

Project Manual

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PROJECT SUMMARY

SUMMARY OF WORK: Ref. Section 00 02 00

General: Troy School District (TSD) 2025 Roof Program work for two (2) schools and one (1) district building covering approximately 72,267 sq. ft. Roofing work includes roof replacement required to remediate all work identified in the specifications and drawings inclusive of all Bid Documents requirements.

Schedules: Ref. "PROJECT WORK SCHEDULE" on this Sheet A1.0 - Cover Page.

BID SUMMARY:

- Instruction to Bidders 000113: Reference the Project Manual, specification 000113 for bid preparation, RFI dates and Pre-Bid Meeting information. Troy Schools Project #-2425-02
- Allowances Section 012100: Allowances will be defined on individual school roof plans under "Allowances". These allowances will be stated on the bid form.
- Unit Pricing Section 004322: Unit Pricing for unit work is defined on the Unit Price Bid Form in Section 000301. Unit Pricing bid values are entered by unit price individually on form.
- Alternates Section 012300: Alternates are individually listed on school roof plans and bids for Alternates. Alternated bid value are to be entered on Bid Form (Section 000300) as enumerated.
- TSD reserves the right to issue contracts to multiple contractors.

EXISTING ROOF SYSTEM CONSTRUCTION:

Ref. Roof Plans. All existing roof system constructions were determined by test cuts and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.

NEW ROOF ASSEMBLY SUMMARY: Reference Roof Plans

- Roof System: Ref. Roof Plan Schedules
 - Roof Membrane: EPDM, 60 mil, unreinforced and fully adhered.
 - Insulation: To meet a R-30 minimum, Min. two layers. Top layer must be adhered: Bottom layer mechanically- attached (unless otherwise stated on individual roof plans)
 - Underlayment: (as required) Modified base sheet. Ref. individual Roof Plans.
 - Deck: Multiple types, Ref. individual Roof Plans.
- Roof System Performance:
 - Warranty: 20 yr. Materials manufacturer, No Dollar Limit (NDL) materials and installation.
 - Contractor to provide a 5-year contractor guarantee.
 - Wind: FM Global (FMG): FM Standard 4470 Meets - Windstorm Classification FMG 90.
 - Fire: Underwriters Laboratory External Fire Resistance - Class "A".
 - Energy: Michigan Uniform Energy Code: R30 condition dependent
 - Drainage: Drainage Performance Acknowledgement"

GENERAL SHEET NOTES

- All work shall be executed in accordance with the appropriate document of the Contract Documents.
- Any conflicts between specifications and drawings shall be brought to the attention of the Owner and Consultant immediately. In all situations the more restrictive and higher quality shall govern.
- All dimensions to, of, and in existing building and roof shall be verified in the field by contractor. Field measure existing conditions to verify material quantities and dimensions prior to fabrication on component material.
- Details shown are typical. Similar details apply to similar conditions unless otherwise indicated.
- The drawings herein are related to an alteration/ restoration to an existing structure. The specified work was based upon as much observation, destructive testing, etc. as circumstances permitted.

Project Work Schedule

School	Address	Reroofing Sq. Ft.	TSD 2025 Roof Work	Project Time Frame
Baker Middle School	1359 Torpey, Troy, MI 48083	36,103	Roof Area B, E and Front Entrance Canopy	6/9/25-8/8/25
Troy Union Elementary School	1340 E. Square Lake Rd. Troy, MI 48085	31,284	Roof Area F	6/9/25-8/8/25
Service Building	4420 Livernois Rd. Troy, MI 48098	4,880	Roof Area C	Spring Break 3/22/25-3/31/25 or 6/9/25-8/8/25
Total Roof Area (Sq. Ft.)		72,267		

GENERAL CONSTRUCTION DETAIL NOTES

Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A2.0 - A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

A. Flashing Heights: Perimeters, curbs, penetrations shall be raised as necessary to meet the new insulation heights, tapered edge strip and tapered insulation height to meet typical industry standard of 8 in. base flashing height.

B. Drains Existing: Remove existing drain flashings. Furnish and install ½ inch per foot sloped tapered insulation sump area (8 ft. x 8 ft. minimum) as detailed. Clean and reuse existing drains and accessories, replace all damaged, nonfunctional, incompatible, missing and broken drain components. Replace all plastic strainers with new cast iron. All replacement bowls, strainers, and clamping rings shall be cast iron. Provide new stainless-steel bolts. All nonmetallic drains strainers shall be replaced with fitted. Ref. Details 1.09, 1.10, 1.11 and 1.12.

C. Tapered Insulation: Furnish and install new tapered insulation, crickets, saddles and kick-backs as designated on roof plan to provide a finished slope of 1/4 in/ ft. slope and a min length to width ratio of 3:1. All equipment w/ curb size greater than 24 in. shall have cricket install on up slope side. Contractor responsible for identifying and notifying Consultant and Owner of all existing tapered insulation not called out on plans for determination of unit costing. Verify in Pre-bid Conference additional ponded areas identified on the roof and install as noted.

D. Curbs - Movable Equipment: Lift equipment from curbs; run new fully adhered membrane flashing up and over top of curb; install continuous sealing material over top of curb. Reset equipment and mechanically fasten to curb. Coordinate with Owner prior to moving equipment to install new flashings. Metal equipment flashing and/or counter flashing must extend a minimum of 3 in. past the termination of the base flashing; add metal counter flashing as required. Ref. Details 1.17 and 1.18.

E. Curbs - Non-Movable Equipment: Terminate new fully adhered membrane flashing at unit framing member. Metal equipment flashing and/or counter flashing must extend a minimum of 3 in. past the termination of the base flashing; add metal counter flashing as required. Ref. Detail 2.01.

F. Equipment on Support Curbs - Non-Movable Equipment: Cut corners of metal flashing cap, terminate new adhered membrane flashing to curb nailer. Reposition metal; install new shop fabricated corner metal, riveted and set in sealant. Wire brush and apply rust inhibitive paint to rusted cap metal. Ref. Detail 3.02.

G. Equipment on Support Curbs - Movable Equipment: Raise or move equipment to furnish and install new metal cap on curb. Ref. Detail 2.18.

H. Round Penetrations: All penetrations shall be cleaned down to surface where any sealant will contact; install new prefabricated pipe boots or field wrap with membrane. Install draw band, sealants and rain collars as detailed. Ref. Details 2.03 and 2.04.

I. Heat Stacks: Install new metal jacks and collars. Clean surfaces and apply new field wrapped EPDM flashing. Reattach and reseal storm collars with high temperature sealant. Ref. Detail 2.05.

J. Steel Support Posts: Install split pipe boot or field wrap flashing with membrane. Terminate with draw band and sealant. Ref. Detail 2.02.

K. Prefabricated Pipe Chase Cover: Reuse existing pipe cover. Replace any damaged or missing clamping bands or sealants. Ref. Detail 3.01.

L. Gas Line and Conduit Support Blocks: Provide prefabricated pipe supports set on walkpads. Ref. Details 3.03 and 3.11.

M. Condensate Drain Lines: Reuse, repair or replace all damaged or unusable drain lines. Add additional drain line to extend minimum 4 ft. from equipment or to any drains within 20 ft. Provide manufacturer's approved splash pan/pad/block where condensate drainage water would contact the roof membrane.

N. All utility service lines (gas, water, electric, cable, etc.) to be raised as necessary to accommodate new insulation height and meet code requirements.

O. Abandoned Curbs and Penetrations: Owner will mark all equipment to be removed. Remove all equipment and curbs as designated by owner and identified at the prebid conference. Where directed, remove curbs flush to deck surface, install framing and matching decking material. For abandoned curbs to remain in place, install new base flashing and install new 24 gauge sloped metal cap. Provide interior protection when removing any equipment or penetration. All small round abandoned penetrations that have no utility service as confirmed by Owner shall be removed to deck, patched according to deck type.

P. Pitch Pans: Pitch pans can only be used when approved by Consultant. In the event they are to be used, furnish and install new pitch pans, clean all penetrations down to original surface, blocking required at all pitch pans. Ref. Detail 2.09.

Q. Door Threshold: Remove threshold plate and carry flashing up over and set in water block. Before resetting threshold, mechanically attach termination bar, fasten min. 6 in. o.c. Door Threshold: Remove and dispose of existing counter flashing. Roof flashing to extend up and under existing threshold plate. Furnish and install new metal counter flashing and sealant.

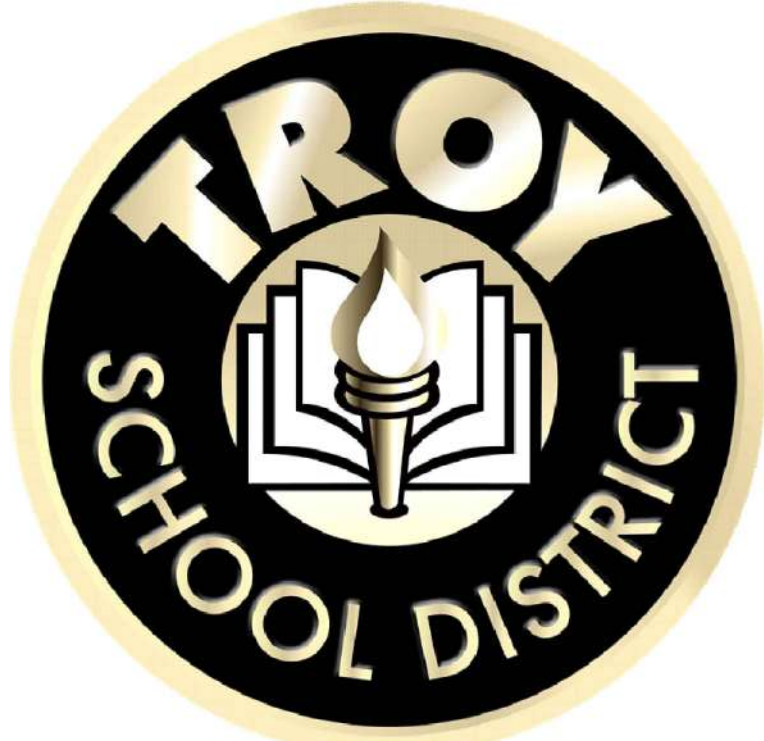
R. Downspout Outlets: Provide concrete splash blocks set on walkpad at all roof downspout conductors.

S. Vent Thru Roof Piping: Install PVC pipe extensions to all VTR piping prior to installation of new pipe boot flashing as needed to allow a minimum 8-inch flashing height. Attach screen wire mesh over the top of the pipe. Ref. Detail 2.06, PER CODE.

T. Walk Pads: Provide walk pads at roof access hatches and ladder access locations. Use walk pads approved by the roofing membrane manufacturer. (walkpads at all RTU access doors)

U. Existing Expansion Joint: Install wood as needed to provide a minimum 8-inch flashing height; Replace existing batt insulation and liner if needed; Re-install if able or furnish and install new 24-gauge prefinished metal expansion joint cover. Ref. Detail 3.05.

V. Protection and Cleaning of Installed Roof Membrane: The roofing contractor is responsible for protection of installed sections of new roof membrane from staining and discoloration. Strategies for protection of installed membrane may include, but are not limited to, use of roof membranes with manufacturer-applied protective film, full coverage of installed membrane with sealed tarps, sequencing of roof membrane installation in a manner to limit tear-off dust, dirt and debris migration, and limiting traffic on installed membrane. Upon completion of installation, stained membrane shall be cleaned to the satisfaction of the owner and shall maintain the manufacturer-published initial solar reflectance of the product.



