YORK SCHOOL DISTRICT 1

IT BUILDING ROOF REPLACEMENT

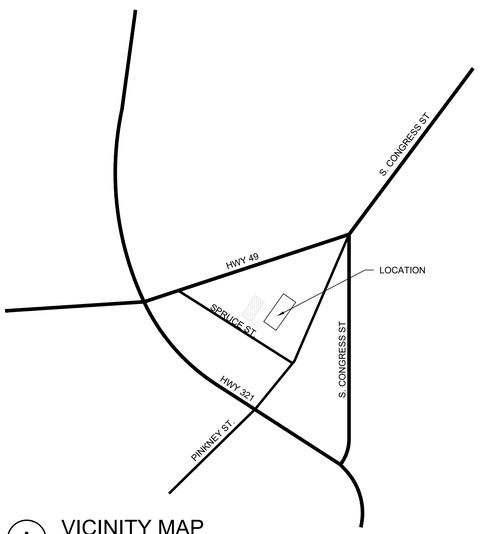
16 SPRUCE STREET
YORK, SC 29745

REI PROJECT NO. 024CLT-101

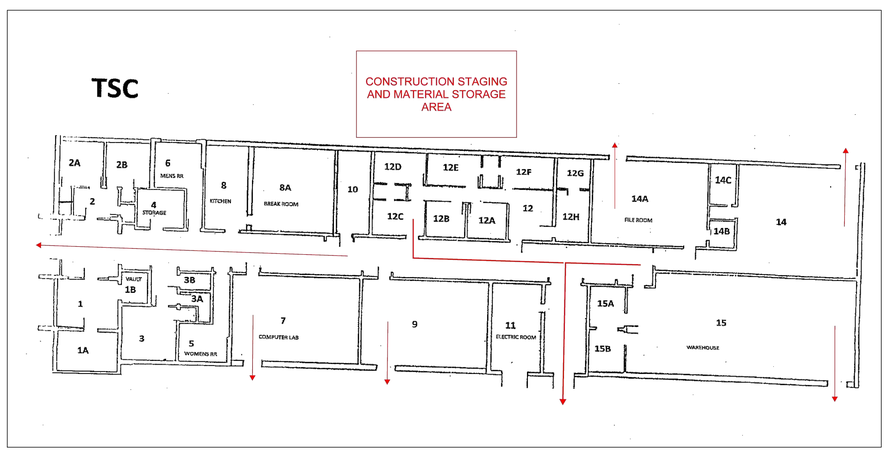
DATE: 11-13-2024

PLAN NORTH

D SITE PLAN
SCALE: N.T.S.



A VICINITY MAP
SCALE: N.T.S.



PLAN NORTH

B LIFE SAFETY PLAN
SCALE: N.T.S.

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4. NOTES ARE INTENDED TO PROVIDE TYPICAL LOCATIONS OF WORK. IT IS THE CONTRACTORS RESPONSIBILITY TO QUANTIFY ALL LOCATIONS.

DETAIL NOTES
1. LIGHT LINES REPRESENT EXISTING CONSTRUCTION TO REMAIN AND DARK LINES REPRESENT NEW COMPONENTS TO BE PROVIDED.

ELEVATION NOTES
1. ELEVATIONS ARE PROVIDED FOR REFERENCE. ACTUAL CONDITIONS MAY VARY ON EACH BUILDING ELEVATION. CONTRACTOR SHALL FIELD VERIFY CONDITIONS PRESENT ON EACH ELEVATION.

