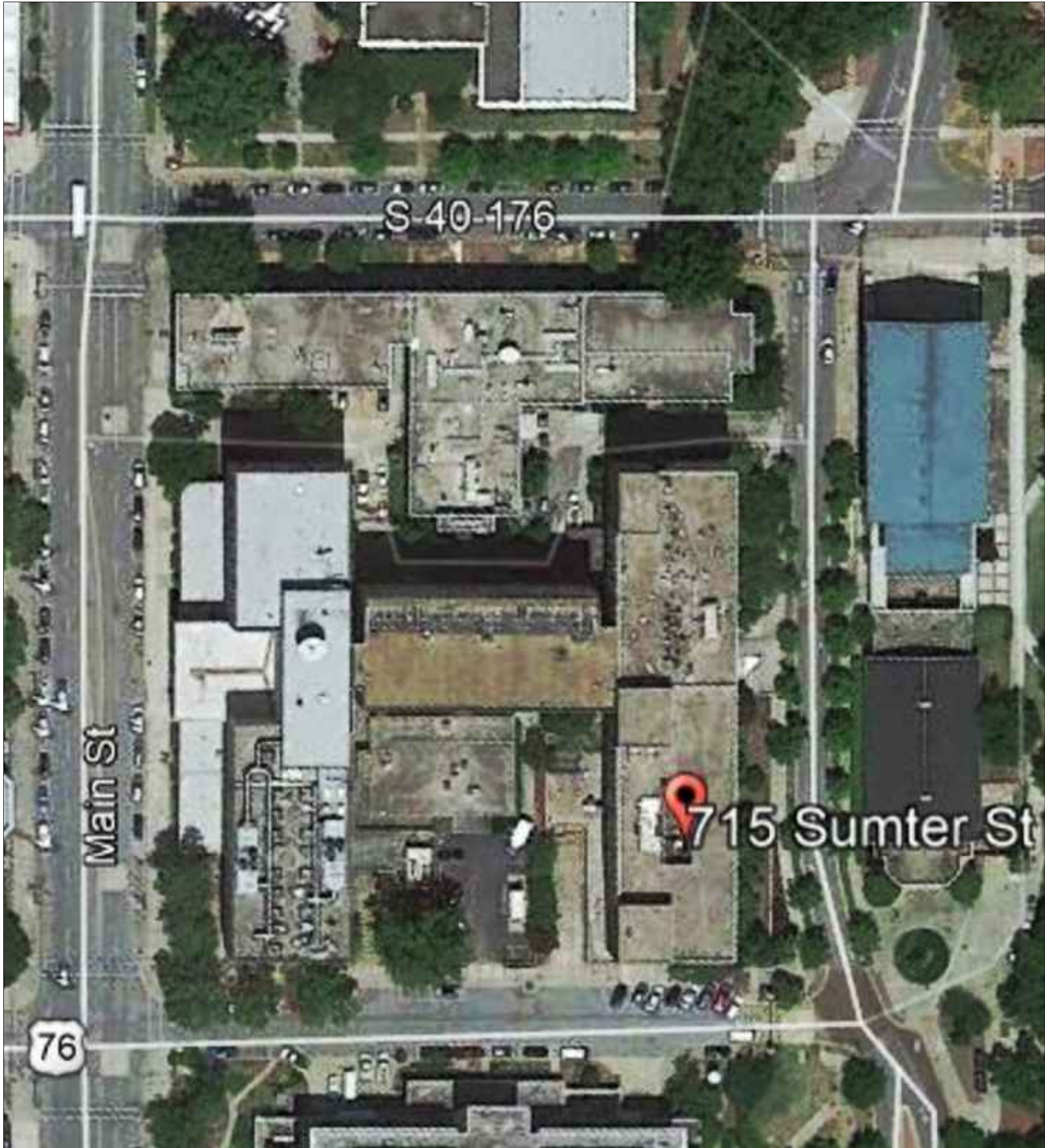


VICINITY MAP



SITE MAP

COKER LIFE SCIENCES BUILDING

ROOF REPLACEMENT

H27-Z422/50003410-2

UNIVERSITY OF SOUTH CAROLINA

715 SUMTER STREET

COLUMBIA, SC 29208



DRAWING INDEX	
XR-001	COVER SHEET
XR-101	ROOF PLAN
XR-102	INSULATION ATTACHMENT PLAN
XR-201	ROOF DETAILS
XR-202	ROOF DETAILS
XR-203	ROOF DETAILS
XR-204	ROOF DETAILS

ABBREVIATION LIST	
MAX.	MAXIMUM
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
S.S.	STAINLESS STEEL
SIM.	SIMILAR
TERM.	TERMINATION
TYP.	TYPICAL

CODE COMPLIANCE REFERENCE LIST	
2018 INTERNATIONAL BUILDING CODE WITH SC MODIFICATIONS	
2018 INTERNATIONAL FIRE CODE WITH SC MODIFICATIONS	
2018 INTERNATIONAL PLUMBING CODE	
2018 INTERNATIONAL MECHANICAL CODE WITH SC MODIFICATIONS	
2009 INTERNATIONAL ENERGY CONSERVATION CODE	
2018 INTERNATIONAL FUEL GAS CODE WITH SC MODIFICATIONS	
2017 NATIONAL ELECTRIC CODE WITH SC MODIFICATIONS	

These documents are the property of REI Engineers, Inc. (REI) and retains all rights therein, including copyrights. It may only be used in a manner consistent with REI's rights while REI is providing service for the specific project identified or referred to herein or extensions thereto. It may not be used for any other purpose except with the express written agreement of, and compensation to, REI Engineers, Inc.

ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com

SEAL:

COA SEAL:

COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

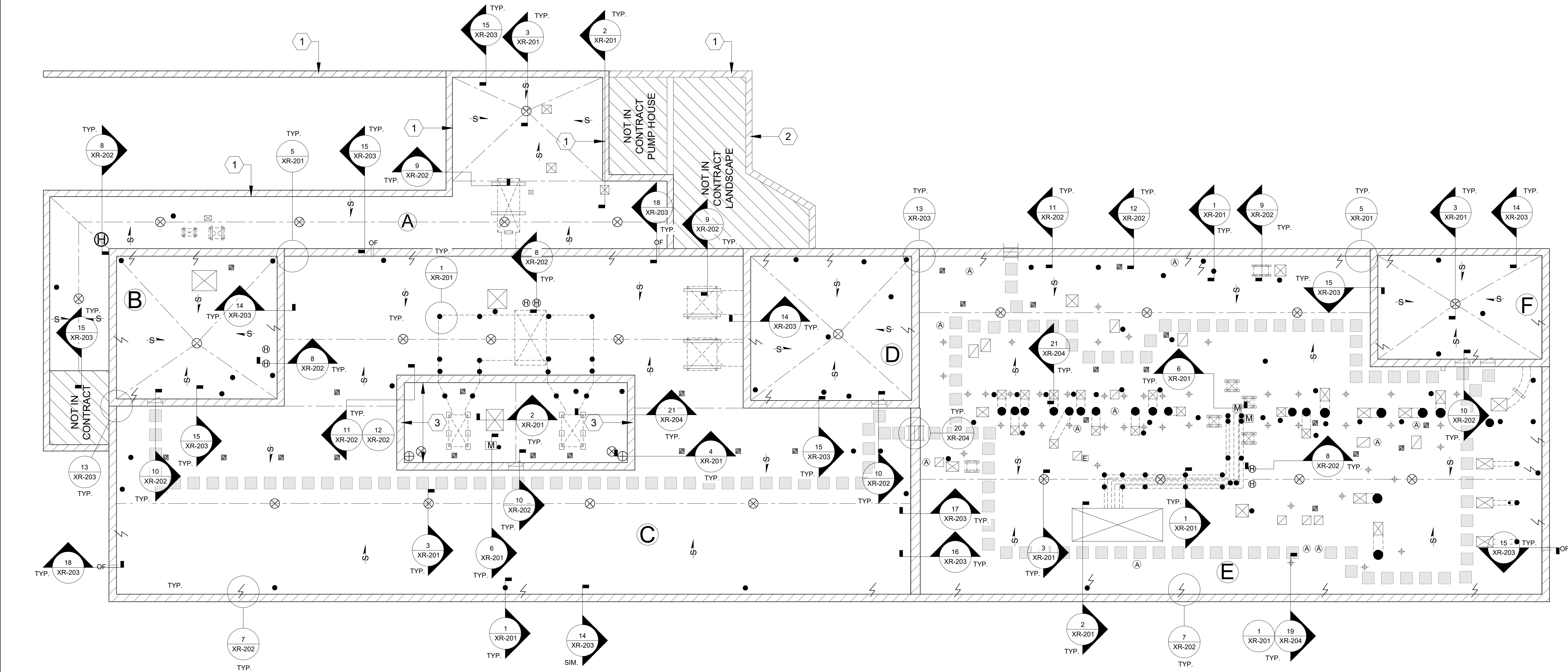
REI PROJECT #: 20CHS-072
H27-Z422

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW
SCALE: N.T.S.
DATE: 01/28/2021
DRAWING:
XR-001
SHEET 1 OF 7
COVER SHEET

SECTOR	AREA (SQUARE FEET)
A	± 2,863
B	± 1,213
C	± 10,052
D	± 1,234
E	± 8,920
F	± 929
TOTAL	± 25,211

CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO BIDDING



LEGEND

PARAPET WALL

OVERFLOW SCUPPER

OF

ROOF EDGE

RIDGE-HIP-VALLEY

INSULATED PIPING

STRUCTURAL SLOPE

ROOF DRAIN

SECONDARY ROOF DRAIN

EQUIPMENT ON SUPPORT CURB

EQUIPMENT CURB

VACANT CURB

GLASS PIPE PENETRATION

WALK PADS

EQUIPMENT SUPPORT CURB

MULTI-PIPE PENETRATION

LIGHTNING PROTECTION TERMINAL

PIPE PENETRATION

GUY WIRE TIE OFF

HOT STACK

ABANDON PIPE PENETRATION

ELECTRICAL OUTLET POST

ROOF ACCESS LADDER

DEMO/REMOVE

NOTE NUMBER

DETAIL NUMBER

NOTES

1. REMOVE AND REPLACE ALL SEALANT JOINTS IN STONE COPING AROUND ROOF AREA A AS SPECIFIED IN SECTION 09 97 23.

2. POWER WASH INTERIOR, EXTERIOR AND TOP OF PARAPET WALL AROUND ROOF AREA A PRIOR TO REPLACING SEALANT JOINTS.

3. ALTERNATE 1: PROVIDE NEW METAL WALL PANELS ON THE INTERIOR OF VERTICAL WALLS.

REI ENGINEERS

ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com

SEAL:

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
No. 37623
1/28/2021
BRADLEY HARRIS W.A. CHS

COA SEAL:

SOUTH CAROLINA
REI ENGINEERS
INC.
No. C01906
STATE OF AUTHORIZATION

COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA
REI PROJECT #: 20CHS-072
H27-Z422

REVISION # REVISION DATE

1

2

3

4

DRAWN BY: RLW

SCALE: 3/32" = 1' - 0"