Troy School District
BID No. 2425-02
2025 Roofing Program

DIRECTORY

OWNER:
Troy School District
4400 Livernois
Troy, MI 48098

CONTACT:
Rob Carson
Director of Operations
Phone: (248) 823-4067
E-Mail: RCarson@troy.k12.mi.us

PROJECT LOCATION:
See Project List

CONTACT:
Michelle Kerns
Bond Representative
Phone: (248) 921-3929
E-Mail: mkerns@troy.k12.mi.us

ROOFING CONSULTANTS:
WeatherTech Consulting Group, Inc.
7747 Auburn Rd.
Utica, MI 48317

John McCaig, RRO
Site Contact

Jack Runkle, RA, NCARB
Design Review

PROJECT LIST

Baker Middle School	1359 Torpey Rd. Troy, MI 48083
Service Building	4420 Livernois Rd. Troy, MI 48098
Troy Union Elementary School	1340 E Square Lake Rd. Troy, MI 48085

STATE OF MICHIGAN LARA RECORD LOCATOR

Baker Middle School
Service Building
Troy Union Elementary School

SHEET INDEX

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A2.0	Roof Plan, Baker Middle School, Front Entrance Canopy
A2.1	Roof Plan, Baker Middle School, Roof Area B
A2.2	Roof Plan, Baker Middle School, Roof Area E
A3.0	Roof Plan, Service Building - Roof Area C
A4.0	Roof Plan, Troy Union Elementary School - Roof Area F
A5.0	Detail Sheet
A5.1	Detail Sheet
A5.2	Detail Sheet

PROFESSIONAL



WeatherTech

Consulting Group, Inc.
Roofing/Waterproofing Consultants
Corporate Office:
7747 Auburn Road
Utica, MI 48317

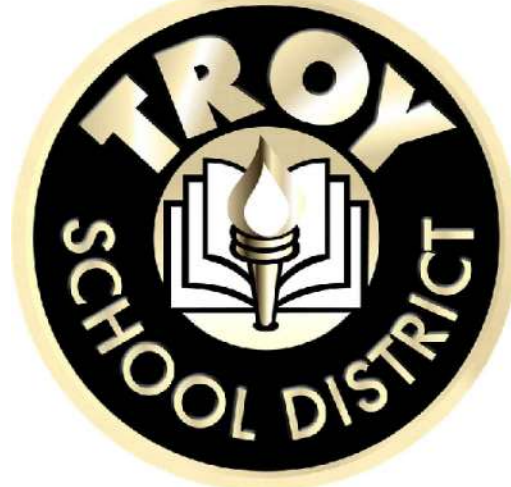
Phone #: 586-731-3095

Fax #: 586-731-6863

Email: weathertech@wtcg.net

Web Site: www.wtcg.net

CLIENT



Troy School District
4400 Livernois
Troy, MI 48098

PROJECT

Troy School District
BID No. 2425-02
2025 Roofing Program

WTProject No: TSD-R102-24

ISSUE

DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

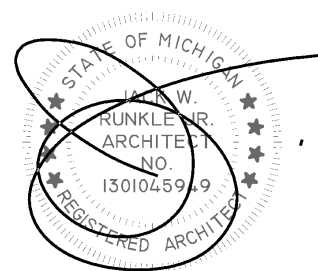
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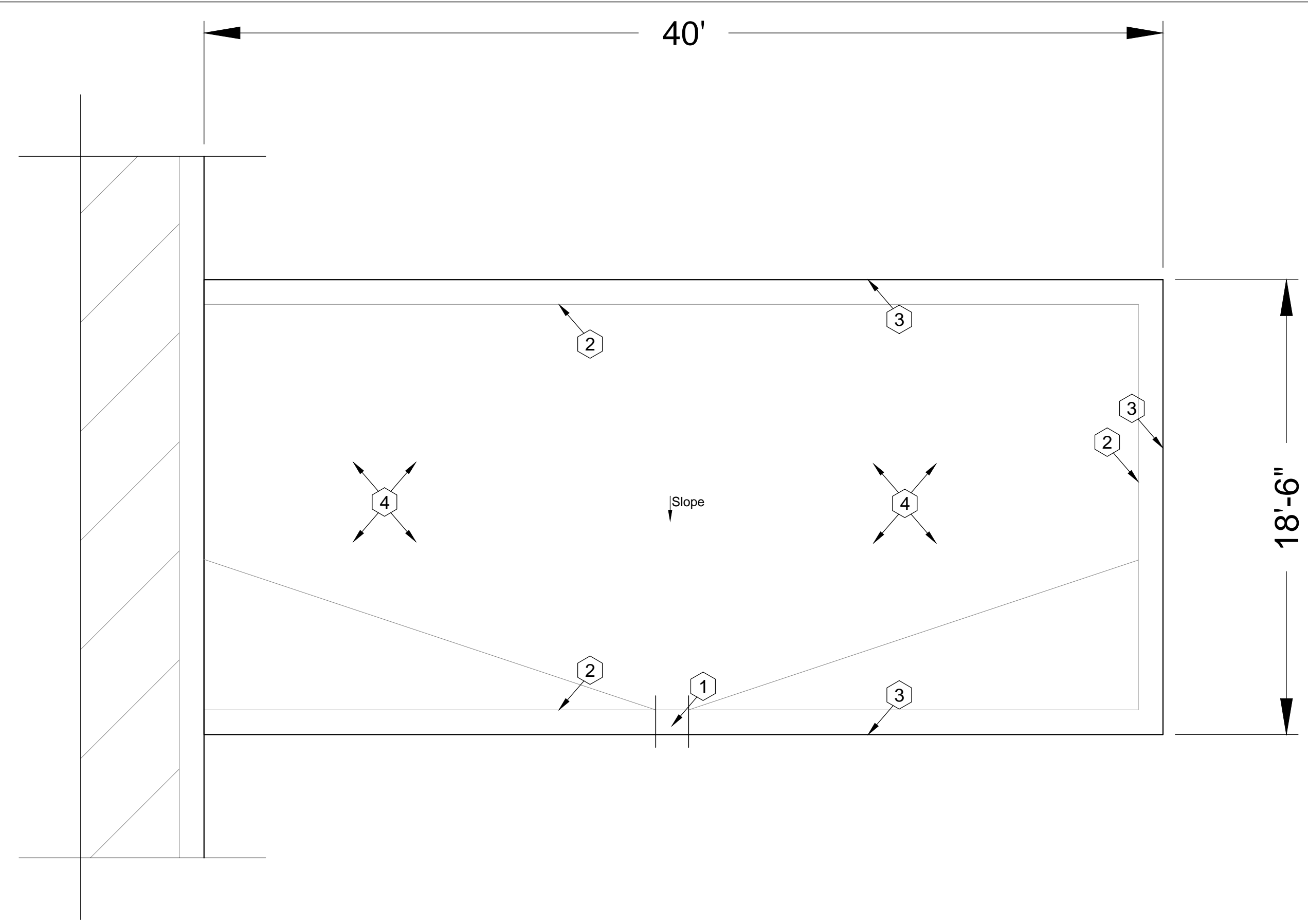


SHEET TITLE

Cover Sheet

A1.0

SHEET 1 OF 9



Baker Middle School
Front Entrance Canopy
Scale: 1/4" = 1'

Photos



1746

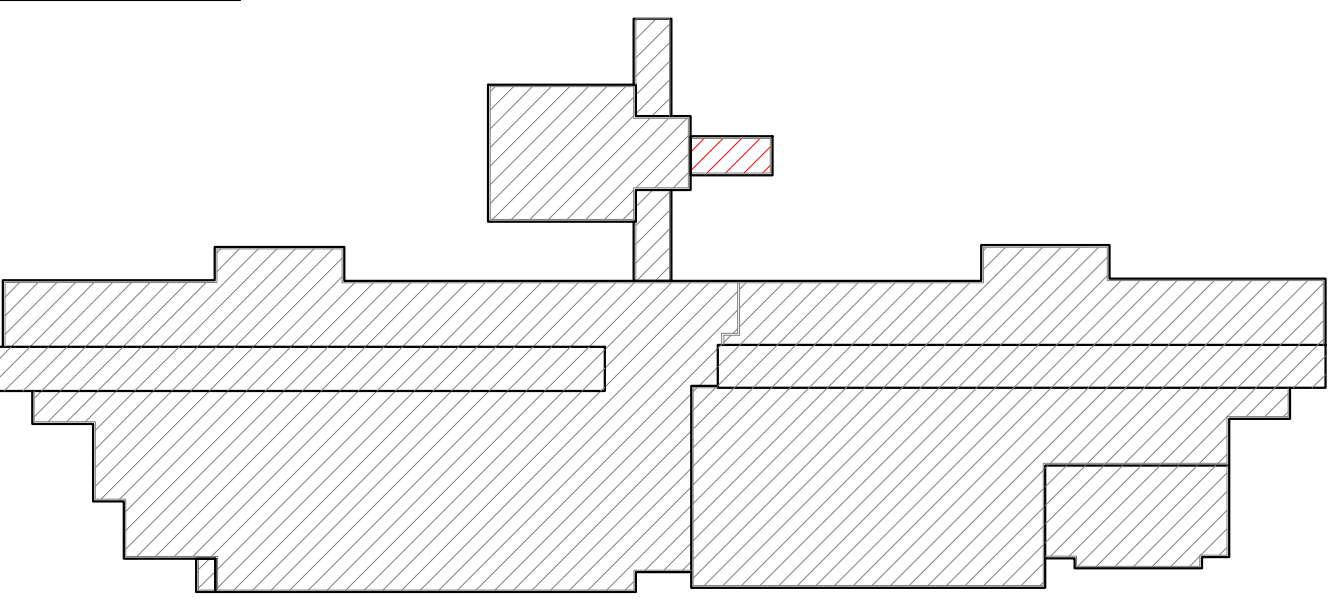


1748



1753

KEY PLAN



Baker Middle School - Troy School District
Sheet Notes - Front Entrance Canopy

Schedule:
WORK DESCRIPTION - ROOF REPLACEMENT

1. **Existing Roof System Construction**
All existing roof system constructions were determined by **limited test cuts** and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.

Front Entrance Canopy Core Sample Results
A. Roof Membrane: Gravel, Cap sheet, Base Piles with asphalt
B. Insulation:
1) **Top Layer:** Insulation 1/2" Fiberboard Insulation
2) **Base Layer:** Approx. 5 1/2 -inch polyisocyanurate insulation.
C. Deck: Metal: Flat

2. **Roof System Construction**
Work includes removal and disposal of existing roofing, insulation, flashing systems and all sheet metal flashings down to the surface of the deck, repair deteriorated decking, install new roof insulation, fully adhered EPDM single ply roof membrane including all flashing, new roof related sheet metal, and accessories as detailed in the specifications and drawings. **Approx. 648 sq. ft.**

3. **New Roof System: Front Entrance Canopy - Ref. Detail 1.01b.**
a. Roof Membrane: EPDM, 60 mil, adhered to insulation.
b. Insulation: R30:
1) Top layer set-in low-rise foam adhesive.
2) Bottom layer mechanically attached to metal deck.
c. Tapered Insulation: Roof Drains, see roof plan and details
d. Deck: Metal: Repair as necessary to comply w/ building codes.
e. Interior Ceiling: N/A
f. Building Height: Ground to building edge: 15 ft.

4. **Warranty/Guarantee:**
a. Manufacturer to provide a 20 year "No-Dollar-Limit" material and installation warranty covering the roof system, flashings and manufacturer's accessories.
b. Roofing installer to provide a five (5) year Performance Agreement - see Specification Attachment C.

5. **Allowances:** \$1000.00 to be added to Base Bid.

6. **Asbestos: Ref. to Section 024119 and Appendix 1:** Asbestos testing results to be supplied by TSD selected 3rd party firm and will be incorporated into Appendix 1. Refer to Appendix 1 for asbestos testing results.

General Construction Details: Ref. A1.0
Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A5.0 to A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

Key Notes:
All detail references in Key Notes are considered typical and applicable to like conditions except as specifically amended on this Sheet. Refer to Sheet A1.0 General Construction Detail Notes for applicable construction detail descriptions and Sheets A5.0 to A5.2 for construction detail drawings. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

- Scupper Drain, Leader Box and Downspout:** Remove existing scupper drain, leader box and downspout; Replace with new to match with existing metal profile. **Ref. Photos 1746 and 1748.**
- Perimeter Wood Nailers:** Furnish and install new wood nailers on perimeter edges to level wall cap and provide base flashing required heights. **Ref. Detail 1.05.**
- Edge Metal:** Install new continuous cleat 24-gauge clear anodized aluminum edge metal. **Ref. Detail 1.14; Photo 1753.**
- Deck Flutes:** All debris to be removed from deck flutes.

Symbol Legend					
Symbol	Notes	Symbol	Notes	Symbol	Notes
●	Conduit, Vent Pipe or	⊙	Insulated Pipe or Heat Stack Penetration	■	Pitch Pan Pocket
⊗	Equipment Unit on Curb	□	Ductwork or Flanged	⊞	Equip. on Wood Sleeper or Support Curb
H	Roof Hatch on Curb	A	Abandoned Equipment	S	Skylight on Curb
⋈	Roof Ladder	W	Walkway Pad	☼	Satellite Dish
—●—	Screen Support	—○—	Railing or Fencing	—●—	Pipe or Conduit on
—GAS—	Gas Line	—AD—	Area Divider	—EJ—	Expansion Joint
---	Roof Ridges and Valleys	Slope	Roof Slope	—L—	Elevation Change
⊗	Roof Drain	⊕	New Roof Drain		Scupper
	Overflow Scupper	#	Key Notes	△	Revision
▲	Tapered Insulation or Saddles		Metal Roof	■	Shingles or Clay Tiles

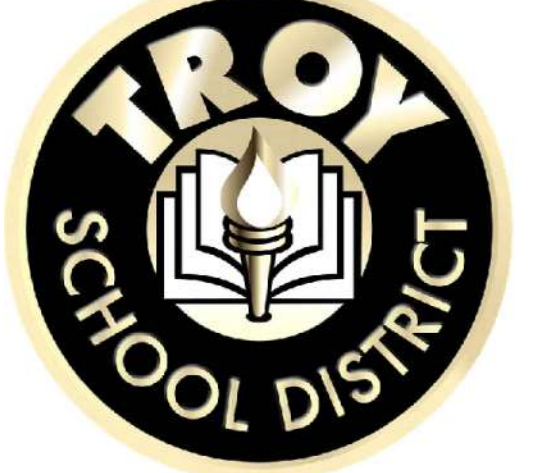
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WeatherTech
Consulting Group, Inc.
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Corporate Office:
7747 Auburn Road
Utica, MI 48317

Phone #: 586-731-3095
Fax #: 586-731-6863
Email: weathertech@wtcg.net
Web Site: www.wtcg.net

CLIENT



Troy School District
4400 Livernois
Troy, MI 48098

PROJECT



Baker Middle School
1359 Torpey Rd.
Troy, MI 48083

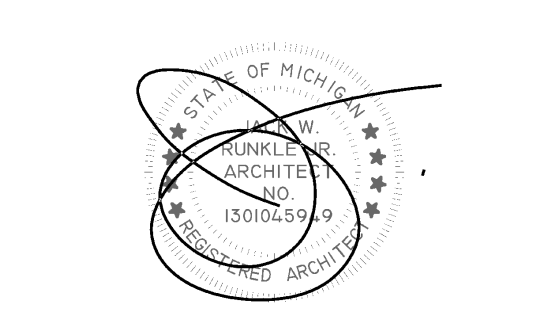
Troy School District
BID No. 2425-02
2025 Roofing Program