ABBREVIATION LIST:

AB	ABANDONED	MIN.	MINIMUM
ALUM.	ALUMINUM	N.I.C	NOT IN CONTRACT
BLDG.	BUILDING	NOM.	NOMINAL
CJ	CONTROL JOINT	N.T.S.	NOT TO SCALE
DS	DOWNSPOUT	O.C.	ON CENTER
EJ	EXPANSION JOINT	OF	OVERFLOW
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	PS	PRESSURE SENSITIVE
		PVC	POLYVINYL CHLORIDE
		RPLC.	REPLACEMENT
EX.	EXISTING	SF	SQUARE FEET
GALV.	GALVANIZED	S.S.	STAINLESS STEEL
GA.	GAUGE	SIM.	SIMILAR
HT	HEIGHT	TERM.	TERMINATE/TERMINATION
MAX.	MAXIMUM	TYP.	TYPICAL

DRAWING INDEX:

BUILDING CODE REFERENCE:
2018 NCBC: BUILDING
2018 NCBC: ENERGY CONSERVATION
2018 NCBC: EXISTING BUILDING
2018 NCBC: FIRE PREVENTION
2018 NCBC: FUEL GAS
2018 NCBC: MECHANICAL
2018 NCBC: PLUMBING

C GENERAL NOTES & INFORMATION
SCALE: N.T.S.

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SEALS:

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 28529 JEREMIAH WEBSTER

PROJECT NAME:
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16 SPRUCE STREET
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NO.	DATE	DESCRIPTION
CD	11-13-2024	CONTRACT DOCUMENTS

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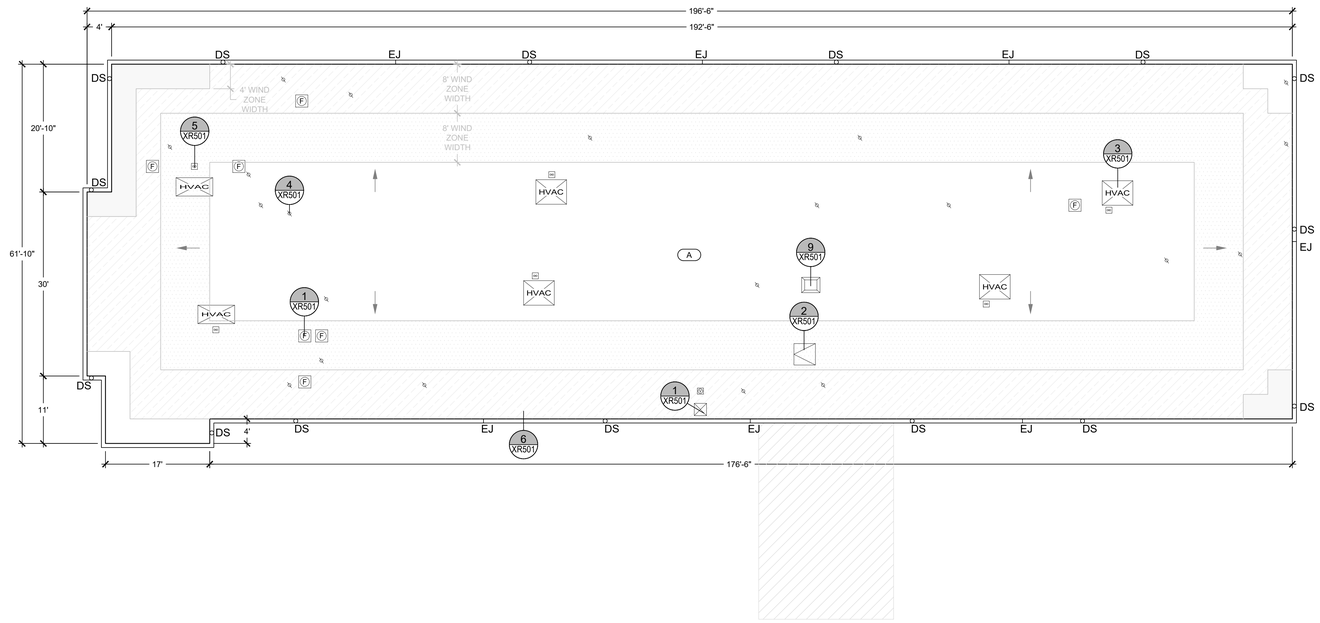
SHEET TITLE:
COVER

DRAWING:
G-001



A ROOF PLAN
SCALE: 1"=10'

PLAN NORTH

10 0 10 20
1"=10'