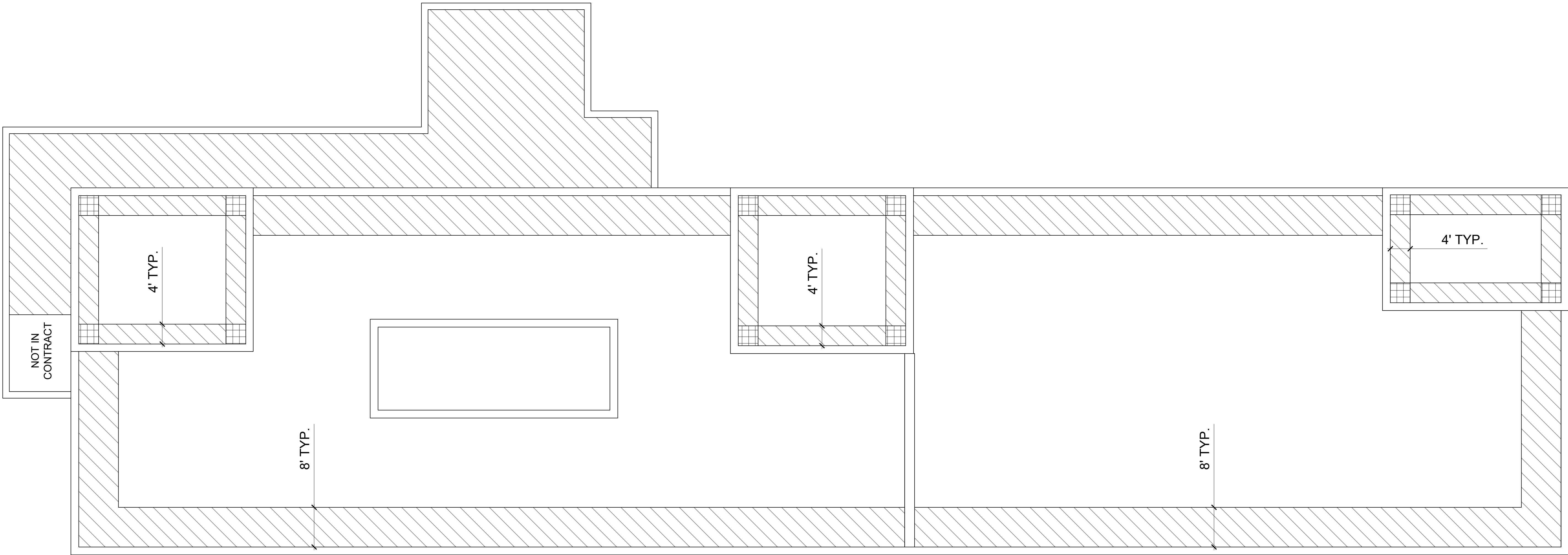
DATE: 01/28/2021

DRAWING:

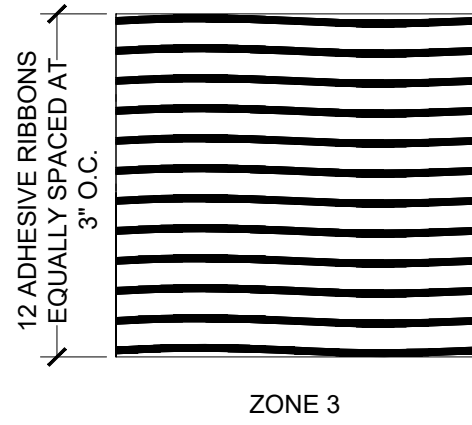
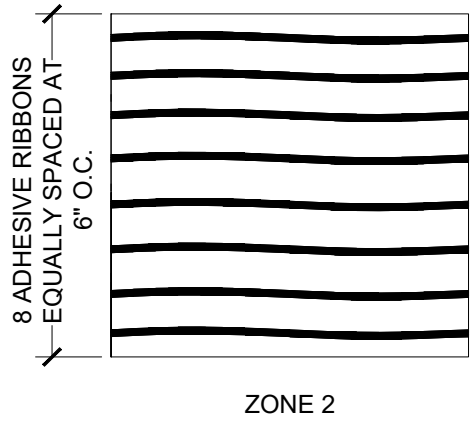
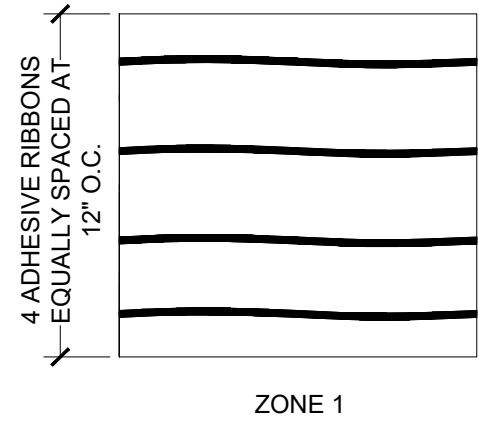
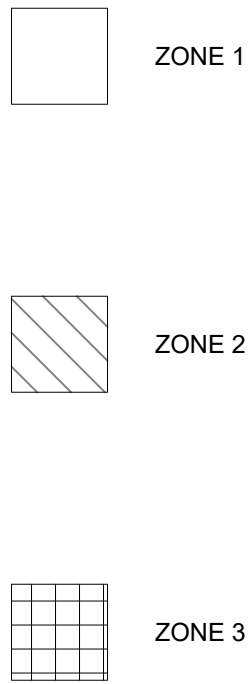
XR-101

SHEET 2 OF 7

ROOF PLAN

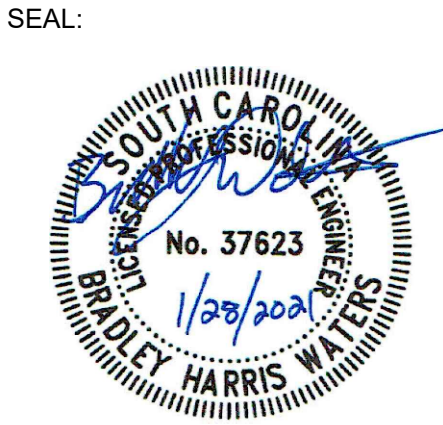


- NOTES:
1. PLACEMENT OF ADHESIVE BEADS SHALL COMPLY WITH BOARD MANUFACTURER'S PUBLISHED LITERATURE AND THE MEMBRANE MANUFACTURER'S REQUIREMENTS.
 2. CUT OR SCORE BOARDS TO CONFORM TO ANY IRREGULAR SUBSTRATE CONDITIONS.
 3. INSTALL NUMBER OF ADHESIVE BEADS REQUIRED BY MEMBRANE MANUFACTURER'S TESTED ASSEMBLY TO MEET WIND DESIGN UPLIFT PRESSURES SPECIFIED IN SECTION 07 52 16.



MINIMUM FOAM ADHESIVE APPLICATION

ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com



COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA
H27-Z422

REI PROJECT #: 20CHS-072

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW

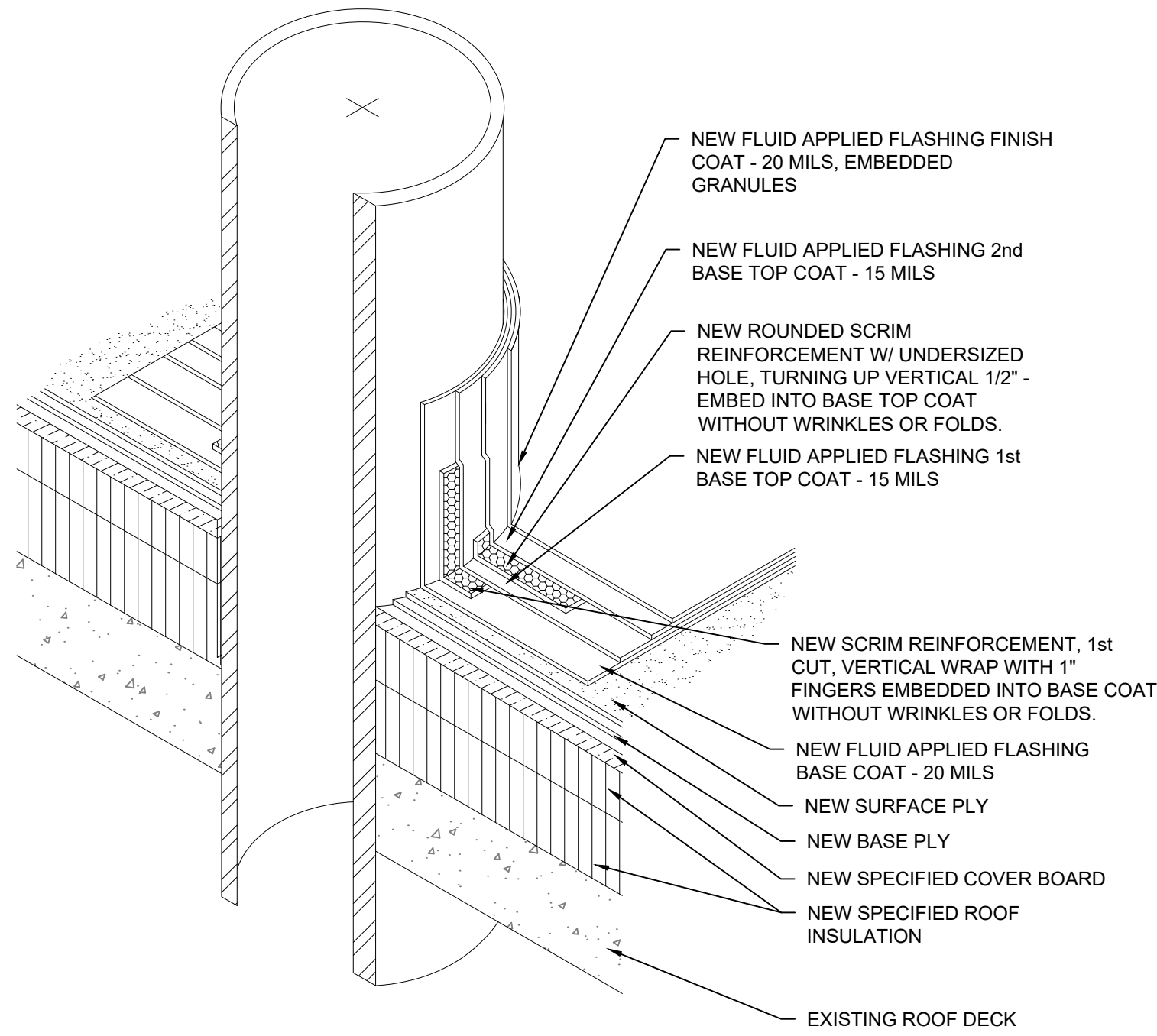
SCALE: 1" = 20' - 0"

DATE: 01/28/2021

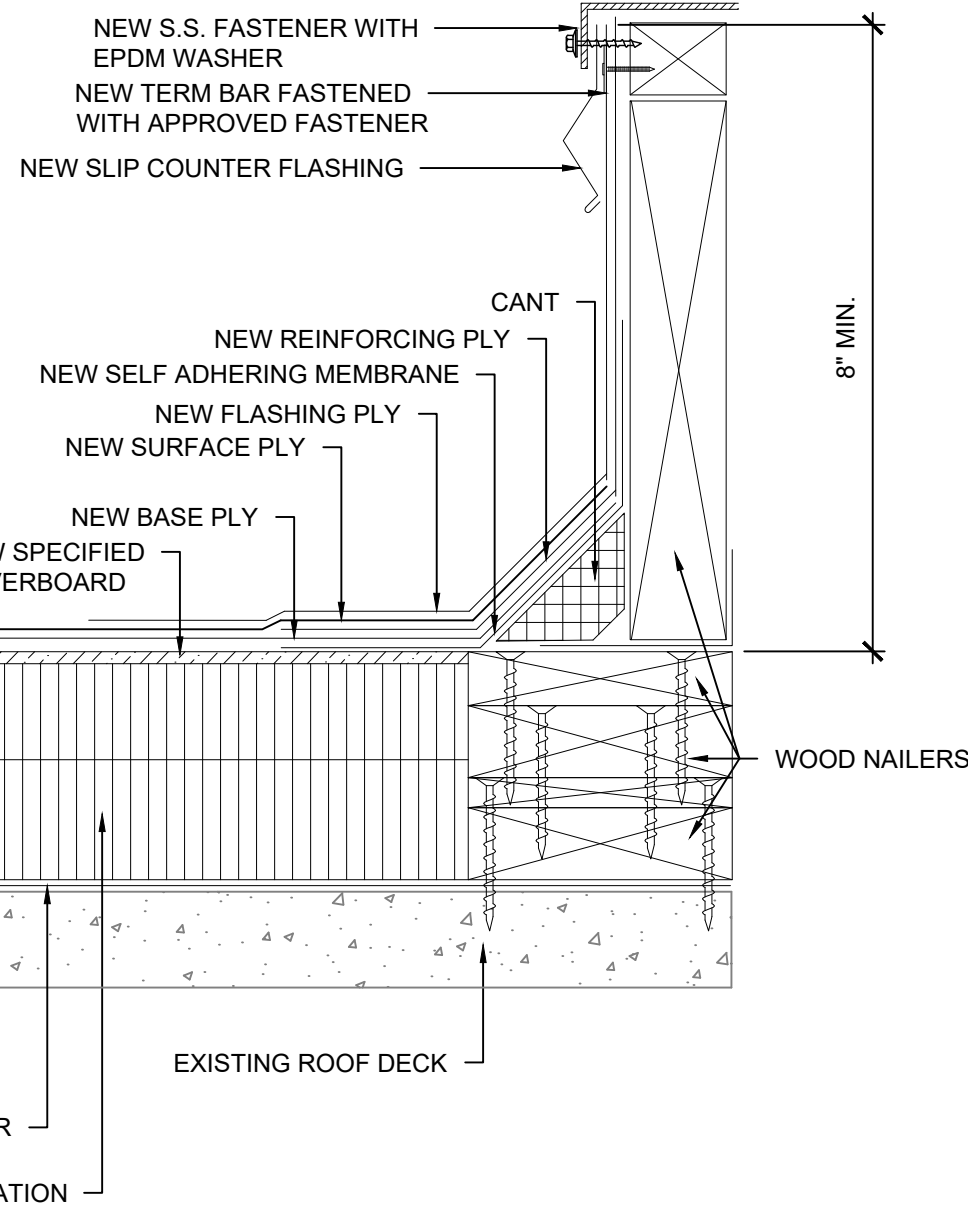
DRAWING:

XR-102
SHEET 3 OF 7

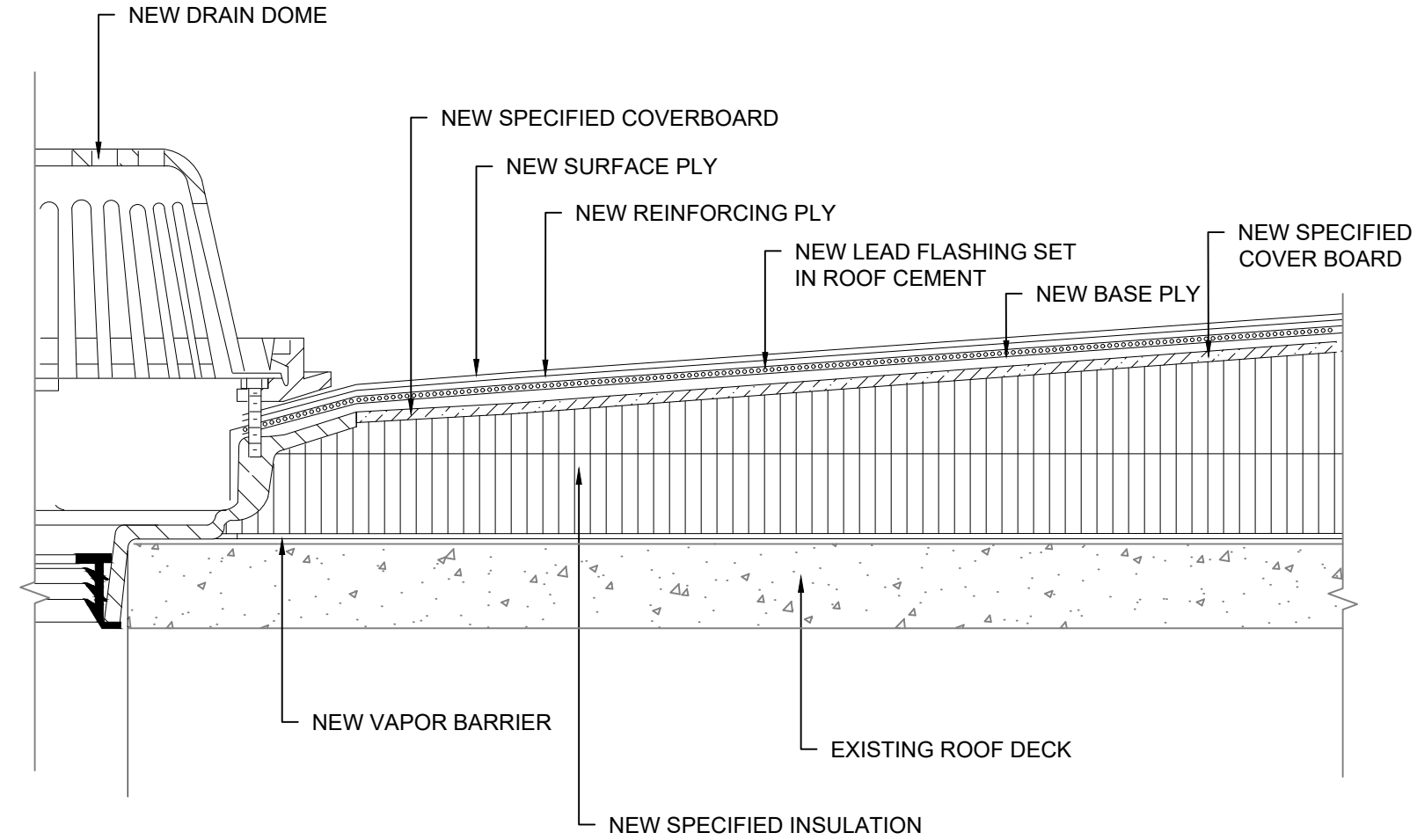
INSULATION ATTACHMENT PLAN



- NOTES:
1. DETAIL TO BE USED IN CONJUNCTION WITH MANUFACTURERS GENERAL REQUIREMENTS, APPROVED DETAILS AND FLUID APPLIED FLASHING PRODUCTS APPLICATION AND COVERAGE DIRECTIONS.
 2. ALL PIPES MINIMUM 8" ABOVE FINISHED ROOF SURFACE.
 3. PENETRATION SIZE MAY VARY, ADDRESS SIMILARLY.
 4. VAPOR BARRIER NOT SHOWN FOR CLARITY.



- NOTES:
1. CONTRACTOR TO VERIFY CURB CONSTRUCTION.
 2. ADD NAILERS AS NECESSARY TO OBTAIN 8" MINIMUM FLASHING HEIGHT.
 3. PROVIDE NECESSARY MECHANICAL / ELECTRICAL MODIFICATION BY A LICENSED ELEC/MECH CONTRACTOR.
 5. CONDITIONS AND HEIGHTS MAY VARY, FLASH SIMILARLY.



- NOTES:
1. PROVIDE MINIMUM 4' X 4' SUMP AROUND DRAIN.
 2. PROVIDE NEW STAINLESS STEEL CLAMPING RING AND CLAMP RING FASTENERS.

1 TYPICAL PIPE PENETRATION

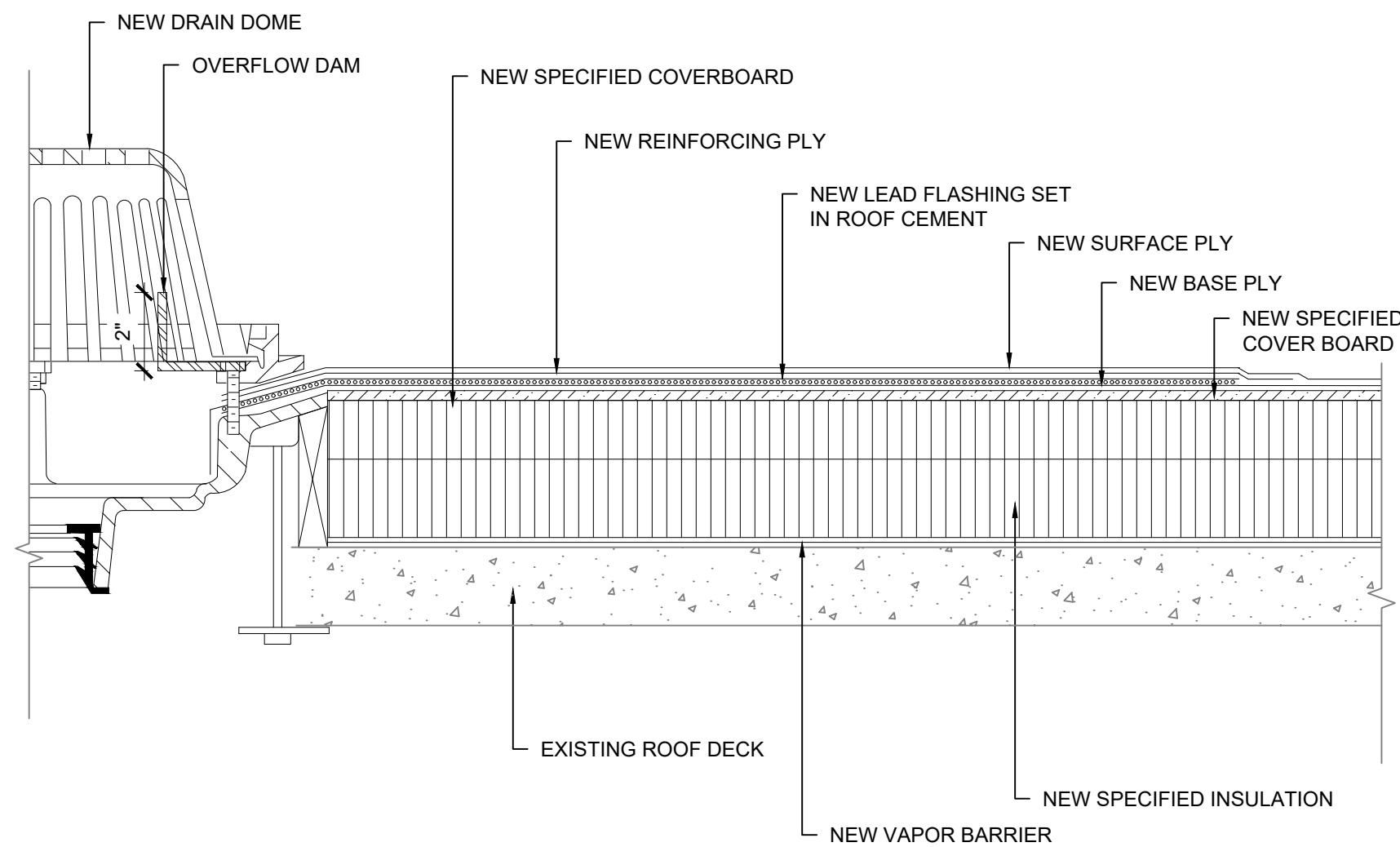
SCALE: N.T.S.

