SUFFIELD PUBLIC SCHOOLS
Suffield, Connecticut

DATE: **January 30, 2018**

TO: **Karen Berasi**

FROM: **Bill Hoff**

RE: **Board Approval of Final Spaulding Roof Cost Estimates and Plans**

The Board of Education approved the Educational Specifications for the Spaulding Roof Projects. The East Wing was approved on March 13, 2017 and the West Wing Gym and Multipurpose Room on October 3, 2017.

The state requires the board to also approve the final plans and project manual and the cost estimate prior to state approval to bid the projects.

Attached are the final plans which include the project manual and cost estimates prepared by the architect for the board to review and approve. These plans have been reviewed and approved by the PBC. Also attached are the educational specifications previously approved.

The town has approved enough capital funds for both projects based on the estimated costs.

As the state considers these two projects, they must be approved separately.

Suggested Motions

I move the Board of Education approve the final plans and project manual and the cost estimate for Project 139-0059 to replace the East Wing roof at AW Spaulding School as presented.

I move the Board of Education approve the final plans and project manual and the cost estimate for Project TMP-139-FHPL to replace the West Wing, Gym and Multipurpose Room roofs at AW Spaulding School as presented.

Please let me know if you have any questions.

EDUCATIONAL SPECIFICATIONS FOR
A. WARD SPAULDING ELEMENTARY SCHOOL
SUFFIELD PUBLIC SCHOOLS

January 4, 2018

East Wing Roof Replacement

FRIAR
architecture
engineering
master planning
interiors
landscape

1. **PROJECT RATIONALE**

The plan for the Spaulding Elementary School calls for the East Wing Roof Replacement, one of the largest roof areas at the school. The roof scheduled for replacement was installed in 1985 and is 32 years old. This particular section of the building was constructed in 1953. This roof area has been leaking for the past several years and needs constant patches and repairs. If we do not replace the roof at this time, it is likely that extensive damage to the ceilings and structure will occur.

2. **LONG-RANGE PLAN**

The long-range plan for the school buildings in Suffield calls for provision of a safe and appropriate learning environment. In order to comply with this aspect of the plan, it is necessary for Suffield to replace the roof at Spaulding Elementary School.

3. **THE PROJECT**

East Wing Roof Replacement:

- East Wing Roof Area, scheduled for replacement is 22,460 s.f. as compared to the total roof area, which is 71,268 s.f.
- The building construction type is typically steel roof joists, masonry bearing walls with a cement fiber roof deck.

Suffield proposes the following components of its roof replacement project:

1. Temporarily move (and later return) rooftop equipment.
2. Remove all roofing materials down to the deck and dispose of hazardous materials (as required) in appropriate manner.
3. Inspect roof deck and repair problem areas as appropriate.
4. Install new insulation, waterproofing and minimum 20-year warranted roofing systems (proposed type: TPO membrane roof for low-slope roof and asphalt impregnated fiberglass shingles at the pitched roof).
5. Replace pitched roof drainage system with new gutters, roof drain covers and downspouts.
6. Replace all affected roof drains at existing locations along with new overflow drainage piping.

Construction: No major construction will impact any of these spaces. There will be some minor ceiling tile replacements for stained/damaged ceiling tiles. Also, any water stained walls will be repainted. The

ceiling tiles affected by the roof leaks and relative to the installation of new overflow roof drainage piping.

FF&E: None.

A Ward Spaulding Elementary School:

- The existing school building includes grade Kindergarten through 2nd Grade and houses K-2nd classrooms, kitchen, cafeteria, gymnasium, auditorium, administrative offices, music classrooms, special education classrooms, art classrooms, custodial spaces, storage spaces, boiler room, mechanical/electrical rooms and a library.

4. BUILDING SYSTEMS

Security:	Not applicable.
Public Address:	Not applicable.
Technology:	Not applicable.
Phone System:	Not applicable.
Clocks:	Not applicable.

5. INTERIOR BUILDING ENVIRONMENT

Acoustics:	Not Applicable.
Lighting:	Not Applicable.
HVAC:	Roof-top units will be temporarily moved and then returned to original location as necessary during the roof replacement.
Plumbing:	Not applicable.
Windows/Doors:	Not applicable.

6. SITE DEVELOPMENT

Site Acquisition:	Not applicable.
Parking:	Not applicable.
Drives:	Not applicable.
Walkways:	Not applicable.
Landscaping:	Not applicable.
Site Improvements:	Not applicable.

7. CONSTRUCTION BONUS REQUESTS

Spaulding Elementary School does not house any of the special programs eligible for a construction bonus.

School Readiness:	C.G.S. 10-285a(e)--Not applicable.
Lighthouse Schools:	C.G.S. 10-285a(f)--Not applicable.
CHOICE:	C.G.S. 10-285a(g), as amended--Not applicable.
Reduced Class Size:	C.G.S. 10-285a(h)--Not applicable.
Regional Vo-Ag Center:	C.G.S. 10-65--Not applicable.
Inter-district Magnet School:	C.G.S. 10-264h--Not applicable.
Inter-district Cooperative School:	C.G.S. 10-158a--Not applicable.
Regional Special Education Center:	C.G.S. 10-76e--Not applicable.
Full-day Kindergarten:	Spaulding Elementary School is used for Full-day Kindergarten: C.G.S. 10-285a(h)-- Applicable.

8. **COMMUNITY USES**

Spaulding Elementary School is designed for community uses during the school hours, before and after school hours and on some weekends, throughout the school year and summer. The uses to include but not be limited to:

- PTO.
- The Recreation Department.
- Before and After School Programs and Community Events
- Summer Enrichment Programs
- Boys and Girl Scouts

Various and sometimes multiple areas are used for these functions.

EDUCATIONAL SPECIFICATIONS FOR
A. WARD SPAULDING ELEMENTARY SCHOOL
SUFFIELD PUBLIC SCHOOLS

January 4, 2018

West Wing Roof Replacement

FRIAR
architecture
interior design
master planning

1. **PROJECT RATIONALE**

The plan for the Spaulding Elementary School calls for the West Wing Roof Replacement, which is comprised of a flat roof section and a pitched roof section. The flat roof area scheduled for replacement was originally installed as part of the 1962 addition to the existing school. The pitched roof section of the building is comprised of two connected building areas. These two roof areas were originally installed in 1953 and in 1962 above the auditorium and gymnasium areas of the building. All of these roof areas have been leaking for the past several years and needs constant patches and repairs. If we do not replace the roof at this time, it is likely that extensive damage to the ceilings and structure will occur.

2. **LONG-RANGE PLAN**

The long-range plan for the school buildings in Suffield calls for provision of a safe and appropriate learning environment. In order to comply with this aspect of the plan, it is necessary for Suffield to replace the roof at Spaulding Elementary School.

3. **THE PROJECT**

West Wing Roof Replacement:

- West Wing Roof Area, scheduled for replacement is 22,790 s.f. of flat roof and 9,664 s.f. of pitched roof as compared to the total roof area, which is 71,268 s.f.
- The flat roof building construction type is typically steel roof joists with a steel roof deck.
- The pitched roof building construction type over the gymnasium and the auditorium is typically wood roof deck planking on steel beam & steel truss framing. The pitched roof building construction type over the two entrances is typically wood roof joist framing with a wood sheathed roof deck.

Suffield proposes the following components of its roof replacement project:

1. Temporarily move (and later return) rooftop equipment.
2. Remove all roofing materials down to the deck and dispose of hazardous materials (as required) in appropriate manner.
3. Inspect roof deck and repair problem areas as appropriate.
4. Install new insulation, waterproofing and minimum 20-year warranted roofing systems (proposed type: EPDM membrane roof for low-slope roof and asphalt impregnated fiberglass shingles at the pitched roof).

5. Replace pitched roof drainage system with new gutters, roof drain covers and downspouts.
6. Replace all affected roof drains at existing locations along with new overflow drainage piping.

Construction: No major construction will impact any of these spaces. There will be some minor ceiling tile replacements for stained/damaged ceiling tiles. Also, any water stained walls will be repainted. The ceiling tiles affected by the roof leaks and relative to the installation of new overflow roof drainage piping.

FF&E: None.

A Ward Spaulding Elementary School:

- The existing school building includes grade Kindergarten through 2nd Grade and houses K-2nd classrooms, kitchen, cafeteria, gymnasium, auditorium, administrative offices, music classrooms, special education classrooms, art classrooms, custodial spaces, storage spaces, boiler room, mechanical/electrical rooms and a library.

4. BUILDING SYSTEMS

Security:	Not applicable.
Public Address:	Not applicable.
Technology:	Not applicable.
Phone System:	Not applicable.
Clocks:	Not applicable.

5. INTERIOR BUILDING ENVIRONMENT

Acoustics:	Not Applicable.
Lighting:	Not Applicable.
HVAC:	Roof-top units will be temporarily moved and then returned to original location as necessary during the roof replacement.
Plumbing:	Not applicable.
Windows/Doors:	Not applicable.

6. SITE DEVELOPMENT

Site Acquisition:	Not applicable.

Parking:	Not applicable.
Drives:	Not applicable.
Walkways:	Not applicable.
Landscaping:	Not applicable.
Site Improvements:	Not applicable.

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Lighthouse Schools:	C.G.S. 10-285a(f)--Not applicable.
CHOICE:	C.G.S. 10-285a(g), as amended--Not applicable.
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Inter-district Magnet School:	C.G.S. 10-264h--Not applicable.
Inter-district Cooperative School:	C.G.S. 10-158a--Not applicable.
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- PTO.
- The Recreation Department.
- Before and After School Programs and Community Events
- Summer Enrichment Programs
- Boys and Girl Scouts

Various and sometimes multiple areas are used for these functions.