ROOF SECTOR	AREA	HEIGHT (FT.)
A	±11,328 SQ. FT.	XX

WIND UPLIFT SUMMARY

ASCE 7 - 16

ULTIMATE DESIGN WIND SPEED	120 MPH
RISK CATEGORY	III
EXPOSURE	C
ENCLOSURE	ENCLOSED

	ULTIMATE WIND UPLIFT PRESSURES (Put)	MIN. REQUIRED WIND UPLIFT STRENGTH (Sreq = Put X 1.25 SF)
ZONE 1'	-29 PSF	-37 PSF
ZONE 1 - FIELD	-50 PSF	-63 PSF
ZONE 2 - PERIMETER	-66 PSF	-83 PSF
ZONE 3 - CORNER	-90 PSF	-113 PSF

WIND ZONES
- ZONE 1' (INTERIOR)
- ZONE 1 (FIELD)
- ZONE 2 (PERIMETER)
- ZONE 3 (CORNER)

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SHEET NOTES:
1.

KEY
- ROOF EDGE
- PARAPET WALL
- GUTTER EDGE
- RIDGE
- TAPERED INSULATION
- STRUCTURAL SLOPE
- TAPERED INSULATION SLOPE
- CRICKET SLOPE
- SOIL PIPE
- PITCH PAN
- HVAC UNIT
- MECHANICAL CURB
- MULTIPLE PIPE PENETRATION
- EXHAUST FAN
- GRAVITY VENT
- ROOF HATCH
- CHIMNEY
- NOT IN CONTRACT
- (XX) ROOF AREA INDICATOR
- (#) NOTE NO.
- (# / SH1) DETAIL INDICATOR

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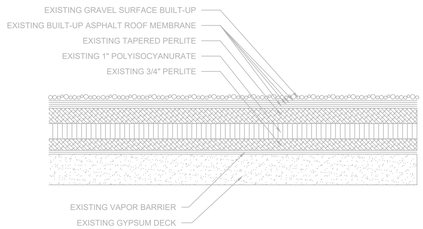
SHEET TITLE:

ROOF PLAN

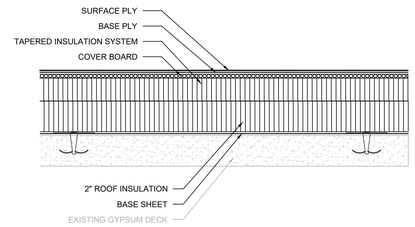
DRAWING:

XR101



NOTES:
1. EXISTING ROOF SYSTEM COMPOSITION SHOWN IS BASED UPON RANDOM SAMPLING.
2. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY INFORMATION PROVIDED.
3. REMOVE COMPONENTS DOWN TO THE EXISTING GYPSUM PLANK DECK TO REMAIN.

A1 EXISTING ROOF SYSTEM
SCALE: 3" = 1'-0"



NOTES:
1. PROVIDE AN APPROVED, TESTED ROOF ASSEMBLY IN ACCORDANCE WITH FM 4474, UL 580 OR UL 1897 TO RESIST THE MINIMUM REQUIRED WIND UPLIFT STRENGTH SPECIFIED ON DRAWING XR101. PROVIDE SUBMITTAL INCLUDING DOCUMENTATION OF TESTED ASSEMBLY ALONG WITH ATTACHMENT REQUIREMENTS FOR THE ASSEMBLY.
2. ANY WHOLE OR PARTIAL INSULATION BOARD OR PORTION OF ANY BOARD WHICH FALLS IN THE PERIMETERS & CORNERS OUTLINED SHALL BE SUBJECT TO THE FASTENING REQUIREMENTS FOR THE HIGHEST WIND ZONE ENCOUNTERED, ACROSS THE ENTIRE BOARD.