WTPProject No: TSD-R102-25

ISSUE	
DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

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SHEET TITLE
Roof Plan
Baker Middle School
Front Entrance Canopy

A2.0
SHEET 2 OF 9

Photos



1791



1797



1798



1835



1855



1883



1902

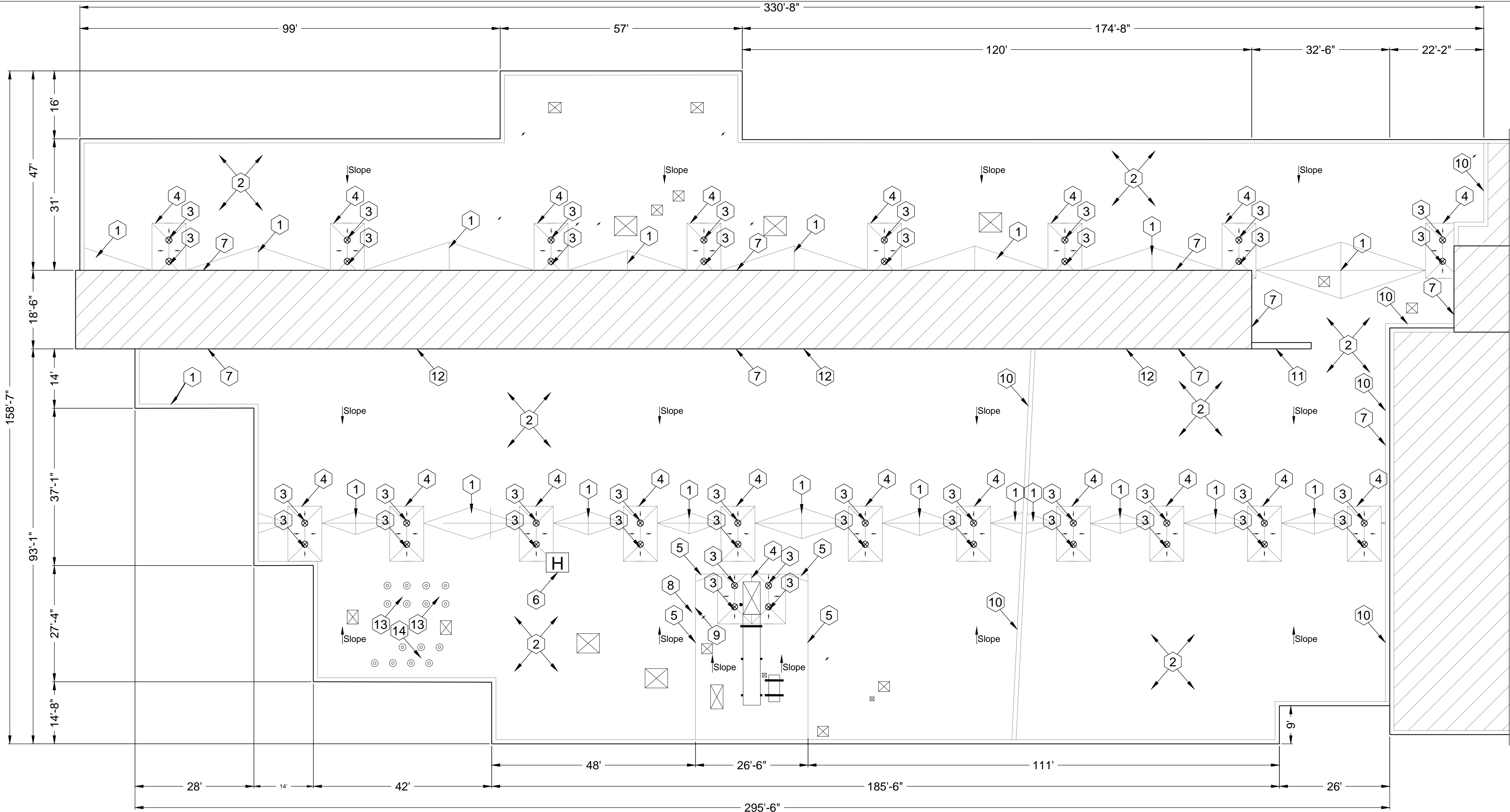
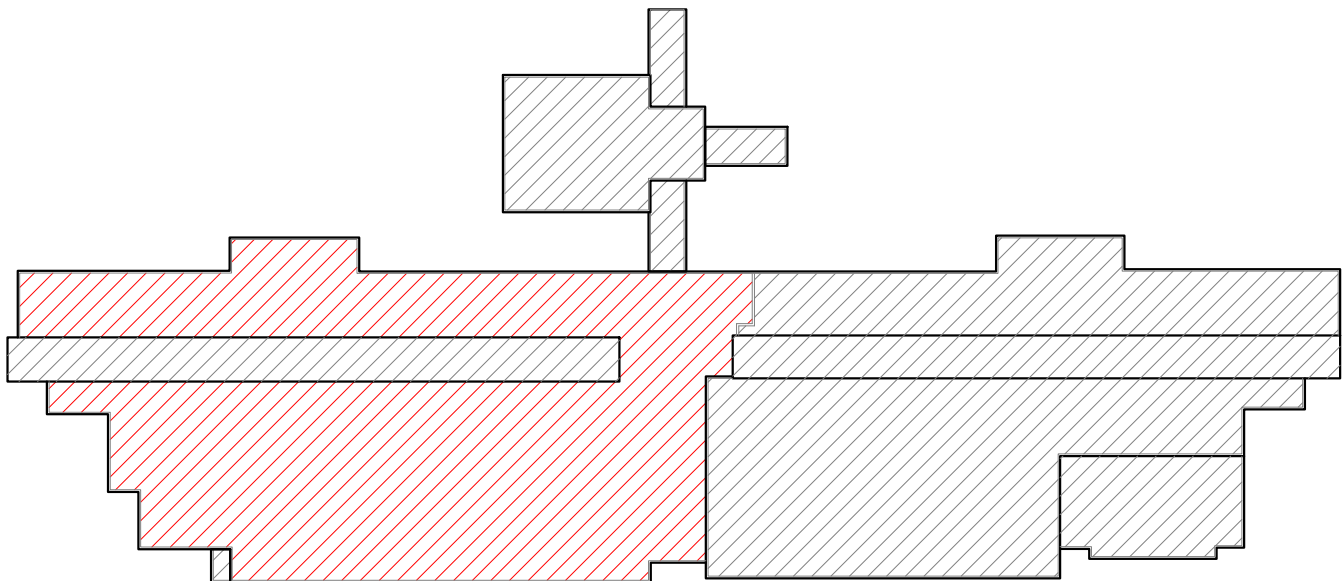


1885



1905

KEY PLAN



Baker Middle School
Roof Area B

Scale: 1/16" = 1'



1890



1898



1899

Baker Middle School - Troy School District
Sheet Notes - Roof Area B

Schedule:
WORK DESCRIPTION - ROOF REPLACEMENT

1. Existing Roof System Construction

All existing roof system constructions were determined by **limited test cuts** and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.

Roof Area B Core Sample Results

A. Roof Membrane: Gravel BUR with cap and plies with asphalt

B. Insulation:

1) Top Layer: Insulation 1/2" Fiberboard Insulation

2) Base Layer: Approx. 3-inch polyisocyanurate insulation.

C. Deck: Metal B: Slope in deck

2. Roof System Construction

Work includes removal and disposal of existing roofing, insulation, flashing systems and all sheet metal flashings down to the surface of the deck, repair deteriorated decking, install new roof insulation, fully adhered EPDM single ply roof membrane including all flashing, new roof related sheet metal, and accessories as detailed in the specifications and drawings. **Approx. Roof Area B 35,350 sq. ft.**

3. New Roof System: Roof Area B - Ref. Detail 1.01b.

a. Roof Membrane: EPDM, 60 mil, adhered to insulation.

b. Insulation: R30:

1) Top layer set-in low-rise foam adhesive.

2) Bottom layer mechanically attached to metal deck.

c. Deck: Metal B: Repair as necessary to comply w/ building codes.

d. Interior Ceiling: As needed, drop ceiling

e. Building Height: Ground to building edge: 60 ft.

4. Warranty/Guarantee:

a. Manufacturer to provide a 20 year "No-Dollar-Limit" material and installation warranty covering the roof system, flashings and manufacturer's accessories.

b. Roofing installer to provide a five (5) year Performance Agreement - see Specification Attachment C.

5. Allowances: \$15,000.00 to be added to Base Bid.

6. Asbestos: Ref. to Section 024119 and Appendix 1: Asbestos testing results to be supplied by TSD selected 3rd party firm and will be incorporated into Appendix 1. Refer to Appendix 1 for asbestos testing results.

General Construction Details: Ref. A1.0

Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A5.0 to A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

Key Notes:

All detail references in Key Notes are considered typical and applicable to like conditions except as specifically amended on this Sheet. Refer to Sheet A1.0 General Construction Detail Notes for applicable construction detail descriptions and Sheets A5.0 to A5.2 for construction detail drawings. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

1. Saddle & Crickets: Contractor to provide saddle and crickets where indicated on roof plan and other areas as required by the roofing membrane system manufacturer. Ref. Photo 1797.

2. Deck Flutes: All debris to be removed from deck flutes.

3. Metal Roof Strainers: Furnish and install correct metal strainers, where needed.

4. Drain Sumps: Furnish and install tapered roof sumps (8ft X 8ft Min.) to assure proper drainage. Ref. Details 1.09 and 1.11.

5. Perimeter Wood Nailers: Furnish and install new wood nailers on parapet walls, as needed where needed.

6. Roof Hatch: Furnish and install new roof hatch, safety rails, ladder up pole and ladder rung grips. Ref. Photo 1902.

7. Metal Counter Flashing: Install new termination bar and new 24-gauge clear anodized aluminum counter flashings. Ref. Detail 1.14; Ref. Photo 1791.

8. Walkway Pads: Add walkway pads at west side shingle roof perimeter edge run off and at all RTU access doors, wall ladder and roof hatch. Ref. Photo 1855.

9. Wall Ladder: Furnish and install new roof access ladder required at east side drop down roof. Ref. Photo 1905.

10. Expansion Joint: Furnish and install new aluminum expansion joints, where required. Ref. Photos 1883 and 1885.

11. North Side Extension Wall: Furnish and install new wood nailer, base flashing and anodized aluminum coping cap on extension wall. Ref. Photo 1890.

12. Penthouse Walls: Add new plywood at wall flashing locations on penthouse. Ref. Photos 1798 and 1835.

13. Hot Stacks: Remove and replace existing pipe sleeves. Reuse the existing stainless-steel umbrellas on hot stacks and seal with heat resistant ceramic sealant. Ref. Photo 1898.

14. Exhaust Pipes: Remove and replace existing pipe sleeves. Flash as required. Install new metal pipe umbrellas. Ref. Photo 1899.

PROFESSIONAL

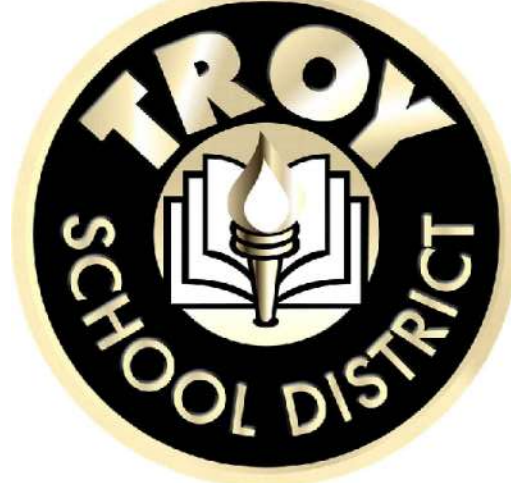


WeatherTech

Consulting Group, Inc.
Roofing/Waterproofing Consultants
Corporate Office:
7747 Auburn Road
Utica, MI 48317

Phone #: 586-731-3095
Fax #: 586-731-6863
Email: weathertech@wtcg.net
Web Site: www.wtcg.net

CLIENT



Troy School District
4400 Livernois
Troy, MI 48098

PROJECT



Baker Middle School
1359 Torpey Rd.
Troy, MI 48083

Troy School District
BID No. 2425-02
2025 Roofing Program

WTProject No: TSD-R102-25

ISSUE

DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

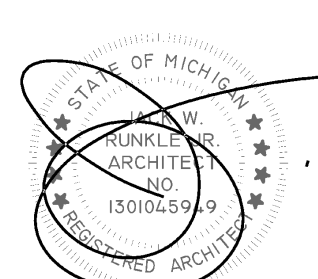
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Drawn By: MD