STATE PROJECT #	139-059RR			**BULD TYPE**	GENERAL CONTRACTOR		
REPORT DATE	10/27/2017						
LOCAL EDUCATION AGENCY (LEA)	SUFFIELD			**CONSTRUCTION MANAGER NAME**			
SCHOOL NAME	A.Ward Spaulding School (East Wing)			**PROJECT LABOR AGREEMENT**	NO		
PROJECT TYPE	Roof Renovation			**EEO PROGRAM**	NO		
BUILDING (ORIGINAL) SQUARE FEET	71,268						
PROJECT (CURRENT) SQUARE FEET	22,460						
GRADES	K thru 2nd						
ENROLLMENT PROJECTIONS	0						
REIMBURSEMENT RATE	0%	**COST/SQ FT**				**INELIGIBLE COST**	
TOTAL COST	$ 652,912.00	9.16				$ 2,500	
CONSTRUCTION COST	$ 505,670	7.10				$ -	
SOFT COST	$ 147,242.00	2.07				$ 2,500	

Actual Costs at Substantial Completion
Projects less than $5 million

CONSTRUCTION COSTS		**COSTS**			**ELIGIBLES**	**INELIGIBLES**
A SUBSTRUCTURE		$ -			$0	$0
B SHELL		$ 490,805			$490,805	$0
C INTERIORS		$ -			$0	$0
D SERVICES		$ -			$0	$0
E EQUIPMENT & FURNISHINGS		$ -			$0	$0
F SPECIAL CONSTRUCTION AND DEMOLITION		$ -			$0	$0
G BUILDING SITEWORK		$ -			$0	$0
X GENERAL CONDITIONS, OFFICE OVERHEAD & PROFIT		$ -			$0	$0
Z ALLOWANCES		$ 14,865			$14,865	$0
CONSTRUCTION TOTAL COST					$505,670	$0
SOFT COSTS					**ELIGIBLES**	**INELIGIBLES**
ACQUISITION COSTS		$ -				
	Land/Building Purchase				$0	$0
	Swing Space/Portables				$0	$0
	Site Remediation				$0	$0
	Appraisals				$0	$0
	Land Survey				$0	$0
CONSULTANTS		$ -				
	Architect/Engineering Fees				$0	$1,500
	Environmental				$0	$1,000
	Commissioning				$0	$0
	Legal Consultants				$0	$0
	FF&E Coordinator				$0	$0
	Estimator				$0	$0
	Project Management				$0	$0
	Construction Manager Pre Construction				$0	$0
	Other Consultants				$0	$0
FEES		$ 39,264.00				
	Bonding Fees				$0	$0
	Insurance Costs				$0	$0
	Town Staff Costs				$0	$0
	Town Permit Fees				$0	$0
	State Permit Fees				$0	$0
	Testing/Inspection Fees				$0	$0
	Overhead & Profit Costs				$39,264	$0
	Printing & Mailing Costs				$0	$0
	Other Costs					$0
CONTINGENCY		$ 107,978.00				
	Construction Contingency				$58,897	$0
	Owner's Contingency				$49,081	$0
	Design Contingency				$0	$0
TOTAL SOFT COST					$147,242	$2,500

STATE PROJECT #	xxx-xxxxTMP			**BULD TYPE**	GENERAL CONTRACTOR		
REPORT DATE		11/20/2017					
LOCAL EDUCATION AGENCY (LEA)	SUFFIELD			**CONSTRUCTION MANAGER NAME**			
SCHOOL NAME	A.Ward Spaulding School (West Wing)			**PROJECT LABOR AGREEMENT**	NO		
PROJECT TYPE	Roof Renovation			**EEO PROGRAM**	NO		
BUILDING (ORIGINAL) SQUARE FEET		71,268					
PROJECT (CURRENT) SQUARE FEET		32,454					
GRADES	K thru 2nd						
ENROLLMENT PROJECTIONS		0					
REIMBURSEMENT RATE		0%	**COST/SQ FT**				**INELIGIBLE COST**
TOTAL COST	$	961,141.00	13.49				$ 2,500
CONSTRUCTION COST	$	739,340	10.37				$ -
SOFT COST	$	221,801.00	3.11				$ 2,500

Actual Costs at Substantial Completion
Projects less than $5 million

CONSTRUCTION COSTS		**COSTS**			**ELIGIBLES**	**INELIGIBLES**
A SUBSTRUCTURE		$ -			$0	$0
B SHELL		$ 727,850			$727,850	$0
C INTERIORS		$ -			$0	$0
D SERVICES		$ -			$0	$0
E EQUIPMENT & FURNISHINGS		$ -			$0	$0
F SPECIAL CONSTRUCTION AND DEMOLITION		$ -			$0	$0
G BUILDING SITEWORK		$ -			$0	$0
X GENERAL CONDITIONS, OFFICE OVERHEAD & PROFIT		$ -			$0	$0
Z ALLOWANCES		$ 11,490			$11,490	$0
CONSTRUCTION TOTAL COST					$739,340	$0
SOFT COSTS					**ELIGIBLES**	**INELIGIBLES**
ACQUISITION COSTS		$ -				
	Land/Building Purchase				$0	$0
	Swing Space/Portables				$0	$0
	Site Remediation				$0	$0
	Appraisals				$0	$0
	Land Survey				$0	$0
CONSULTANTS		$ -				
	Architect/Engineering Fees				$0	$1,500
	Environmental				$0	$1,000
	Commissioning				$0	$0
	Legal Consultants				$0	$0
	FF&E Coordinator				$0	$0
	Estimator				$0	$0
	Project Management				$0	$0
	Construction Manager Pre Construction				$0	$0
	Other Consultants				$0	$0
FEES		$ 59,147.00				
	Bonding Fees				$0	$0
	Insurance Costs				$0	$0
	Town Staff Costs				$0	$0
	Town Permit Fees				$0	$0
	State Permit Fees				$0	$0
	Testing/Inspection Fees				$0	$0
	Overhead & Profit Costs				$59,147	$0
	Printing & Mailing Costs				$0	$0
	Other Costs					$0
CONTINGENCY		$ 162,654.00				
	Construction Contingency				$88,720	$0
	Owner's Contingency				$73,934	$0
	Design Contingency				$0	$0
TOTAL SOFT COST					$221,801	$2,500

EAST WING ROOF REPLACEMENT
AT
A. WARD SPAULDING ELEMEMTARY SCHOOL

945 MOUNTAIN ROAD
WEST SUFFIELD, CT 06093

STATE PROJECT NO. 139-0059RR

ISSUED TO THE PERMANENT BUILDING COMMISSION
JANUARY 4, 2018

SUPERINTENDENT OF SCHOOLS
KAREN BERASI

ARCHITECT

FRIAR ARCHITECTURE INC.
21 TALCOTT NOTCH ROAD
FARMINGTON, CONNECTICUT 06032

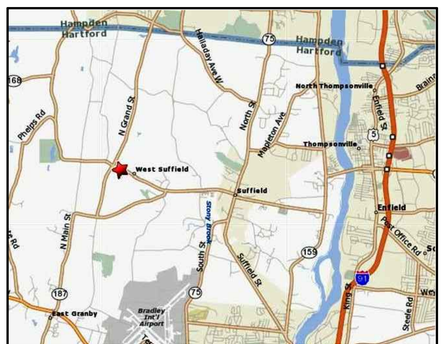
Architect's Project No. 2015-044A

INDEX OF DRAWINGS

COVER SHEET

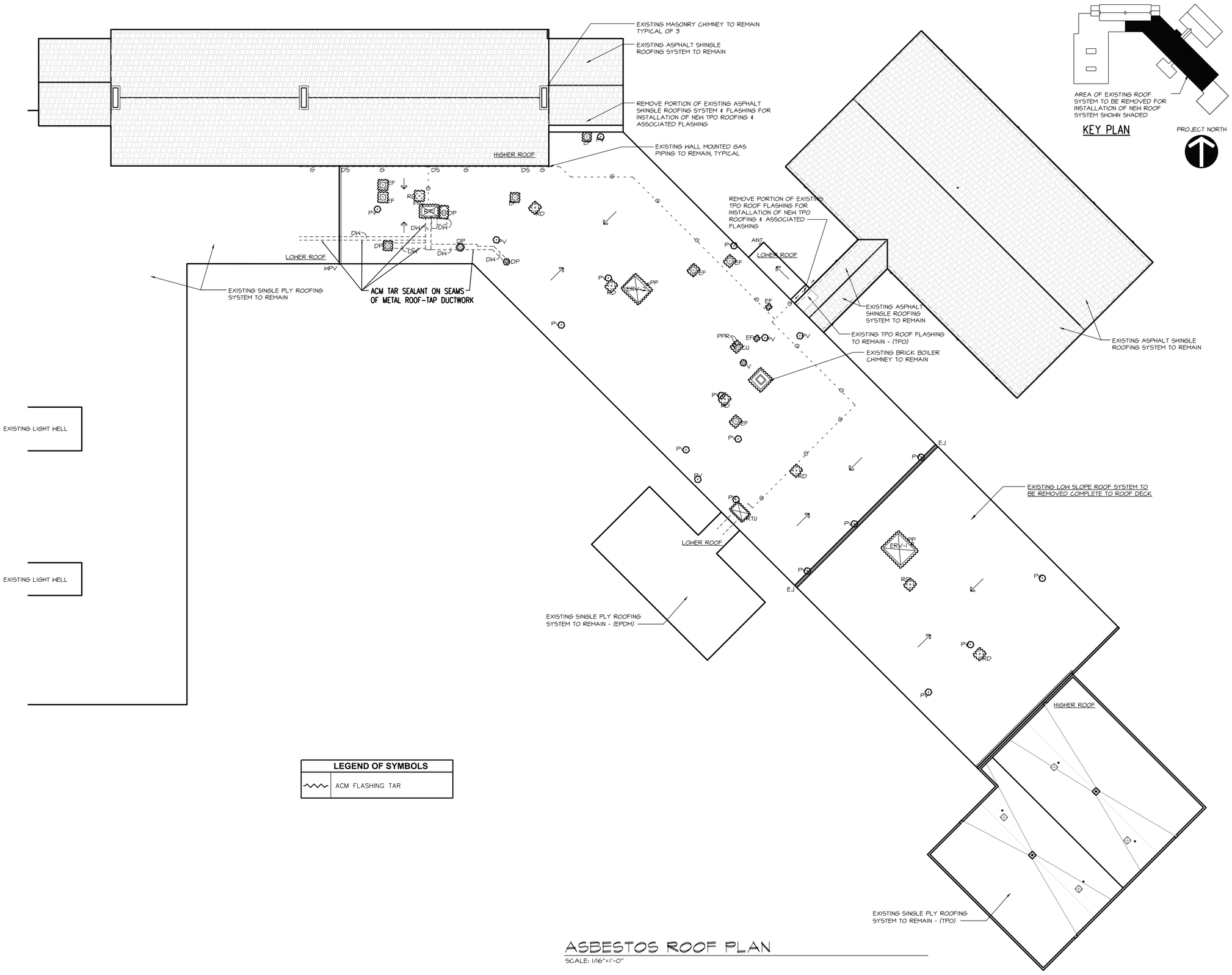
ASBESTOS ABATEMENT
ACM1.1 ASBESTOS ROOF PLAN

ARCHITECTURAL
D1.1 ROOF DEMOLITION PLAN
A2.1 ROOF PLAN & GENERAL INFO
A2.2 ROOF DETAILS
A2.3 ROOF DETAILS
A2.4 ROOF DETAILS



