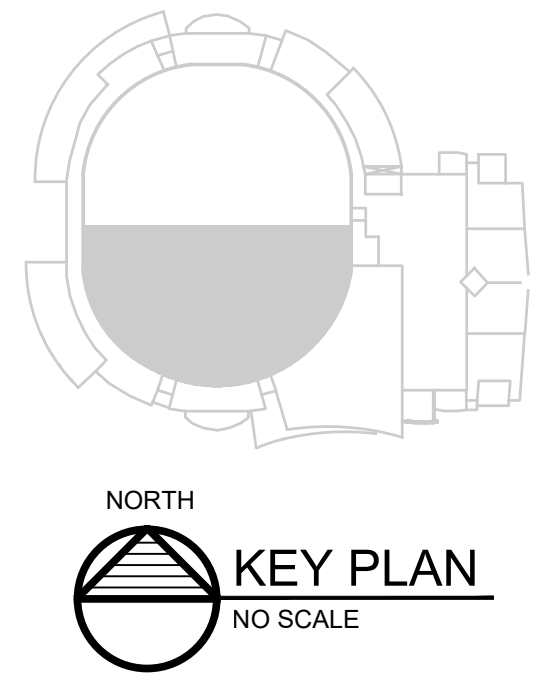


ROOF DRAIN DETAIL
 NO SCALE

PLUMBING FIXTURE SCHEDULE				
TAG/ DESCRIPTION	TYPE	MANUFACTURER	MODEL #	NOTES
RD-1	ROOF DRAIN	ZURN	Z100	15" DIAMETER ROOF DRAIN WITH DURA-COATED CAST IRON BODY AND DOME, FLASHING, CLAMP/GRAVEL GUARD, AND LOW SILHOUETTE POLY-DOME. SELECTION BASED ON ZURN, JOSAM COMPANY, MIFAB, JAY R. SMITH MFG., TYLER PIPE/WADE, OR WATTS WATER TECHNOLOGIES SHALL BE CONSIDERED EQUAL IF ALL REQUIREMENTS ARE MATCHED OR EXCEEDED.



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