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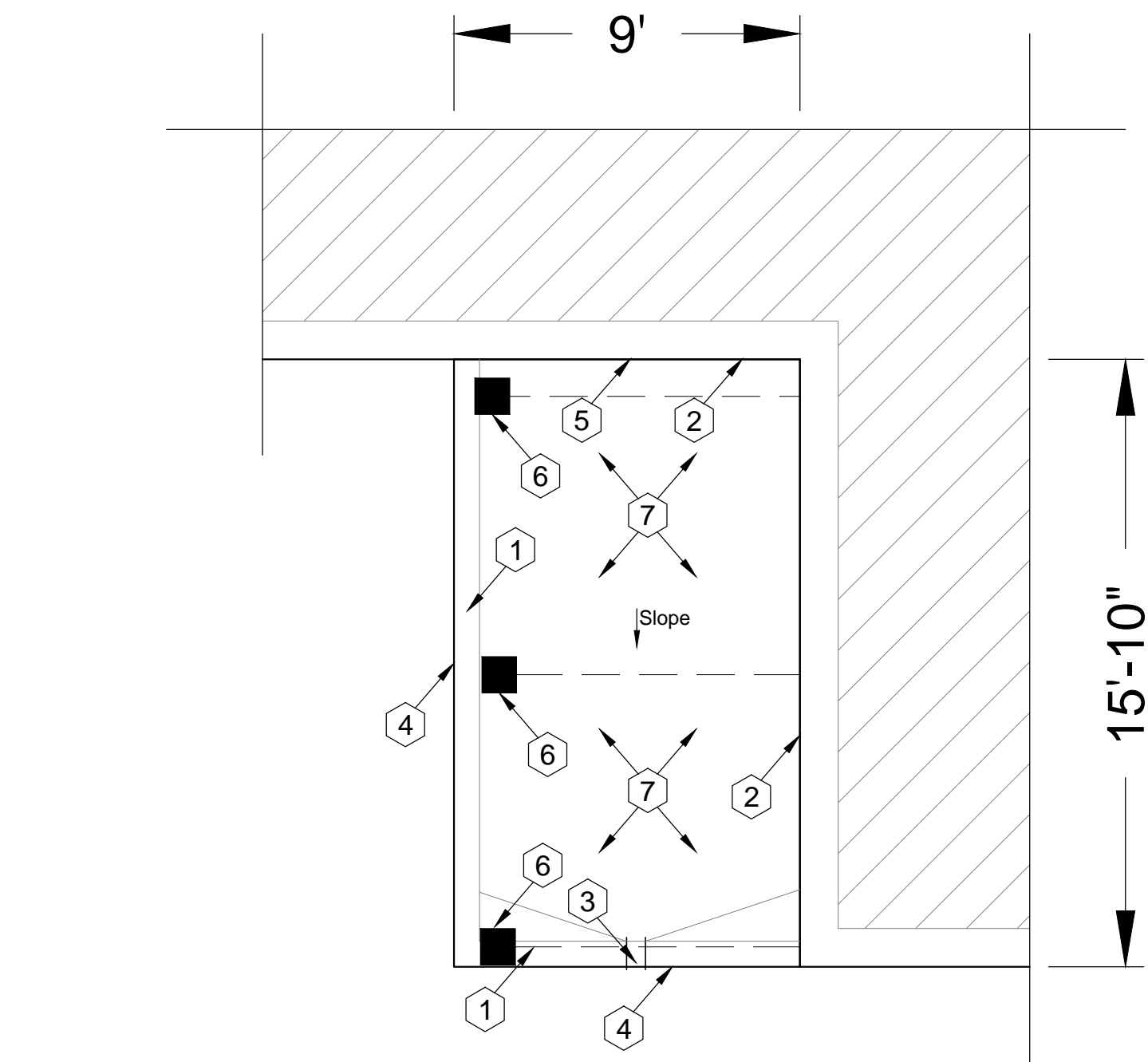
SHEET TITLE

Roof Plan

Baker Middle School
Roof Area B

A2.1

SHEET 3 OF 9



Baker Middle School
Roof Area E

Scale: 1/4" = 1'

Photos



1769



1770



1772



1774



1775



1778

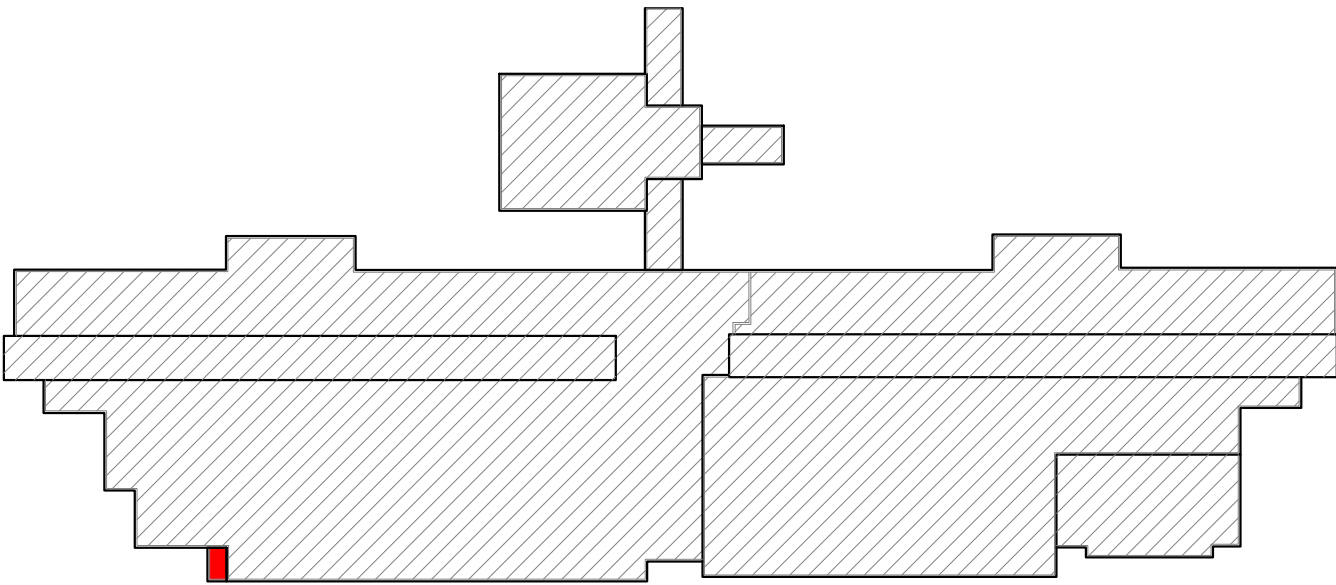


1780



1783

KEY PLAN



Baker Middle School - Troy School District
Sheet Notes - Roof Area E

Schedule:
WORK DESCRIPTION - ROOF REPLACEMENT

1. Existing Roof System Construction

All existing roof system constructions were determined by **limited test cuts** and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.

Roof Area E Core Sample Results

A. Roof Membrane: Gravel BUR with cap and plies with asphalt

B. Insulation:

1) Top Layer: Insulation 1/2" Fiberboard Insulation

2) Base Layer: Approx. 5 1/2 -inch polyisocyanurate insulation.

C. Deck: Metal: Flat Deck

2. Roof System Construction

Work includes removal and disposal of existing roofing, insulation, flashing systems and all sheet metal flashings down to the surface of the deck, repair deteriorated decking, install new roof insulation, fully adhered EPDM single ply roof membrane including all flashing, new roof related sheet metal, and accessories as detailed in the specifications and drawings. **Approx. Roof Area E 105 sq. ft.**

3. New Roof System: Roof Area E - Ref. Detail 1.01b.

a. Roof Membrane: EPDM, 60 mil, adhered to insulation.

b. Insulation: R30:

1) Top layer set-in low-rise foam adhesive.

2) Bottom layer mechanically attached to metal deck.

c. Tapered Insulation: Roof Drains, see roof plan and details

d. Deck: Metal: Repair as necessary to comply w/ building codes.

e. Interior Ceiling: N/A

f. Building Height: Ground to building edge: 12 ft.

4. Warranty/Guarantee:

a. Manufacturer to provide a 20 year "No-Dollar-Limit" material and installation warranty covering the roof system, flashings and manufacturer's accessories.

b. Roofing installer to provide a five (5) year Performance Agreement - see Specification Attachment C.

5. Allowances: \$1000.00 to be added to Base Bid.

6. Asbestos: Ref. to Section 024119 and Appendix 1: Asbestos testing results to be supplied by TSD selected 3rd party firm and will be incorporated into Appendix 1. Refer to Appendix 1 for asbestos testing results.

General Construction Details: Ref. A1.0

Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A5.0 to A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

Key Notes:

All detail references in Key Notes are considered typical and applicable to like conditions except as specifically amended on this Sheet. Refer to Sheet A1.0 General Construction Detail Notes for applicable construction detail descriptions and Sheets A5.0 to A5.2 for construction detail drawings. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

1. Perimeter Wood Nailers: Furnish and install new wood nailers on perimeter edges to level wall cap and provide base flashing required heights. Ref. Detail 1.05.

2. Metal Counter Flashing: Install new termination bar and new 24-gauge clear anodized aluminum counter flashings. Ref. Detail 1.14; Ref. Photos 1772 and 1774.

3. Scupper Drain, Leader Box and Downspout: Remove existing scupper drain, leader box and downspout; Replace with new to match with existing metal profile. Photos 1769 and 1770.

4. Fascia: Remove and replace damaged fascia metal and edge metal to match existing anodized aluminum metal and profile. Ref. Photos 1780 and 1783.

5. Walkway Pad and Splash Block: Add new walkway pad and splash block below upper roof drainage. Ref. Photo 1775.

6. Support Rods: Furnish and install new pitch pans and metal covers, as needed, for the canopy support rods. Ref. Photo 1778.

7. Deck Flutes: All debris to be removed from deck flutes.

Symbol Legend					
Symbol	Notes	Symbol	Notes	Symbol	Notes
●	Conduit, Vent Pipe or Other Penetration	⊙	Insulated Pipe or Heat Stack Penetration	■	Pitch-Pan Pocket
⊠	Equipment Unit on Curb	□	Ductwork or Flanged	⊞	Equip. on Wood Sleeper or Support Curb
H	Roof Hatch on Curb	A	Abandoned Equipment Curb	S	Skylight on Curb
†	Roof Ladder	W	Walkway Pad	⌒	Satellite Dish
⋈	Screen Support Stanchion	⋈	Railing or Fencing	⋈	Pipe or Conduit on Support Block
— GAS —	Gas Line	— AD —	Area Divider	— EJ —	Expansion Joint
---	Roof Ridges and Valleys	SEE	Roof Slope	⌒	Elevation Change
⊗	Roof Drain	⊕	New Roof Drain		Scupper
	Overflow Scupper	#	Key Notes	△	Revision
△	Tapered Insulation or Saddles		Metal Roof	⌒	Shingles or Clay Tiles

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WeatherTech

Consulting Group, Inc.
Roofing/Waterproofing Consultants
Corporate Office:
7747 Auburn Road
Utica, MI 48317

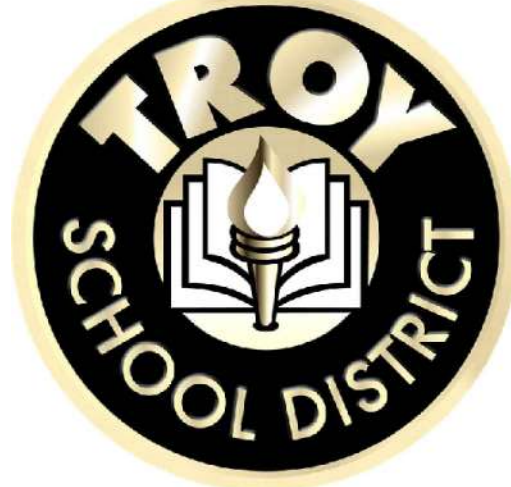
Phone #: 586-731-3095

Fax #: 586-731-6863

Email: weathertech@wtcg.net

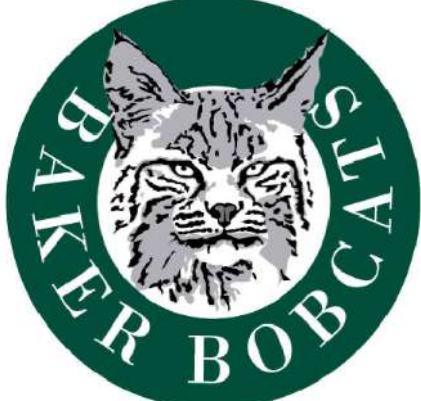
Web Site: www.wtcg.net

CLIENT



Troy School District
4400 Livernois
Troy, MI 48098

PROJECT



Baker Middle School
1359 Torpey Rd.
Troy, MI 48083

Troy School District
BID No. 2425-02
2025 Roofing Program

WTProject No: TSD-R102-25

ISSUE

DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

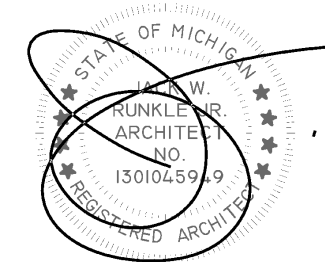
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Drawn By: MD