SITE LOCATION MAP

SET NUMBER



LEGEND OF SYMBOLS	
~~	ACM FLASHING TAR

ASBESTOS ROOF PLAN

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

Plotted on Recycled Paper

DATE: 02/16/17
DRAWN BY: REA
SCALE: AS NOTED
REVIEWED BY: EP
PROJECT NO. 15-044A
ASBESTOS ROOF PLAN

REVISIONS

NO.	DATE	DESCRIPTION

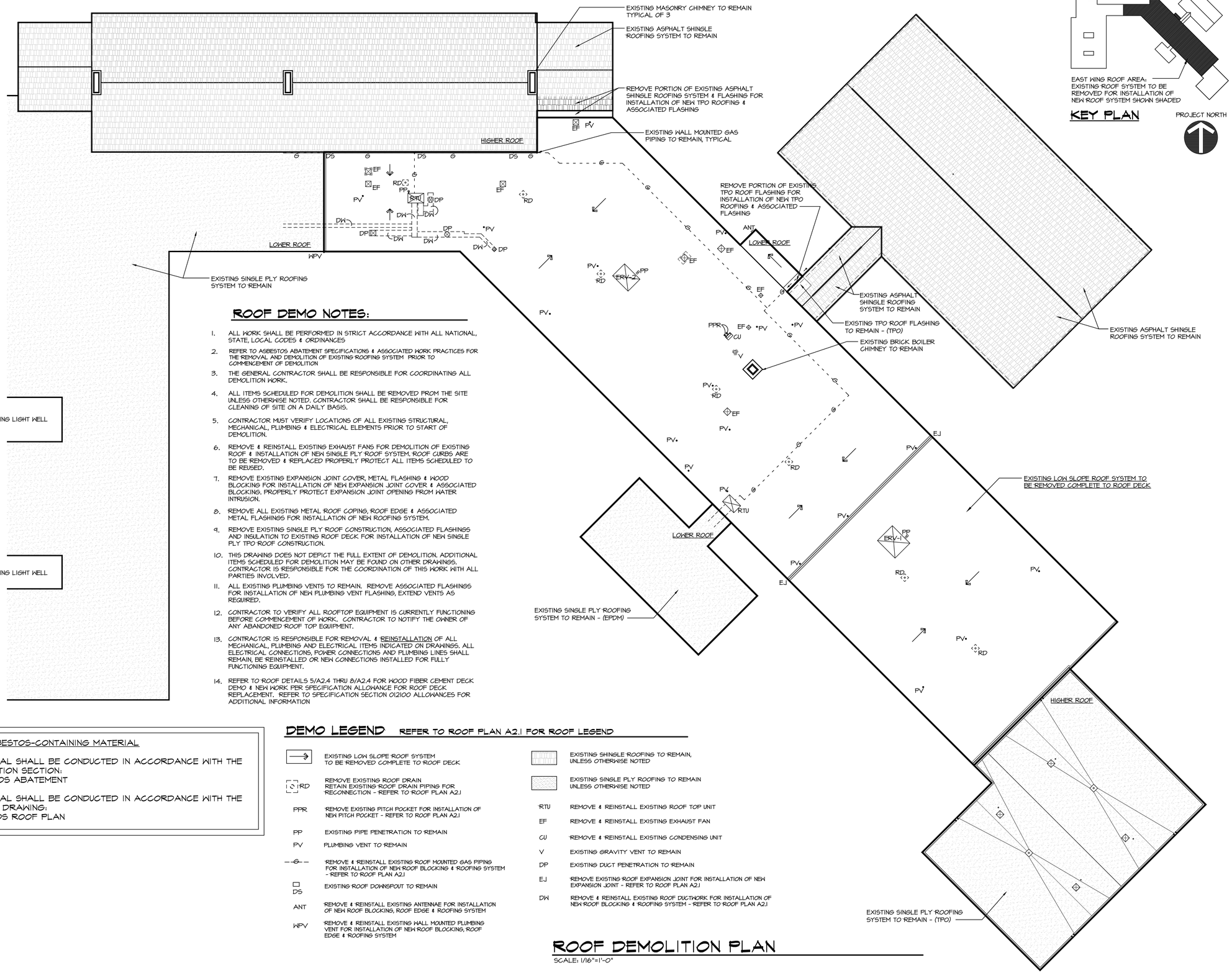
ASBESTOS ROOF PLAN

STATE PROJECT NO. TMP-139-XCLF
EAST WING ROOF REPLACEMENT
A. WARD SPAULDING SCHOOL
945 MOUNTAIN ROAD
SUFFIELD, CT 06078

TRC
21 Griffin Road North
Windsor, CT 06095
(860) 298-9692

FRIAR ASSOCIATES INC.
281 Farmington Avenue
Farmington, CT. 06032

SHEET NO.
ACM 1.1



ROOF DEMO NOTES:

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL NATIONAL, STATE, LOCAL CODES & ORDINANCES
2. REFER TO ASBESTOS ABATEMENT SPECIFICATIONS & ASSOCIATED WORK PRACTICES FOR THE REMOVAL AND DEMOLITION OF EXISTING ROOFING SYSTEM PRIOR TO COMMENCEMENT OF DEMOLITION
3. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL DEMOLITION WORK.
4. ALL ITEMS SCHEDULED FOR DEMOLITION SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE NOTED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING OF SITE ON A DAILY BASIS.
5. CONTRACTOR MUST VERIFY LOCATIONS OF ALL EXISTING STRUCTURAL, MECHANICAL, PLUMBING & ELECTRICAL ELEMENTS PRIOR TO START OF DEMOLITION.
6. REMOVE & REINSTALL EXISTING EXHAUST FANS FOR DEMOLITION OF EXISTING ROOF & INSTALLATION OF NEW SINGLE PLY ROOF SYSTEM. ROOF CURBS ARE TO BE REMOVED & REPLACED PROPERLY PROTECT ALL ITEMS SCHEDULED TO BE REUSED.
7. REMOVE EXISTING EXPANSION JOINT COVER, METAL FLASHING & WOOD BLOCKING FOR INSTALLATION OF NEW EXPANSION JOINT COVER & ASSOCIATED BLOCKING. PROPERLY PROTECT EXPANSION JOINT OPENING FROM WATER INTRUSION.
8. REMOVE ALL EXISTING METAL ROOF COPING, ROOF EDGE & ASSOCIATED METAL FLASHINGS FOR INSTALLATION OF NEW ROOFING SYSTEM.
9. REMOVE EXISTING SINGLE PLY ROOF CONSTRUCTION, ASSOCIATED FLASHINGS AND INSULATION TO EXISTING ROOF DECK FOR INSTALLATION OF NEW SINGLE PLY TPO ROOF CONSTRUCTION.
10. THIS DRAWING DOES NOT DEPICT THE FULL EXTENT OF DEMOLITION. ADDITIONAL ITEMS SCHEDULED FOR DEMOLITION MAY BE FOUND ON OTHER DRAWINGS. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THIS WORK WITH ALL PARTIES INVOLVED.
11. ALL EXISTING PLUMBING VENTS TO REMAIN. REMOVE ASSOCIATED FLASHINGS FOR INSTALLATION OF NEW PLUMBING VENT FLASHING, EXTEND VENTS AS REQUIRED.
12. CONTRACTOR TO VERIFY ALL ROOFTOP EQUIPMENT IS CURRENTLY FUNCTIONING BEFORE COMMENCEMENT OF WORK. CONTRACTOR TO NOTIFY THE OWNER OF ANY ABANDONED ROOF TOP EQUIPMENT.
13. CONTRACTOR IS RESPONSIBLE FOR REMOVAL & REINSTALLATION OF ALL MECHANICAL, PLUMBING AND ELECTRICAL ITEMS INDICATED ON DRAWINGS. ALL ELECTRICAL CONNECTIONS, POWER CONNECTIONS AND PLUMBING LINES SHALL REMAIN, BE REINSTALLED OR NEW CONNECTIONS INSTALLED FOR FULLY FUNCTIONING EQUIPMENT.
14. REFER TO ROOF DETAILS 5/A2.4 THRU 8/A2.4 FOR WOOD FIBER CEMENT DECK DEMO & NEW WORK PER SPECIFICATION ALLOWANCE FOR ROOF DECK REPLACEMENT. REFER TO SPECIFICATION SECTION 012100 ALLOWANCES FOR ADDITIONAL INFORMATION

ASBESTOS-CONTAINING MATERIAL

ALL ASBESTOS REMOVAL SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION SECTION:
- 028213 - ASBESTOS ABATEMENT

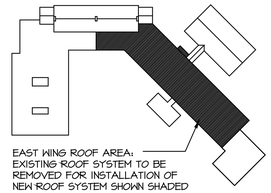
ALL ASBESTOS REMOVAL SHALL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING CONTRACT DRAWING:
- ACM 1.1 - ASBESTOS ROOF PLAN