2 TYPICAL EQUIPMENT CURB

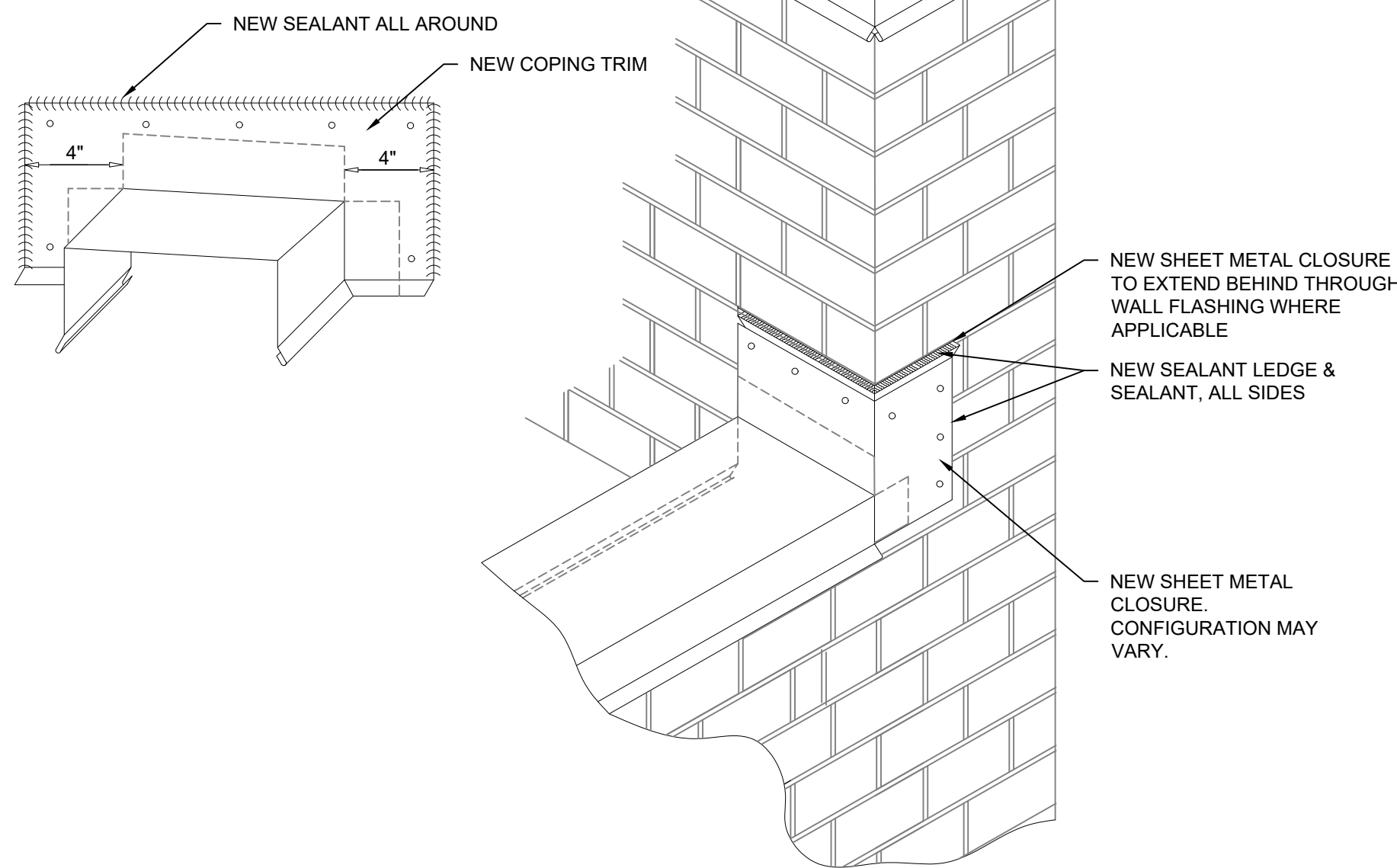
SCALE: N.T.S.

3 TYPICAL ROOF DRAIN

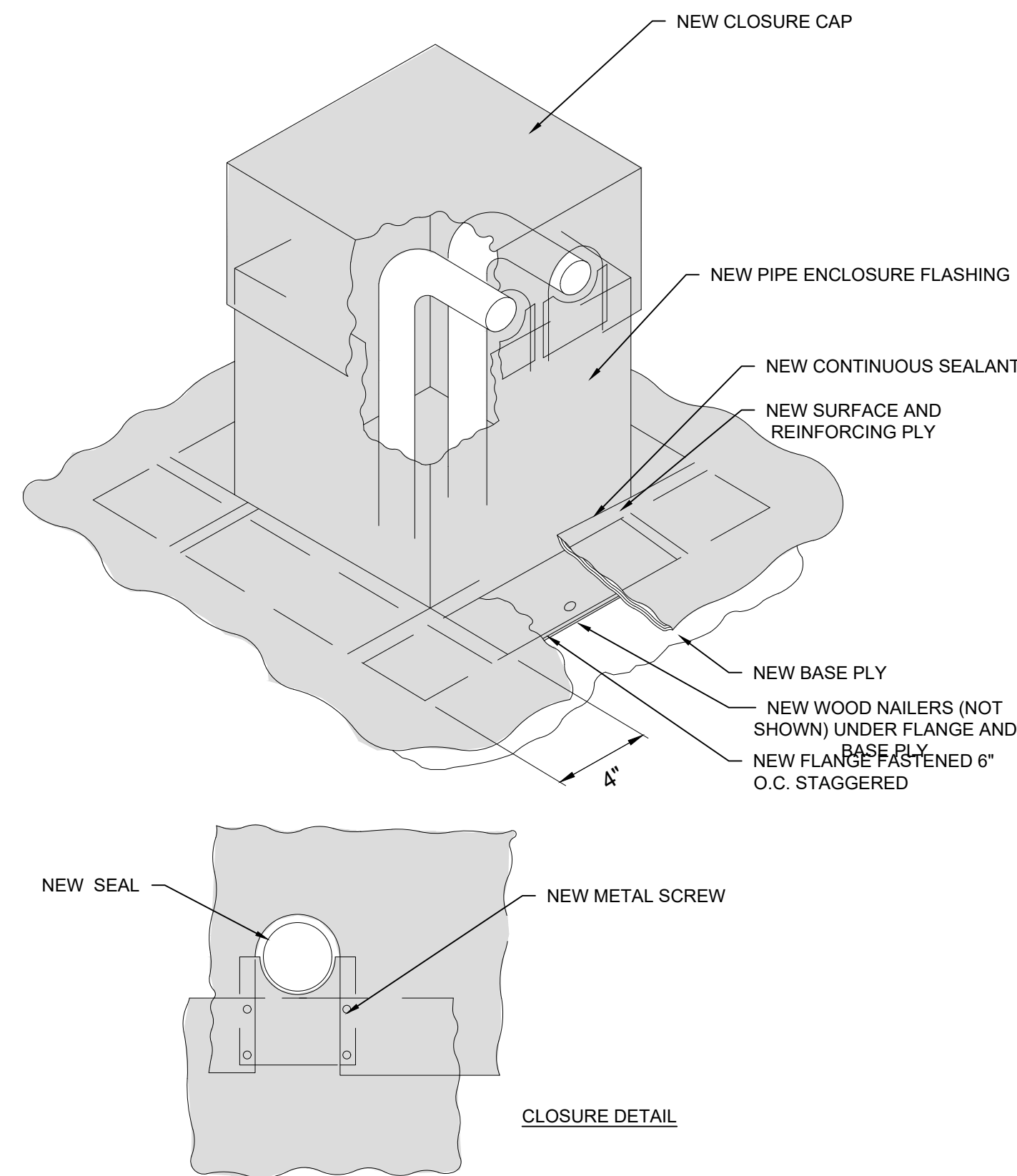
SCALE: 3" = 1' - 0"



- NOTES:
1. ADJUST DRAIN HEIGHT TO MATCH INSULATION THICKNESS.
 2. PROVIDE NEW STAINLESS STEEL CLAMPING RING AND CLAMP RING FASTENERS.



- NOTES:
1. WALL CONDITIONS AND HEIGHTS VARY, ADDRESS SIMILARLY.
 2. COPING TRIM TO COVER FLANGE A MIN. OF 1".



- NOTES:
1. SLOPE CONDUITS AWAY FROM HOOD FLASHING.
 2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL MECHANICAL / ELECTRICAL / GAS LINE WORK OR RELATED EQUIPMENT.
 3. CONDITIONS AND HEIGHTS MAY VARY, FLASH SIMILARLY.
 4. ELECTRICAL / MECHANICAL WORK TO BE COMPLETED BY LICENSED ELECTRICAL / MECHANICAL CONTRACTOR.

4 OVERFLOW DRAIN

SCALE: 3" = 1' - 0"

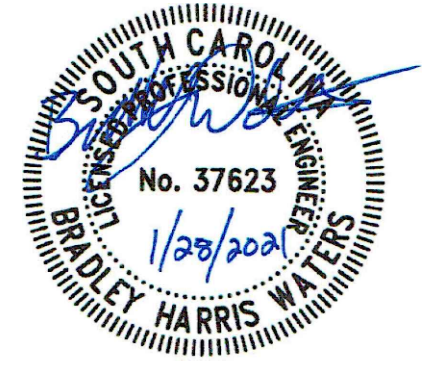
5 COPING TERMINATION

SCALE: N.T.S.

6 MULTI-PIPE

SCALE: N.T.S.

SEAL:



COA SEAL:



COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA
REI PROJECT #: 20CHS-072
H27-Z422

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW

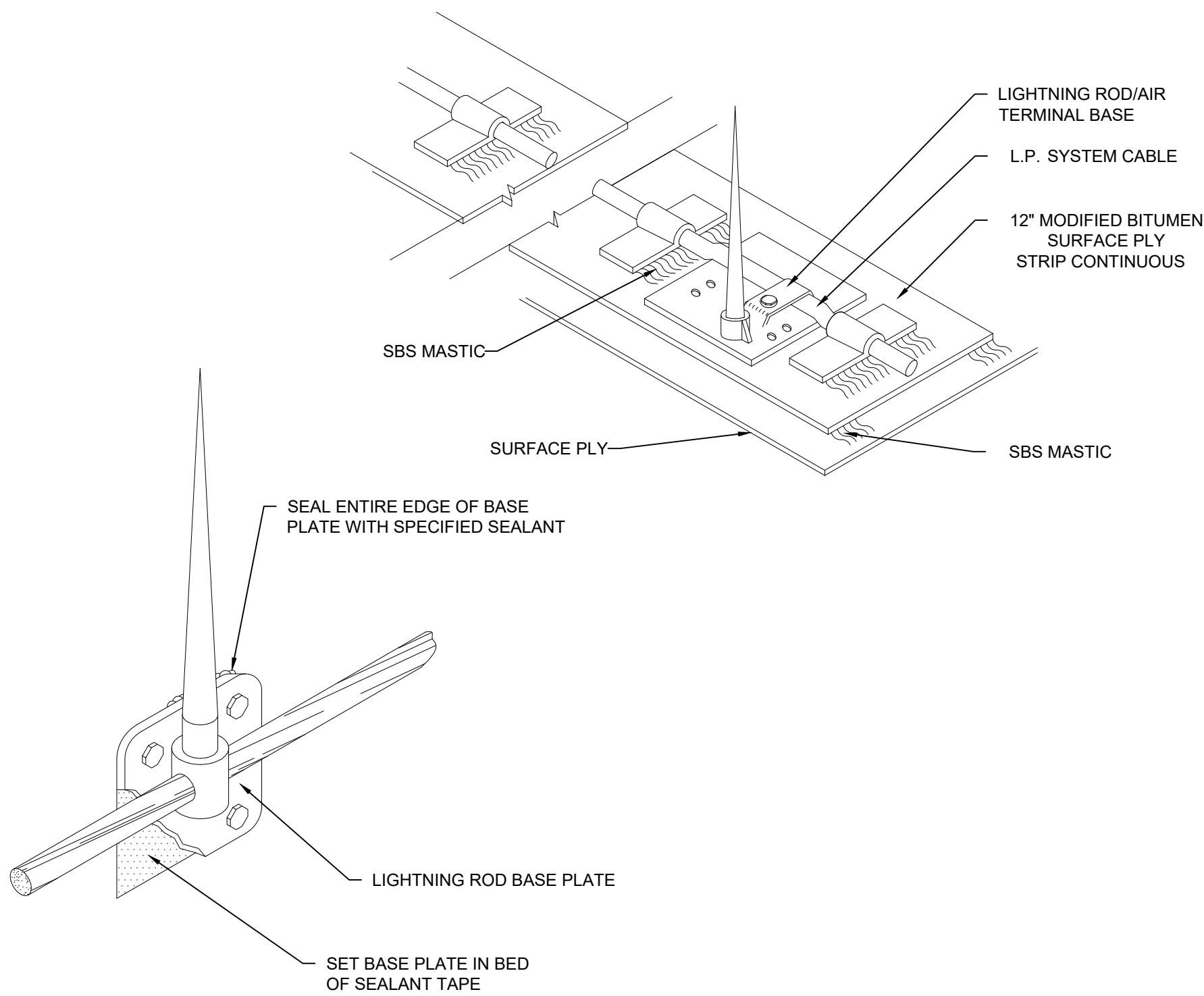
SCALE: N.T.S.

