

CITY of CUYAHOGA FALLS

WATER PLANT ROOF

2028 Munroe Falls Avenue, Cuyahoga Falls, OH 44221



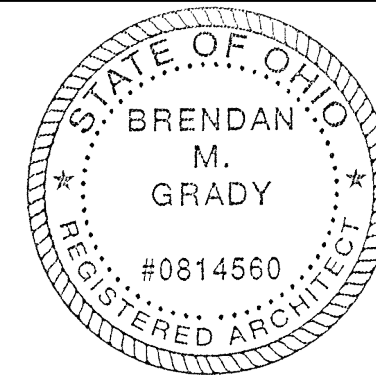
PROJECT AERIAL VIEW



LIMIT OF WORK

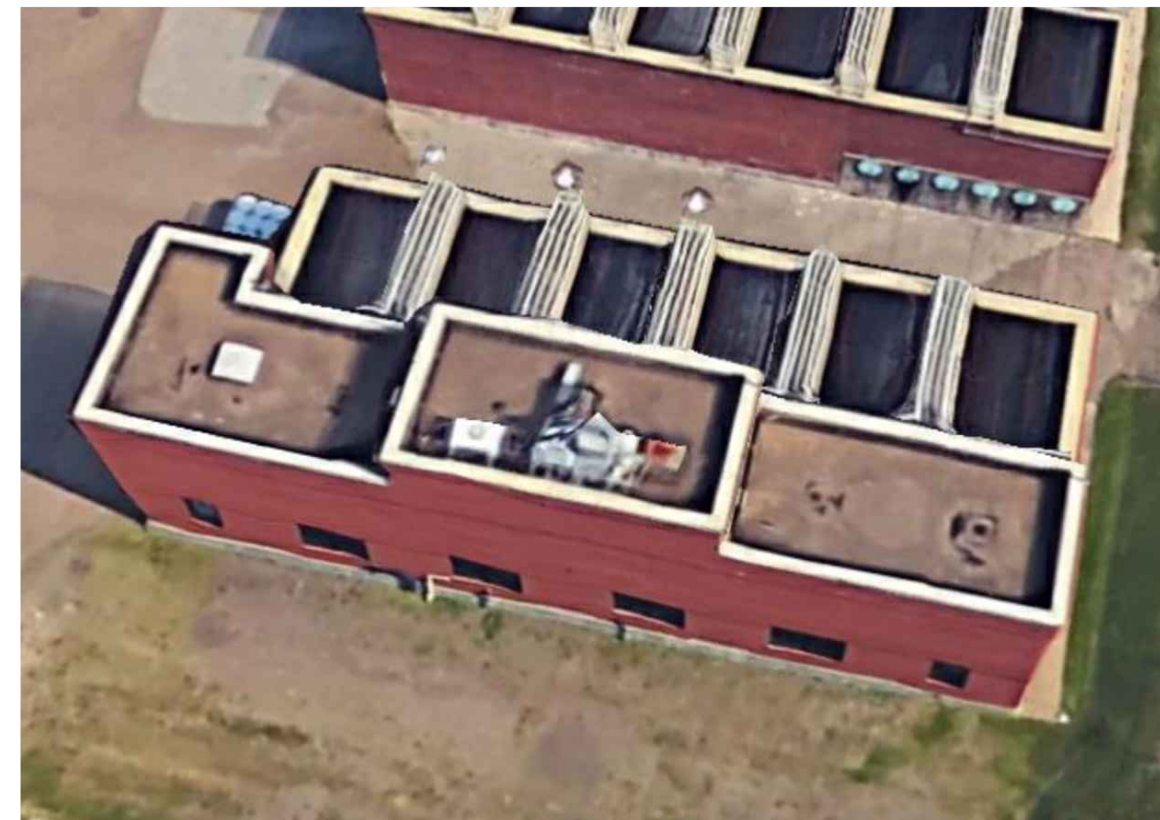
DRAWING INDEX

- A-001 COVERSHEET
- A-101 ROOF PLAN
- A-501 ROOF DETAILS



*BRENDAN GRADY #0814560
EXPIRES 12.31.21*

ENLARGED AERIAL VIEW



CITY of CUYAHOGA FALLS

WATER PLANT ROOF

2028 Munroe Falls Avenue
Cuyahoga Falls, OH 44221

SCALE: AS NOTED

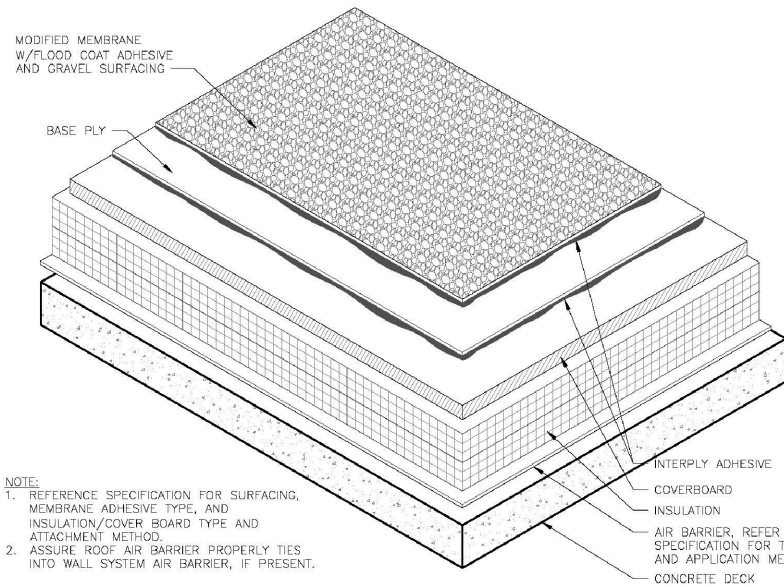