DEMO LEGEND REFER TO ROOF PLAN A2.1 FOR ROOF LEGEND

	EXISTING LOW SLOPE ROOF SYSTEM TO BE REMOVED COMPLETE TO ROOF DECK
RD	REMOVE EXISTING ROOF DRAIN RETAIN EXISTING ROOF DRAIN PIPING FOR RECONNECTION - REFER TO ROOF PLAN A2.1
PPR	REMOVE EXISTING PITCH POCKET FOR INSTALLATION OF NEW PITCH POCKET - REFER TO ROOF PLAN A2.1
PP	EXISTING PIPE PENETRATION TO REMAIN
PV	PLUMBING VENT TO REMAIN
G	REMOVE & REINSTALL EXISTING ROOF MOUNTED GAS PIPING FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF PLAN A2.1
DS	EXISTING ROOF DOWNSPOUT TO REMAIN
ANT	REMOVE & REINSTALL EXISTING ANTENNAE FOR INSTALLATION OF NEW ROOF BLOCKING, ROOF EDGE & ROOFING SYSTEM
WPV	REMOVE & REINSTALL EXISTING WALL MOUNTED PLUMBING VENT FOR INSTALLATION OF NEW ROOF BLOCKING, ROOF EDGE & ROOFING SYSTEM
	EXISTING SHINGLE ROOFING TO REMAIN, UNLESS OTHERWISE NOTED
	EXISTING SINGLE PLY ROOFING TO REMAIN UNLESS OTHERWISE NOTED
RTU	REMOVE & REINSTALL EXISTING ROOF TOP UNIT
EF	REMOVE & REINSTALL EXISTING EXHAUST FAN
CU	REMOVE & REINSTALL EXISTING CONDENSING UNIT
V	EXISTING GRAVITY VENT TO REMAIN
DP	EXISTING DUCT PENETRATION TO REMAIN
EJ	REMOVE EXISTING ROOF EXPANSION JOINT FOR INSTALLATION OF NEW EXPANSION JOINT - REFER TO ROOF PLAN A2.1
DW	REMOVE & REINSTALL EXISTING ROOF DUCTWORK FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF PLAN A2.1

ROOF DEMOLITION PLAN

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



KEY PLAN

PROJECT NORTH

DATE: 1/9/18
DRAWN BY:
SCALE:
REVIEWED BY:
PROJECT NO. 2015-044A

REVISIONS

NO.	DATE	DESCRIPTION

ROOF DEMO PLAN

STATE PROJECT NO. 139-0059RR

EAST WING ROOF REPLACEMENT

A. WARD SPAULDING SCHOOL

945 MOUNTAIN ROAD
WEST SUFFIELD, CT 06093

ARCHITECT'S SEAL

FRIAR
21 Talcott Notch Road
Farmington, CT 06032

SHEET NO.
D1.1

ARCHITECTURAL SYMBOLS

WALL SECTION — SECTION NUMBER / SHEET NUMBER

DETAIL DESIGNATION, PLAN DETAIL, LARGE SCALE PLANS — DETAIL NUMBER / SHEET NUMBER

WALL TYPES — NUMBER

REVISION NUMBER — NUMBER

DATUM / ELEVATION / LEVEL LINE

EXISTING CONSTRUCTION TO REMAIN

NEW STUD CONSTRUCTION

SOFFITS / OVERHANS ABOVE

ARCHITECTURAL MATERIALS

C.M.U.		PLYWOOD (SMALL)	
CONCRETE		RIGID INSULATION	
FACE BRICK		ROUGH WOOD (CONTINUOUS)	
FACE GRAIN		ROUGH WOOD (INTERRUPTED)	
FINISHED WOOD		BATT INSULATION	
GYPSUM BOARD			

CODE INFO

CODES TO WHICH THIS PROJECT WAS DESIGNED:

CURRENT STATE BUILDING CODE:

2012 International Building Code
2012 International Mechanical Code
2012 International Plumbing Code
2012 International Energy Energy Conversation Code
2012 International Residential Code
2012 International Existing Building Code
2009 Accessible and Usable Buildings and Facilities (ICC A117.1-2009)
2014 National Electrical Code (NFPA 70)

THE INTERNATIONAL EXISTING BUILDING CODE (IEBC)

CHAPTER 3: COMPLIANCE METHODS -
CHAPTER 3: Compliance Methods: Work Area Compliance Method per Section 301.1.2

CHAPTER 5: CLASSIFICATION OF WORK -
Section 503 Alteration Level 1
503.1 Scope refers to the removal and replacement or the covering of existing materials (roof replacement). The scope of work area is an Alteration Level 1

503.2 Application - Level 1 Alterations shall comply with the provisions of Chapter 7: Alterations - Level 1

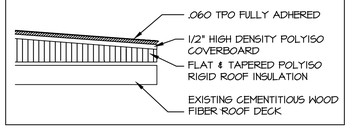
The Alteration must comply with Chapter 7:
Section 701 General - In Particular Section 701.2 Conformance.

Section 706 Structural - In Particular Sections 706.1 General, Section 706.2 Addition or replacement of roofing or replacement of equipment and Section 706.3 Additional requirements for re-roof permits

Section 707 Energy Requirements In Particular Section 707.1 Minimum Requirements

By complying with the applicable requirements of Chapters 7 of the 2012 International Existing Building Code (IEBC) this alteration shall be considered in compliance.

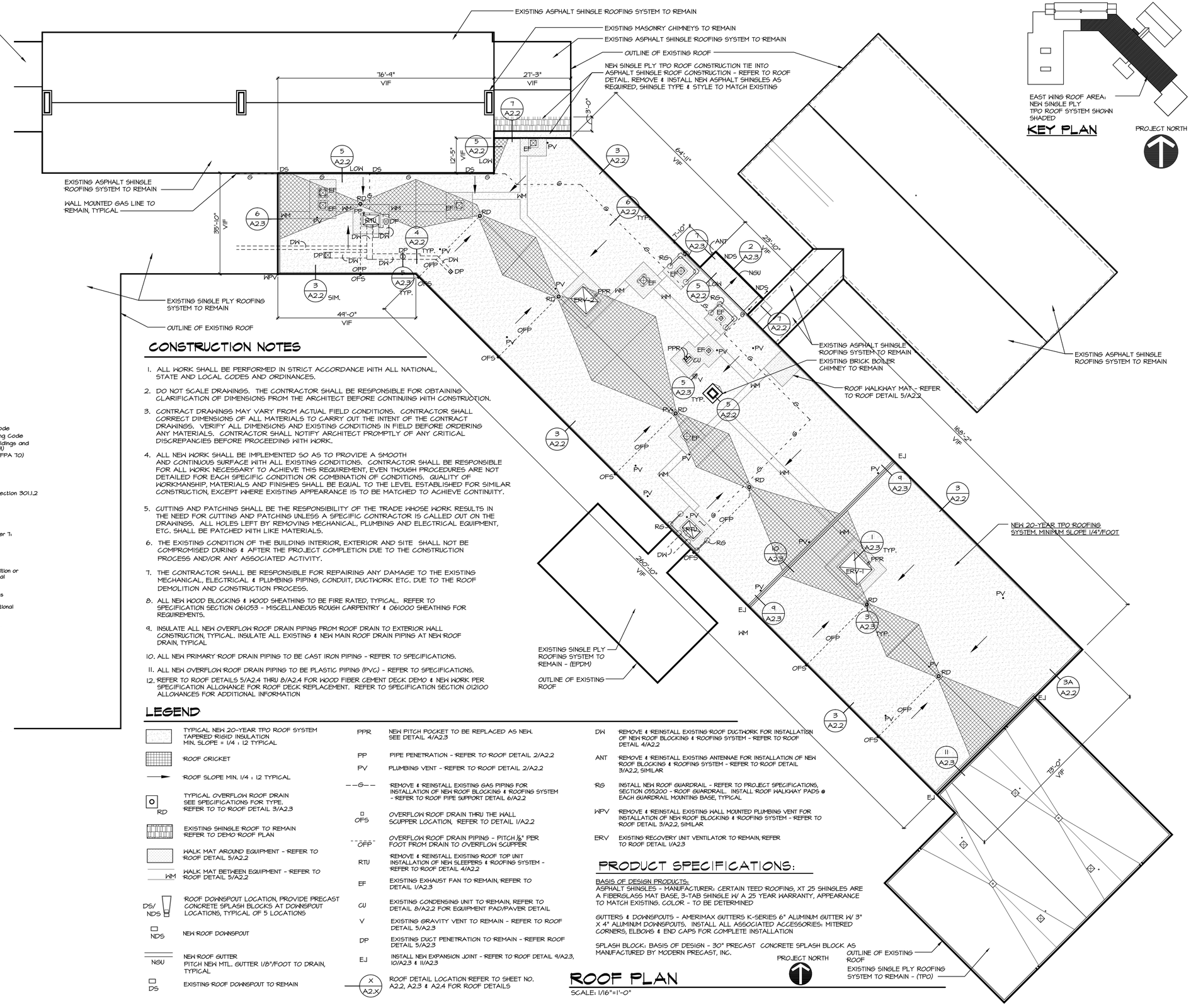
SYSTEM ASSEMBLY

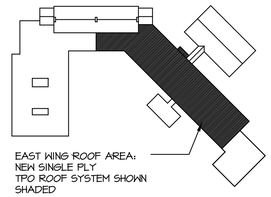


ROOF R-VALUES

PVC ROOFING SYSTEM	
MATERIAL:	'R' VALUE:
OUTSIDE AIR	.17
PVC ROOF MEMBRANE	0.5
1/2" RECOVERY BOARD	2.5
MINIMUM 3.5" CONTINUOUS RIGID ROOF INSULATION, TYPICAL	19.95
2" CEMENT WOOD FIBER DECK	2.5
INSIDE AIR FILM	0.68
Total:	27.30
IECC 2012	25 C.I.