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SHEET TITLE

Roof Plan

Baker Middle School
Roof Area E

A2.2

SHEET 4 OF 9

Photos



1532



1556



1558



1586



1588

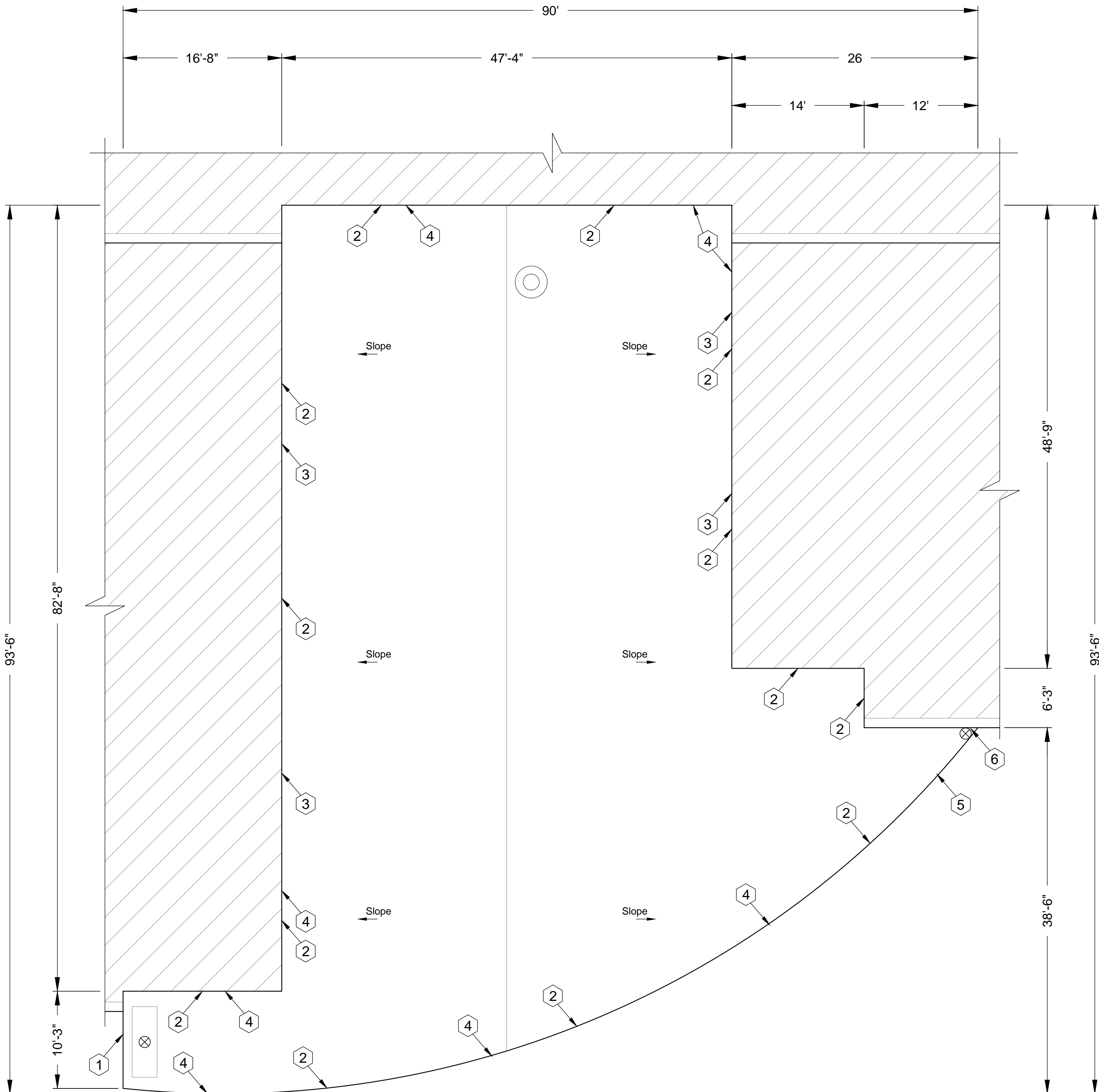
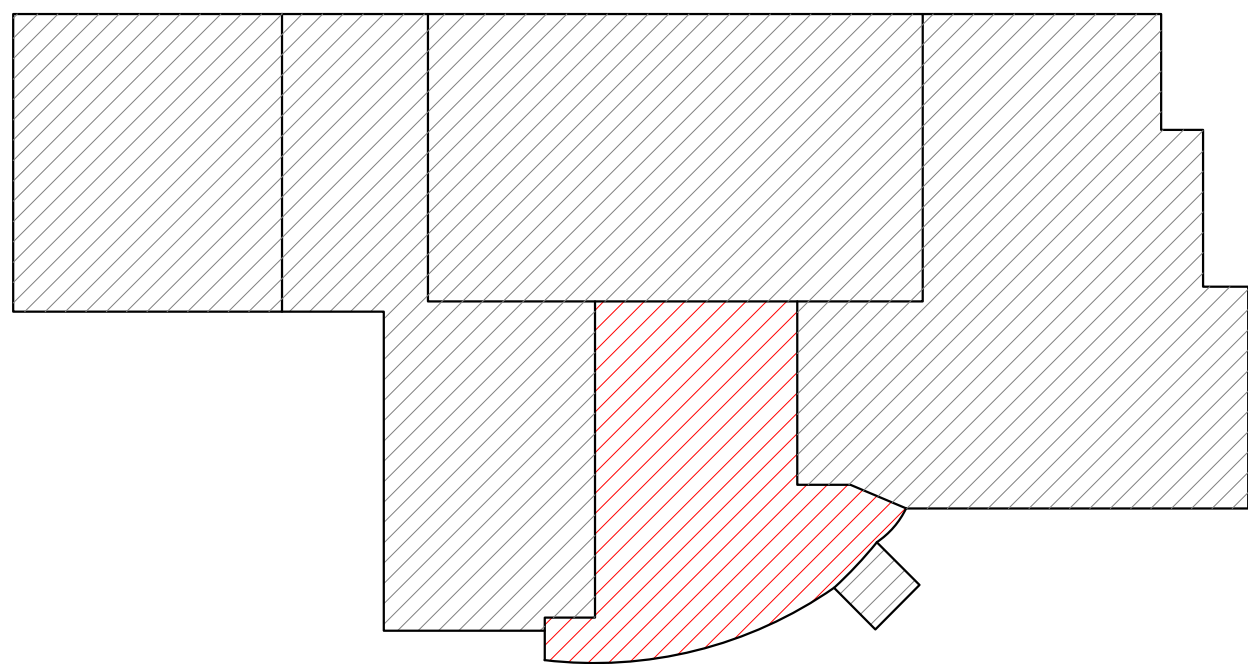


1590



1594

KEY PLAN



Service Building
Roof Area C

Scale: 1/8" = 1'

Service Building - Troy School District
Sheet Notes - Roof Area C (Barrel Roof)

Schedule:

WORK DESCRIPTION - ROOF RECOVER

1. Existing Roof System Construction

All existing roof system constructions were determined by **limited test cuts** and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.

Roof Area A Core Sample Results

a. Roof Membrane: PVC

b. Insulation:

- 1) Top Layer: 1 1/2" Polyisocyanurate Insulation.
2) Base Layer: 1 1/2" Polyisocyanurate insulation.

c. Deck: Metal B; Slope in deck (Contractor to verify.)

2. Roof System Construction

Work includes removal and disposal of existing roof membrane. The existing insulation is to remain (only replace what is damaged or deteriorated). Remove and replace any existing deteriorated rigid insulation. Furnish and install additional rigid insulation, over top, to achieve R30 value. Remove all flashing systems and all sheet metal flashings, repair any deteriorated decking found, install new wood nailers, where required. Fully adhered EPDM single ply roof membrane including all flashing, new roof related sheet metal, and accessories as detailed in the specifications and drawings. **Approx. Roof Area C 4,880 sq. ft.**

3. New Roof System: Roof Area C - Ref. Detail 1.01c.

a. Roof Membrane: EPDM, 60 mil, adhered to insulation.

b. Insulation: R30:

- 1) Top layer mechanically attached over existing layers.

c. Deck: Metal B; Repair as necessary to comply w/ building codes. (if needed)

d. Interior Ceiling: Exposed Deck; Interior Protection, as necessary (Electrical conduits are tucked under the roof deck.)

e. Building Height: Ground to building edge: 10' to 35'

4. Warranty/Guarantee:

a. Manufacturer to provide a 20 year "No-Dollar-Limit" material and installation warranty covering the roof system, flashings and manufacturer's accessories.

b. Roofing installer to provide a five (5) year Performance Agreement - see Specification Attachment C.

5. Allowances: \$2,000.00 to be added to Base Bid.

6. Asbestos: Ref. to Section 024119 and Appendix 1: No ACM.

General Construction Details: Ref. A1.0

Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A5.0 to A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

Key Notes:

All detail references in Key Notes are considered typical and applicable to like conditions except as specifically amended on this Sheet. Refer to Sheet A1.0 General Construction Detail Notes for applicable construction detail descriptions and Sheets A5.0 to A5.2 for construction detail drawings. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.

1. Saddle & Crickets: Contractor to provide saddle and crickets where indicated on roof plan and other areas as required by the roofing membrane system manufacturer. Ref. Photo 1532.

2. Wood Nailers: Furnish and install wood nailers around perimeters.

3. Gutter and Downspouts: Gutter and accessories to be installed at North and South Elevation. Ref. Details 1.13 and 1.15; Ref. Photos 1556 and 1558.

4. Perimeter Edging: Furnish and install perimeter nailer to match insulation height and provide new raised perimeter edge metal, to match existing conditions. Ref. Details 1.02 and 1.03; Ref. Photos 1590 and 1594.

5. Water Diverters: Furnish and install water diverters on S/E corners of roof to promote drainage into gutter. Ref. Photo 1588.

6. Metal Sill: Metal wall panel and sill to be raised to achieve proper base flashing height. Ref. Photo 1586.

Symbol Legend					
Symbol	Notes	Symbol	Notes	Symbol	Notes
●	Conduit, Vent Pipe or Other Penetration	⊙	Insulated Pipe or Heat Stack Penetration	■	Pitch-Pan Pocket
⊗	Equipment Unit on Curb	□	Ductwork or Flanged	⊞	Equip. on Wood Sleeper or Support Curb
H	Roof Hatch on Curb	A	Abandoned Equipment Curb	S	Skylight on Curb
†	Roof Ladder	W	Walkway Pad	⌵	Satellite Dish
—●—	Screen Support Stanchion	—●—	Railing or Fencing	—●—	Pipe or Conduit on Support Block
—●—	Gas Line	—AD—	Area Divider	—EJ—	Expansion Joint
---	Roof Ridges and Valleys	—S—	Roof Slope	—L—	Elevation Change
⊗	Roof Drain	⊕	New Roof Drain		Scupper
	Overflow Scupper	#	Key Notes	⚠	Revision
▲	Tapered Insulation or Saddles	▨	Metal Roof	▧	Shingles or Clay Tiles

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Consulting Group, Inc.

Roofing/Waterproofing Consultants

Corporate Office:

7747 Auburn Road

Utica, MI 48317

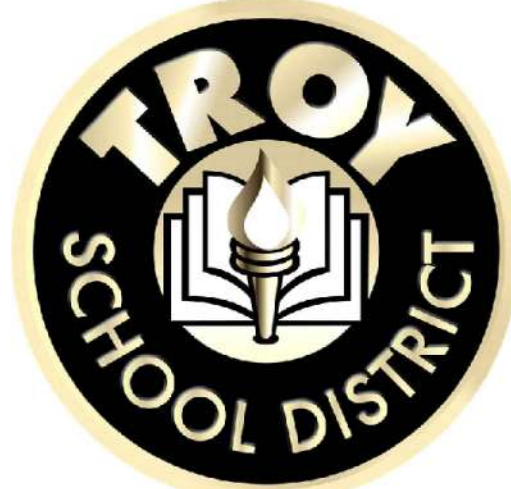
Phone #: 586-731-3095

Fax #: 586-731-6863

Email: weathertech@wtcg.net

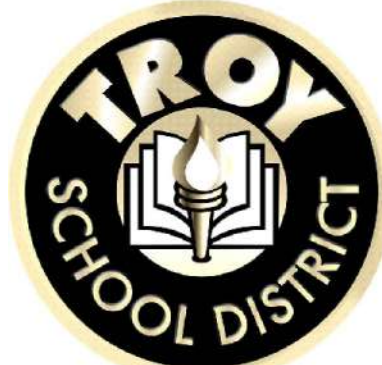
Web Site: www.wtcg.net

CLIENT



Troy School District
4400 Livernois
Troy, MI 48098

PROJECT



Troy School District
Service Building
4420 Livernois Rd.
Troy, MI 48098

Troy School District
BID No. 2425-02
2025 Roofing Program

WTPProject No: TSD-R102-25

ISSUE

DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

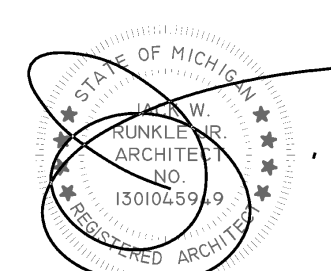
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SHEET TITLE