B1 RPLC. ROOF SYSTEM
SCALE: 3" = 1'-0"

Form F3 – Re-Roofing Analysis

Date: November 18, 2024

SUBMITTAL: ☐ Schematic ☐ Design Development ☒ Construction Document

SC CODE EDITION: 2021 ICC CODE EDITION: 2021 ICC A117.1 EDITION: N/A OSF GUIDE EDITION: 2023

OTHER CODES/STANDARDS & EDITIONS:
2009 International Energy Conservation Code
2021 International Existing Building Code, Level 1 Alteration

PROJECT DESCRIPTION: [Brief Scope of Work & Include project delivery method (i.e. CMR, etc.)]
Single prime construction for IT Building Roof Replacement

BASIC RE-ROOFING CODE INFORMATION

DESIGNATED AREAS OF BUILDING	Building Code	Area 1	Area 2	Area 3	Area 4	Area 5
CONSTRUCTION CLASSIFICATION TYPE	**Section 602**	IIB				
Roof Construction including supporting beams & joist	**Table 601**	-	-	-	-	-
As Required, Hrs		0				
As Designed, Hrs		0				
Testing Agency & Design No. (UL, FM, etc.)		N/A				
Wall/Partition Key Code		N/A				

1 of 2

Version May 2021

Form F3 – Re-Roofing Analysis

STRUCTURAL DESIGN INFORMATION, BUILDING

WIND LOADS	Analysis Procedure (ASCE 7 or SCBC **1609.6)**	ASCE 7-16
	Basic design Wind Speed, MPH **(3 sec gust IBC Fig 1609.3)**	120 = V
	Exposure Category	C
	Wind Importance Factor (ASCE 7 Table **1.5-2)**	= Iw
	Internal Pressure Coefficient (ASCE 7)	= GCpi
	External Pressure Coefficient (ASCE 7)	= GCp

CONSTRUCTION DOCUMENTS

I. Signed, sealed and dated drawings
II. Fully coordinated within and with the Project Manual.

PROJECT MANUAL

I. Signed, sealed and dated
II. Fully coordinated within and with the Construction Documents
- This information shall be part and within the drawing sheet set.

ADDITIONAL QUESTIONS

1. Prepare a site plan showing the life safety plan during construction and any additional details on how the contractor will keep the school administration informed about issues that may affect daily operations in the building	Included
2. Will there be additional weight added to the existing structure?	Yes, approx. 1 psf for new tapered insulation system and cover board
3. What will the insulation values be in areas being reroofed? Confirm the insulation will meet current energy codes.	
4. Will the existing roof drainage stay the same and meet current code?	Yes
5. What will the new roof assembly consist of?	Mechanically attached base sheet, adhered base layer and tapered insulation system, cover board and 2-ply modified bitumen roofing.
6. What type of inspections will be performed?	REI will perform weekly quality assurance observation site visits
7. Once the project is complete send a copy of the Warranty Letter to OSF	Agreed
8. Is there roof mounted equipment (mechanical or other) and if new equipment curbs or curb adaptors would be needed.	Existing equipment present, will flash to existing curbs without modifying.

2 of 2

Version May 2021

C RE-ROOF ANALYSIS FORM
SCALE: 3" = 1'-0"

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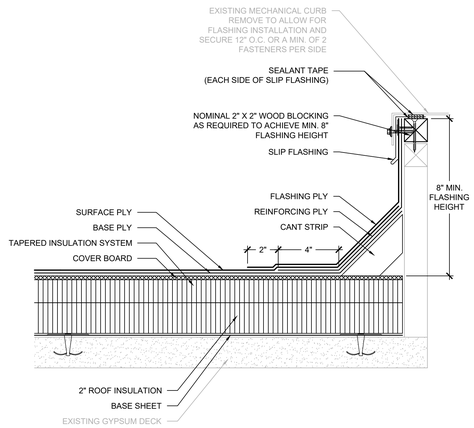
SHEET TITLE:

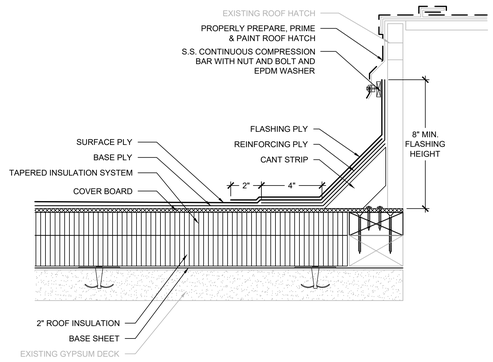
ROOF SYSTEMS/ RE-ROOF ANALYSIS

DRAWING:

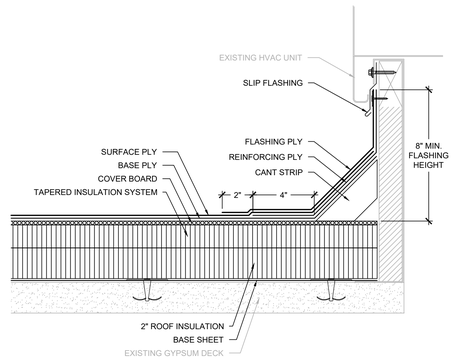
XR301



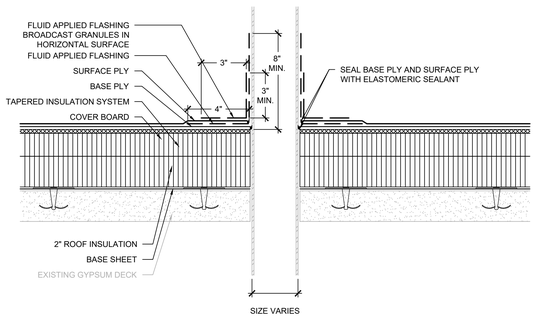
1 MECHANICAL CURB
SCALE: 3" = 1'-0"



2 ROOF HATCH
SCALE: 3" = 1'-0"

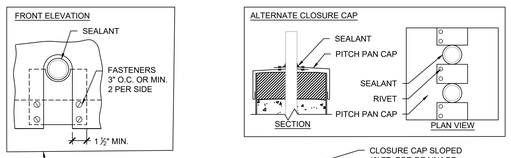


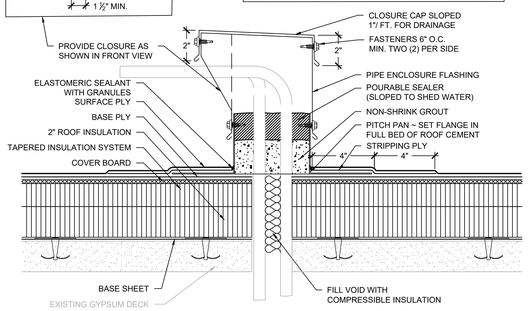
3 HVAC CURB
SCALE: 3" = 1'-0"



NOTES:
1. EXTEND PIPE PENETRATION TO PROVIDE MINIMUM 8" FLASHING HEIGHT.

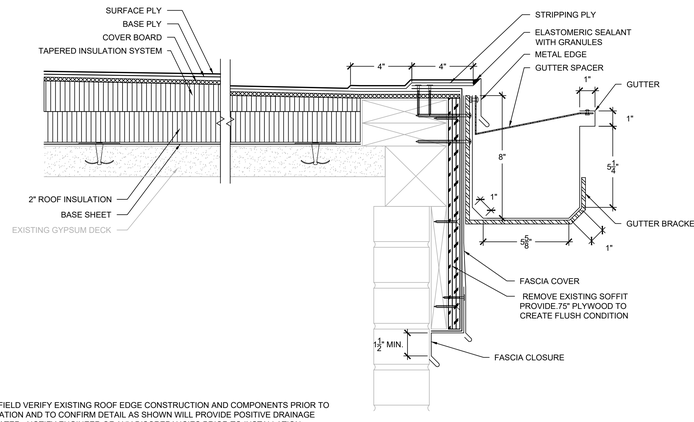
4 SOIL PIPE
SCALE: 3" = 1'-0"





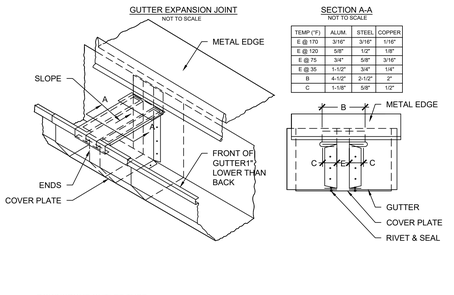
NOTES:
1. WHERE PIPES CAN BE SEPARATED WITH 2" MIN. CLEARANCE, PROVIDE FLUID APPLIED FLASHING IN LIEU OF MULTIPLE PIPE PENETRATION FLASHING. UTILIZE RIGID INSULATION B/W PIPES TO MAINTAIN SEPARATION.
2. WHERE PIPES ARE VERTICAL, PROVIDE ALTERNATE CLOSURE CAP.

