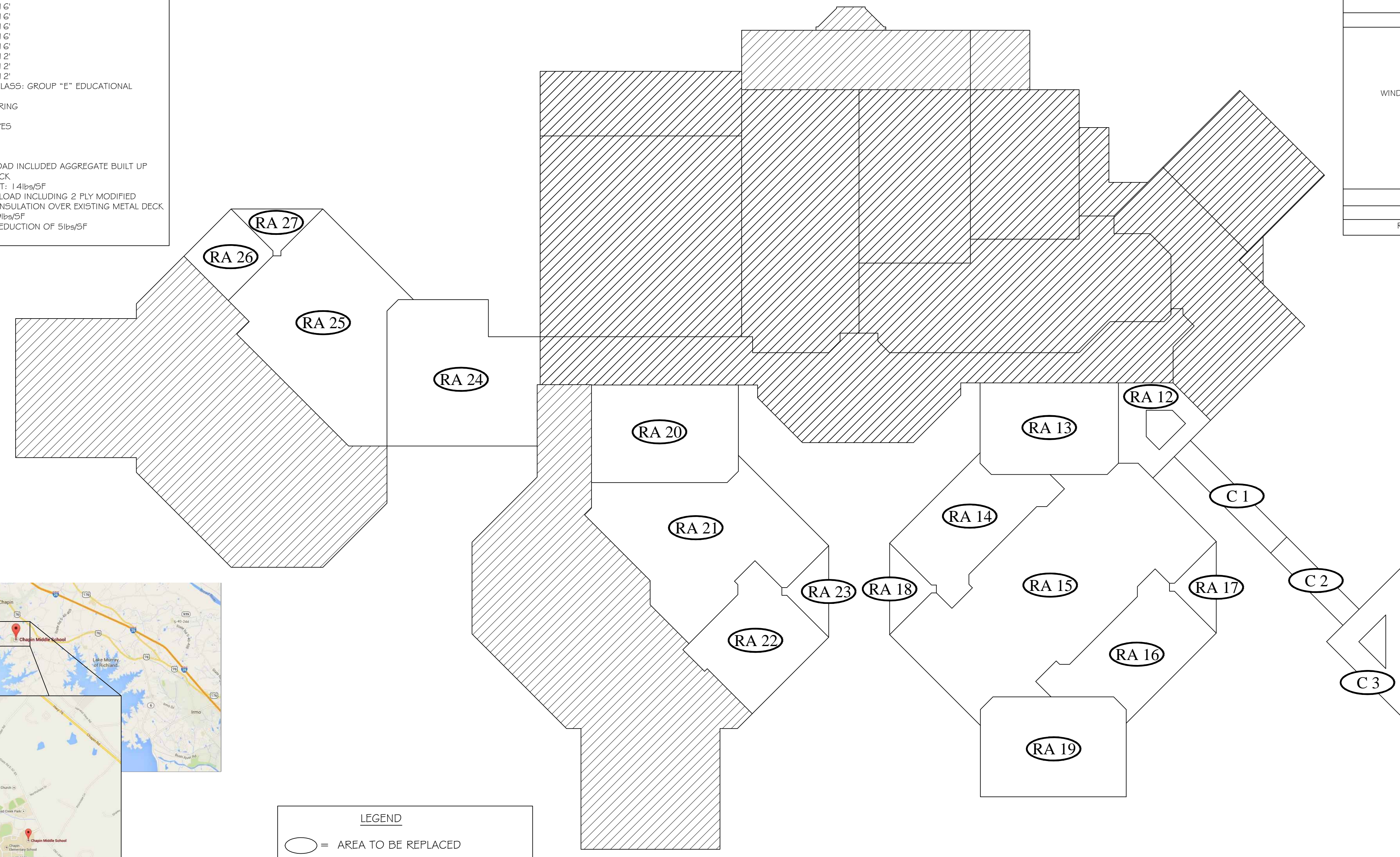


BUILDING CODE ANALYSIS (FORM F3)		
PROJECT: Chapin Intermediate School Original Building (Phase II) Roof Replacement Project		
DISTRICT: Lexington # Richland School District 5		
SUBMITTAL: <input type="checkbox"/> SCHEMATIC <input type="checkbox"/> DESIGN DEVELOPMENT <input checked="" type="checkbox"/> CONSTRUCTION DOCUMENT		
DATE: 01/20/18 CODE # EDITION: 2012 IBC # 2009 IECC		
GUIDE EDITION: 2014 PLANNING & CONSTRUCTION GUIDE		
BASIC BUILDING CODE INFORMATION		
CONSTRUCTION CLASSIFICATION TYPE (IBC 602)	ROOF AREAS 12 THRU 27	
OCCUPANCY GROUP (indicate all) (IBC 302) (Note IBC 506.5)	TYPE II-A	
OCCUPANCY GROUP (indicate most restrictive) (IBC Table 503)	E	
Does building require Incidental Use Area Separation? (IBC 508.2.5)		
[X] no [] yes		
Does building have Accessory Occupancy (es)? What percent of story is accessory occupancy? (IBC 508.2)		
[X] no [] yes		
Mixed Occupancy (IBC 508)		
[X] no [] yes		
Non separated (IBC 508.3)		
[X] no [] yes		
Separated (IBC 508.4) (IBC 506.5)		
[X] no [] yes		
OTHER FIRE PROTECTION SYSTEMS, DEVICES OR FEATURES		
If the building has any special or notable fire protection or safety feature or hazard the designers should list them here, describe the performance characteristics and refer to locations in construction documents. (e.g. fire extinguishers, smoke-evacuation/control/compartments. Note IBC 414.1.3.)		
N/A		
FIRE RESISTANCE RATING OF BUILDING ELEMENTS		
		ROOF AREAS 12 THRU 27
Roof Construction including supporting beams & joists (IBC Table 601)	As Required, Hrs	1 HR
	As Designed, Hrs	1 HR
	Testing Agency & Design No. (UL, FM, etc)	UL
Wall/Partition Key Code		P267
STRUCTURAL DESIGN INFORMATION, BUILDING		
WIND LOADS	Analysis Procedure (ASCE 7 or IBC 1609.G)	ASCE 7
	Basic Wind Speed, MP5 (3 sec gust IBC Fig 1.6-9)	V ₅₀ = 95
	Exposure Category	CAT. B
	Wind Importance Factor (ASCE 7 Table 6.1)	I _w = 1.15
	Internal Pressure Coefficient (ASCE 7)	GC _p = ±0.18
External Pressure Coefficient (ASCE 7)	FIELD = -1.0 GC _p = PERIMETER = -1.0 CORNER = -2.0	
ENERGY INFORMATION		
INSULATION		
Roof	Continuous	24 R

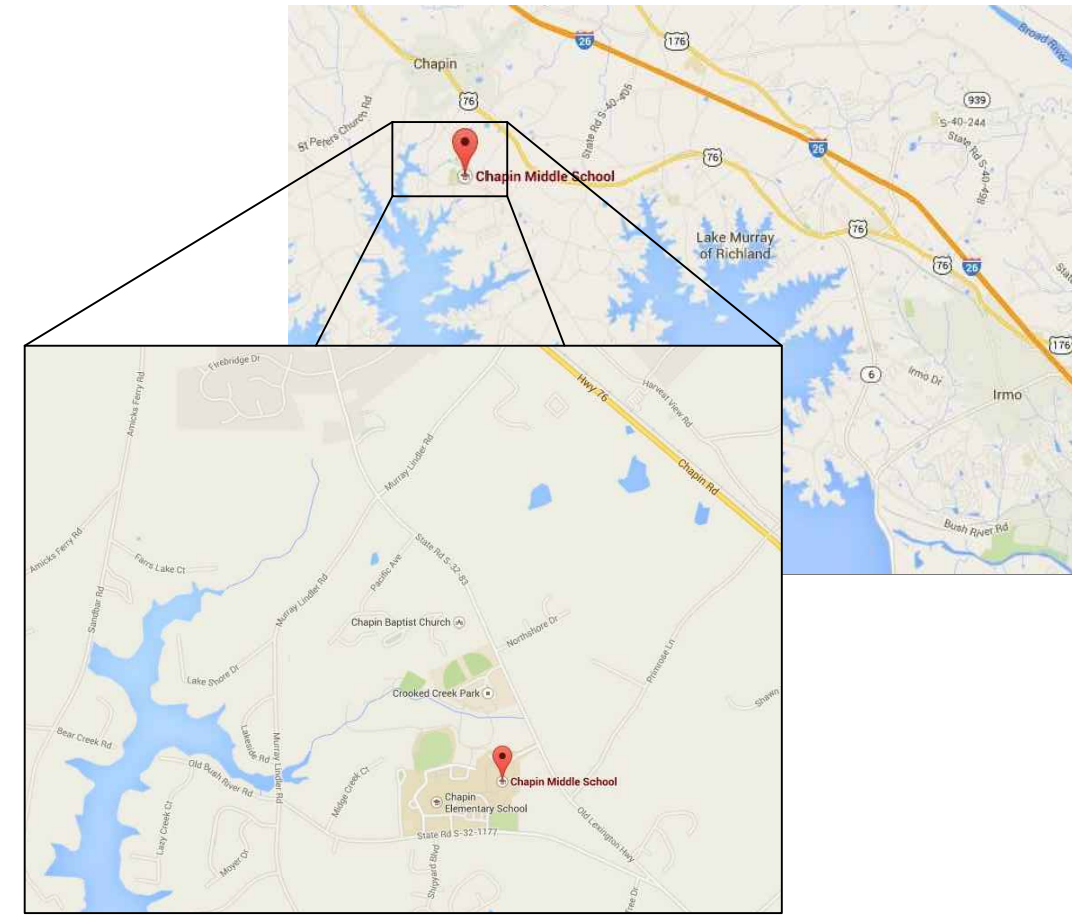


ROOF REPLACEMENT PROJECT AT CHAPIN INTERMEDIATE SCHOOL (PHASE II) CHAPIN, SC 29036 BID NO. 2018-023

PROJECT DATA	
A. PROJECT DESIGNED IN ACCORDANCE WITH:	
1. INTERNATIONAL BUILDING CODE - 2012 EDITION	
2. INTERNATIONAL PLUMBING CODE - 2012 EDITION	
3. INTERNATIONAL FIRE CODE - 2012 EDITION	
4. INTERNATIONAL EXISTING BUILDING CODE - 2012 EDITION	
5. INTERNATIONAL ENERGY CONSERVATION CODE - 2009 EDITION	
6. NATIONAL FIRE PROTECTION ASSOCIATION 10 - 2013 EDITION	
B. BASIC REVIEW INFORMATION	
1. EXISTING BUILDING IS A 1 STORY REINFORCED CONCRETE MASONRY UNIT (CMU) AND BRICK LOAD BEARING WALL CONSTRUCTION WITH STEEL BAR JOISTS AND METAL "B" DECK.	
2. AREA OF AFFECTED ROOF (RA): 53,029 SF	
a. RA 12:	1,336 SF
b. RA 13:	3,275 SF
c. RA 14:	3,342 SF
d. RA 15:	8,630 SF
e. RA 16:	3,266 SF
f. RA 17:	3,335 SF
g. RA 18:	535 SF
h. RA 19:	3,617 SF
i. RA 20:	3,729 SF
j. RA 21:	5,656 SF
k. RA 22:	2,715 SF
l. RA 23:	533 SF
m. RA 24:	5,070 SF
n. RA 25:	6,095 SF
o. RA 26:	1,063 SF
p. RA 27:	535 SF
q. C1:	781 SF
r. C2:	585 SF
s. C3:	1,502 SF
3. ROOF HEIGHT ABOVE GRADE:	
a. RA 12:	16'
b. RA 13:	16'
c. RA 14:	16'
d. RA 15:	16'
e. RA 16:	16'
f. RA 17:	16'
g. RA 18:	16'
h. RA 19:	16'
i. RA 20:	16'
j. RA 21:	16'
k. RA 22:	16'
l. RA 23:	16'
m. RA 24:	16'
n. RA 25:	16'
o. RA 26:	16'
p. RA 27:	16'
q. C1:	12'
r. C2:	12'
s. C3:	12'
4. PRIMARY OCCUPANCY CLASS: GROUP "E" EDUCATIONAL OCCUPATION	
5. CLASS "A" ROOF COVERING	
C. PROJECT IN FIRE DISTRICT: YES	
D. STRUCTURAL INFORMATION:	
1. DESIGN LOADS:	
a. ORIGINAL DEAD LOAD INCLUDED AGGREGATE BUILT UP ROOF & METAL DECK	
ESTIMATED WEIGHT: 14lbs/SF	
b. PROPOSED DEAD LOAD INCLUDING 2 PLY MODIFIED BITUMEN & RIGID INSULATION OVER EXISTING METAL DECK	
DESIGN WEIGHT: 9lbs/SF	
c. NET DEAD LOAD REDUCTION OF 5lbs/SF	