WIND CODE DATA	
CLIMATE ZONE	5
WIND SPEED	100 mph
SURFACE ROUGHNESS EXPOSURE CATEGORY	B
IMPORTANCE FACTOR	Iw = 1.15
CATEGORY	III





CONSTRUCTION NOTES

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.
2. DO NOT SCALE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION OF DIMENSIONS FROM THE ARCHITECT BEFORE CONTINUING WITH CONSTRUCTION.
3. CONTRACT DRAWINGS MAY VARY FROM ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL CORRECT DIMENSIONS OF ALL MATERIALS TO CARRY OUT THE INTENT OF THE CONTRACT DRAWINGS. VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN FIELD BEFORE ORDERING ANY MATERIALS. CONTRACTOR SHALL NOTIFY ARCHITECT PROMPTLY OF ANY CRITICAL DISCREPANCIES BEFORE PROCEEDING WITH WORK.
4. ALL NEW WORK SHALL BE IMPLEMENTED SO AS TO PROVIDE A SMOOTH AND CONTINUOUS SURFACE WITH ALL EXISTING CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY TO ACHIEVE THIS REQUIREMENT, EVEN THOUGH PROCEDURES ARE NOT DETAILED FOR EACH SPECIFIC CONDITION OR COMBINATION OF CONDITIONS. QUALITY OF WORKMANSHIP, MATERIALS AND FINISHES SHALL BE EQUAL TO THE LEVEL ESTABLISHED FOR SIMILAR CONSTRUCTION, EXCEPT WHERE EXISTING APPEARANCE IS TO BE MATCHED TO ACHIEVE CONTINUITY.
5. CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE TRADE WHOSE WORK RESULTS IN THE NEED FOR CUTTING AND PATCHING UNLESS A SPECIFIC CONTRACTOR IS CALLED OUT ON THE DRAWINGS. ALL HOLES LEFT BY REMOVING MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT, ETC. SHALL BE PATCHED WITH LIKE MATERIALS.
6. THE EXISTING CONDITION OF THE BUILDING INTERIOR, EXTERIOR AND SITE SHALL NOT BE COMPROMISED DURING & AFTER THE PROJECT COMPLETION DUE TO THE CONSTRUCTION PROCESS AND/OR ANY ASSOCIATED ACTIVITY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE EXISTING MECHANICAL, ELECTRICAL & PLUMBING PIPING, CONDUIT, DUCTWORK ETC. DUE TO THE ROOF DEMOLITION AND CONSTRUCTION PROCESS.
8. ALL NEW WOOD BLOCKING & WOOD SHEATHING TO BE FIRE RATED, TYPICAL. REFER TO SPECIFICATION SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY & 061000 SHEATHING FOR REQUIREMENTS.
9. INSULATE ALL NEW OVERFLOW ROOF DRAIN PIPING FROM ROOF DRAIN TO EXTERIOR WALL CONSTRUCTION, TYPICAL. INSULATE ALL EXISTING & NEW MAIN ROOF DRAIN PIPING AT NEW ROOF DRAIN, TYPICAL
10. ALL NEW PRIMARY ROOF DRAIN PIPING TO BE CAST IRON PIPING - REFER TO SPECIFICATIONS.
11. ALL NEW OVERFLOW ROOF DRAIN PIPING TO BE PLASTIC PIPING (PVC) - REFER TO SPECIFICATIONS.
12. REFER TO ROOF DETAILS 5/A2.4 THRU 8/A2.4 FOR WOOD FIBER CEMENT DECK DEMO & NEW WORK PER SPECIFICATION ALLOWANCE FOR ROOF DECK REPLACEMENT. REFER TO SPECIFICATION SECTION 012100 ALLOWANCES FOR ADDITIONAL INFORMATION

LEGEND

- TYPICAL NEW 20-YEAR TPO ROOF SYSTEM TAPERED RIGID INSULATION MIN. SLOPE = 1/4 : 12 TYPICAL
- ROOF CRICKET
- ROOF SLOPE MIN. 1/4 : 12 TYPICAL
- RD — TYPICAL OVERFLOW ROOF DRAIN SEE SPECIFICATIONS FOR TYPE. REFER TO TO ROOF DETAIL 3/A2.3
- EXISTING SHINGLE ROOF TO REMAIN REFER TO DEMO ROOF PLAN
- WALK MAT AROUND EQUIPMENT - REFER TO ROOF DETAIL 5/A2.2
- WM — WALK MAT BETWEEN EQUIPMENT - REFER TO ROOF DETAIL 5/A2.2
- DS/NDS — ROOF DOWNSPOUT LOCATION, PROVIDE PRECAST CONCRETE SPLASH BLOCKS AT DOWNSPOUT LOCATIONS, TYPICAL OF 5 LOCATIONS
- NDS — NEW ROOF DOWNSPOUT
- NGU — NEW ROOF GUTTER PITCH NEW MTL. GUTTER 1/8"/FOOT TO DRAIN, TYPICAL
- DS — EXISTING ROOF DOWNSPOUT TO REMAIN

- PPR — NEW PITCH POCKET TO BE REPLACED AS NEW. SEE DETAIL 4/A2.3
- PP — PIPE PENETRATION - REFER TO ROOF DETAIL 2/A2.2
- PV — PLUMBING VENT - REFER TO ROOF DETAIL 2/A2.2
- —G— — REMOVE & REINSTALL EXISTING GAS PIPING FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF PIPE SUPPORT DETAIL 6/A2.2
- OFS — OVERFLOW ROOF DRAIN THRU THE WALL SCUPPER LOCATION, REFER TO DETAIL 1/A2.2
- OFP — OVERFLOW ROOF DRAIN PIPING - PITCH 1/8" PER FOOT FROM DRAIN TO OVERFLOW SCUPPER
- RTU — REMOVE & REINSTALL EXISTING ROOF TOP UNIT INSTALLATION OF NEW SLEEPERS & ROOFING SYSTEM - REFER TO ROOF DETAIL 4/A2.2
- EF — EXISTING EXHAUST FAN TO REMAIN, REFER TO DETAIL 1/A2.3
- CU — EXISTING CONDENSING UNIT TO REMAIN, REFER TO DETAIL 8/A2.2 FOR EQUIPMENT PAD/PAVER DETAIL
- V — EXISTING GRAVITY VENT TO REMAIN - REFER TO ROOF DETAIL 5/A2.3
- DP — EXISTING DUCT PENETRATION TO REMAIN - REFER ROOF DETAIL 5/A2.3
- EJ — INSTALL NEW EXPANSION JOINT - REFER TO ROOF DETAIL 9/A2.3, 10/A2.3 & 11/A2.3
- X / A2.X — ROOF DETAIL LOCATION REFER TO SHEET NO. A2.2, A2.3 & A2.4 FOR ROOF DETAILS

- DW — REMOVE & REINSTALL EXISTING ROOF DUCTWORK FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF DETAIL 4/A2.2
- ANT — REMOVE & REINSTALL EXISTING ANTENNAE FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF DETAIL 3/A2.2, SIMILAR
- RG — INSTALL NEW ROOF GUARDRAIL - REFER TO PROJECT SPECIFICATIONS, SECTION 055200 - ROOF GUARDRAIL. INSTALL ROOF WALKWAY PADS @ EACH GUARDRAIL MOUNTING BASE, TYPICAL
- WPV — REMOVE & REINSTALL EXISTING WALL MOUNTED PLUMBING VENT FOR INSTALLATION OF NEW ROOF BLOCKING & ROOFING SYSTEM - REFER TO ROOF DETAIL 3/A2.2, SIMILAR
- ERV — EXISTING RECOVERY UNIT VENTILATOR TO REMAIN, REFER TO ROOF DETAIL 1/A2.3

PRODUCT SPECIFICATIONS:

BASIS OF DESIGN PRODUCTS:
ASPHALT SHINGLES - MANUFACTURER: CERTAIN TEED ROOFING, XT 25 SHINGLES ARE A FIBERGLASS MAT BASE, 3-TAB SHINGLE W/ A 25 YEAR WARRANTY, APPEARANCE TO MATCH EXISTING. COLOR - TO BE DETERMINED

GUTTERS & DOWNSPOUTS - AMERIMAX GUTTERS K-SERIES 6" ALUMINUM GUTTER W/ 3" X 4" ALUMINUM DOWNSPOUTS. INSTALL ALL ASSOCIATED ACCESSORIES: MITERED CORNERS, ELBOWS & END CAPS FOR COMPLETE INSTALLATION

SPLASH BLOCK: BASIS OF DESIGN - 30" PRECAST CONCRETE SPLASH BLOCK AS MANUFACTURED BY MODERN PRECAST, INC.

ROOF PLAN

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

DATE:	1/9/18
DRAWN BY:	
SCALE:	
REVIEWED BY:	
PROJECT NO.	2015-044A

REVISIONS

NO.	DATE	DESCRIPTION

ROOF PLAN & GENERAL INFORMATION

STATE PROJECT NO. 139-0059RR

EAST WING ROOF REPLACEMENT

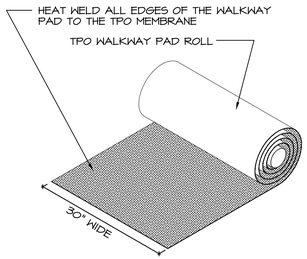
A. WARD SPAULDING SCHOOL

945 MOUNTAIN ROAD
WEST SUFFIELD, CT 06093

ARCHITECT'S SEAL

FRIAR
21 Talcott Notch Road
Farmington, CT 06032

SHEET NO.
A2.1



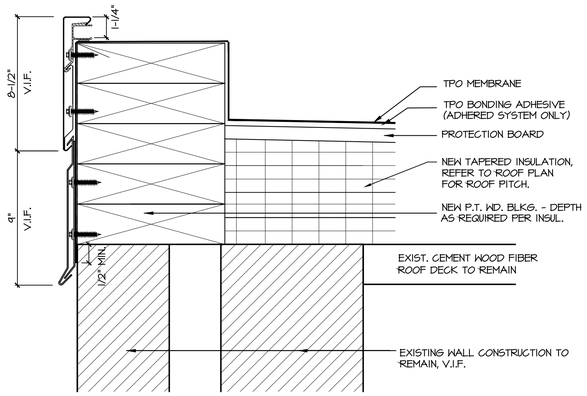
NOTES:

WALKWAY SECTIONS SHOULD BE SPACED PROPERLY TO ALLOW FOR DRAINAGE. SPACING BETWEEN WALKWAY SECTIONS SHALL BE 1" MIN. TO TO 3" MAX.