Roof Plan

Service Building

Roof Area C

A3.0

SHEET 5 OF 9

Photos



1615



1619



1643



1664



1671



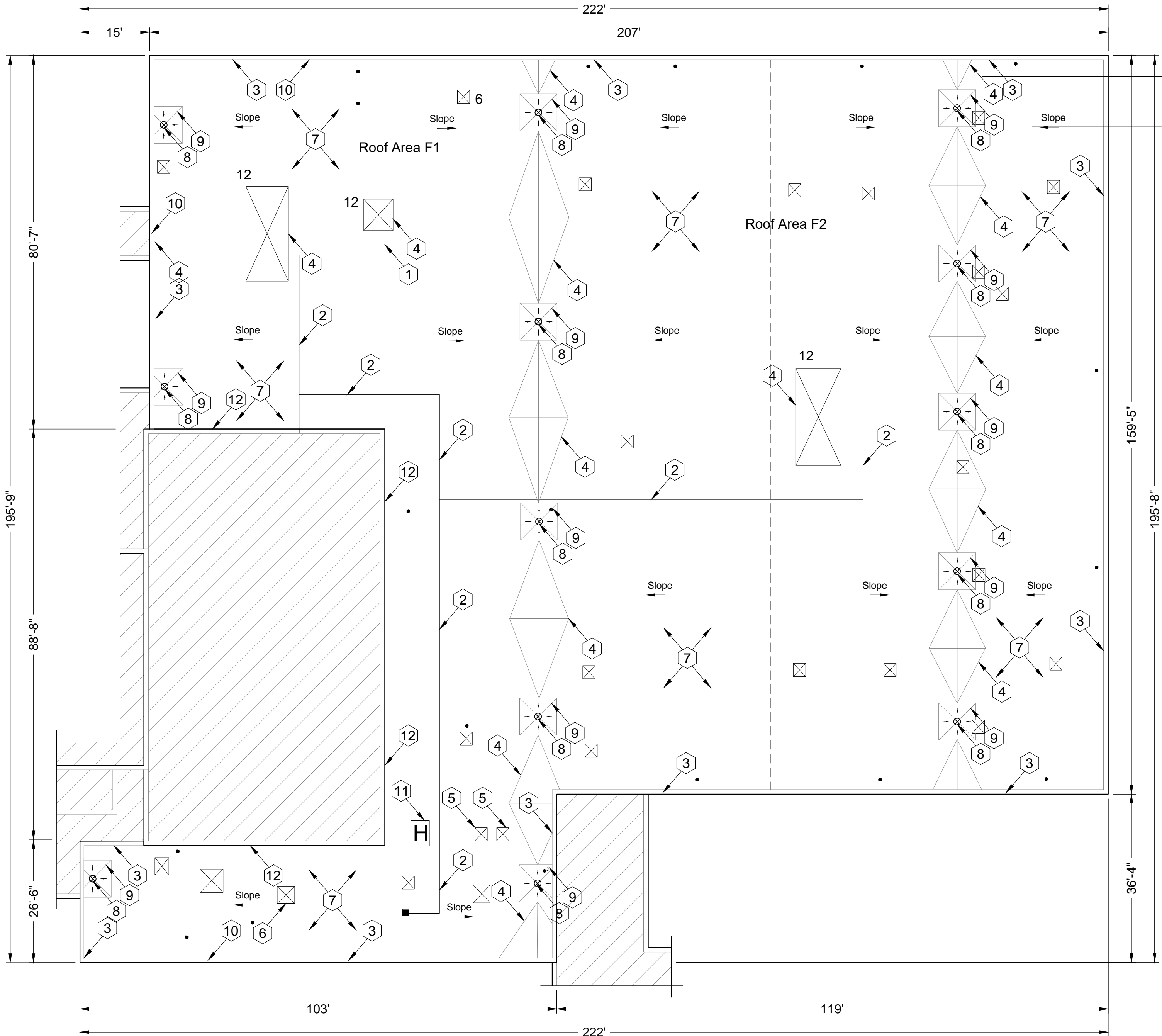
1672



1679



1687



Troy Union Elementary School
Roof Area F

Scale: 1/16" = 1'



1676



1675



1684



1686

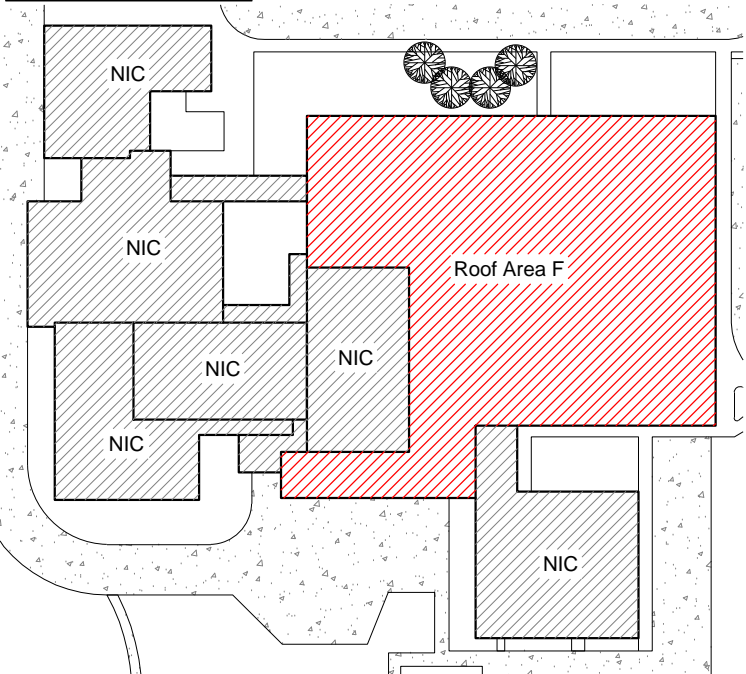


1694



1696

KEY PLAN



1673

Troy Union Elementary School - Troy School District
Sheet Notes - Roof Area F
Schedule
WORK DESCRIPTION - ROOF REPLACEMENT

- EXISTING ROOF SYSTEM CONSTRUCTION**
All existing roof system constructions were determined by **limited test cuts** and observation; conditions may vary. Contractor responsible for confirming all existing roof system constructions and conditions.
Roof Area F Core Sample Results
A. Sample F2 1-2: Roof Membrane: Gravel BUR with caps and plies
B. Insulation:
1) **Top Layer:** Insulation 1/2" Fiberboard Insulation
2) **Base Layer:** Approx. 2 -inch polyisocyanurate insulation.
C. Deck: Metal B: Slope in deck (Contractor to verify)
D. Sample F1 3, 4 & 5: Roof Membrane: Gravel BUR with caps and plies
E. Insulation:
3) **Top Layer:** Insulation 1/2" Fiberglass Insulation
4) **Base Layer:** Approx. 1 1/2 - 2" - Perlite
F. Deck: Metal B: (Contractor to verify)
2. ROOF SYSTEM CONSTRUCTION
Work includes: Removal and disposal of existing roofing, insulation, flashing systems and all sheet metal flashings down to the surface of the deck, repair deteriorated decking, install new roof insulation, fully adhered EPDM single ply roof membrane including all flashing, new roof related sheet metal, and accessories as detailed in the specifications and drawings. **Approx. Roof Area F 31,284 sq. ft.**
3. New Roof System: Roof Area F - Ref. Detail 1.01b.
a. Roof Membrane: EPDM, 60 mil, adhered to insulation.
b. Insulation: R30:
1) Top layer set-in low-rise foam adhesive.
2) Bottom layer mechanically attached to metal deck.
c. Tapered Insulation: Roof Drains, see roof plan and details (Ref. Roof Area F1 - Flat Deck; Roof Area F2- Sloped Deck)
d. Deck: Metal B: Repair as necessary to comply w/ building codes.
e. Interior Ceiling: As needed, drop ceiling
f. Building Height: Ground to building edge: 30 ft.
4. Warranty/Guarantee:
a. Manufacturer to provide a 20 year "No-Dollar-Limit" material and installation warranty covering the roof system, flashings and manufacturer's accessories.
b. Roofing installer to provide a five (5) year Performance Agreement - see Specification Attachment C.
5. Allowances: \$15,000.00 to be added to Base Bid.
6. Asbestos: Ref. to Section 024119 and Appendix 1: Asbestos testing results to be supplied by TSD selected 3rd party firm and will be incorporated into Appendix 1. Refer to Appendix 1 for asbestos testing results.

General Construction Details: Ref. A1.0
Use the General Construction Details on Sheet A1.0 for detail construction description as applicable when any detail is not specifically called out in Key Notes for the applicable Roof Area and Section. Detail drawings called out in General Construction Details can be found on Sheets A5.0 to A5.2. Contractor to provide Shop Drawing as necessary for field conditions not directly identified in Contract Documents.
Key Notes:
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- Broken Condensation Line:** Ref. General Notes "M". Ref. Photo 1675.
- New Pipe Supports:** New gas blocking, minimum 6"X6" and wrapped, over walk pad. No more than 10ft apart, per code. Ref. Photos 1671 and 1672.
- Metal Coping:** Remove existing metal coping and install new 24 gauge prefinished galvanized metal with continuous face cleat and standing seam joints; color as selected by Owner. Ref. Details 1.04 and 1.08; Photos 1679 and 1684.
- Saddle & Crickets:** Contractor to provide saddle and crickets where indicated on roof plan and other areas as required by the roofing membrane system manufacturer. Ref. Photo 1619.
- Deleted Curbs:** Remove deleted items, as marked by TSD, fill-in deck and roof over. Ref. Photos 1676 and 1694.
- Curbs Raised:** Raise penetrations to achieve required base flashing height. Ref. Detail 1.18; Photos 1643 and 1686.
- Deck Flutes:** All debris to be removed from deck flutes.
- Metal Roof Strainers:** Furnish and install correct metal strainers, where needed. Ref. Photo 1687.
- Drain Sumps:** Furnish and install tapered roof sumps (8ft X 8ft Min.) to assure proper drainage. Ref. Details 1.09 and 1.11; Ref. Photo 1615.
- Perimeter Wood Nailers:** Furnish and install new wood nailers on perimeter edges to level wall cap and provide base flashing required heights. Ref. Detail 1.05.
- Roof Hatch:** Furnish and install new roof hatch, safety rails, ladder up pole and ladder rung grips. Ref. Photo 1696.
- Metal Counter Flashing:** Install new termination bar and new 24-gauge prefinished counter flashings. Ref. Detail 1.14; Ref. Photos 1664 and 1673.

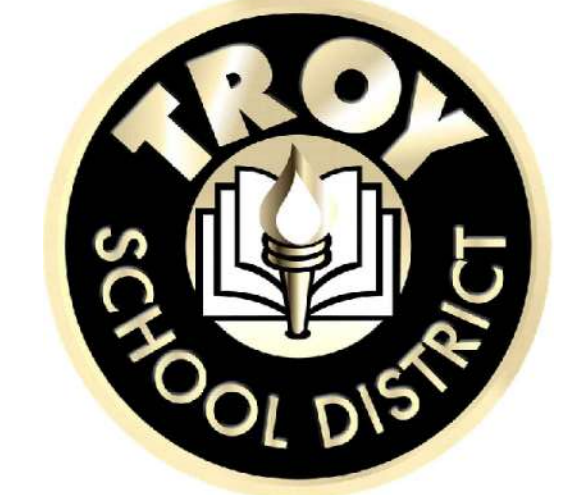
Symbol Legend					
Symbol	Notes	Symbol	Notes	Symbol	Notes
●	Conduit, Vent Pipe or Other Penetration	⊙	Insulated Pipe or Heat Stack Penetration	■	Pitch-Pan Pocket
⊗	Equipment Unit on Curb	□	Ductwork or Flanged	■	Equip. on Wood Sleeper or Support Curb
[H]	Roof Hatch on Curb	[A]	Abandoned Equipment Curb	[S]	Skylight on Curb
⋈	Roof Ladder	[W]	Walkway Pad	⊘	Satellite Dish
—●—	Screen Support Stanchion	—●—	Railing or Fencing	—●—	Pipe or Conduit on Support Block
—●—	Gas Line	—●—	Area Divider	—●—	Expansion Joint
---	Roof Ridges and Valleys	→	Roof Slope	—●—	Elevation Change
⊗	Roof Drain	⊕	New Roof Drain		Scupper
	Overflow Scupper	Ⓢ	Key Notes	Ⓢ	Revision
▲	Tapered Insulation or Saddles	▨	Metal Roof	▨	Shingles or Clay Tiles

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Corporate Office:
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Phone #: 586-731-3095
Fax #: 586-731-6863
Email: weathertech@wtcg.net
Web Site: www.wtcg.net

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Troy School District
4400 Livernois
Troy, MI 48098

PROJECT



Troy Union Elementary School
1340 E Square Lake Rd.
Troy, MI 48085

Troy School District
BID No. 2425-02
2025 Roofing Program

WTProject No: TSD-R102-25

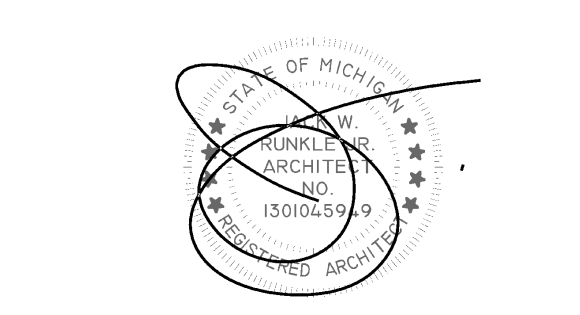
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ELECTRONIC STAMP