DATE: 01/28/2021

DRAWING:

XR-201
SHEET 4 OF 7

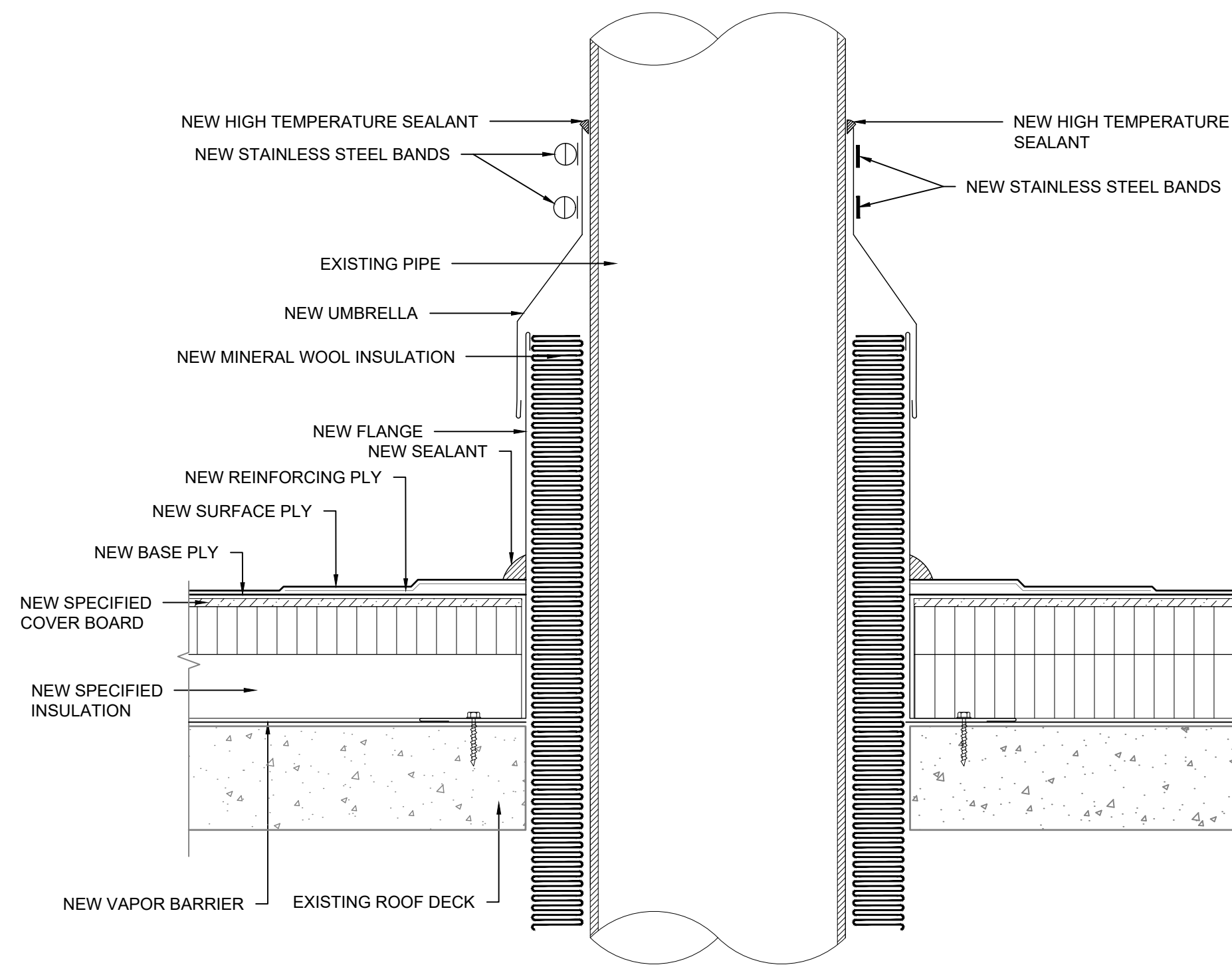
ROOF DETAILS



- NOTES:
1. LIGHTNING PROTECTION: MOUNT ON INSIDE FACE OF COPING OR OTHER SURFACES AS NECESSARY.
 2. A MIN. 12" WIDE PROTECTIVE MEMBRANE LAYER IS REQUIRED UNDER LIGHTNING PROTECTION BASE TO PROVIDE ADDITIONAL PROTECTION OF THE ROOFING SYSTEM.

7 TYPICAL LIGHTNING PROTECTION

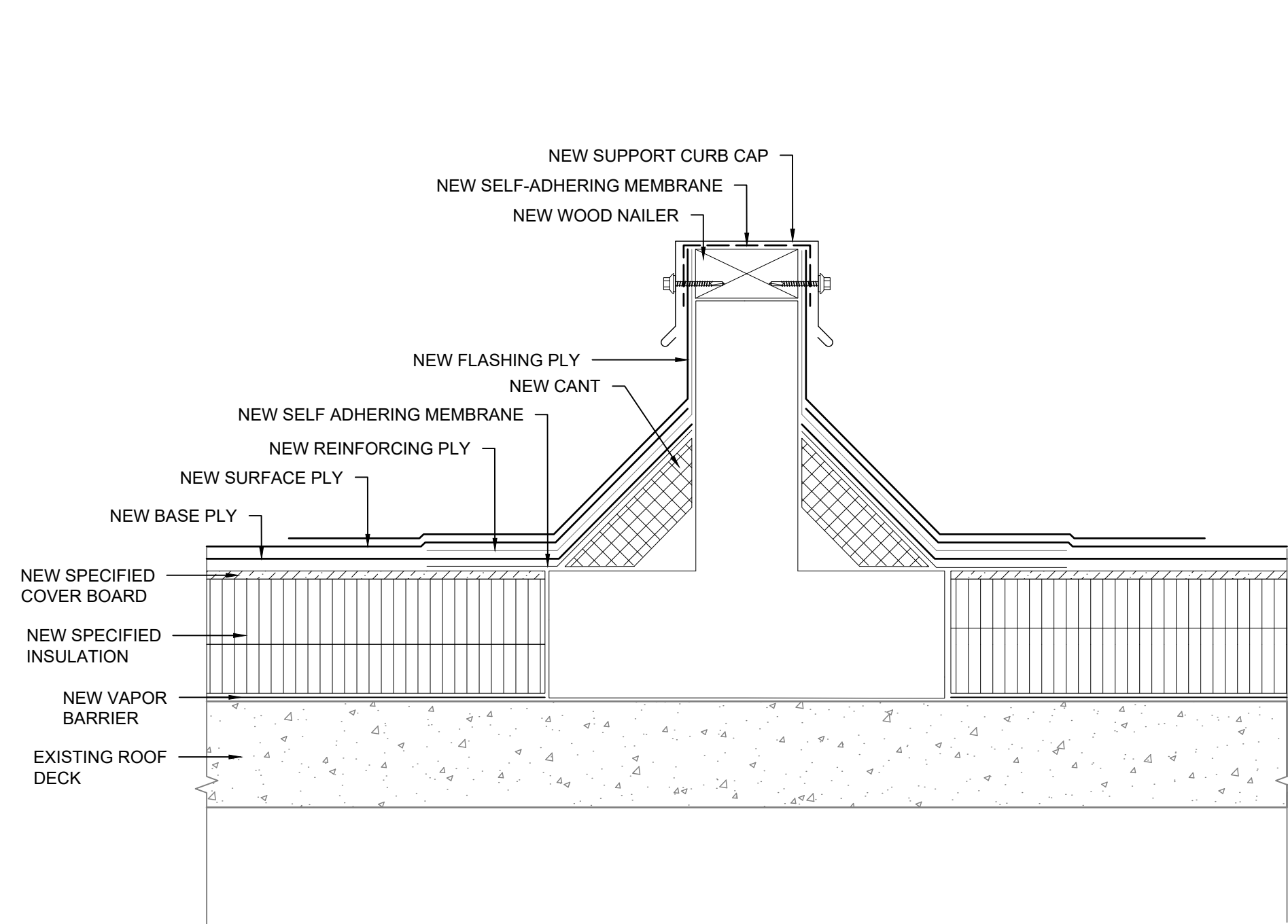
SCALE: N. T. S.



- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS. PIPE SIZES AND HEIGHTS MAY VARY, FLASH SIMILARLY.
 2. FASTEN NEW FLANGE TO EXISTING ROOF DECK WITH APPROVED FASTENERS.
 3. SLOPE IN EXISTING ROOF DECK MAY NOT BE SHOWN.

8 TYPICAL HOT STACK

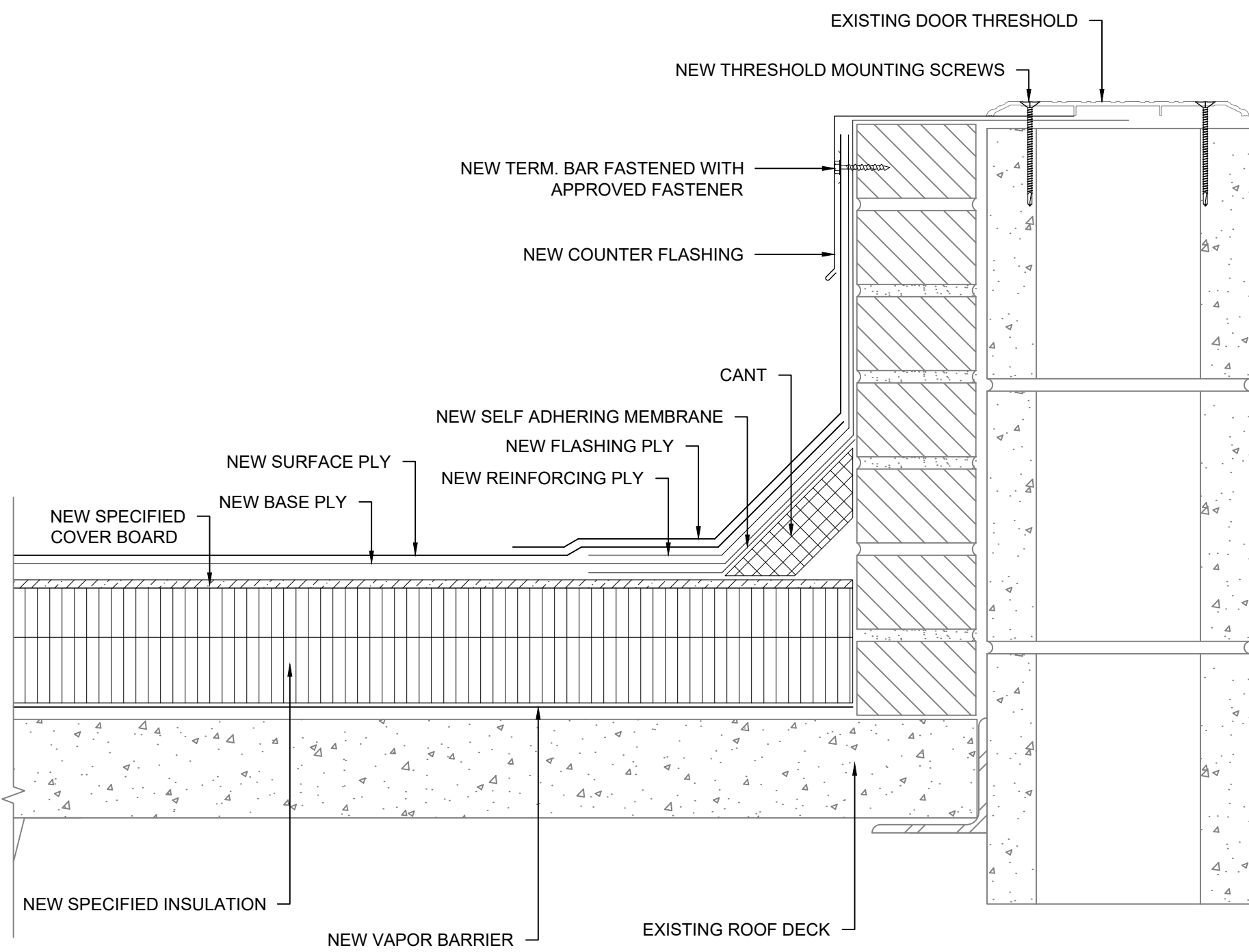
SCALE: N. T. S.



- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS. CONDITIONS AND HEIGHTS MAY VARY, FLASH SIMILARLY.
 2. MODIFY / ADD NEW WOOD NAILERS TO ACHIEVE 8" MIN. BASE FLASHING HEIGHT ON BOTH SIDES.