INSTALL ROOF WALKWAY PADS IN AREAS SHOW ON THE DRAWINGS, UNDER ALL GUARDRAIL SUPPORT POSTS, AT ROOF PAVERS, AT PIPE SUPPORTS, AT WOOD SLEEPER LOCATIONS & AROUND ALL SERVICEABLE EQUIPMENT.

9 ROOF WALKWAY DETAIL

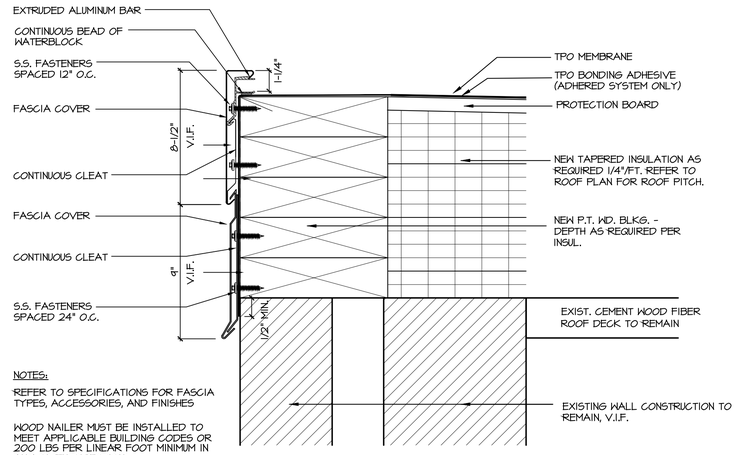
SCALE: NOT TO SCALE



3A TWO-PIECE EDGE METAL DETAIL @ PARAPET

SCALE: NOT TO SCALE

REFER TO ROOF DETAIL 3/A2.2 FOR SIMILAR NOTES & DIMENSIONS TYPICAL. REFER TO ROOF PLAN FOR TAPERED IROOF INSULATION LAYOUT



NOTES:

REFER TO SPECIFICATIONS FOR FASCIA TYPES, ACCESSORIES, AND FINISHES

WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.

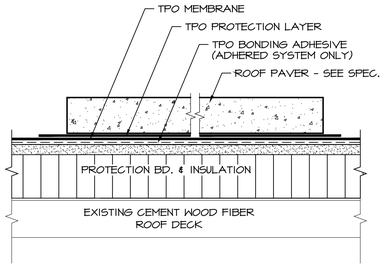
FASTEN EDGE METAL AS REQUIRED PER ROOF MANUF. WARRANTY

INSTALL TWO PIECE ROOF EDGE METAL & CONTINUOUS CLEAT AS REQUIRED PER ROOF INSULATION REQUIRED DEPTH, TYPICAL

3 TYPICAL TWO-PIECE ROOF EDGE METAL DETAIL

SCALE: NOT TO SCALE

NOTES:
1. DO NOT INSTALL OVER FASTENERS OR PLATES.



ROOF PAVER SPEC: BASIS OF DESIGN - CLADLITE EQUIPMENT PADS, SIZE 24" X 30" X 3", CATALOG # 2430-3 BY DIVERSITECH CORPORATION, DULUTH GA

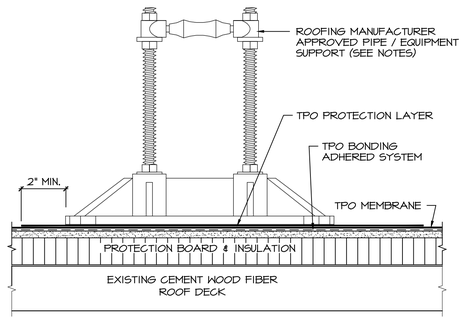
8 ROOF DETAIL

SCALE: NOT TO SCALE

NOTES:

PIPE SUPPORT TO BE APPROVED BY ROOFING MANUFACTURER, MANY APPROVED TYPES ARE OFFERED.

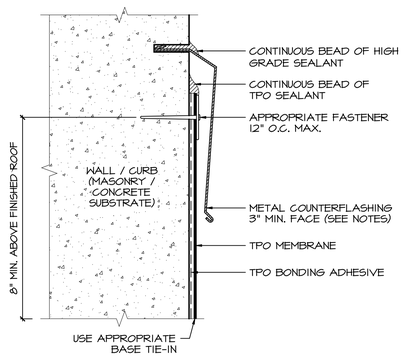
DO NOT INSTALL SUPPORTS OVER BATTEN STRIPS, FASTENER HEADS, METAL PLATES OR FIELD SEAMS.



6 PIPE SUPPORT DETAIL

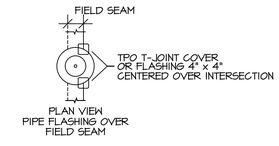
SCALE: NOT TO SCALE

NOTES:
1. METAL COUNTERFLASHING SHALL BE .032" MIN. ALUMINUM FORMED WITH HEMMED LOWER EDGE.
2. INSTALL METAL WORK IN ACCORDANCE WITH CURRENT SMACNA RECOMMENDATIONS.



5 ROOF DETAIL

SCALE: NOT TO SCALE



NOTES:

REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.

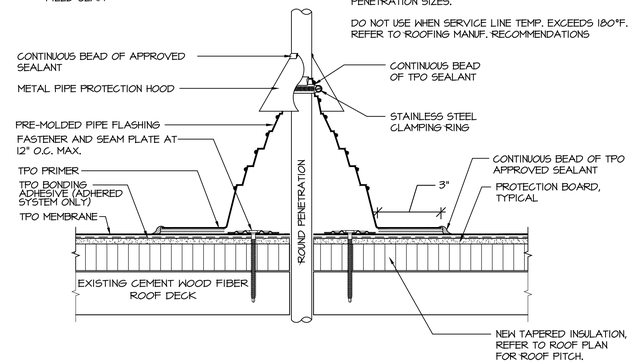
PIPE MUST BE ANCHORED TO ENSURE STABILITY.

PRE-MOLDED PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).

APPLY APPROVED SEALANT BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING.

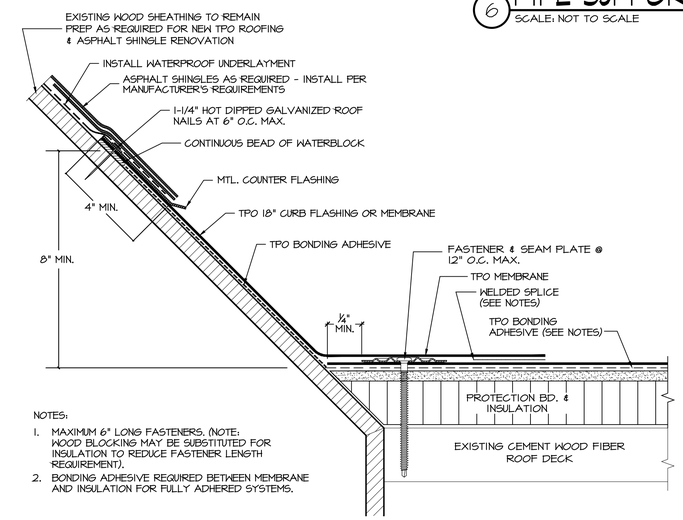
PRE-MOLDED PIPE FLASHING FITS 1" - 6" PENETRATION SIZES.

DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO ROOFING MANUF. RECOMMENDATIONS



2 PIPE PENETRATION DETAIL

SCALE: NOT TO SCALE



NOTES:
1. MAXIMUM 6" LONG FASTENERS, (NOTE: WOOD BLOCKING MAY BE SUBSTITUTED FOR INSULATION TO REDUCE FASTENER LENGTH REQUIREMENT).
2. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.

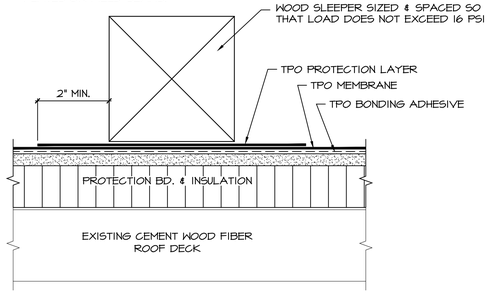
7 TERMINATION DETAIL @ SHINGLED ROOF CONSTRUCTION

SCALE: NOT TO SCALE

NOTES:

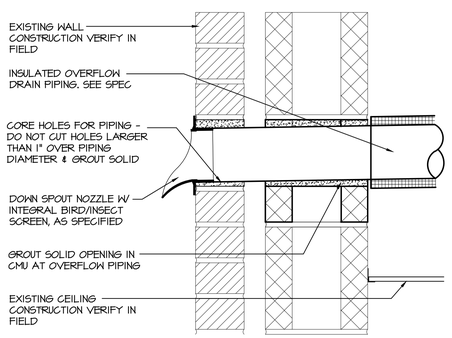
ROOFING MANUFACTURER'S PIPE & EQUIPMENT SUPPORTS ARE RECOMMENDED IN PLACE OF WOOD SLEEPERS.

DO NOT INSTALL WOOD SLEEPER OVER BATTEN STRIPS, FASTENER HEADS, METAL PLATES OR FIELD SEAMS.