SHEET TITLE
Roof Plan
Troy Union Elementary School
Roof Area F

A4.0
SHEET 6 OF 9

<p>NOTE 1 - ROOF MEMBRANE 60 MIL EPDM - FULLY ADHERED IN BONDING ADHESIVE; FIELD SEAMS ADHERED WITH 6\" (MINIMUM) WIDE SEAM TAPE.</p> <p>NOTE 2 - APPLY LOW RISE FOAM ADHESIVE IN ¾\" TO 1 INCH WIDE WET BEADS SPACED AT 12 INCHES ON CENTER IN THE FIELD ON THE ROOF; REDUCE BEAD SPACING TO 6 INCHES IN PERIMETERS AND 4 INCHES IN CORNERS PER FM 60 UPLIFT CRITERIA AS DEFINED IN FMG KISS REVERTIBLE DATA SHEET 1 - 29.</p> <p>NOTE 3 - TWO LAYERS OF 4 FT. X 4 FT. INSULATION ADHERED IN LOW RISE FOAM ADHESIVE SHOWN FOR CLARITY - SEE SCHEDULE ON ROOF PLAN(S) FOR R-VALUES, TYPE AND THICKNESS OF EACH INSULATION LAYER REQUIRED IN EACH ROOF AREA. TAPERED INSULATION ALSO MAY BE REQUIRED ON SOME ROOF AREAS OR FOR CRICKETS AND SADDLES - SEE SCHEDULE AND LAYOUT DRAWINGS ON ROOF PLAN(S) FOR TYPE AND FINISHED SLOPE OF TAPERED INSULATION. STAGGER ALL INSULATION JOINTS</p> <p>NEW ROOF CONSTRUCTION PROFILE FULLY ADHERED SYSTEMS W/ NAILABLE DECK SCALE: N.T.S</p>	1.01a	<p>NOTE 1 - ROOF MEMBRANE 60 MIL EPDM - FULLY ADHERED IN BONDING ADHESIVE; FIELD SEAMS ADHERED WITH 6\" (MINIMUM) WIDE SEAM TAPE.</p> <p>NOTE 2 - APPLY LOW RISE FOAM ADHESIVE IN ¾\" TO 1 INCH WIDE WET BEADS SPACED AT 12 INCHES ON CENTER IN THE FIELD ON THE ROOF; REDUCE BEAD SPACING TO 6 INCHES IN PERIMETERS AND 4 INCHES IN CORNERS PER FM 60 UPLIFT CRITERIA AS DEFINED IN FMG KISS REVERTIBLE DATA SHEET 1 - 29.</p> <p>NOTE 3 - TWO LAYERS OF 4 FT. X 4 FT. INSULATION ADHERED IN LOW RISE FOAM ADHESIVE SHOWN FOR CLARITY - SEE SCHEDULE ON ROOF PLAN(S) FOR R-VALUES, TYPE AND THICKNESS OF EACH INSULATION LAYER REQUIRED IN EACH ROOF AREA. TAPERED INSULATION ALSO MAY BE REQUIRED ON SOME ROOF AREAS OR FOR CRICKETS AND SADDLES - SEE SCHEDULE AND LAYOUT DRAWINGS ON ROOF PLAN(S) FOR TYPE AND FINISHED SLOPE OF TAPERED INSULATION. STAGGER ALL INSULATION JOINTS</p> <p>NEW ROOF CONSTRUCTION PROFILE FULLY ADHERED SYSTEMS W/ VAPOR BARRIER SCALE: N.T.S</p>	1.01b	<p>NOTE 1 - ROOF MEMBRANE 60 MIL EPDM - FULLY ADHERED IN BONDING ADHESIVE; FIELD SEAMS ADHERED WITH 6\" (MINIMUM) WIDE SEAM TAPE.</p> <p>NOTE 2 - ONE LAYER OF 4 FT. X 4 FT. INSULATION MECHANICALLY ATTACHED THROUGH EXISTING INSULATION TO DECK - SEE SCHEDULE ON ROOF PLAN(S) FOR R-VALUES, TYPE AND THICKNESS OF THE INSULATION LAYER REQUIRED IN EACH ROOF AREA. TAPERED INSULATION ALSO MAY BE REQUIRED ON SOME ROOF AREAS OR FOR CRICKETS AND SADDLES - SEE SCHEDULE AND LAYOUT DRAWINGS ON ROOF PLAN(S) FOR TYPE AND FINISHED SLOPE OF TAPERED INSULATION. STAGGER ALL INSULATION JOINTS</p> <p>OVERLAY ROOF CONSTRUCTION PROFILE FULLY ADHERED SYSTEMS W/ NAILABLE DECK SCALE: N.T.S</p>	1.01c	<p>CANT-DAM W/ FASCIA SCALE: N.T.S</p>	1.02	<p>RAISED EDGE METAL AND FLASHING SCALE: N.T.S</p>	1.03
<p>NOTE 1 - DIMENSIONS NOT GIVEN TO BE VERIFIED IN FIELD.</p> <p>NOTE 2 - CONTINUOUS CLEAT NOT TO EXCEED 12 LF.</p> <p>NOTE 3 - ALLOW ¾\" GAP BETWEEN CLEAT. OFFSET CLEAT JOINTS FROM COPING JOINTS.</p> <p>TYPICAL PARAPET/COPING CAP SCALE: N.T.S</p>	1.04	<p>PARAPET METAL COPING SCALE: N.T.S</p>	1.05	<p>PARAPET COPING CAP CORNERS SCALE: N.T.S</p>	1.06	<p>WALL TERMINATION SCALE: N.T.S</p>	1.07	<p>COPING CAP W/ DOUBLE LOCK STANDING SEAM SCALE: N.T.S</p>	1.08
<p>NOTE - CONTRACTORS TO INSTALL TAPERED INSULATION. DO NOT SHAVE ROOF INSULATION TO MATCH DRAIN INSULATION HEIGHT TO DRAIN BOWL HEIGHT.</p> <p>ROOF DRAIN SCALE: N.T.S</p>	1.09	<p>NOTE - CONTRACTORS TO INSTALL TAPERED INSULATION. DO NOT SHAVE ROOF INSULATION TO MATCH DRAIN INSULATION HEIGHT TO DRAIN BOWL HEIGHT.</p> <p>OVERFLOW DRAIN SCALE: N.T.S</p>	1.10	<p>ROOF DRAIN SUMP SCALE: N.T.S</p>	1.11	<p>ROOF AND OVERFLOW DRAIN SUMP SCALE: N.T.S</p>	1.12	<p>NOTE 1 - GUTTER OUTLETS AND DOWNSPOUTS TO BE 24 GA. GALV. STEEL, 24 GA. STAINLESS STEEL 16 O.Z. COLD ROLLED COPPER - SEE THE SCHEDULE(S) ON THE ROOF PLAN(S) FOR SPECIFIC REQUIREMENTS FOR EACH ROOF AREA</p> <p>NOTE 2 - PROVIDE 1 OUTLET MIN. IN EACH SECTION OF GUTTER.</p> <p>NOTE 3 - GUTTER HEIGHT AND WIDTH OUTLET/DOWNSPOUT SIZE TO BE CALCULATED PER SMAQNA RECOMMENDATIONS BASED ON SIZE OF ROOF TO BE DRAINED.</p> <p>GUTTER SCALE: N.T.S</p>	1.13

WeatherTech
Consulting Group, Inc.
Roofing/Waterproofing Consultants
Corporate Office:
7747 Auburn Road
Utica, MI 48317

Phone #: 586-731-3095
Fax #: 586-731-6863
Email: weathertech@wtcg.net
Web Site: www.wtcg.net