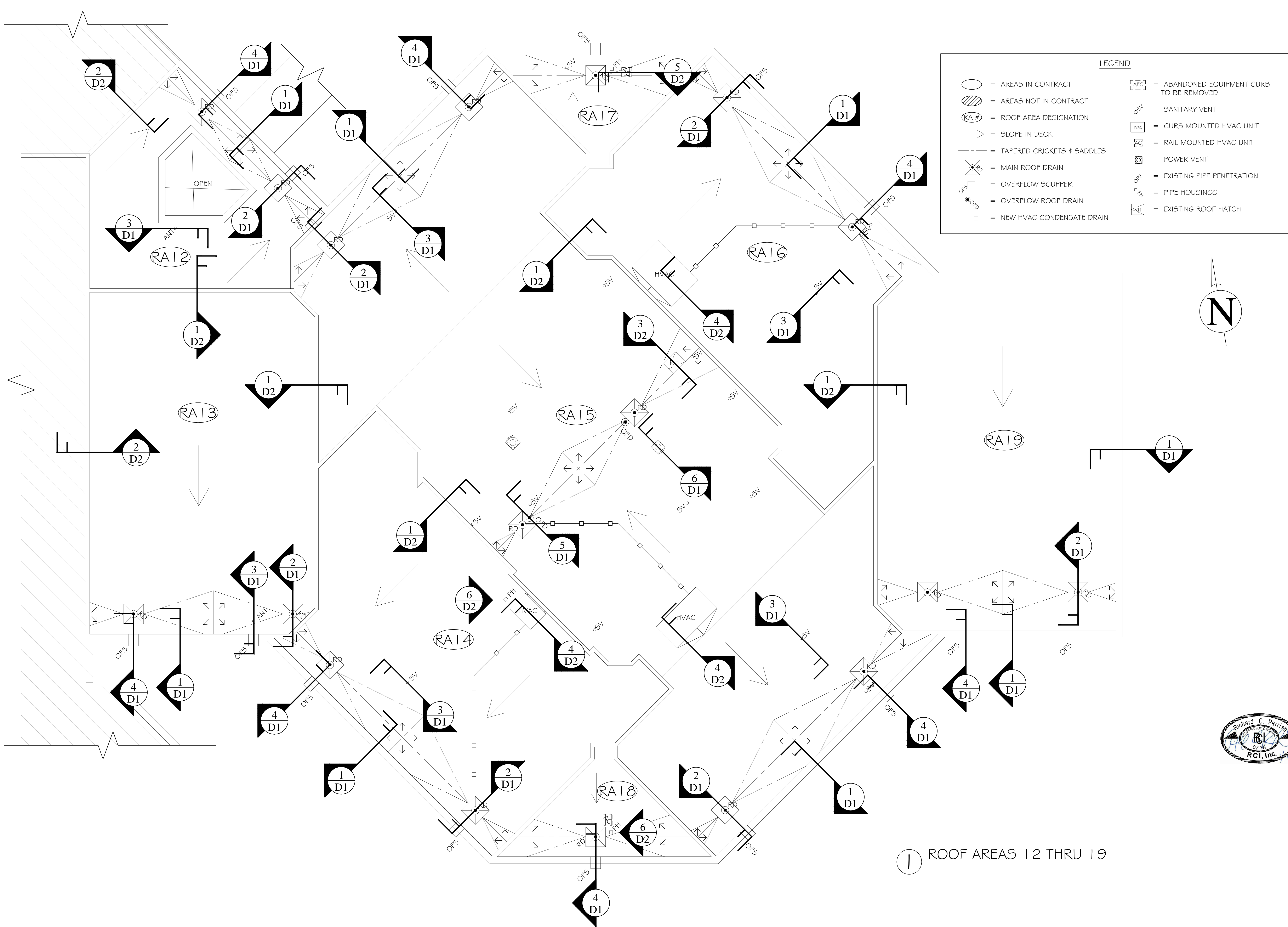


LEGEND	
	= AREA TO BE REPLACED
	= AREA NOT IN CONTRACT
	= ROOF AREA DESIGNATION



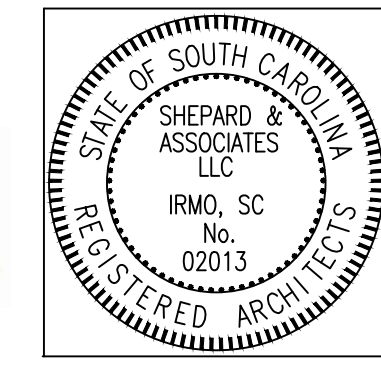
2 SITE VICINITY MAP

1 CHAPIN INTERMEDIATE SCHOOL KEY PLAN

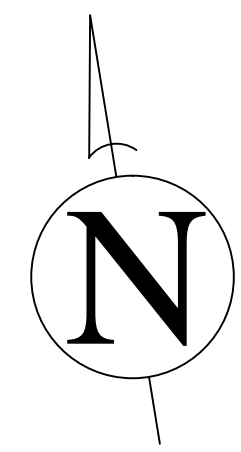
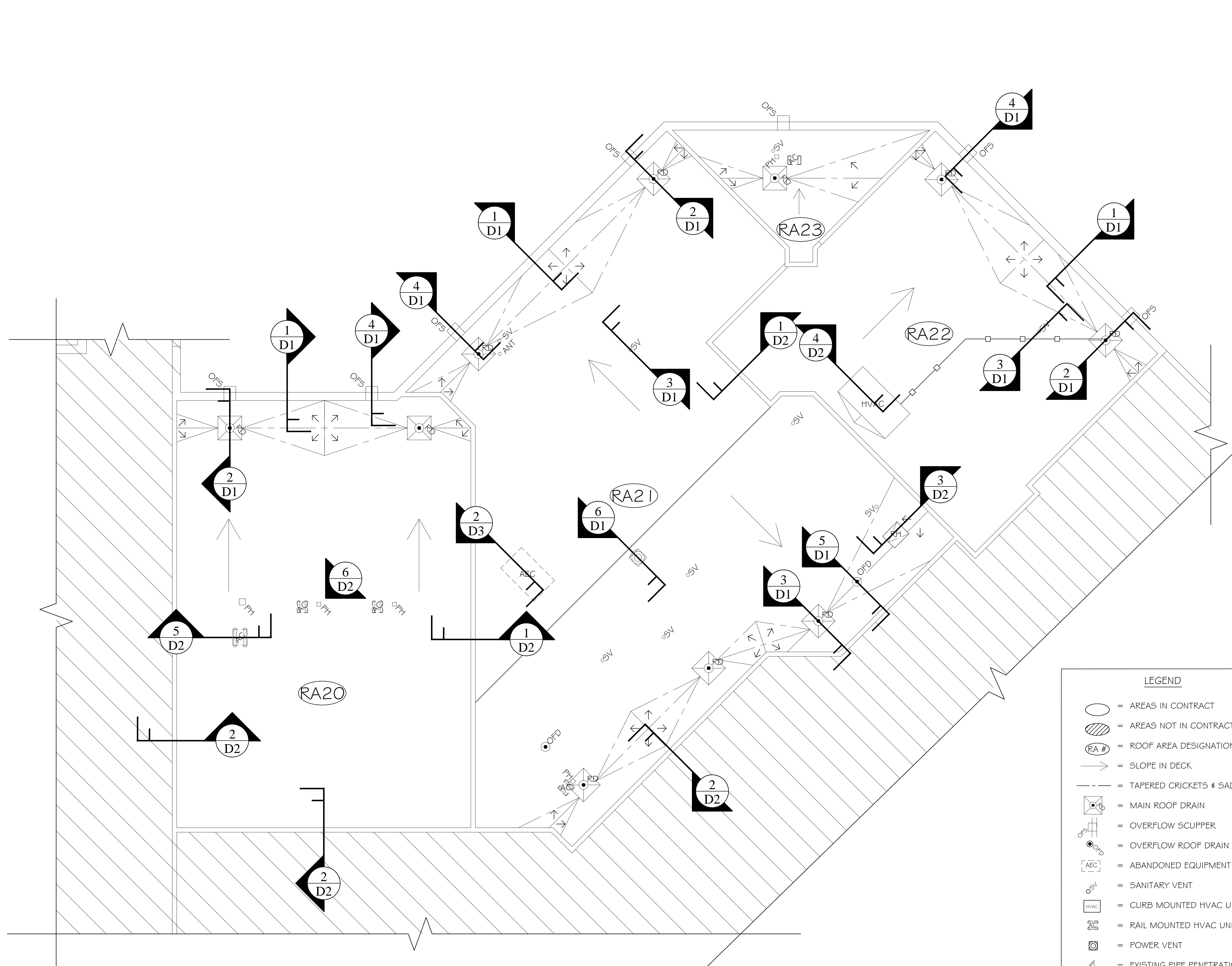


REVISIONS

REVISION	DATE	APPROVED

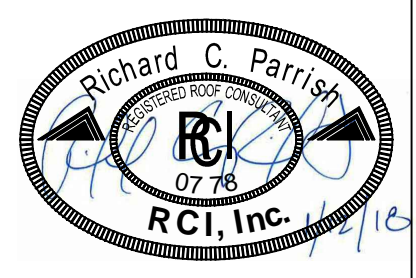


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CHECKED BY: JAW



1 ROOF AREAS 20, 21, 22 & 23

LEGEND	
	= AREAS IN CONTRACT
	= AREAS NOT IN CONTRACT
	= ROOF AREA DESIGNATION
	= SLOPE IN DECK
	= TAPERED CRICKETS & SADDLES
	= MAIN ROOF DRAIN
	= OVERFLOW SCUPPER
	= OVERFLOW ROOF DRAIN
	= ABANDONED EQUIPMENT CURB TO BE REMOVED
	= SANITARY VENT
	= CURB MOUNTED HVAC UNIT
	= RAIL MOUNTED HVAC UNIT
	= POWER VENT
	= EXISTING PIPE PENETRATION
	= PIPE HOUSING
	= EXISTING ROOF HATCH
	= NEW HVAC CONDENSATE DRAIN LINE



SHEET TITLE: **ROOF PLAN**
 PROJECT DESCRIPTION: BID NO. 2018-023 ROOF REPLACEMENT PROJECT AT CHAPIN INTERMEDIATE SCHOOL (PHASE I)
 CLIENT NAME: SCHOOL DISTRICT 5 OF LEX./RICH. COUNTIES