4 WOOD SLEEPER SUPPORT DETAIL

SCALE: NOT TO SCALE



1 OVERFLOW ROOF DRAIN WALL OUTLET DETAIL

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

DATE: 1/9/18
DRAWN BY:
SCALE:
REVIEWED BY:
PROJECT NO. 2015-044A

REVISIONS

NO.	DATE	DESCRIPTION

ROOF DETAILS

STATE PROJECT NO. 139-0059RR
EAST WING ROOF REPLACEMENT
A. WARD SPAULDING SCHOOL
945 MOUNTAIN ROAD
WEST SUFFIELD, CT 06093

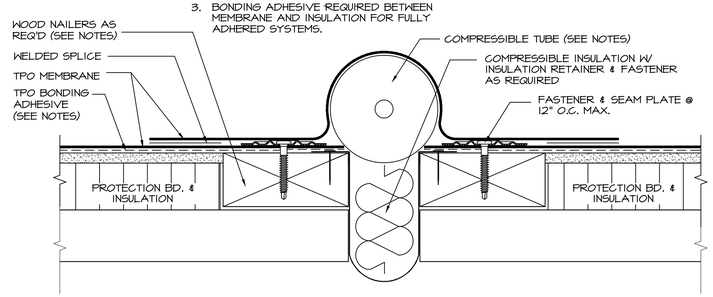
ARCHITECT'S SEAL

FRIAR
21 Talcott Notch Road
Farmington, CT 06032

SHEET NO.
A2.2

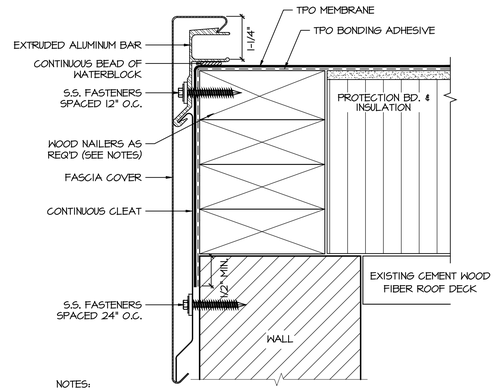
NOTES:

1. COMPRESSIBLE TUBE DIAMETER MUST EXCEED THE DECK OPENING BY 50% MIN. OR DESIGNED MOVEMENT (WHICHEVER IS GREATER).
2. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
3. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.



9 ROOF TO ROOF @ EDGE EXPANSION JOINT DETAIL

SCALE: NOT TO SCALE



NOTES:

REFER TO SPECIFICATIONS FOR FASCIA TYPES, ACCESSORIES, AND FINISHES

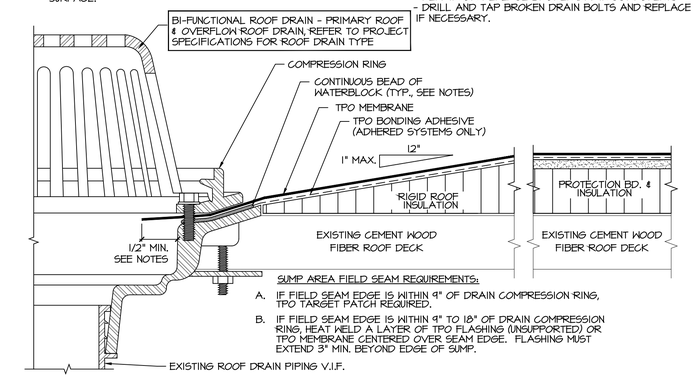
WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.

6 ONE-PIECE ROOF EDGE DETAIL

SCALE: NOT TO SCALE

NOTES:

1. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
2. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE FIRESTONE INSULATION WITH APPROPRIATE BONDING SURFACE.
3. WATERBLOCK MIN. OF 1/2 OF 10 OZ TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.
4. IN REROOF APPLICATIONS:
   - REMOVE EXISTING FLASHINGS DOWN TO METAL BOWL
   - REPAIR OR REPLACE BROKEN DRAIN COMPONENTS
   - DRILL AND TAP BROKEN DRAIN BOLTS AND REPLACE IF NECESSARY.



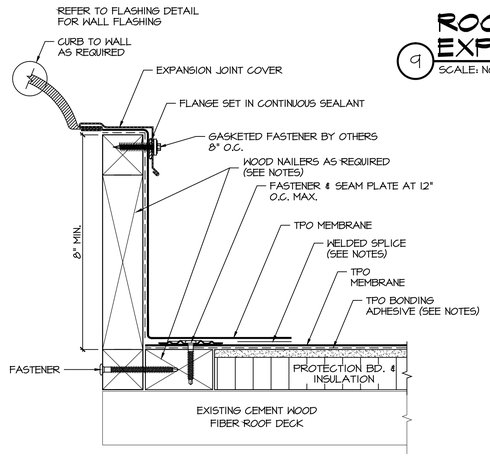
SUMP AREA FIELD SEAM REQUIREMENTS:

A. IF FIELD SEAM EDGE IS WITHIN 9" OF DRAIN COMPRESSION RING, TPO TARGET PATCH REQUIRED.

B. IF FIELD SEAM EDGE IS WITHIN 9" TO 18" OF DRAIN COMPRESSION RING, HEAT WELD A LAYER OF TPO FLASHING (UNSUPPORTED) OR TPO MEMBRANE CENTERED OVER SEAM EDGE. FLASHING MUST EXTEND 3" MIN. BEYOND EDGE OF SUMP.

3 ROOF DRAIN & OVERFLOW DRAIN DETAIL

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



8 NOT USED

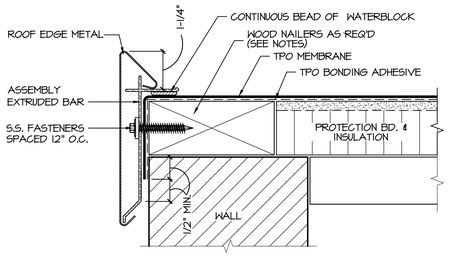
SCALE: NOT TO SCALE

NOTES:

REFER TO SPECIFICATIONS FOR FASCIA TYPES, ACCESSORIES, AND FINISHES

WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.

20-YEAR WARRANTY

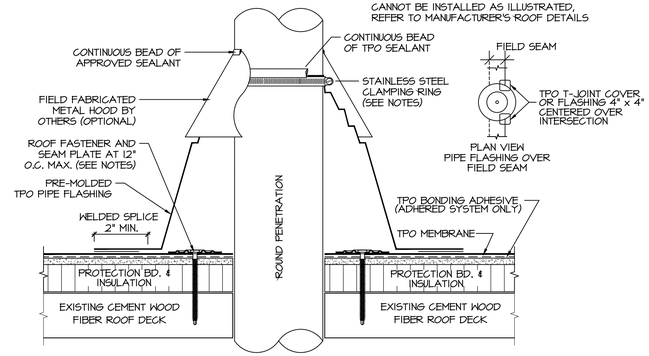


7 ROOF EDGE DETAIL @ LOW ROOF

SCALE: NOT TO SCALE

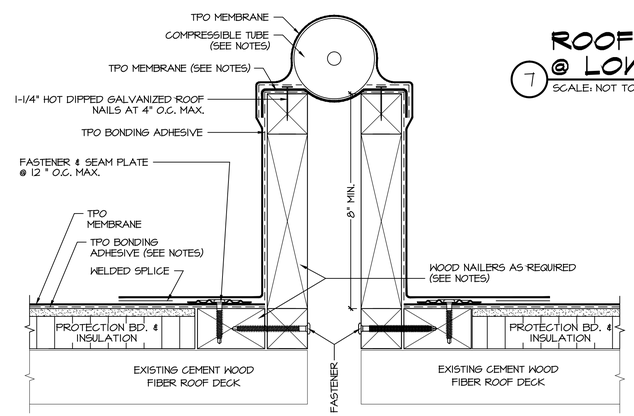
NOTES:

1. REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
2. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
3. PRE-MOLDED PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
4. APPLY SEALANT BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING.
5. LARGE PRE-MOLDED PIPE FLASHING FITS 4" - 8" PENETRATION SIZES.
6. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F.
7. ROOFING FASTENER AND SEAM PLATE REQUIRED FOR MAS ONLY. IF FASTENER CANNOT BE INSTALLED AS ILLUSTRATED, REFER TO MANUFACTURER'S ROOF DETAILS



5 LARGE PIPE FLASHING DETAIL

SCALE: NOT TO SCALE

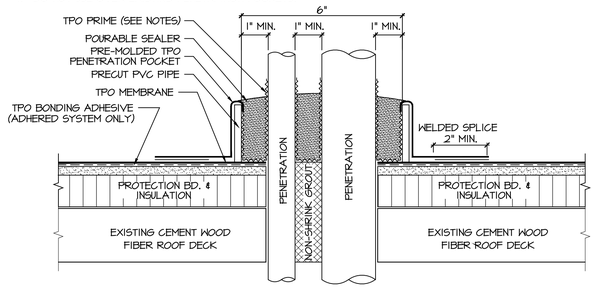


10 TYPICAL ROOF TO ROOF EXPANSION JOINT DETAIL

SCALE: NOT TO SCALE

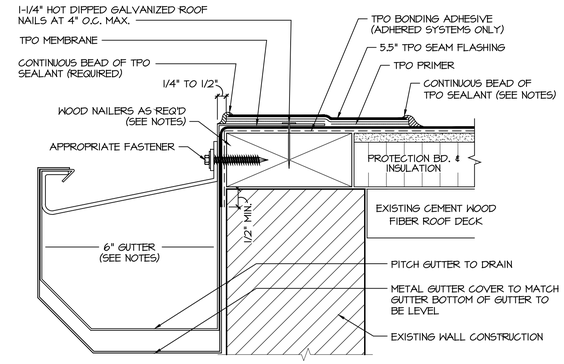
NOTES:

1. REFER TO ROOFING MANUFACTUER FOR CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. POURABLE SEALER MOUNDED TO SHED WATER MINIMUM DEPTH OF 2", REMAINDER OF POCKET MAY BE FILLED WITH A NON - SHRINKING GROUT.
4. DO NOT USE OVER EXISTING PENETRATION POCKETS.
5. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F.
6. IF FIELD MEMBRANE IS CUT FOR INSTALLATION, THE MEMBRANE MUST BE REPAIRED WITH TPO MEMBRANE PRIOR TO INSTALLATION OF THE PENETRATION POCKET
7. MEMBRANE MUST BE INSTALLED WITHIN 1/2" OF PENETRATION.
8. TPO PRIMER REQUIRED ON PENETRATIONS AND MEMBRANE INSIDE OF PENETRATION POCKET.