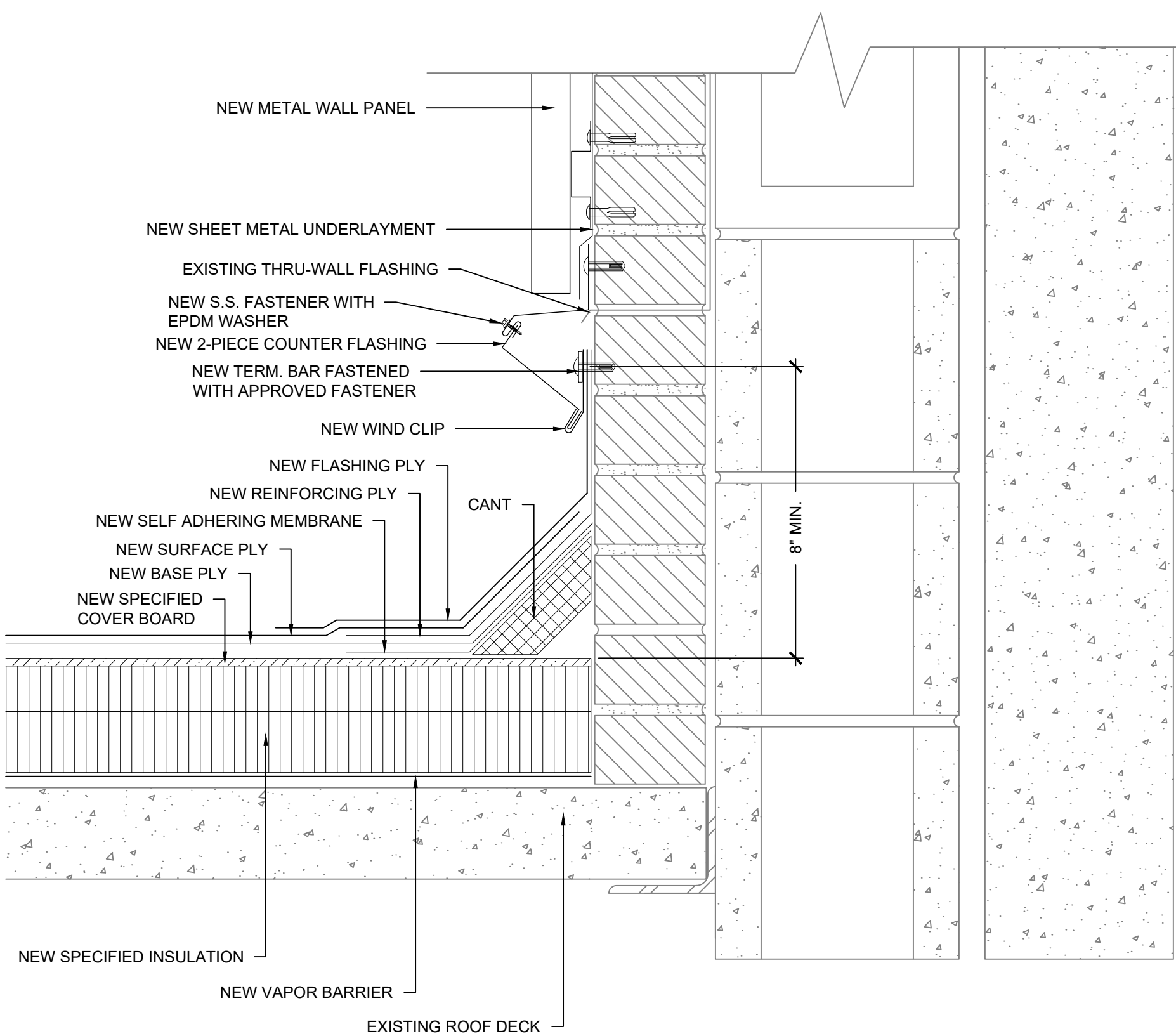
9 EQUIPMENT SUPPORT CURB

SCALE: 3" = 1' - 0"



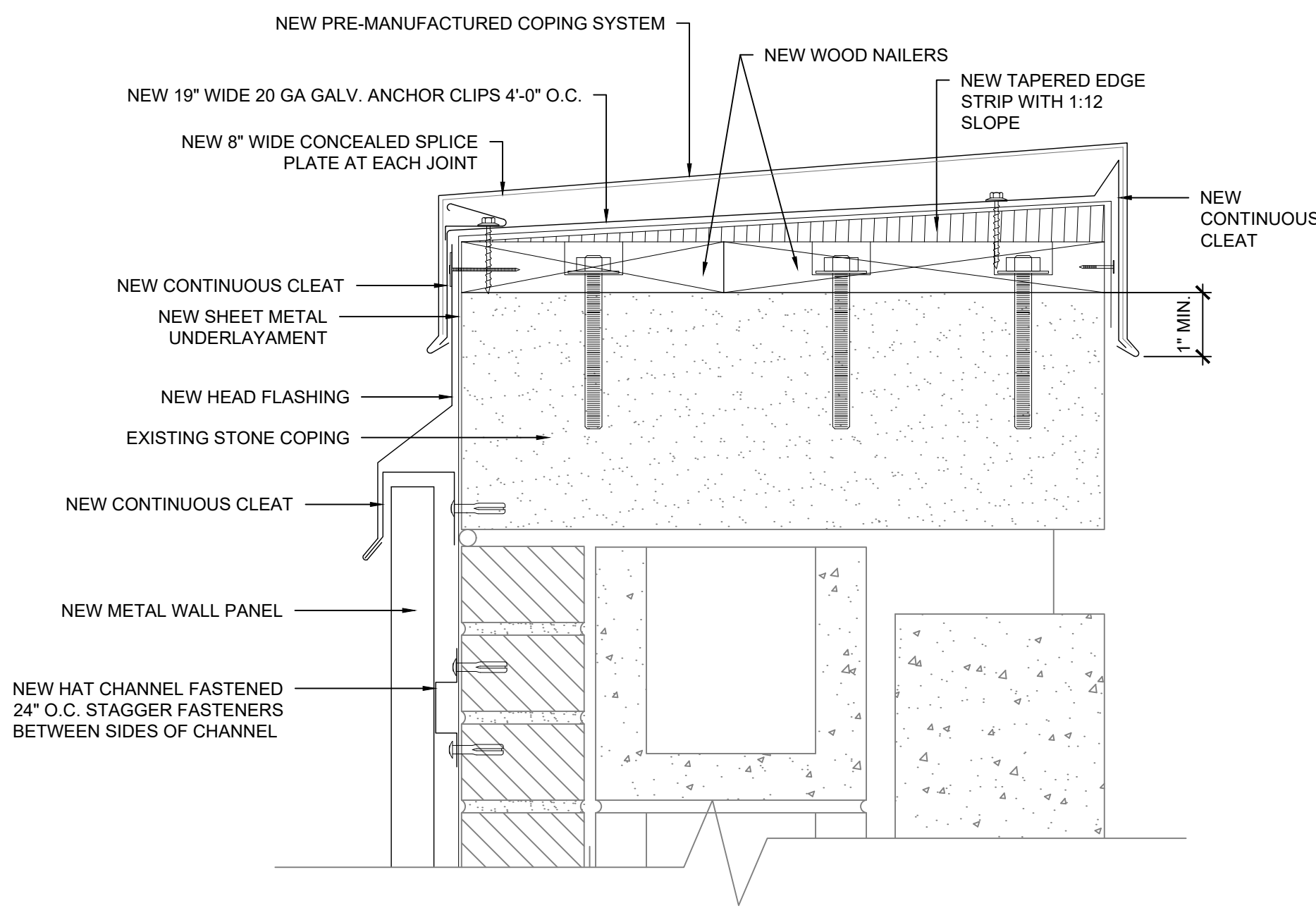
10 DOOR THRESHOLD

SCALE: 3" = 1' - 0"



11 ALTERNATE No. 1 - PARAPET WALL METAL PANELS

SCALE: 3" = 1' - 0"



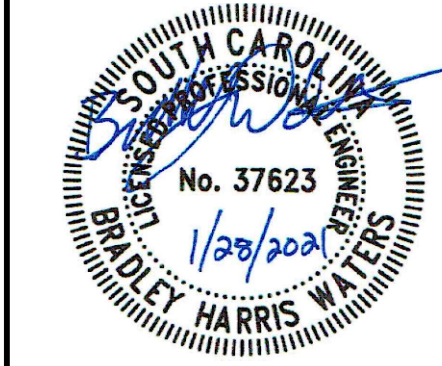
12 ALTERNATE No. 1 - PARAPET WALL COPING

SCALE: 3" = 1' - 0"

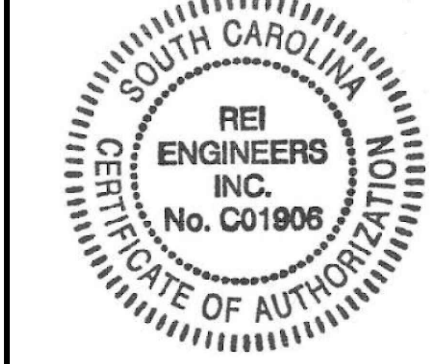
ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com



SEAL:



COA SEAL:



COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA
REI PROJECT #: 20CHS-072
H27-Z422

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW

SCALE: N.T.S.

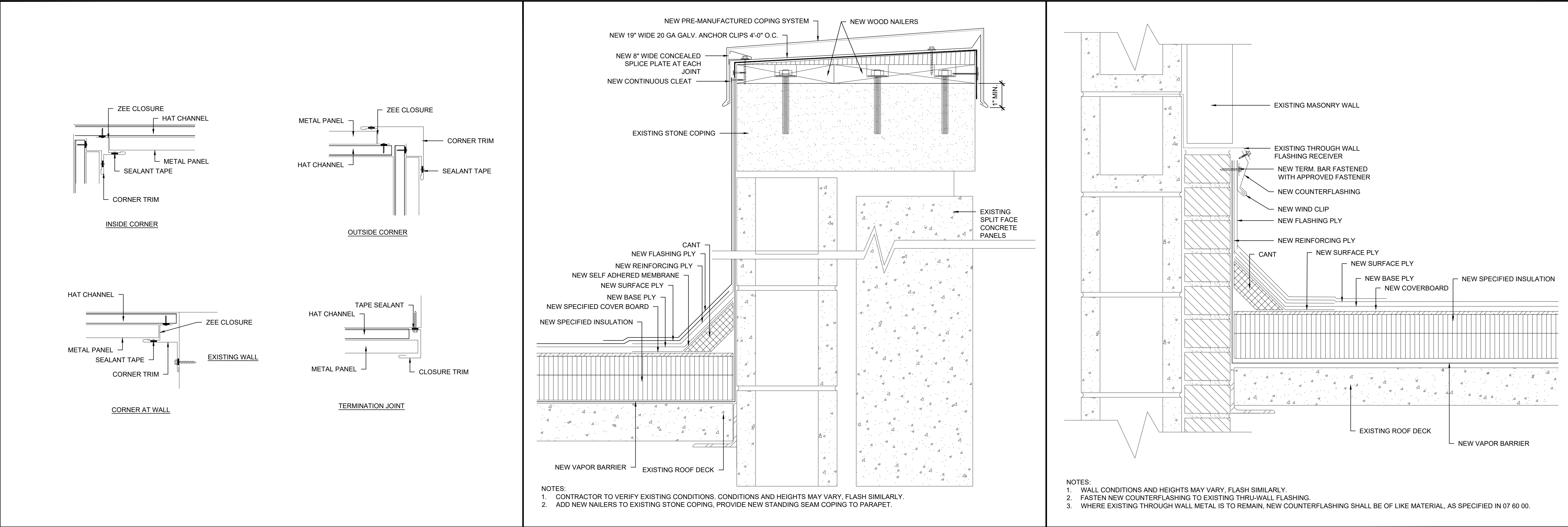
DATE: 01/28/2021

DRAWING:

XR-202

SHEET 5 OF 7

ROOF DETAILS



ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com

SEAL:

COA SEAL:

COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

REI PROJECT #: 20CHS-072
H27-Z422

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW

SCALE: N.T.S.