REVISIONS	DATE	APPROVED



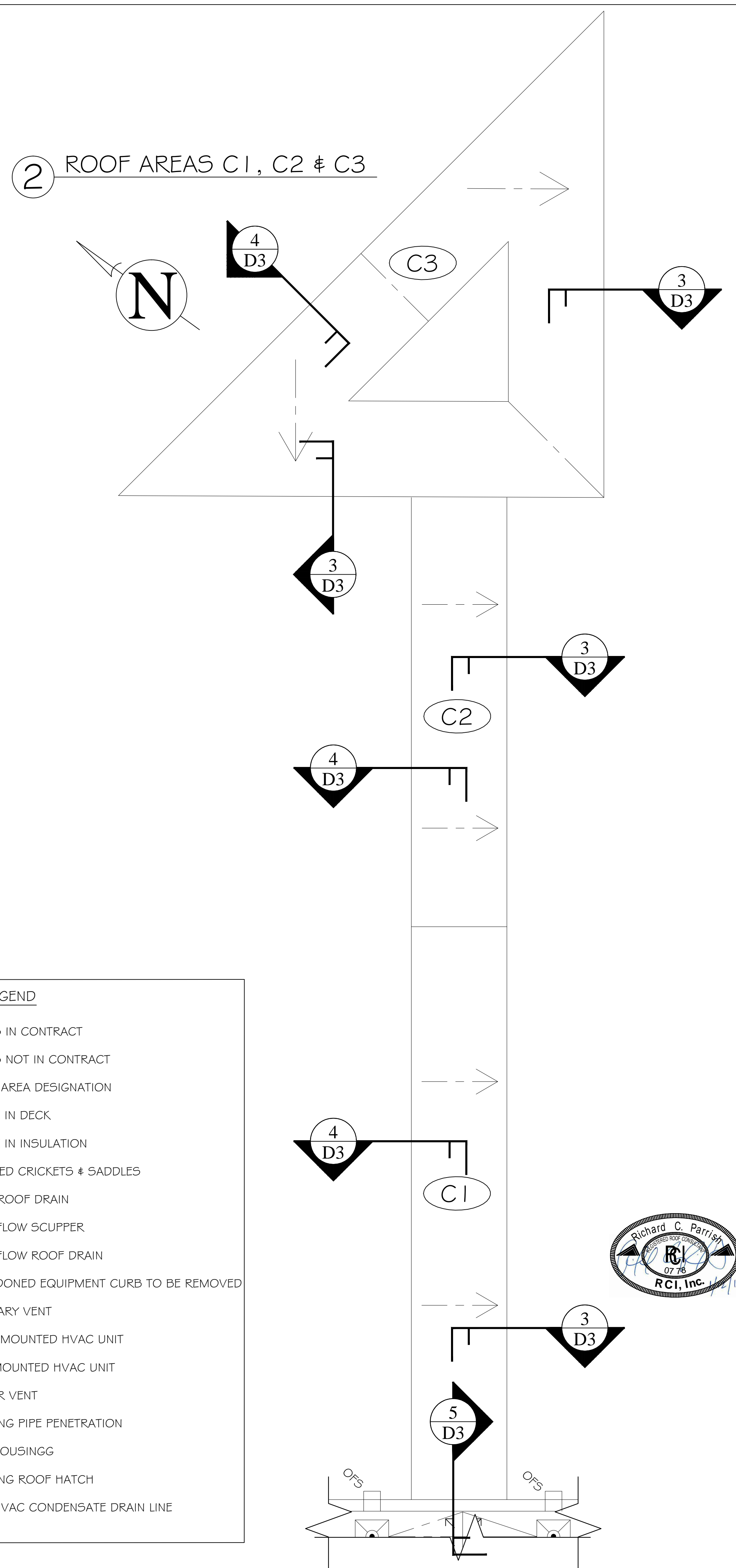
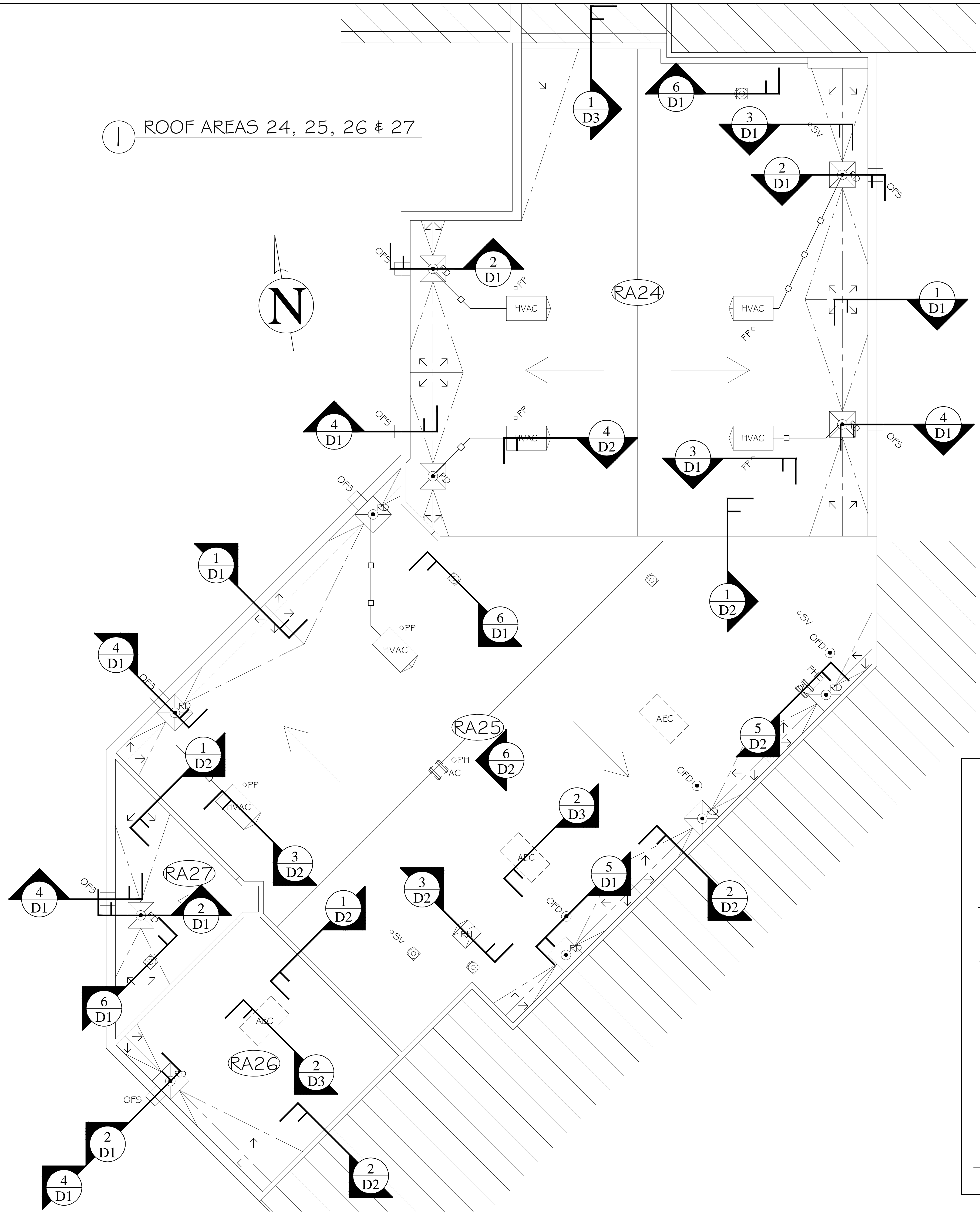
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 DATE: 01/12/18
 SCALE: NTS
 DRAWN BY: RCP
 CHECKED BY: JAW

SHEET
R2

Shepard & Associates, LLC
 3547 Dreher Shoals Road, Suite 6
 Irmo, South Carolina 29063
 Phone: (803) 407-8284
 Fax: (803) 407-8206

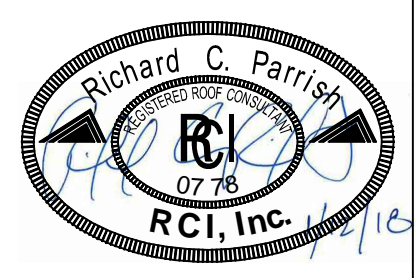
① ROOF AREAS 24, 25, 26 & 27

② ROOF AREAS C1, C2 & C3



LEGEND

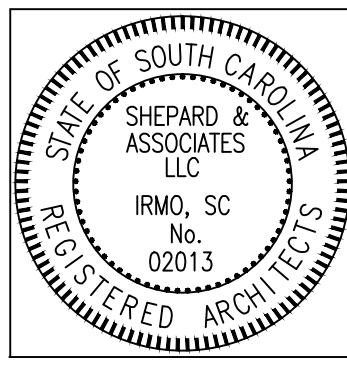
- = AREAS IN CONTRACT
- = AREAS NOT IN CONTRACT
- = ROOF AREA DESIGNATION
- = SLOPE IN DECK
- = SLOPE IN INSULATION
- = TAPERED CRICKETS & SADDLES
- = MAIN ROOF DRAIN
- = OVERFLOW SCUPPER
- = OVERFLOW ROOF DRAIN
- = ABANDONED EQUIPMENT CURB TO BE REMOVED
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- = EXISTING PIPE PENETRATION
- = PIPE HOUSING
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- = NEW HVAC CONDENSATE DRAIN LINE



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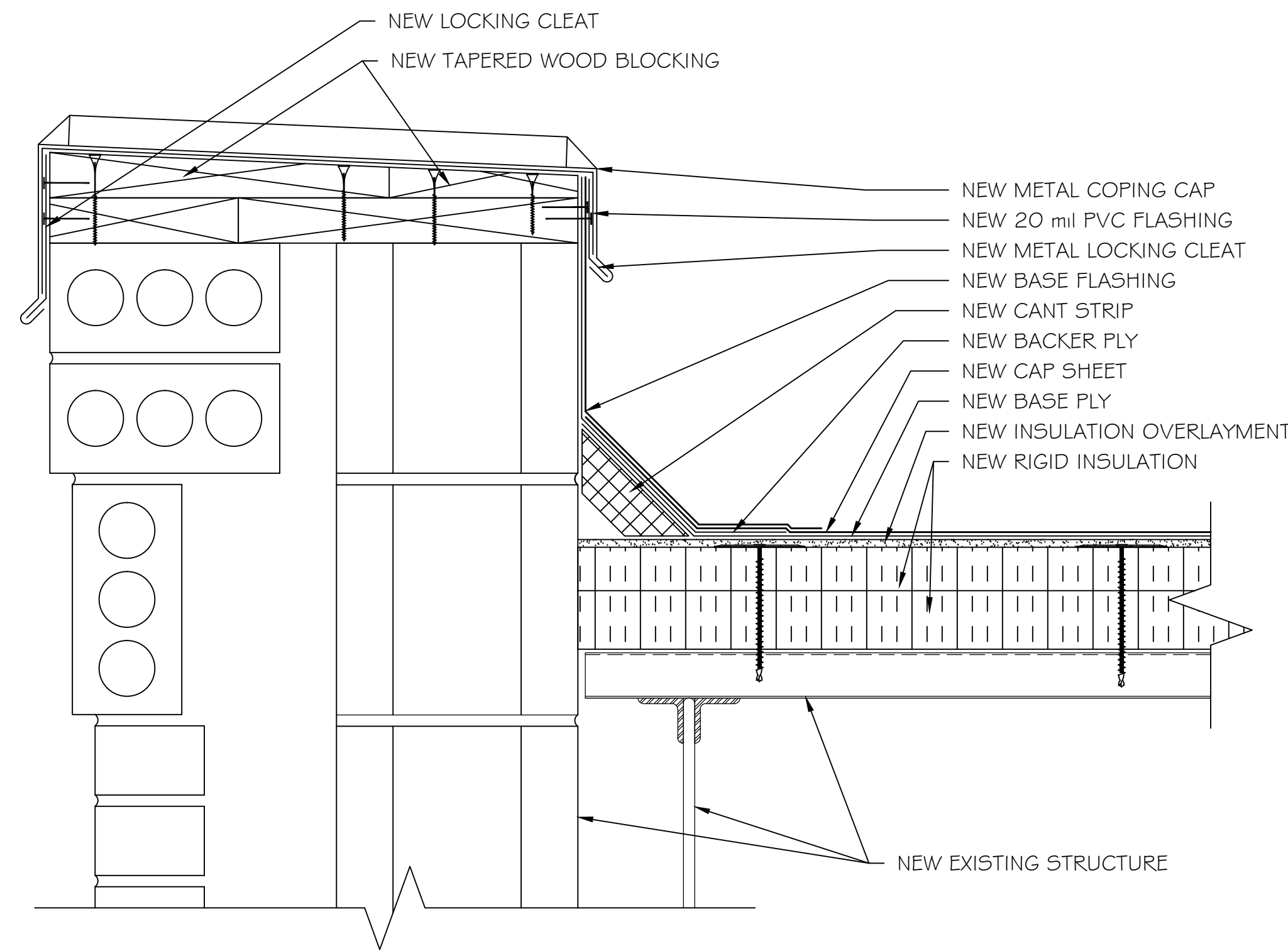
ROOF PLAN
 PROJECT DESCRIPTION: BID NO. 2018.023 ROOF REPLACEMENT PROJECT
 AT CHAPIN INTERMEDIATE SCHOOL (PHASE II)
 CLIENT NAME: SCHOOL DISTRICT 5 OF LEX./RICH. COUNTIES