4 PITCH POCKET PENETRATION DETAIL

SCALE: NOT TO SCALE

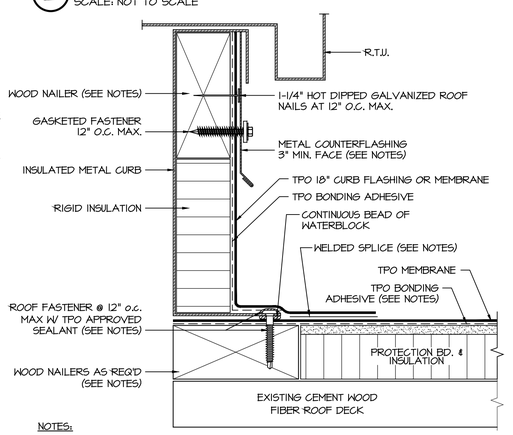


NOTES:

1. ROUND ALL METAL CORNERS AND PLACE BACK OF GUTTER STRAP 1/4" BELOW TOP OF WOOD NAILER.
2. DO NOT PRE-NAIL MEMBRANE TO THE FACE OF THE WOOD NAILER.
3. ANCHOR GUTTER IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
4. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
5. FLANGE OF METAL GUTTER MUST BE FULLY SUPPORTED BY WOOD AND TERMINATED AT LEAST 1/2" FROM EDGE OF WOOD.

2 LOW ROOF GUTTER DETAIL

SCALE: NOT TO SCALE



NOTES:

1. NAILING AND METAL COUNTERFLASHING ARE NOT REQUIRED IF MEMBRANE IS RUN UP AND OVER CURB WALLS PRIOR TO INSTALLATION OF R.T.U.
2. METAL COUNTERFLASHING SHALL BE 24 GAUGE PRE-FINISHED STEEL OR .032" MIN. ALUMINUM FORMED WITH HEMMED LOWER EDGE MOUNTED TIGHTLY TO UNDERSIDE OF MECHANICAL UNIT.
3. ROOFING FASTENER WITH SEALANT OVER FASTENER HEADS. SEALANT ALSO REQUIRED ALONG ENTIRE EDGE OF CURB FLANGE.
4. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
5. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.
6. INSTALL METAL WORK IN ACCORDANCE WITH CURRENT SMACNA RECOMMENDATIONS.

1 CURB FLASHING DETAIL

SCALE: NOT TO SCALE

DATE: 1/9/18
DRAWN BY:
SCALE:
REVIEWED BY:
PROJECT NO. 2015-044A

REVISIONS

NO.	DATE	DESCRIPTION

ROOF DETAILS

STATE PROJECT NO. 139-0059RR

EAST WING ROOF REPLACEMENT

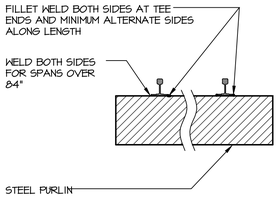
A. WARD SPAULDING SCHOOL

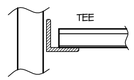
945 MOUNTAIN ROAD
WEST SUFFIELD, CT 06093

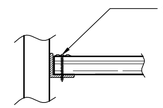
ARCHITECT'S SEAL

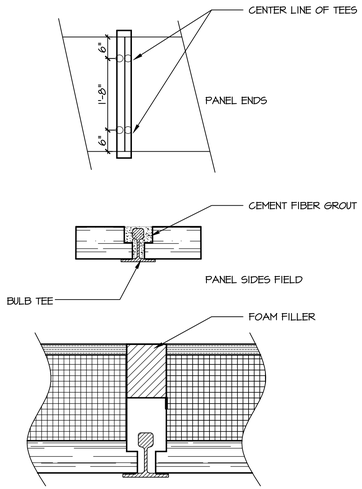
FRIAR
21 Talcott Notch Road
Farmington, CT 06032

SHEET NO.
A2.3





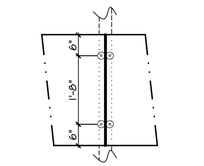


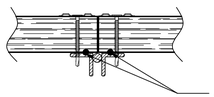


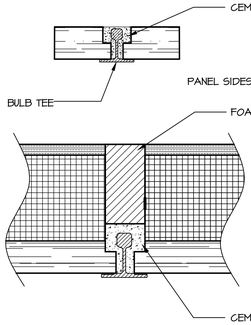
TYPICAL ROOF TILE DETAILS

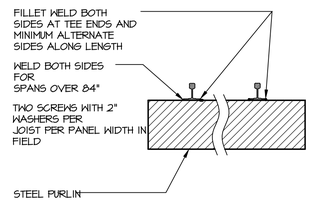
8 SCALE: NOT TO SCALE

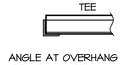
REFER TO PROJECT SPECIFICATIONS FOR ALLOWANCES RELATED TO CEMENT WOOD FIBER ROOF DECK REPLACEMENT

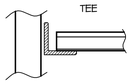


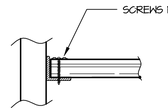








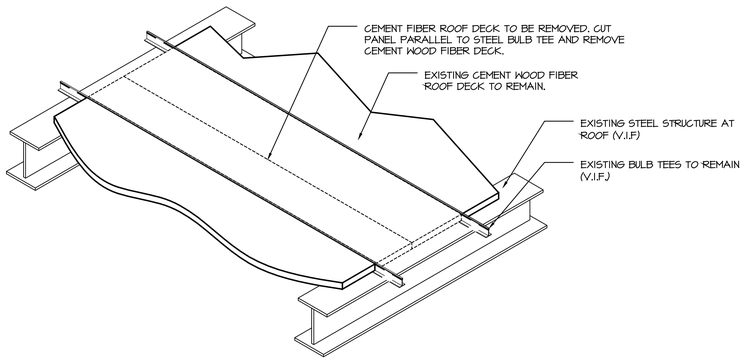




TYPICAL BULB TEE DETAILS

7 SCALE: NOT TO SCALE

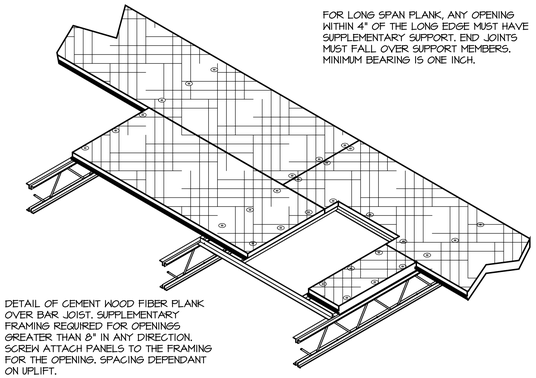
REFER TO PROJECT SPECIFICATIONS FOR ALLOWANCES RELATED TO CEMENT WOOD FIBER ROOF DECK REPLACEMENT



DEMOLITION OF CEMENT WOOD FIBER ROOF DECK - PANEL/TILE

6 SCALE: NOT TO SCALE

REFER TO PROJECT SPECIFICATIONS FOR ALLOWANCES RELATED TO CEMENT WOOD FIBER ROOF DECK REPLACEMENT



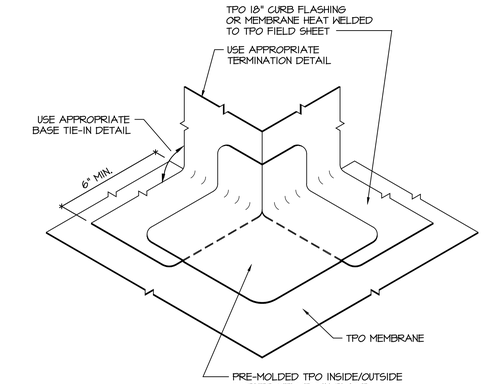
PLANK OPENING STEEL DETAIL

5 SCALE: NOT TO SCALE

REFER TO PROJECT SPECIFICATIONS FOR ALLOWANCES RELATED TO CEMENT WOOD FIBER ROOF DECK REPLACEMENT

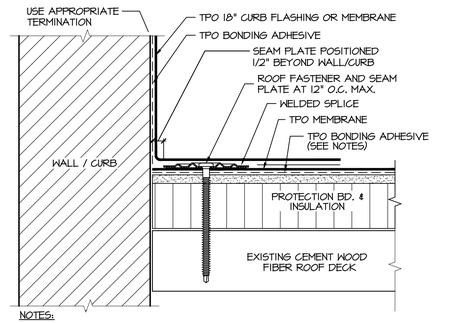
INSIDE CORNER DETAIL

4 SCALE: NOT TO SCALE



OUTSIDE CORNER DETAIL

3 SCALE: NOT TO SCALE

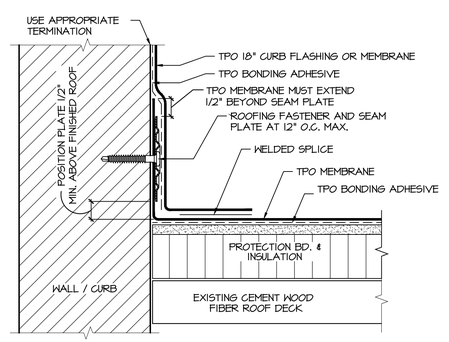


NOTES:

1. MAXIMUM 6" LONG FASTENERS. (NOTE: WOOD BLOCKING MAY BE SUBSTITUTED FOR INSULATION TO REDUCE FASTENER LENGTH REQUIREMENT)
2. IN CASE OF OBSTRUCTION REFER TO ALTERNATE DETAIL
3. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.

BASE TIE-IN DETAIL @ ROOF

2 SCALE: NOT TO SCALE



NOTES:

BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.

BASE TIE-IN DETAIL @ WALL

1 SCALE: NOT TO SCALE

ROOF DETAILS

DATE: 1/9/18
DRAWN BY:
SCALE:
REVIEWED BY:
PROJECT NO. 2015-044A

REVISIONS

NO.	DATE	DESCRIPTION

STATE PROJECT NO. 139-0059RR

EAST WING ROOF REPLACEMENT

A. WARD SPAULDING SCHOOL

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WEST SUFFIELD, CT 06093

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