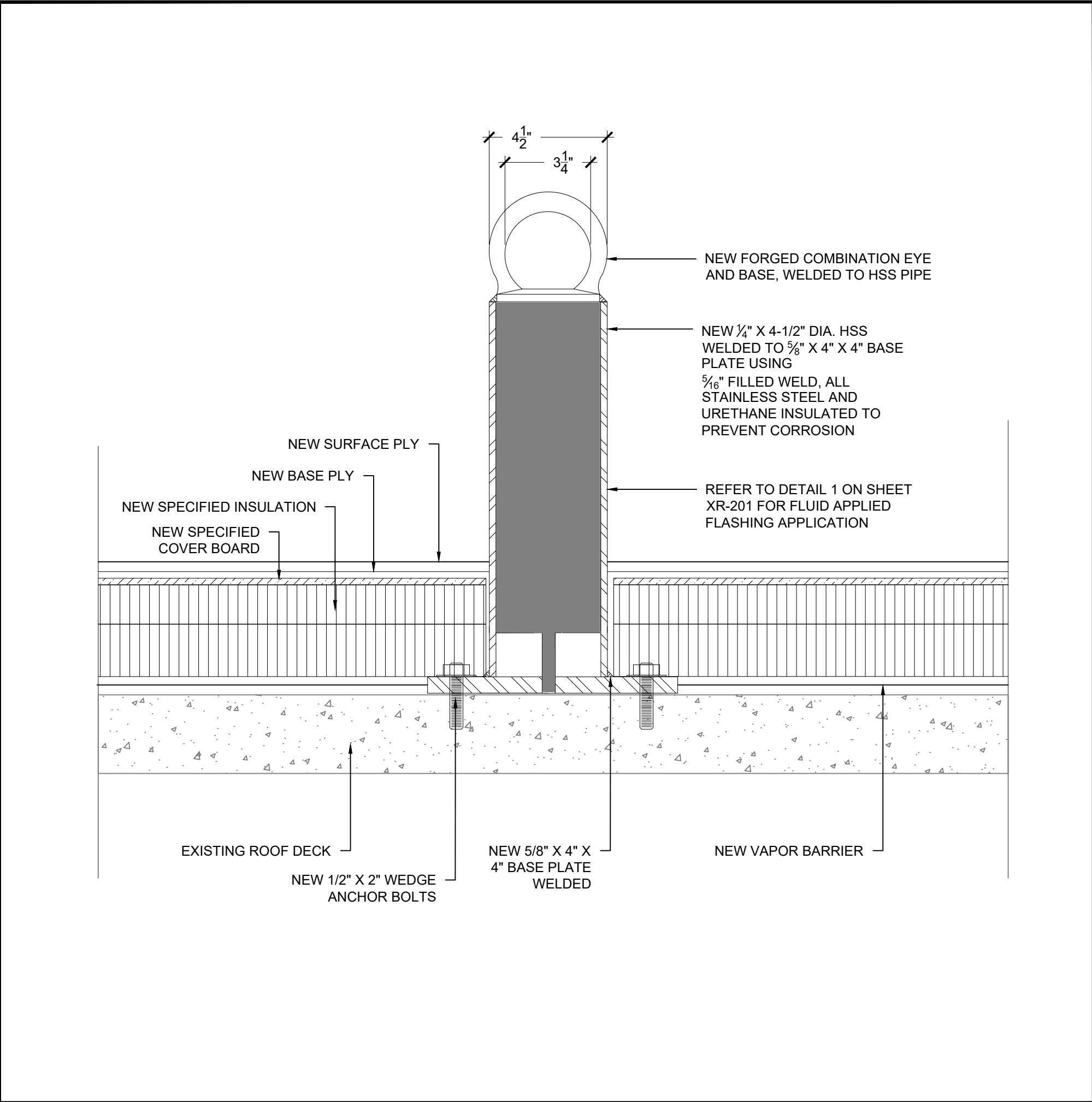
DATE: 01/28/2021

DRAWING:

XR-203

SHEET 6 OF 7

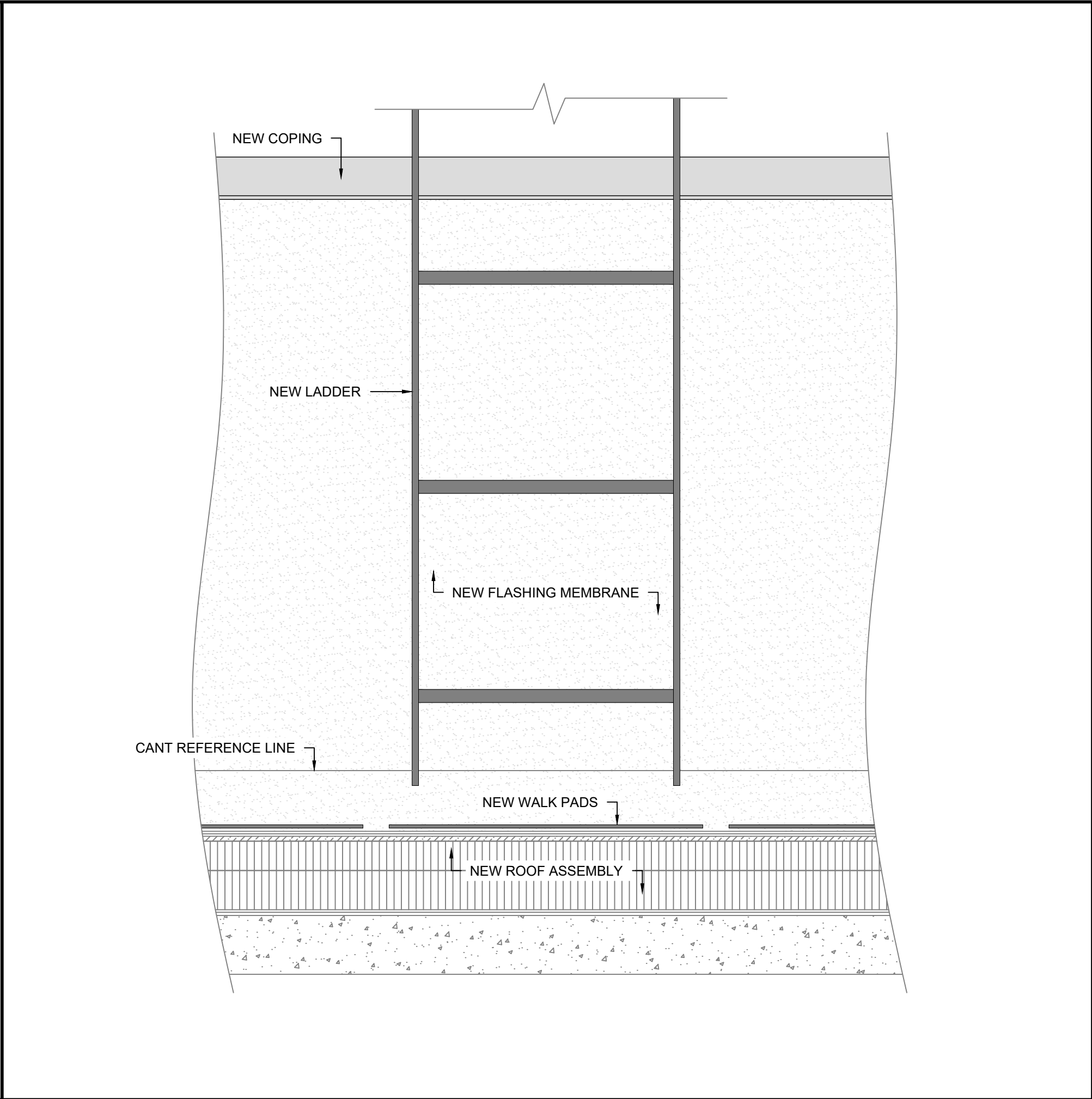
ROOF DETAILS



19

NEW GUY WIRE ANCHOR

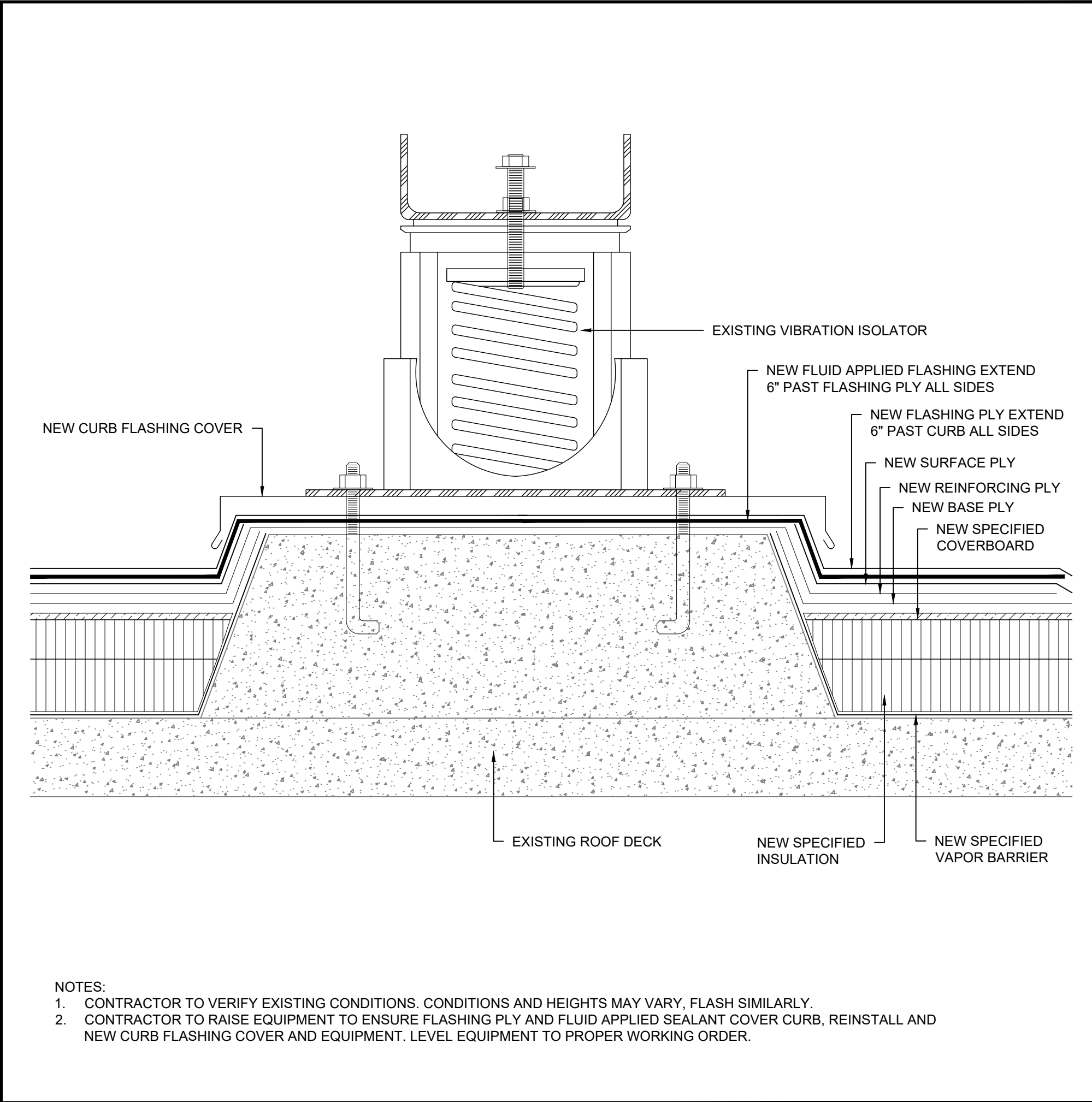
SCALE: N. T. S.