REVISIONS	REVISION	DATE	APPROVED

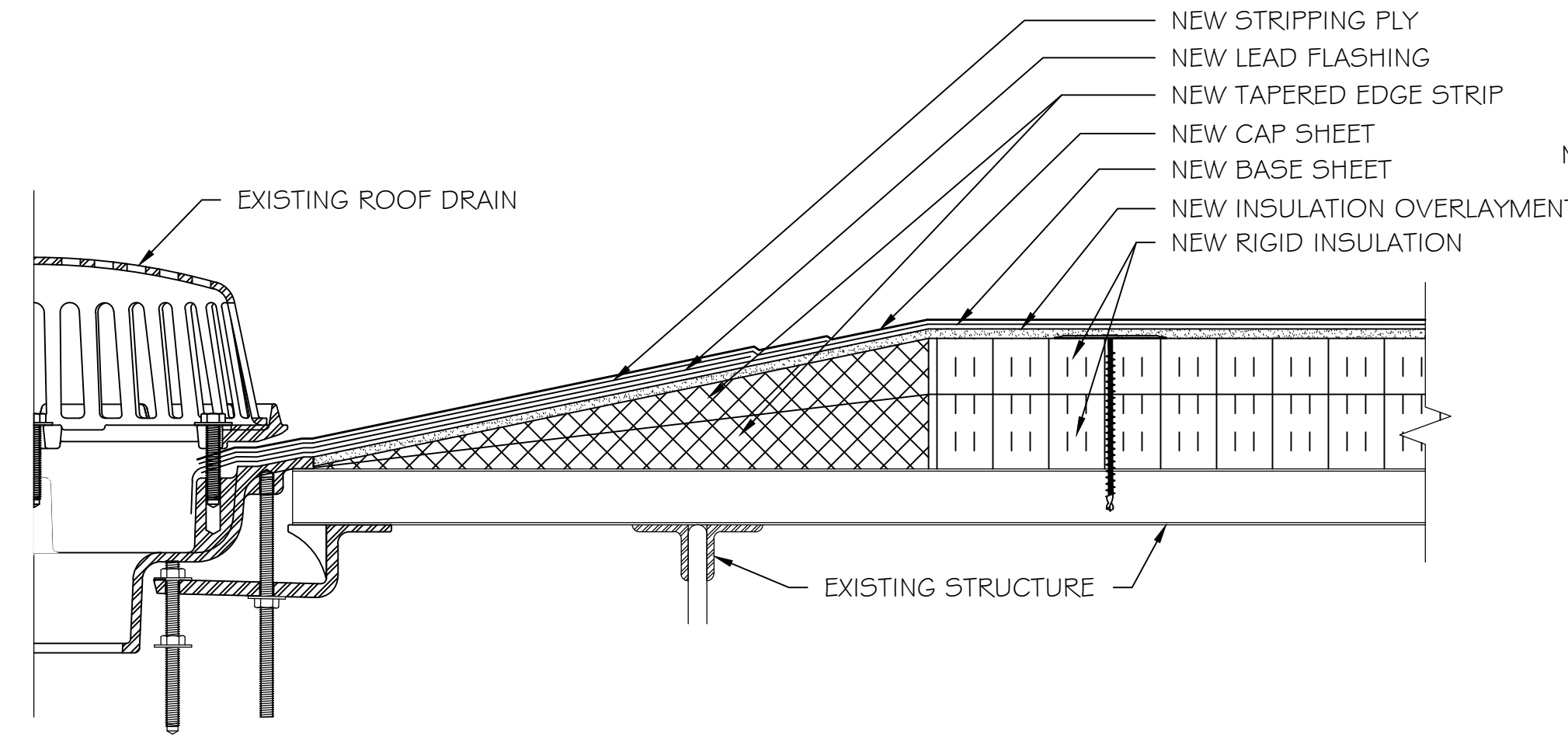


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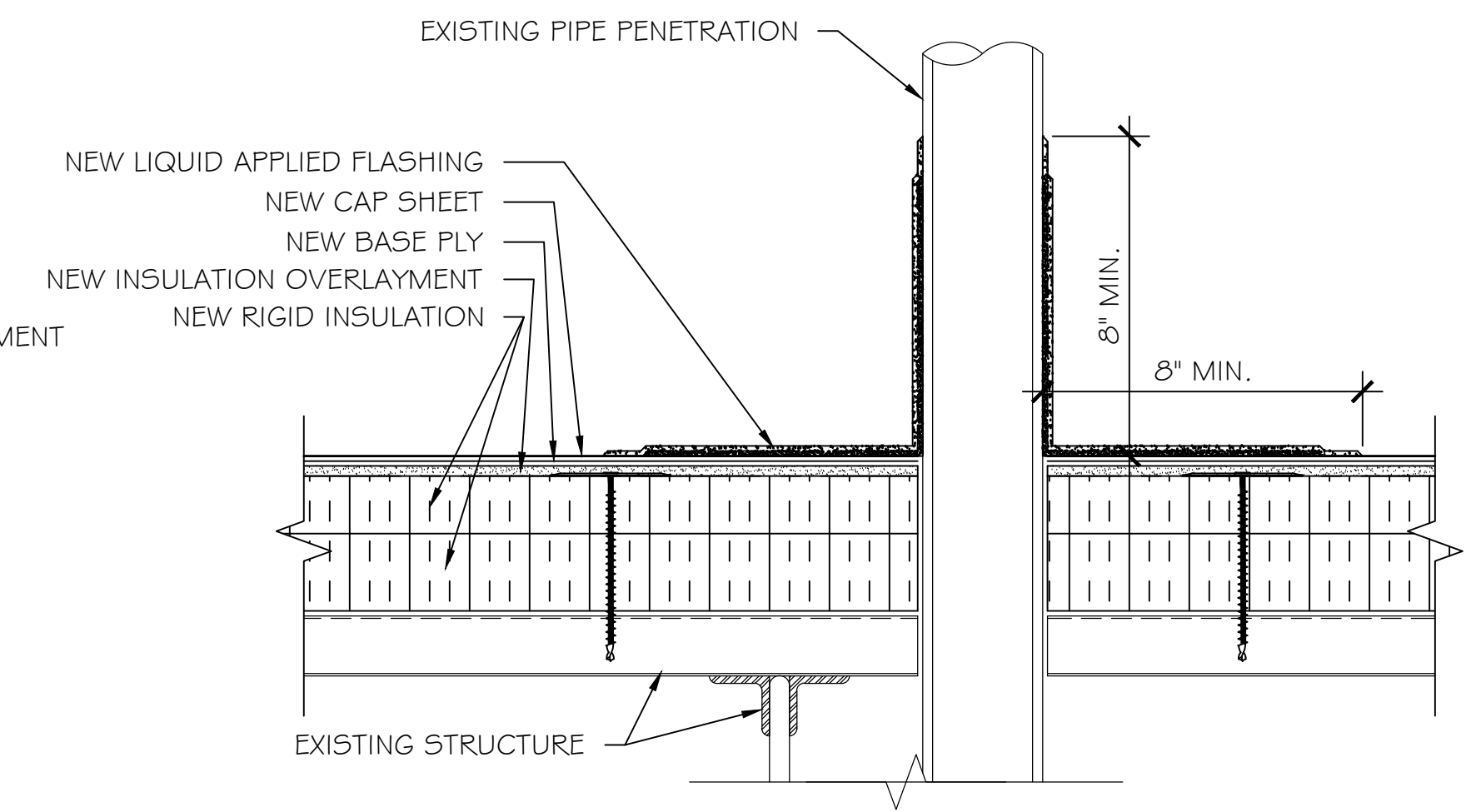
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R3