CLIENT

Troy School District
4400 Livernois
Troy, MI 48098

PROJECT

Troy School District
 BID No. 2425-02
 2025 Roofing Program

WTProject No: TSD-R102-25

ISSUE	
DATE	DESCRIPTION
10/14/2024	Review
10/17/2024	OTB

File Name: TSD 2026 - A5.0 Detail Sheet
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<p>EXISTING WALL ASSEMBLY CONTINUOUS BEAD OF SEALANT BUTYL SEALANT COUNTERFLASHING COUNTERFLASHING FASTENER, FASTENED @ 8" O.C. PREFINISHED 24 GAGE METAL COUNTERFLASHING</p> <p>CONTINUOUS BEAD OF SEALANT BUTYL SEALANT BEHIND MEMBRANE ALUMINUM TERMINATION BAR FASTENED 8" O.C. PLYWOOD EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE REINFORCED MEMBRANE ATTACHMENT STRIP W/ FASTENERS AND PLATES 12" O.C., MAX. EPDM MEMBRANE</p> <p>3/4" MIN. - 1 1/4" MAX. ROOF INSULATION NAILABLE STRUCTURAL DECK</p> <p>8" MIN.</p>	<p>4" O.C. MAX.</p> <p>12"</p> <p>EXTERIOR WALL, OR COLUMN</p> <p>#10 SHEET METAL SCREWS 1/2" x 1" OR 3/4" x 1-1/2" TAPCON ANCHORS AS THE EXISTING CONDITION REQUIRES FIELD VERIFICATION FOR PROPER FASTENER TYPE ATTACHMENT (TWO FASTENERS TYPICAL)</p> <p>1/2" THICK X 1" WIDE GALV. STRAP-BRACKET-ANCHOR REFINISHED GALV. DOWNSPOUT 3/4" FROM THE WALL</p> <p>CONCRETE SPLASH BLOCK - IF THE CONCRETE SPLASH BLOCK IS TO BE PLACED ON A ROOF SURFACE, A WALKWAY PAD UNDER THE CONCRETE SPLASH BLOCK IS REQUIRED.</p>	<p>EXISTING WALL ASSEMBLY EXISTING THRU-WALL METAL COUNTERFLASHING</p> <p>APPROVED SEALANT</p> <p>BUTYL SEALANT BEHIND MEMBRANE</p> <p>ALUMINUM TERMINATION BAR FASTENED 8" O.C.</p> <p>METAL COUNTERFLASHING INTO EXISTING RECEIVER - SEE NOTE</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>REINFORCED MEMBRANE ATTACHMENT STRIP W/ FASTENERS AND PLATES 12" O.C., MAX.</p> <p>EPDM MEMBRANE</p> <p>3/4" MIN. - 1 1/4" MAX. ROOF INSULATION NAILABLE STRUCTURAL DECK</p> <p>4" MIN.</p> <p>8" MIN.</p> <p>NOTE - COUNTERFLASHING TO BE 24 GAGE GALVANIZED STEEL, 26 GAGE STAINLESS STEEL OR 16 O.Z. COLD ROLLED COPPER AND SHALL MATCH EXISTING TYPE OF THROUGH-WALL REGLET METAL. SECURE NEW COUNTERFLASHING TO EXISTING REGLET WITH POP RIVETS OF SAME TYPE OF METAL @ 12" O.C., MAX.</p>	<p>CURB WOOD NAILER</p> <p>8" MINIMUM</p> <p>EQUIPMENT FRAME</p> <p>1-1/2" x 1-1/2" NEOPRENE FOAM SEALING STRIP</p> <p>GASKETED FASTENERS MIN. TWO FASTENERS PER SIDE</p> <p>BONDING ADHESIVE</p> <p>REMOVABLE SHEET-METAL COUNTERFLASHING</p> <p>PREMOLDED CORNER</p> <p>SEALANT (IF REQUIRED FOR THE SPECIFIC SYSTEM)</p> <p>EPDM MEMBRANE</p> <p>SEAM PLATES AND FASTENERS</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>BASE OF UNIT EXTENDS 1/2" MINIMUM BEYOND TOP OF CURB</p> <p>1-1/2" x 1-1/2" NEOPRENE FOAM SEALING STRIP</p> <p>1" MINIMUM BELOW TOP OF CURB</p> <p>FLASHING RECEIVER</p> <p>FASTENERS</p> <p>COUNTERFLASHING</p> <p>FLASHING MEMBRANE</p> <p>WOOD CURB</p> <p>NOTE 1 - THE CURBS, TOP WOOD NAILER AND SEAL STRIP ARE TO BE SUPPLIED BY THE CURB MANUFACTURER.</p> <p>NOTE 2 - WHEN POSSIBLE, THE MECHANICAL UNITS SHOULD NOT BE SET UNTIL THE ROOF MEMBRANE AND FLASHING HAVE BEEN INSTALLED.</p> <p>NOTE 3 - WHERE THE SKYLIGHT, SCUTTLE OR SMOKE VENT FRAME OVERLAPS THE BASE FLASHING AT LEAST 3 INCHES, THE REMOVABLE SHEET-METAL COUNTERFLASHING IS NOT REQUIRED.</p> <p>2 X 6 MIN. WOOD NAILER ATTACHED TO SUBSTRATE - OVERALL THICKNESS TO MATCH INSULATION</p> <p>ALTERNATE OPTION:</p> <p>MECHANICAL UNIT</p> <p>BASE OF UNIT EXTENDS 1/2" MINIMUM BEYOND TOP OF CURB</p> <p>1-1/2" x 1-1/2" NEOPRENE FOAM SEALING STRIP</p> <p>1" MINIMUM BELOW TOP OF CURB</p> <p>FLASHING RECEIVER</p> <p>FASTENERS</p> <p>COUNTERFLASHING</p> <p>FLASHING MEMBRANE</p> <p>WOOD CURB</p>	<p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>MANUFACTURER APPROVED BATTEN BAR FASTENED 12" O.C., MAX.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>SECUREMENT FASTENED AT BASE OF CURB ALTERNATE BASE FASTENING</p> <p>SELF-FLASHING EQUIPMENT UNIT</p> <p>1-1/2" x 1-1/2" NEOPRENE FOAM SEALING STRIP</p> <p>FASTEN FLASHING 8" O.C. WITH ROOFING NAILS</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE - WRAP FLASHING UP AND OVER TOP OF CURB MIN. 2"</p> <p>EXISTING CURB IS REQUIRED TO EXTEND MIN. 8" ABOVE THE EPDM MEMBRANE.</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>ROOF INSULATION</p> <p>2" MIN.</p> <p>8" MIN.</p> <p>2" MIN.</p> <p>3" MIN.</p> <p>3"</p> <p>NAILABLE OR NON-NAILABLE STRUCTURAL DECK</p>
<p>BASE FLASHING W/ TERMINATION BAR AND COUNTERFLASHING ON NAILABLE DECK SCALE: N.T.S</p> <p>1.14</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>MANUFACTURER APPROVED BATTEN BAR FASTENED 12" O.C., MAX.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>SECUREMENT FASTENED AT BASE OF CURB ALTERNATE BASE FASTENING</p> <p>NON-REMOVABLE EQUIPMENT UNIT</p> <p>POLYURETHANE SEALANT</p> <p>#12 STAINLESS STEEL SCREWS WITH EPDM BACKED S.S. WASHERS @ 12" O.C.</p> <p>METAL COUNTERFLASHING SEE NOTES 1 AND 2</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE - TUCK FLASHING UP AND BEHIND BOTTOM OF UNIT SKIRT.</p> <p>EXISTING CURB IS REQUIRED TO EXTEND MIN. 8" ABOVE THE EPDM MEMBRANE.</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>ROOF INSULATION</p> <p>4" MIN.</p> <p>8" MIN.</p> <p>2" MIN.</p> <p>3" MIN.</p> <p>3"</p> <p>NAILABLE OR NON-NAILABLE STRUCTURAL DECK</p> <p>NOTE 1 - WHEN BASE OF UNIT PROVIDES LESS THAN 4" COVERAGE OVER TOP OF FLASHING, INSTALL SEPARATE COUNTERFLASHING AS SHOWN.</p> <p>NOTE 2 - COUNTERFLASHING TO BE 24 GAGE GALVANIZED STEEL, 24 GAGE PRE-FINISHED GALVANIZED STEEL, .032" MILL FINISHED ALUMINUM OR 26 GAGE STAINLESS STEEL. SEE SCHEDULE(S) ON THE ROOF PLAN(S) FOR SPECIFIC TYPE OF METAL REQUIRED IN EACH ROOF AREA.</p>	<p>DOWNSPOUT AND SPLASH BLOCK SCALE: N.T.S</p> <p>1.15</p> <p>SEALANT</p> <p>CONTINUOUS BEAD OF WATERBLOCK 1" DOWN.</p> <p>STAINLESS STEEL DRAWBAND</p> <p>PRE-FABRICATED EPDM MEMBRANE BOOT FLASHINGS MIN. 8"</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>8" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>PIPE PENETRATION</p>	<p>BASE FLASHING W/ THRU-WALL ON NAILABLE DECK SCALE: N.T.S</p> <p>1.16</p> <p>SIDE VIEW:</p> <p>SEALANT</p> <p>STAINLESS STEEL DRAWBAND</p> <p>24 GA. GALV. SHEET METAL RAIN COLLAR FLASHING OVERLAPPING FLASHING COLLAR BY 3" TO 4" MIN. - RAIN COLLAR TO BE 8" MIN. ABOVE ROOFING.</p> <p>1" MIN. CLEARANCE BETWEEN FLASHING COLLAR AND CONDUIT.</p> <p>CONTINUOUS BEAD OF LAP SEALANT</p> <p>9" SEAM TAPE FLASHING - SEE NOTE 1</p> <p>5" SEAM TAPE FLASHING - SEE NOTE 2</p> <p>FASTENER @ 12" O.C. W/ SEALANT</p> <p>CONTINUOUS BEAD OF WATER BLOCK</p> <p>CONTINUOUS BEAD OF SEALANT</p> <p>4" WIDE TREATED WOOD BLOCKING TO MATCH HEIGHT OF INSULATION</p> <p>EPDM MEMBRANE</p> <p>8" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>PIPE PENETRATION</p> <p>NOTE 1 - 9" SEAM TAPE SHOULD BE CENTERED OVER 5" SEAM TAPE FLASHING SO THAT IT EXTENDS 2" MIN. BEYOND EDGE OF 5" SEAM TAPE FLASHING ON BOTH SIDES.</p> <p>NOTE 2 - 5" SEAM TAPE FLASHING SHOULD EXTEND 2" MIN. BEYOND EDGE OF METAL FLANGE.</p>	<p>PREFABRICATED METAL CURB SCALE: N.T.S</p> <p>1.17</p> <p>PIPE PENETRATION</p> <p>SEALANT</p> <p>STAINLESS STEEL DRAWBAND</p> <p>24 GA. GALV. SHEET METAL RAIN COLLAR FLASHING OVERLAPPING FLASHING COLLAR BY 3" TO 4" MIN. - RAIN COLLAR TO BE 8" MIN. ABOVE ROOFING.</p> <p>SEALANT</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>CONTINUOUS BEAD OF WATERBLOCK 1" DOWN.</p> <p>EXISTING CURB IS REQUIRED TO EXTEND MIN. 8" ABOVE THE EPDM MEMBRANE.</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>8" MIN.</p> <p>3" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p>	<p>REMOVABLE EQUIPMENT CURB FLASHING SCALE: N.T.S</p> <p>1.18</p> <p>HEAT STACK PENETRATION</p> <p>HIGH HEAT RATED SEALANT</p> <p>STAINLESS STEEL DRAWBAND</p> <p>24 GA. GALV. SHEET METAL RAIN COLLAR FLASHING OVERLAPPING FLASHING COLLAR BY 3" TO 4" MIN. - RAIN COLLAR TO BE 8" MIN. ABOVE ROOFING.</p> <p>SEALANT</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>EXISTING CURB IS REQUIRED TO EXTEND MIN. 8" ABOVE THE EPDM MEMBRANE.</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>FIBERGLASS BATT INSULATION</p> <p>3" MIN.</p> <p>8" MIN.</p> <p>1" MIN.</p>
<p>NON-REMOVABLE EQUIPMENT CURB FLASHING SCALE: N.T.S</p> <p>2.01</p> <p>SEALANT</p> <p>CONTINUOUS BEAD OF WATERBLOCK 1" DOWN.</p> <p>STAINLESS STEEL DRAWBAND</p> <p>PRE-FABRICATED EPDM MEMBRANE BOOT FLASHINGS MIN. 8"</p> <p>EPDM MUST EXTEND 2" MIN. ABOVE PLATE FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>8" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p>	<p>FIELD FABRICATED PIPE FLASHING SCALE: N.T.S</p> <p>2.02</p> <p>TAPERED TO RUN OFF POURABLE SEALANT</p> <p>METAL PENETRATION POCKET. MEMBRANE MUST EXTEND TO WITHIN 1/2" OF PENETRATION.</p> <p>9" FIELD FABRICATED FLASHING FASTENER @ 12" O.C. W/ SEALANT</p> <p>CONTINUOUS BEAD OF WATER BLOCK</p> <p>CONTINUOUS BEAD OF SEALANT</p> <p>EPDM MEMBRANE</p> <p>1" MIN. 1" MIN. 1" MIN.</p> <p>4"</p> <p>3"</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>4" WIDE TREATED WOOD BLOCKING TO MATCH HEIGHT OF INSULATION</p> <p>NON-SHRINKING GROUT</p> <p>PIPE PENETRATION</p>	<p>THROUGH ROOF CONDUIT/PIPE FLASHING 2 PC COLLAR SCALE: N.T.S</p> <p>2.03</p> <p>EPDM BASE FLASHING ADHERED W/ BONDING ADHESIVE</p> <p>MANUFACTURER APPROVED BATTEN BAR FASTENED 12" O.C., MAX.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>SECUREMENT FASTENED AT BASE OF CURB ALTERNATE BASE FASTENING</p> <p>EQUIPMENT UNIT</p> <p>24 GAGE GALVANIZED STEEL CAP FLASHING</p> <p>6" WIDE TREATED WOOD</p> <p>EQUIPMENT SUPPORT CURB</p> <p>GALVANIZED OR STAINLESS STEEL 2 1/2" FASTENER @ 12" O.C.</p> <p>EPDM MEMBRANE</p> <p>6" WIDE TREATED WOOD BLOCKING TO MATCH HEIGHT OF INSULATION - INSTALL IF UNIT WEIGHT EXCEEDS 400 LBS.</p> <p>FASTENER AND PLATE @ 12" O.C.</p> <p>3" SEAM TAPE</p> <p>EPDM MEMBRANE</p> <p>8" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>GALVANIZED OR STAINLESS STEEL FASTENER @ 12" O.C.</p> <p>NOTE 1 - 9" SEAM TAPE SHOULD BE CENTERED OVER 5" SEAM TAPE FLASHING SO THAT IT EXTENDS 2" MIN. BEYOND EDGE OF 5" SEAM TAPE FLASHING ON BOTH SIDES.</p> <p>NOTE 2 - 5" SEAM TAPE FLASHING SHOULD EXTEND 2" MIN. BEYOND EDGE OF METAL FLANGE.</p>	<p>THROUGH ROOF CONDUIT/PIPE FLASHING SCALE: N.T.S</p> <p>2.04</p> <p>SHEET METAL ENCLOSURE-CROSSBREAK OR SLOPE FOR DRAINAGE</p> <p>INSULATION VOID TO PREVENT CONDENSATION</p> <p>SHEET METAL OR FLEX-TUBE COLLAR SLOPE PIPE DOWN AND AWAY FROM HOOD</p> <p>CONTINUOUS BEAD SEALANT MIN. 4 FASTENER 1 PER SIDE OR A FASTENER EVERY 12"</p> <p>24 GA. GALV. STEEL FLANGED FLASHING</p> <p>CONTINUOUS BEAD OF LAP SEALANT</p> <p>CONTINUOUS BEAD OF WATERBLOCK 1" DOWN.</p> <p>9" SEAM TAPE FLASHING - SEE NOTE 1</p> <p>5" SEAM TAPE FLASHING - SEE NOTE 2</p> <p>FASTENER @ 12" O.C. W/ SEALANT</p> <p>CONTINUOUS BEAD OF WATER BLOCK</p> <p>CONTINUOUS BEAD OF SEALANT</p> <p>EPDM MEMBRANE</p> <p>2" MIN.</p> <p>2" MIN. 2" MIN.</p> <p>ROOF INSULATION</p> <p>STRUCTURAL DECK</p> <p>NOTE 1 - 9" SEAM TAPE SHOULD BE CENTERED OVER 5" SEAM TAPE FLASHING SO THAT IT EXTENDS 2" MIN. BEYOND EDGE OF 5" SEAM TAPE FLASHING ON BOTH SIDES.</p> <p>NOTE 2 - 5" SEAM TAPE FLASHING SHOULD EXTEND 2" MIN. BEYOND EDGE OF METAL FLANGE.</p>	<p>HEAT STACK FLASHING SCALE: N.T.S</p> <p>2.05</p> <p>EQUIPMENT FLANGE</p> <p>OPTIONAL FASTENER LOCATION 3" LAP AT JOINT</p> <p>OPTIONAL: APPROPRIATE FASTENERS APPROX. 12" O.C.</p> <p>REMOVABLE SHEET METAL COUNTERFLASHING</p>
<p>PRE-FABRICATED PIPE FLASHING SCALE: N.T.S</p> <p>2.06</p>	<p>PITCH-PAN POCKET TO NAILER SCALE: N.T.S</p> <p>2.09</p>	<p>EQUIPMENT SUPPORT CURB SCALE: N.T.S</p> <p>2.18</p>	<p>MULTIPLE PENETRATION CLOSURE BOX SCALE: N.T.S</p> <p>3.01</p>	<p>CURB COUNTERFLASHING (SKIRT FLASHING) SCALE: N.T.S</p> <p>3.02</p>

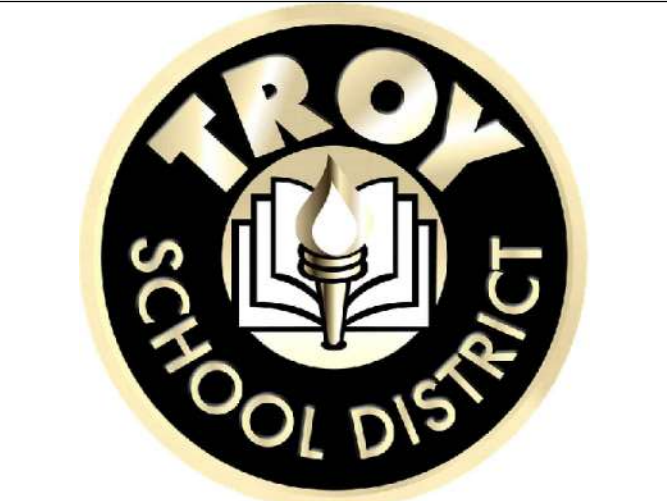
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WeatherTech
Consulting Group, Inc.
Roofing/Waterproofing Consultants
Corporate Office:
7747 Auburn Road
Utica, MI 48317

Phone #: 586-731-3095
Fax #: 586-731-6863
Email: weathertech@wtcg.net
Web Site: www.wtcg.net

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Troy School District
4400 Livernois
Troy, MI 48098

PROJECT

Troy School District
BID No. 2425-02
2025 Roofing Program

WTProject No: TSD-R102-25

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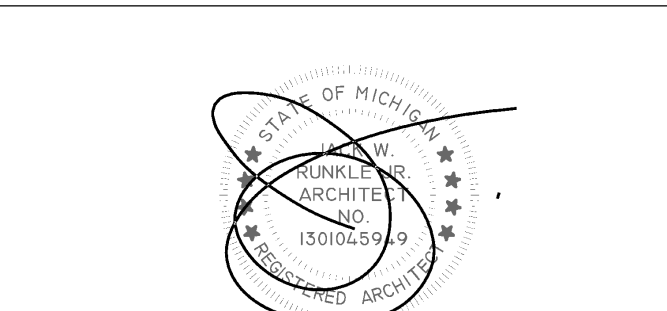
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Drawn By: MD

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