20

ROOF LADDER

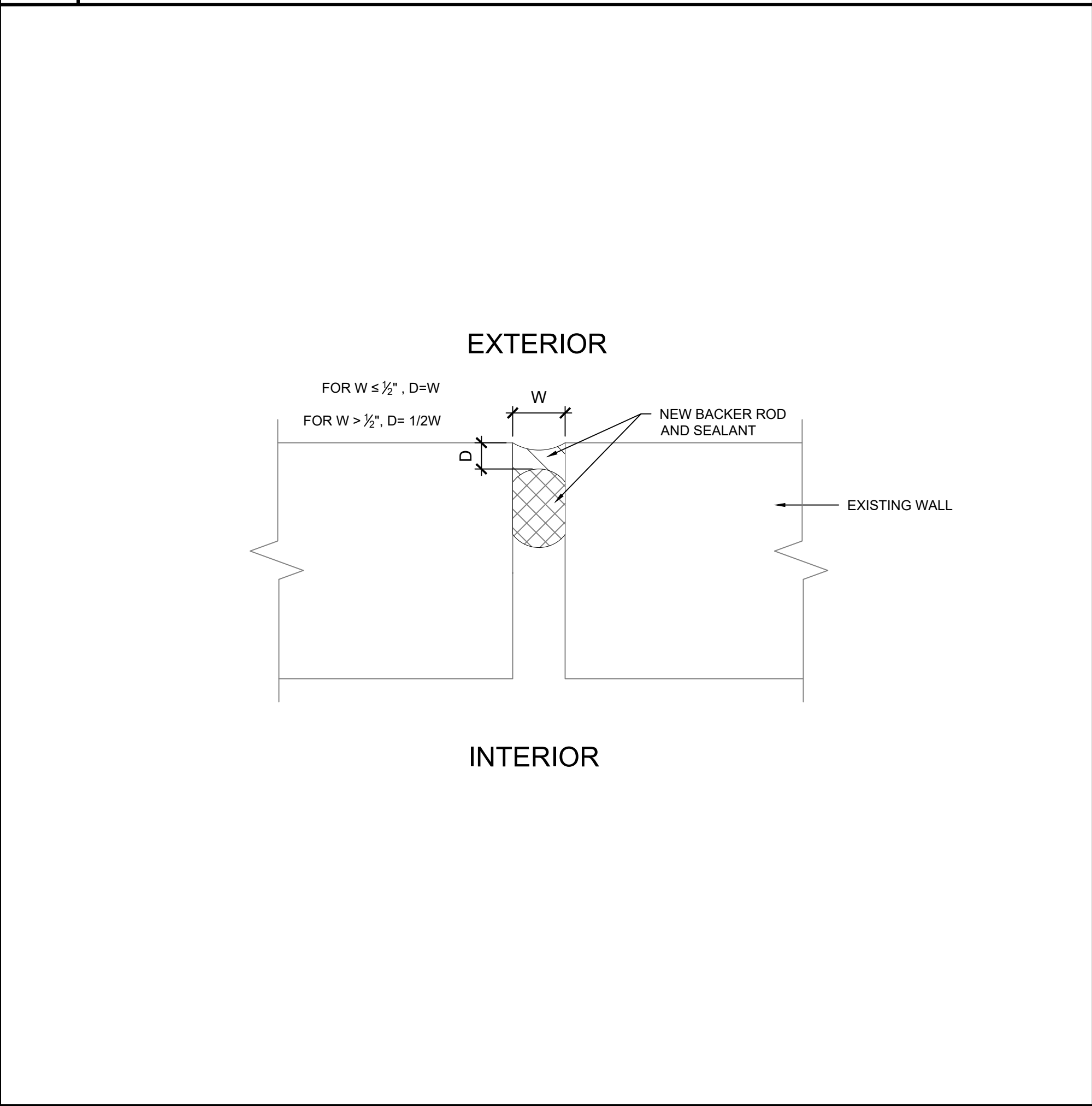
SCALE: N. T. S.



21

CONCRETE CURBS

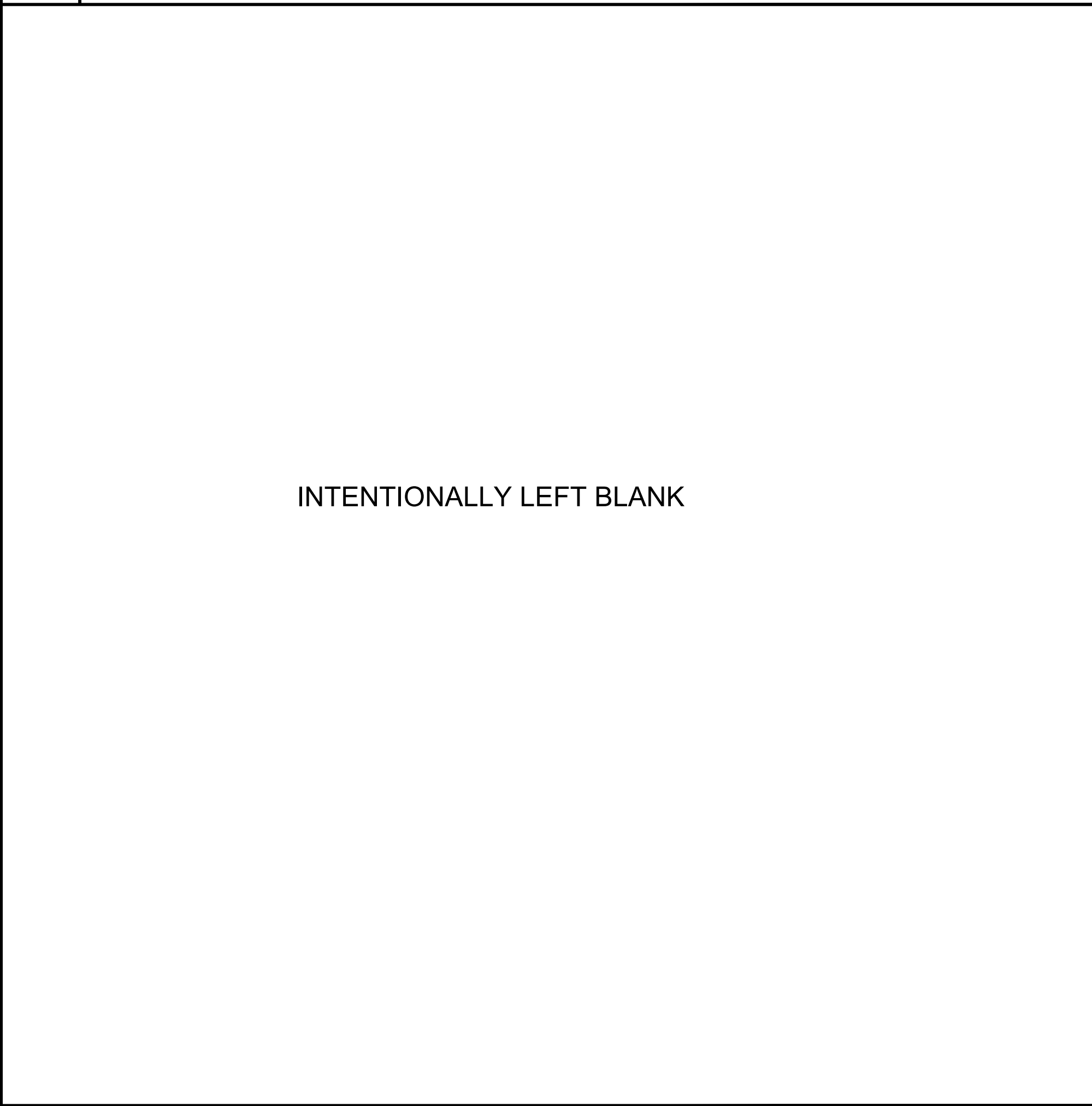
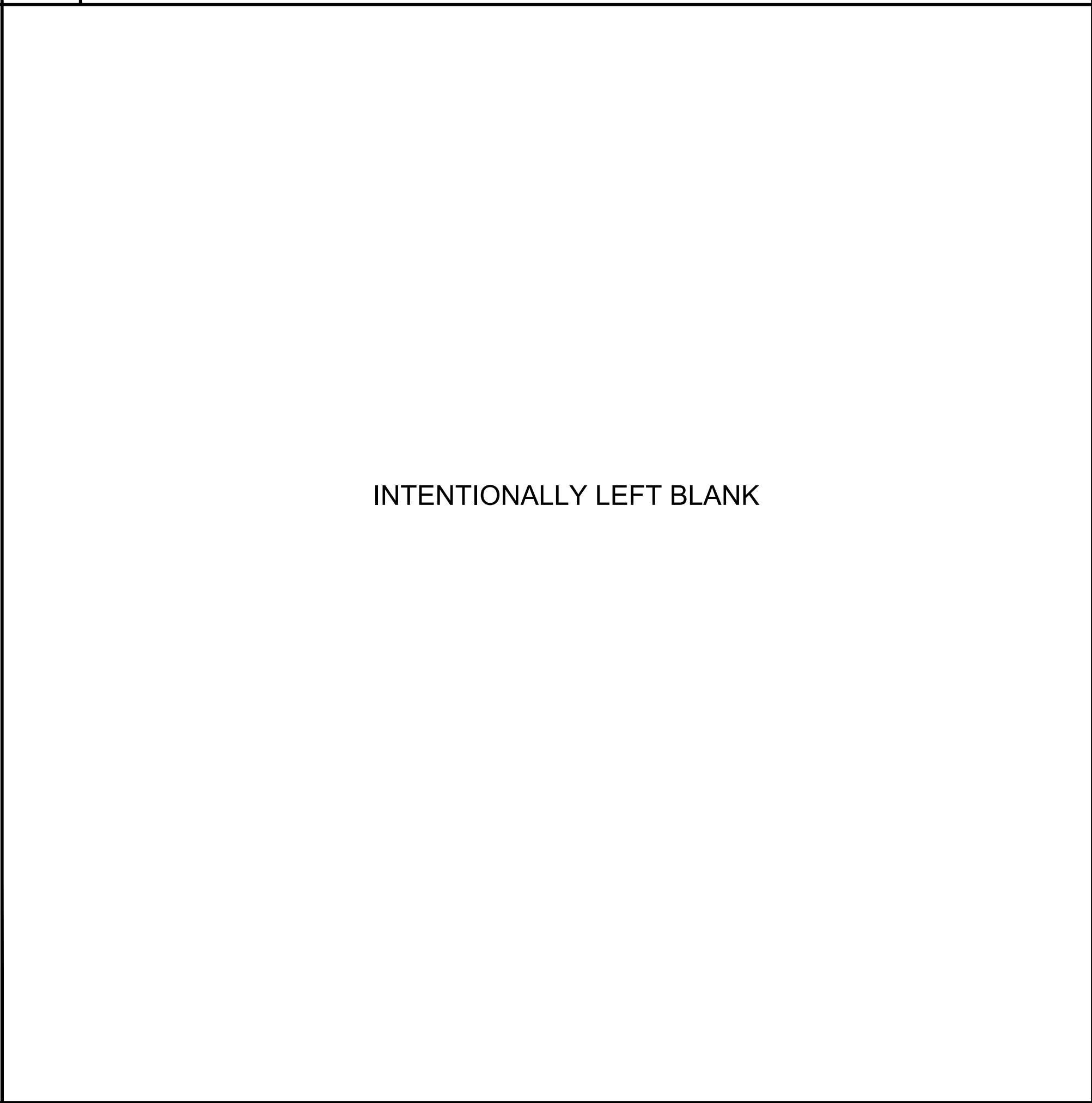
SCALE: 3" = 1' - 0"



22

COPING SEALANT JOINTS

SCALE: N. T. S.



ROOFING, WATERPROOFING & BUILDING
ENVELOPE ENGINEERS & CONSULTANTS
www.reiengineers.com

SEAL:

COA SEAL:

COKER LIFE SCIENCES BUILDING
ROOF REPLACEMENT
UNIVERSITY OF SOUTH CAROLINA
COLUMBIA, SOUTH CAROLINA

REI PROJECT #: 20CHS-072
H27-Z422

REVISION #	REVISION DATE
1	
2	
3	
4	

DRAWN BY: RLW
SCALE: N.T.S.
DATE: 01/28/2021
DRAWING:
XR-204
SHEET 7 OF 7
ROOF DETAILS