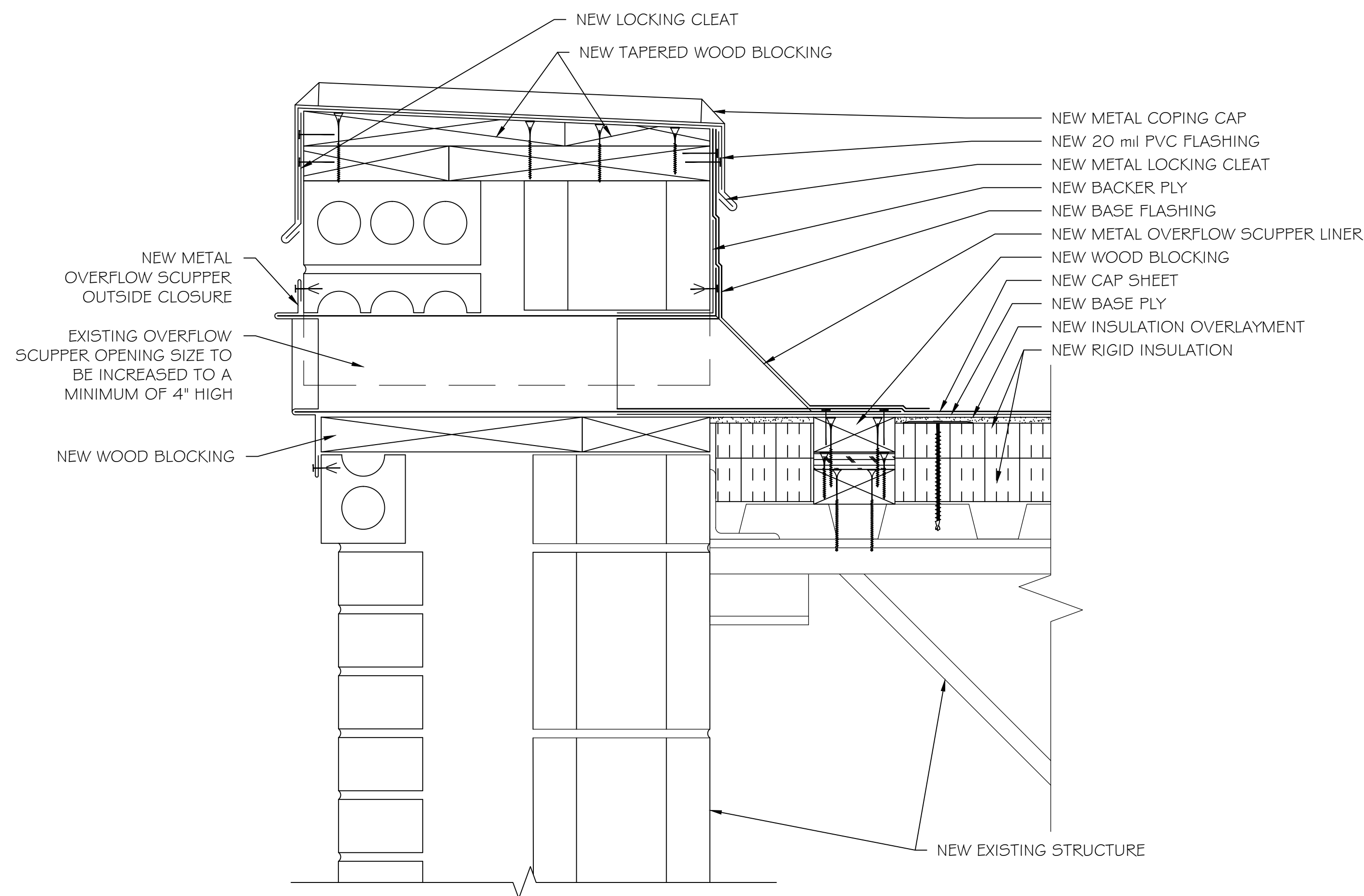
1 TYPICAL EXTERIOR PARAPET WALL DETAIL



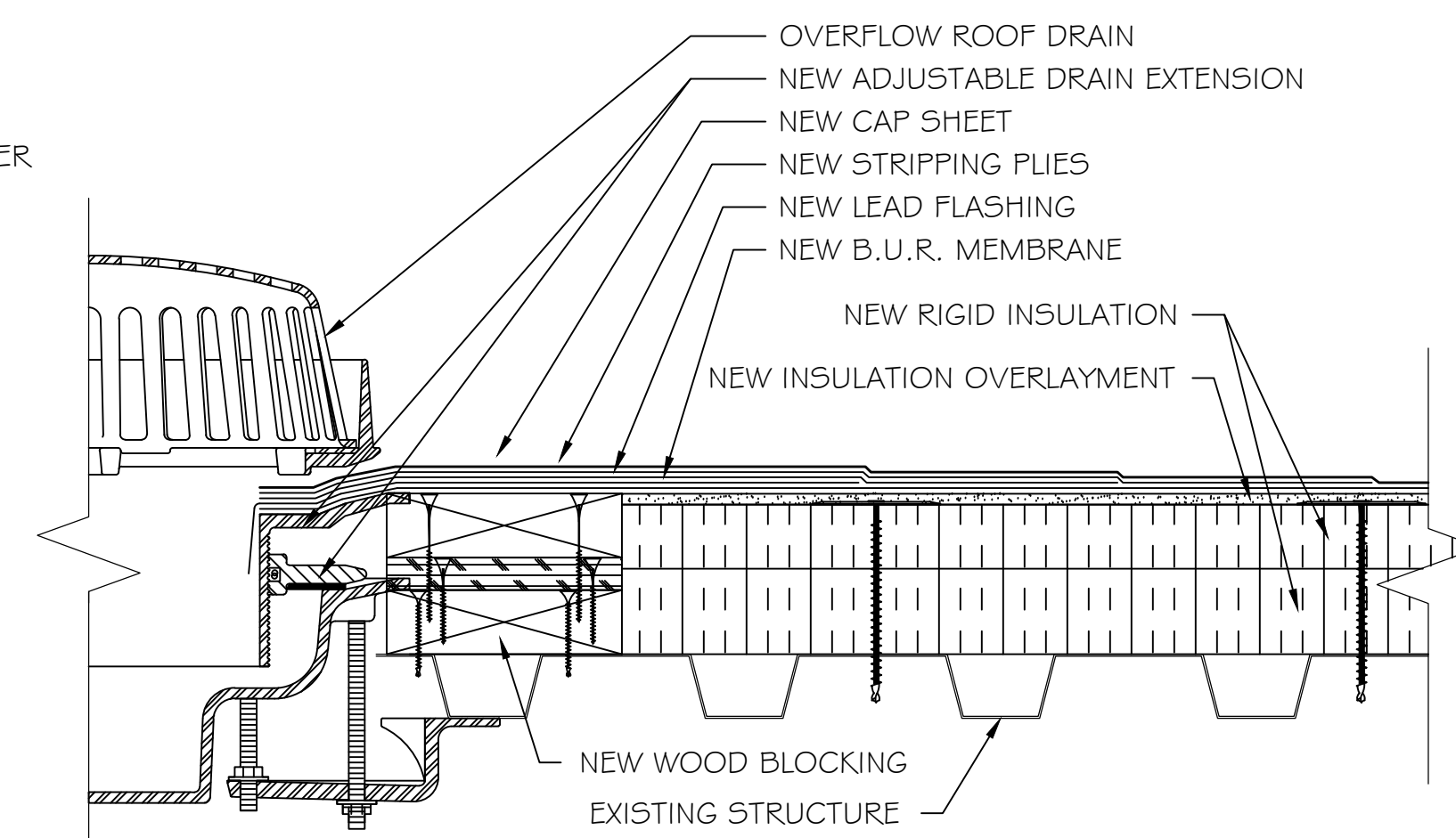
2 TYPICAL MAIN ROOF DRAIN DETAIL



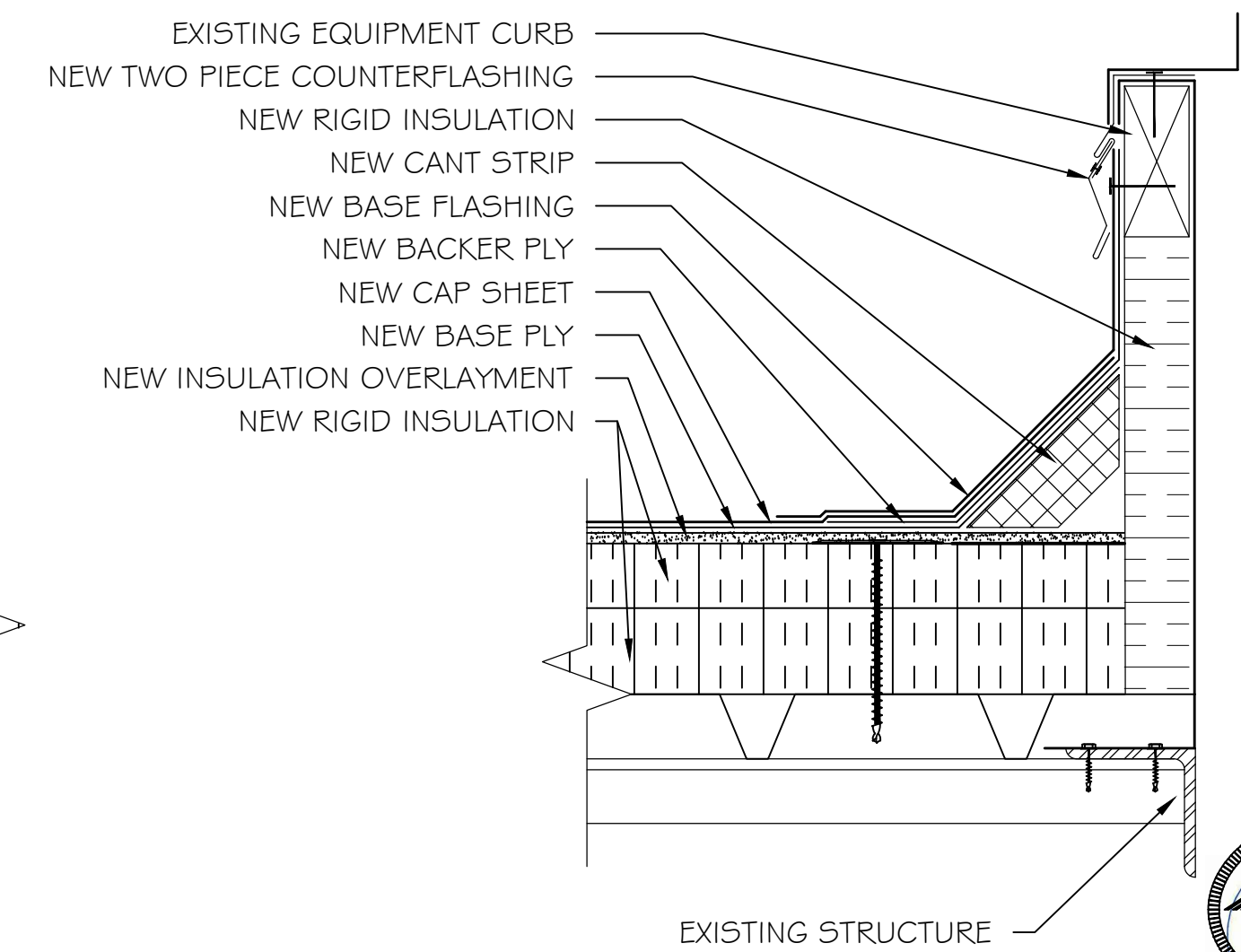
3 PIPE PENETRATION DETAIL



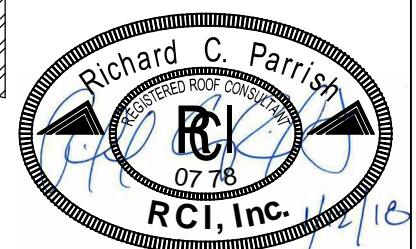
4 OVERFLOW SCUPPER DETAIL