5 MULTIPLE PIPE PENETRATION
SCALE: 3" = 1'-0"



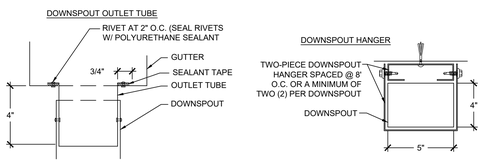
NOTES:
1. CONTRACTOR SHALL FIELD VERIFY EXISTING ROOF EDGE CONSTRUCTION AND COMPONENTS PRIOR TO SHEET METAL FABRICATION AND TO CONFIRM DETAIL AS SHOWN WILL PROVIDE POSITIVE DRAINAGE WITHOUT PONDING WATER. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO INSTALLATION.

6 GUTTER EDGE
SCALE: 3" = 1'-0"

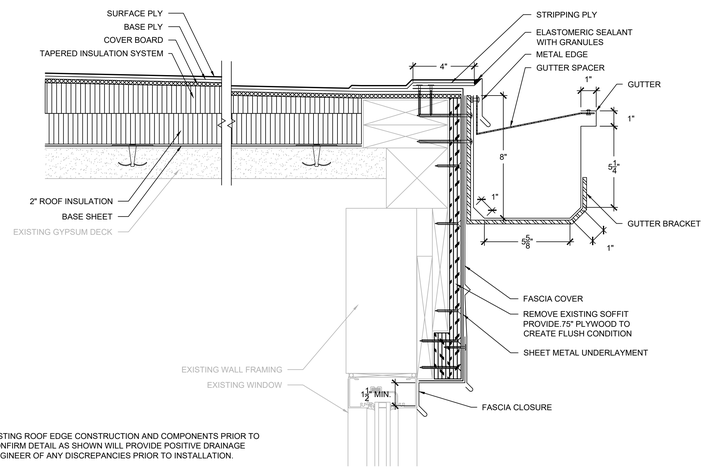


SECTION A-A
NOT TO SCALE

TEMP (°F)	ALUM.	STEEL	COPPER
E @ 170	3/16"	3/16"	1/16"
E @ 120	5/8"	1/2"	1/8"
E @ 75	3/4"	5/8"	3/16"
E @ 35	1-1/2"	3/4"	1/4"
B	4-1/2"	2-1/2"	2"
C	1-1/8"	5/8"	1/2"



7 GUTTER/DOWNSPOUT COMPONENTS
SCALE: 3" = 1'-0"



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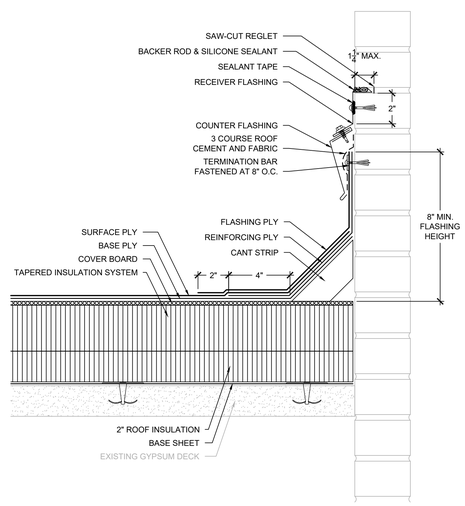
8 GUTTER EDGE AT WINDOW
SCALE: 3" = 1'-0"



9 CHIMNEY FLASHING
SCALE: 3" = 1'-0"

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XR501