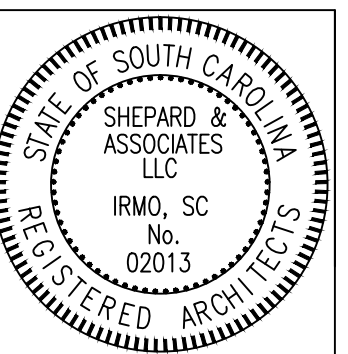
5 OVERFLOW DRAIN DETAIL

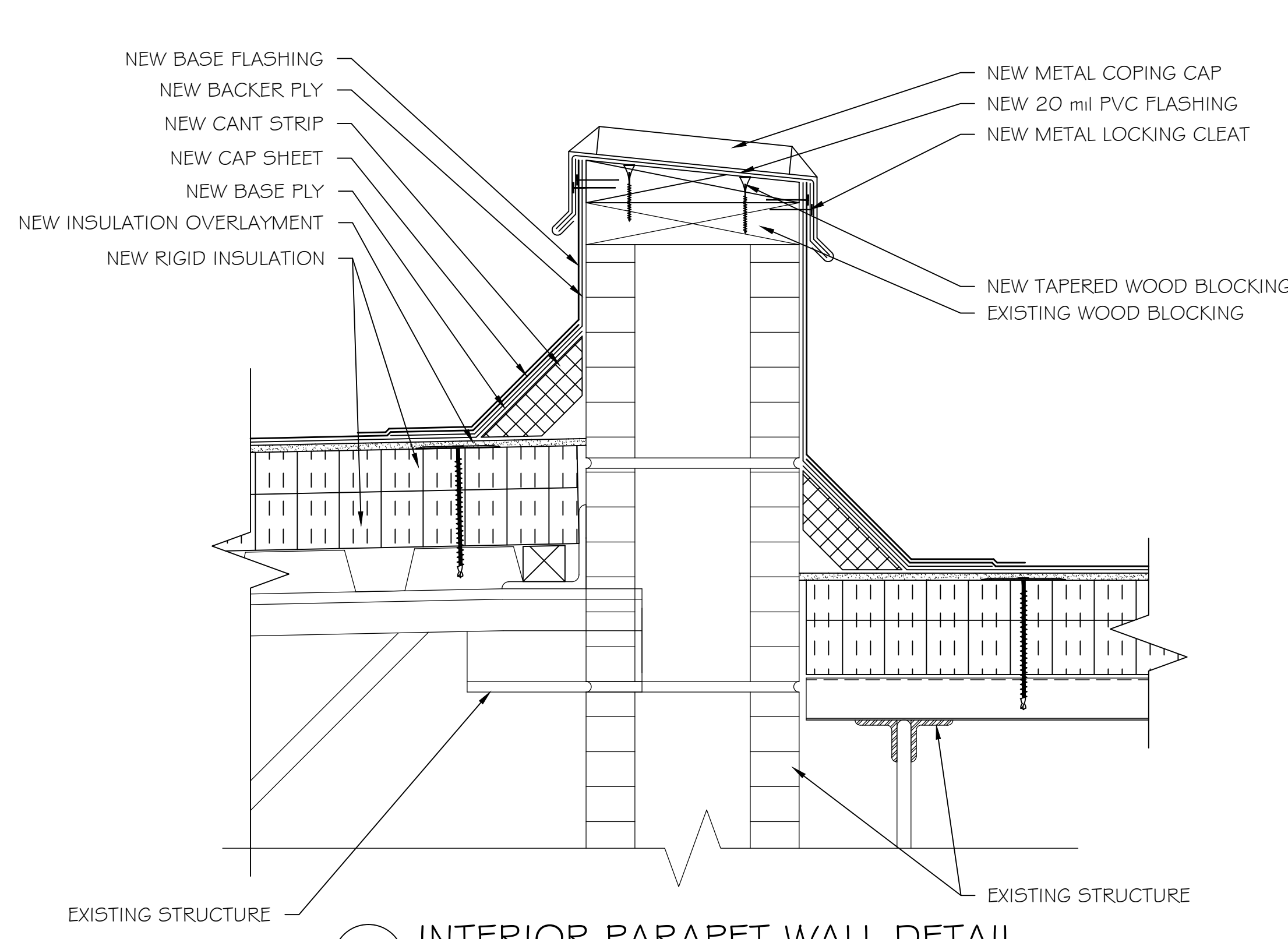


6 EQUIPMENT CURB DETAIL

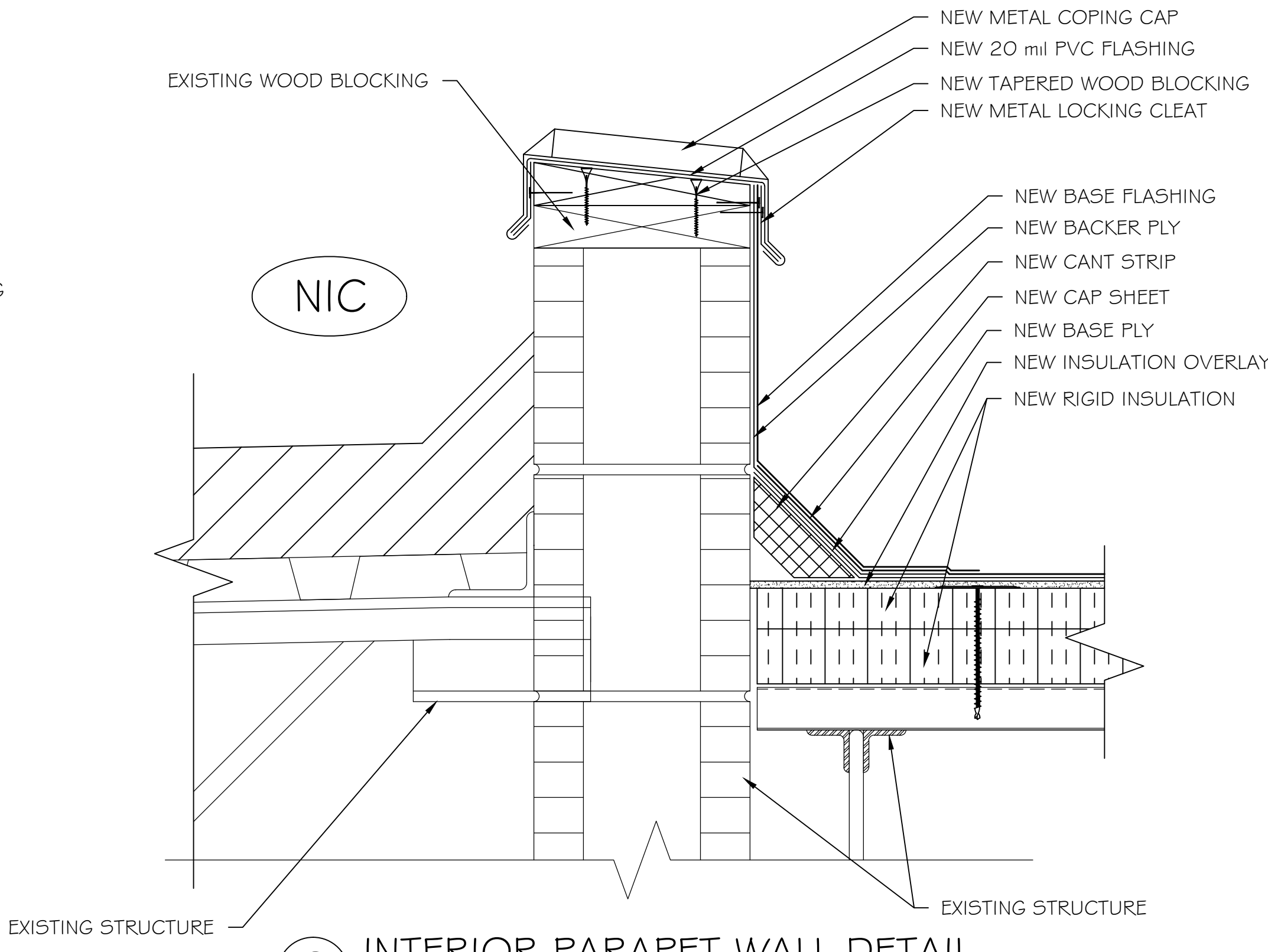


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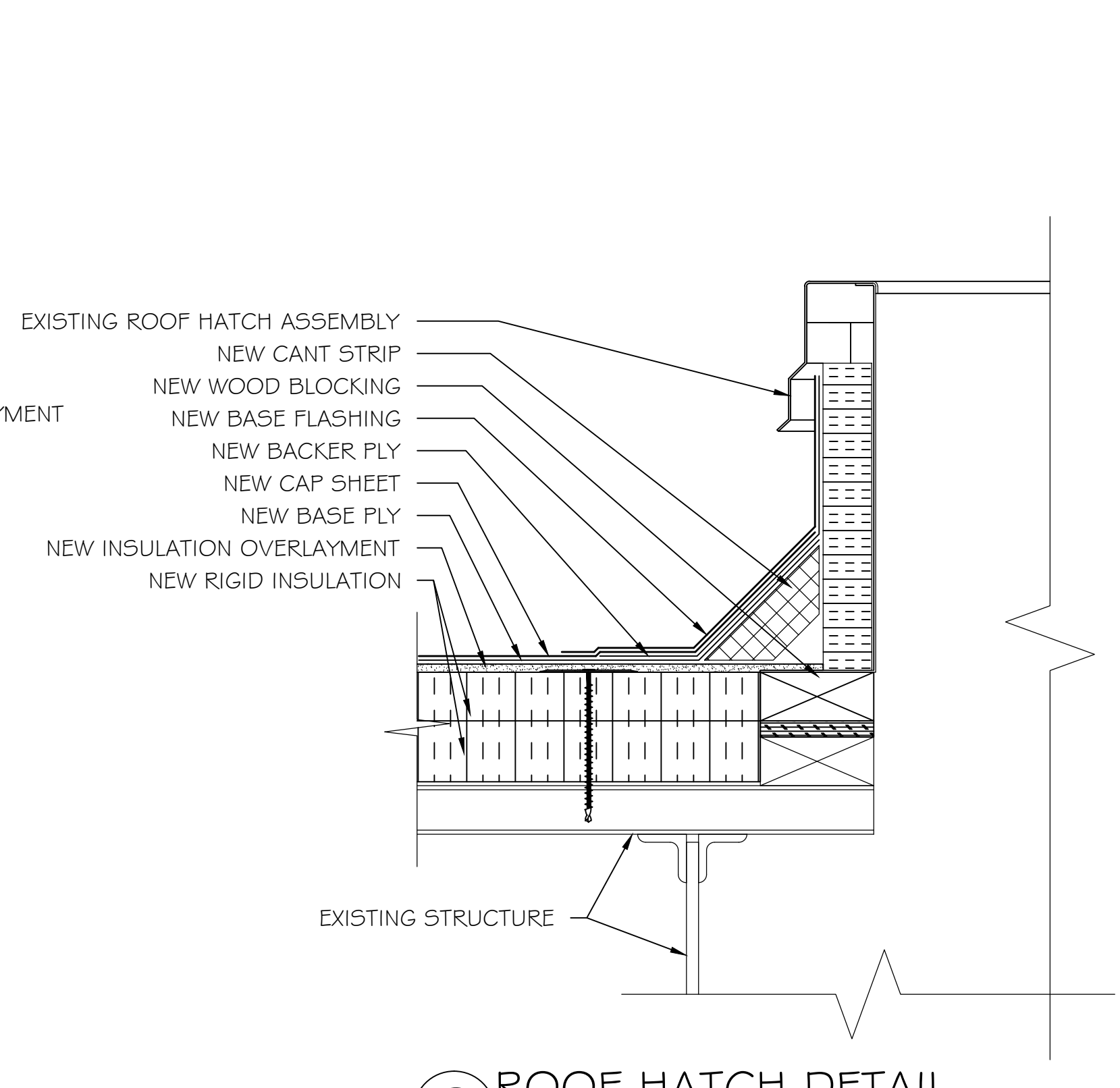




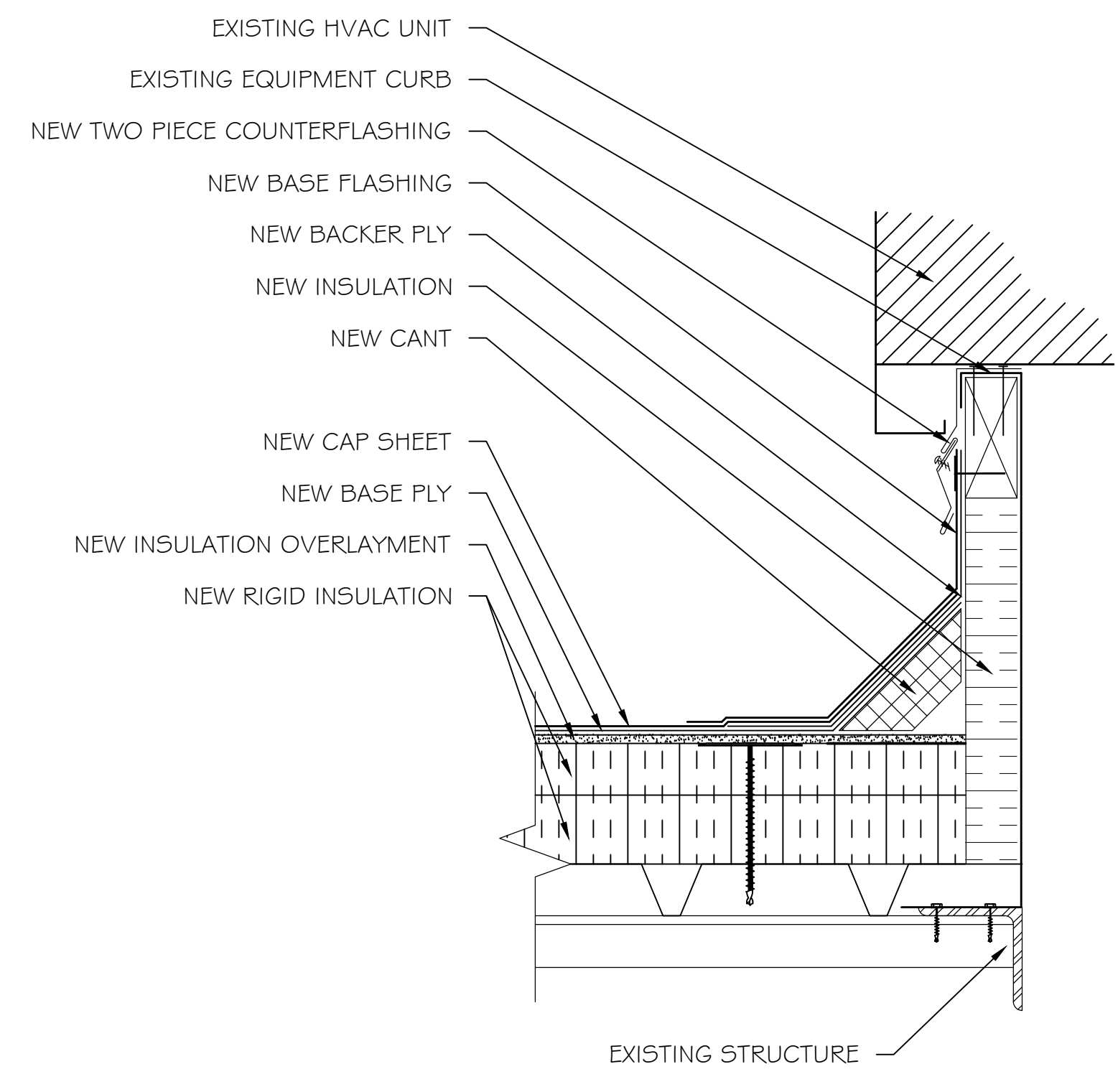
1 INTERIOR PARAPET WALL DETAIL



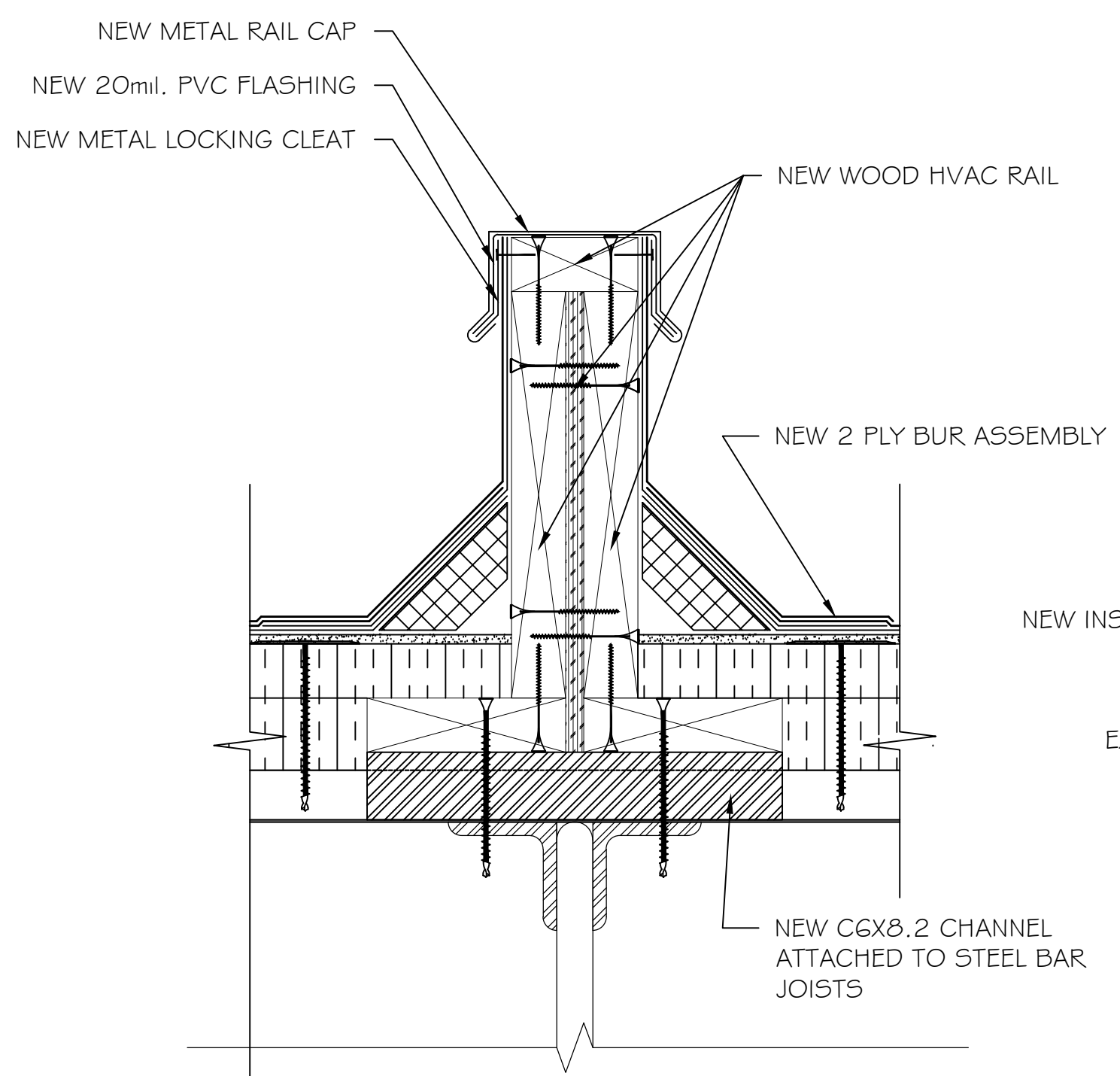
2 INTERIOR PARAPET WALL DETAIL



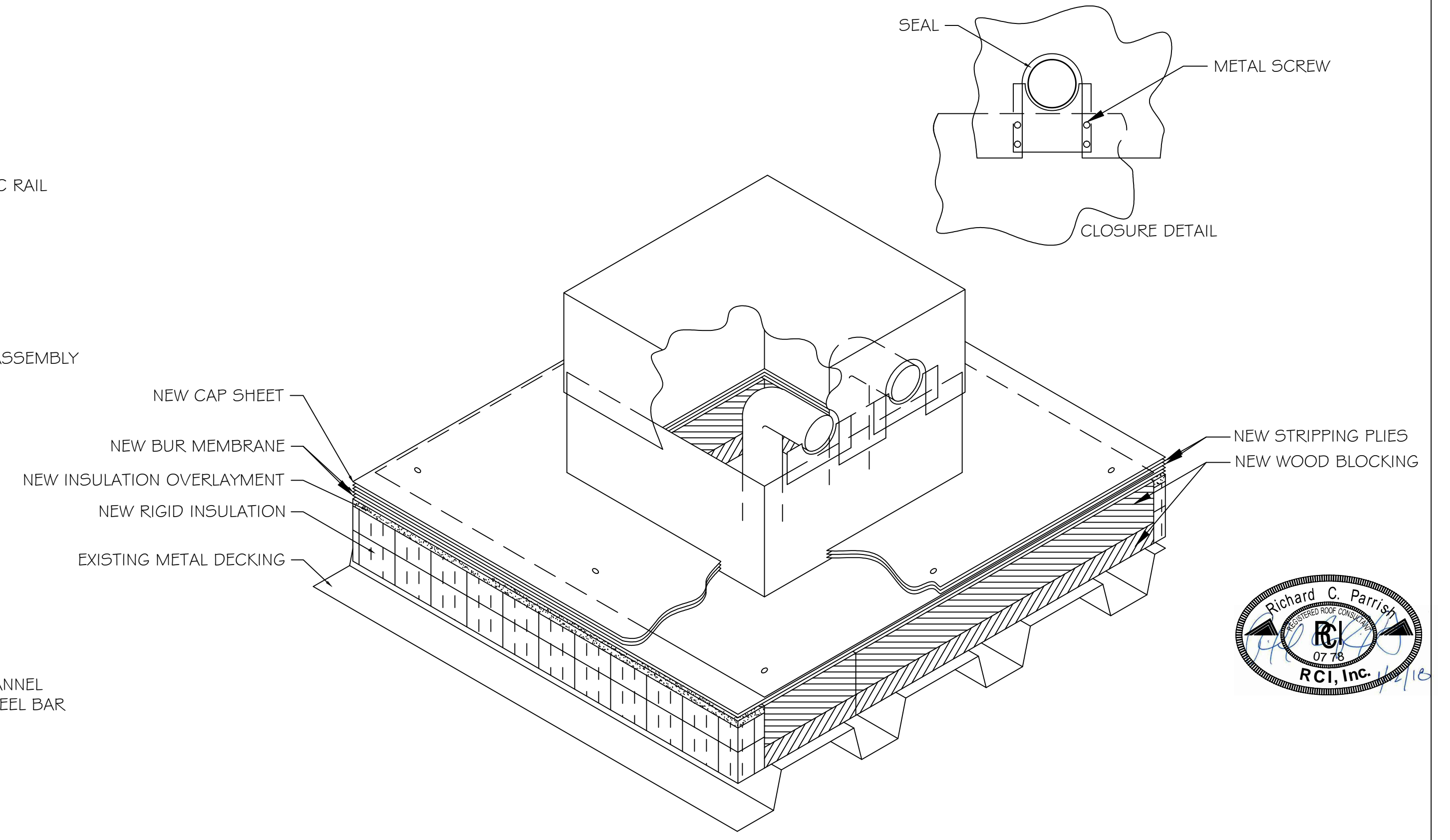
3 ROOF HATCH DETAIL



4 HVAC CURB DETAIL



5 HVAC RAIL DETAIL

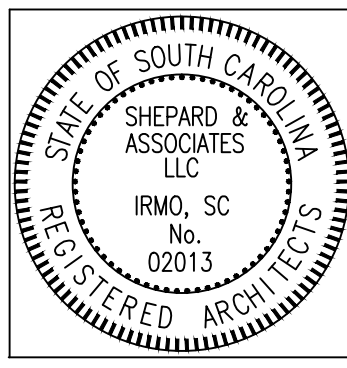


6 PIPE HOUSING DETAIL

Shepard & Associates, LLC
 3547 Dreher Shoals Road, Suite 6
 Irmo, South Carolina 29063
 Phone: (803) 407-8284
 Fax: (803) 407-8206

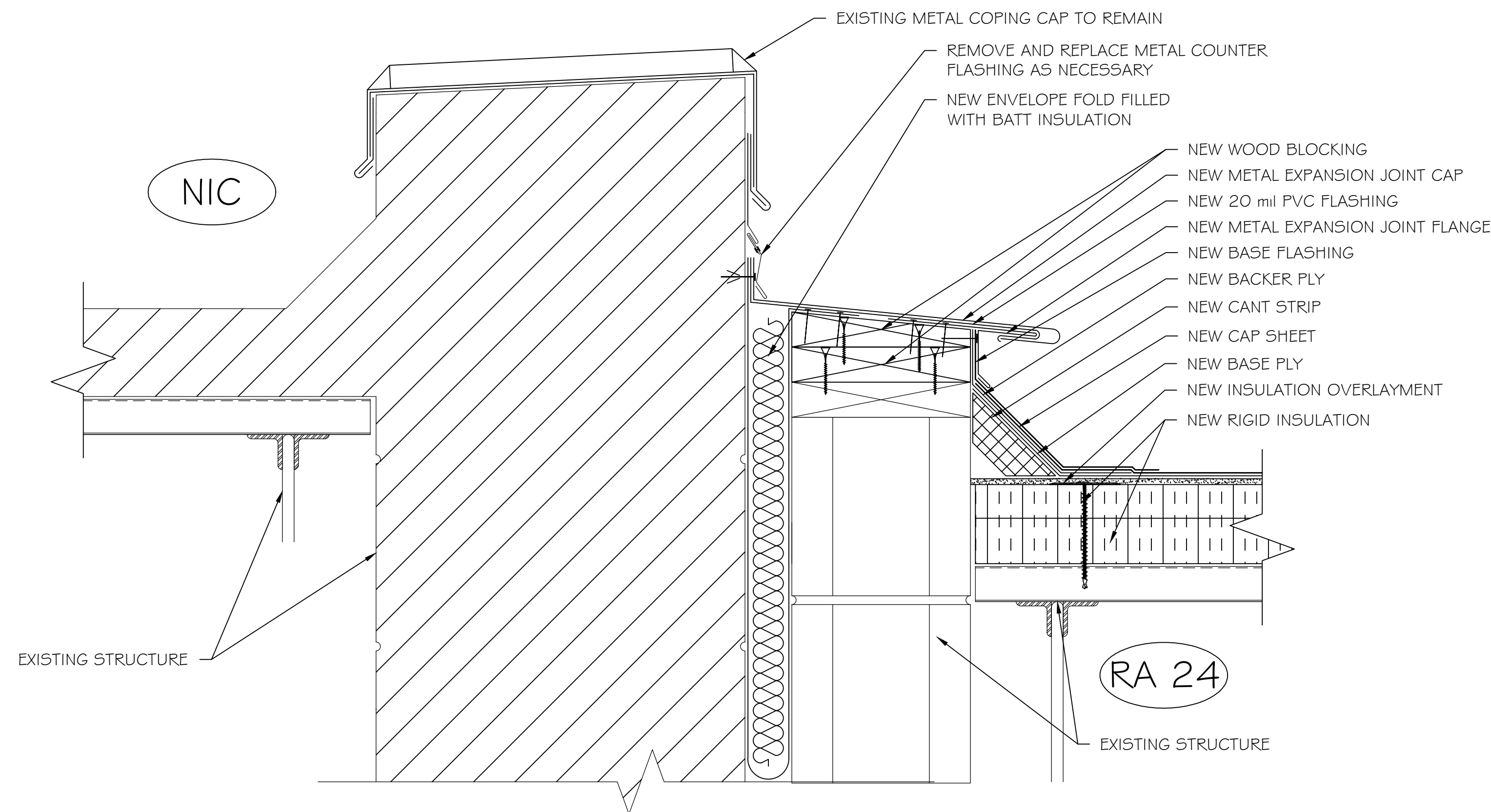
DETAILS
 PROJECT DESCRIPTION: BID NO. 2018.023 ROOF REPLACEMENT PROJECT
 AT CHAPIN INTERMEDIATE SCHOOL (PHASE II)
 CLIENT NAME: SCHOOL DISTRICT 5 OF LEX./RICH. COUNTIES

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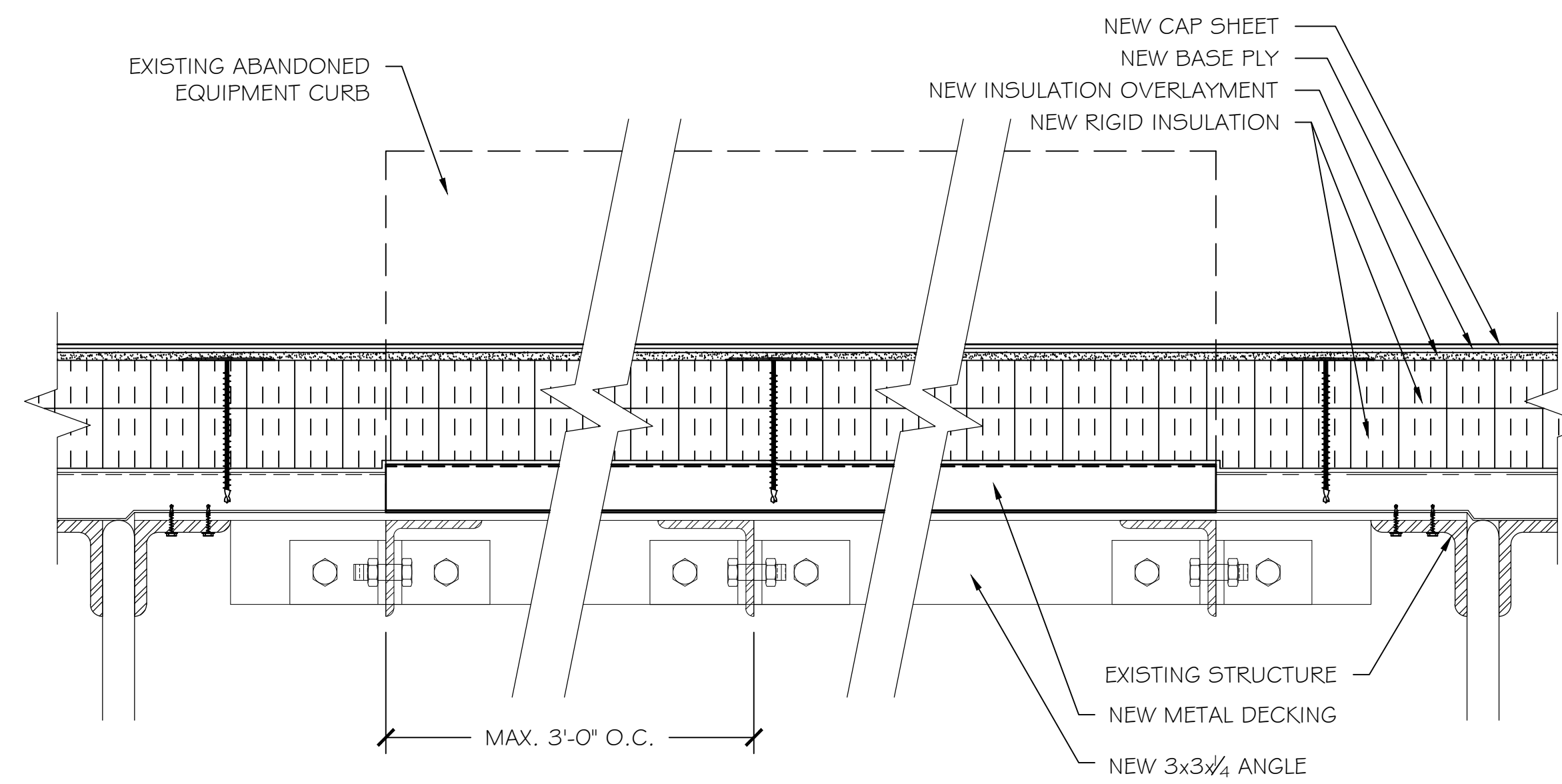


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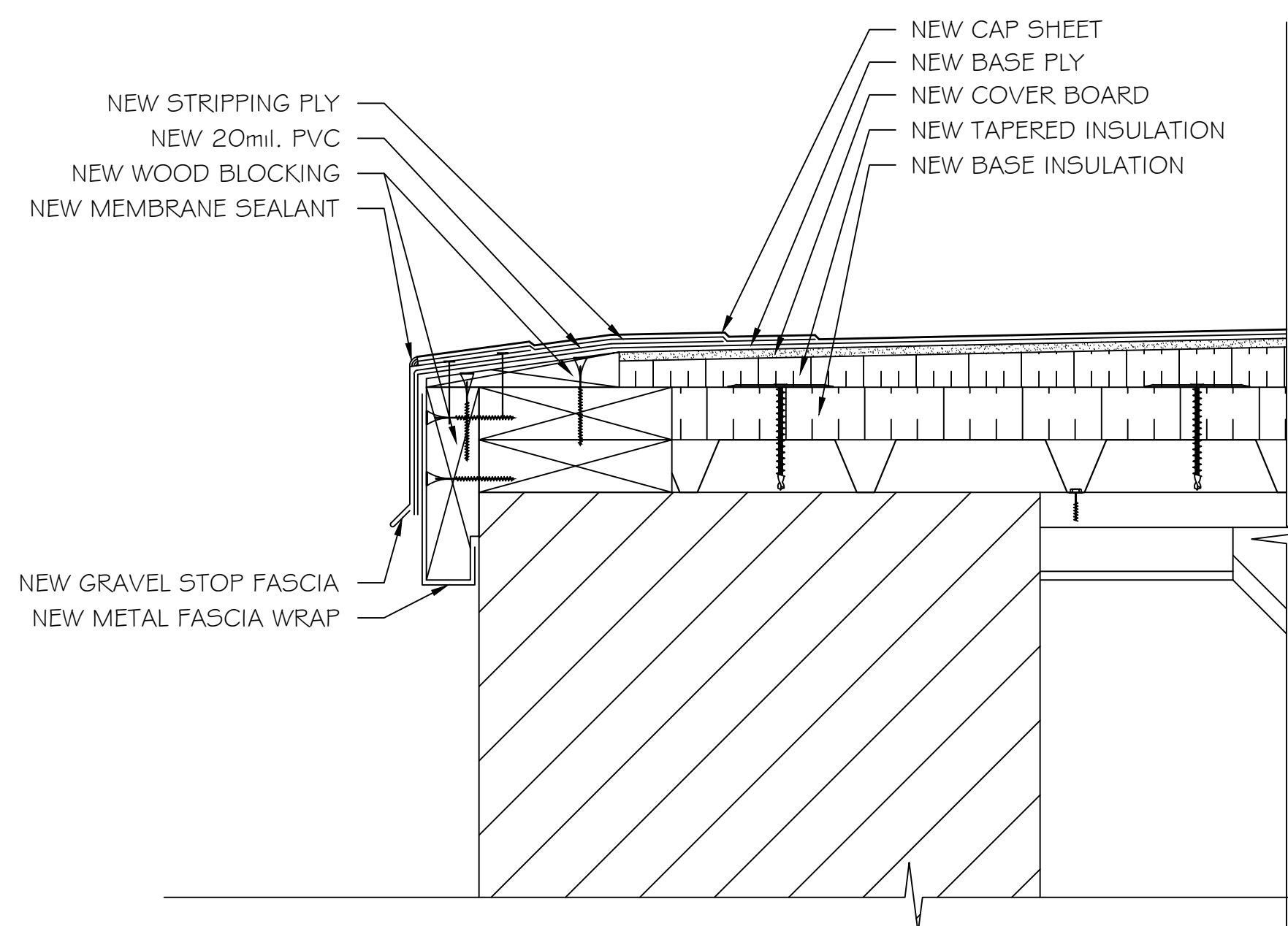
SHEET
D2



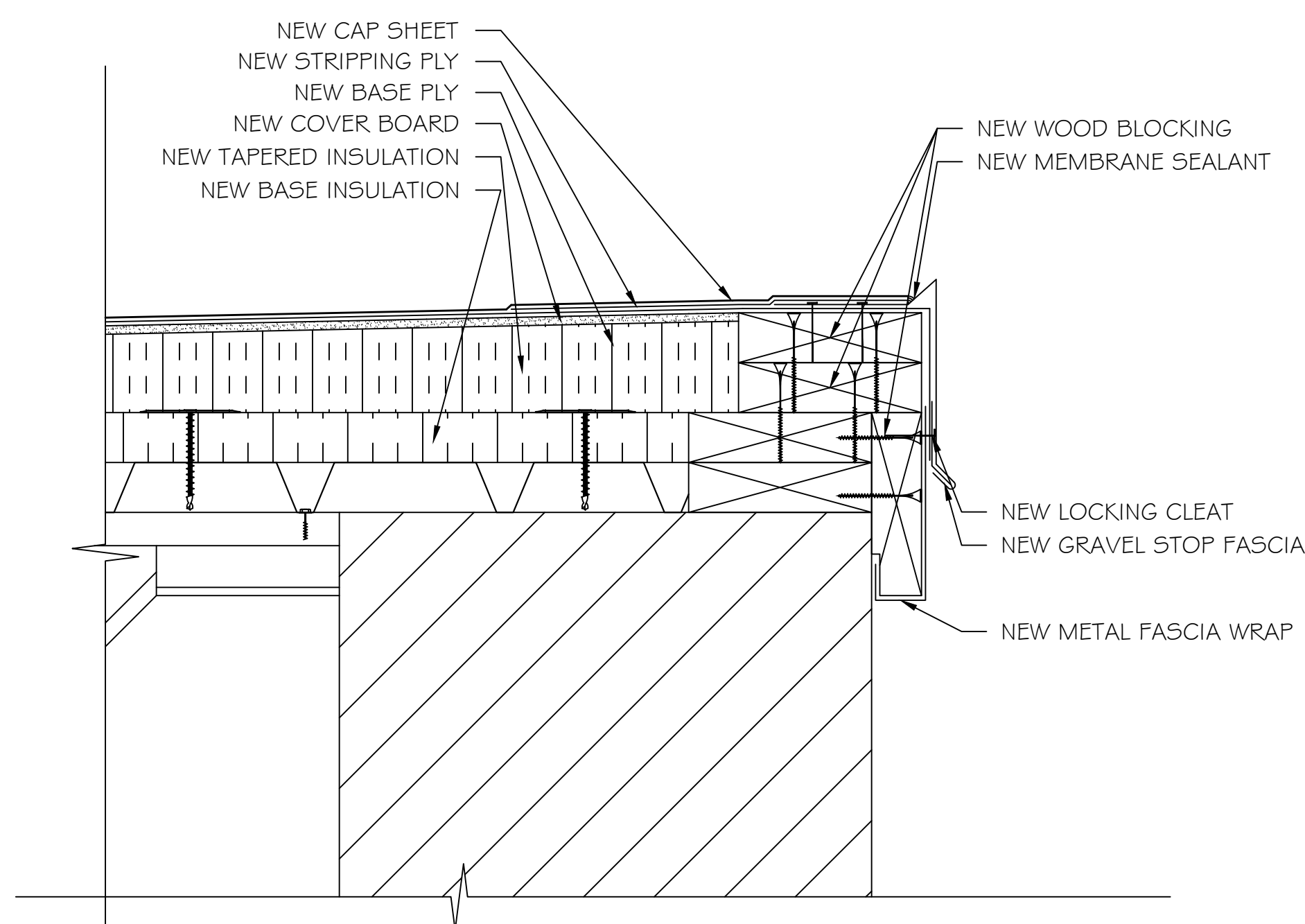
1 EXPANSION JOINT DETAIL



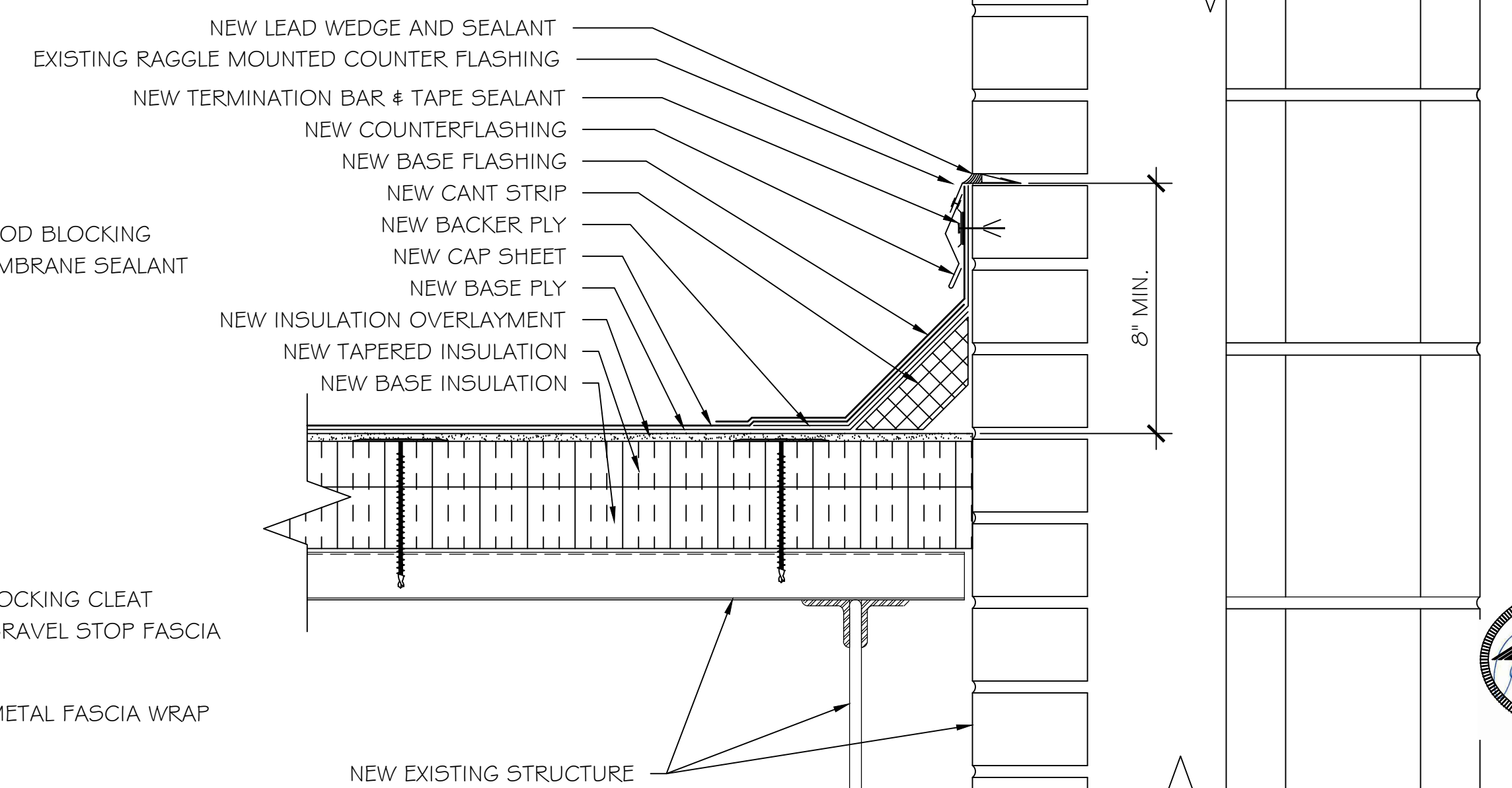
2 ABANDONED EQUIPMENT CURB DETAIL
> 18" OPENING WIDTH



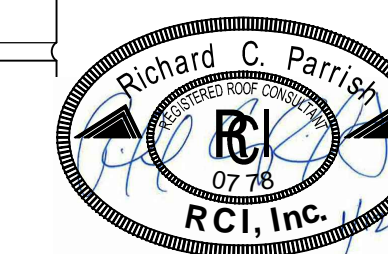
3 EAVE DETAIL



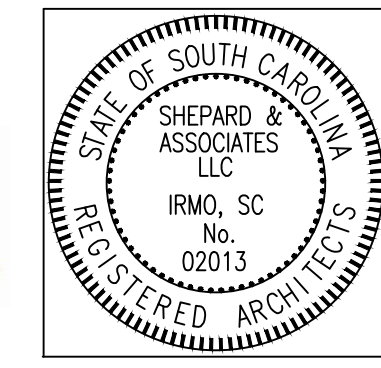
4 HIGH EAVE DETAIL



5 BASE FLASHING DETAIL
8" MIN. BASE FLASHING HEIGHT



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