DATE: 04/13/2021

PROJ. #:

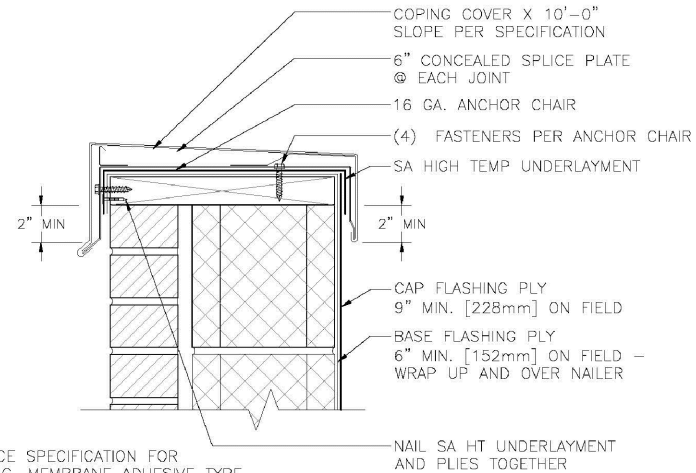
DRAWN BY:

COVERSHEET

A-001



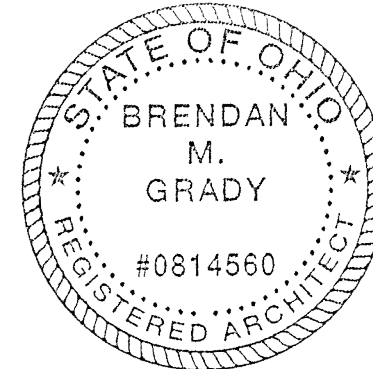
NOTE:
 1. REFERENCE SPECIFICATION FOR SURFACING, MEMBRANE ADHESIVE TYPE, AND INSULATION/COVER BOARD TYPE AND ATTACHMENT METHOD.
 2. ASSURE ROOF AIR BARRIER PROPERLY TIES INTO WALL SYSTEM AIR BARRIER, IF PRESENT.



NOTE:
 REFERENCE SPECIFICATION FOR SURFACING, MEMBRANE ADHESIVE TYPE, AND INSULATION/COVER BOARD TYPE AND ATTACHMENT METHOD.

GENERAL NOTES:

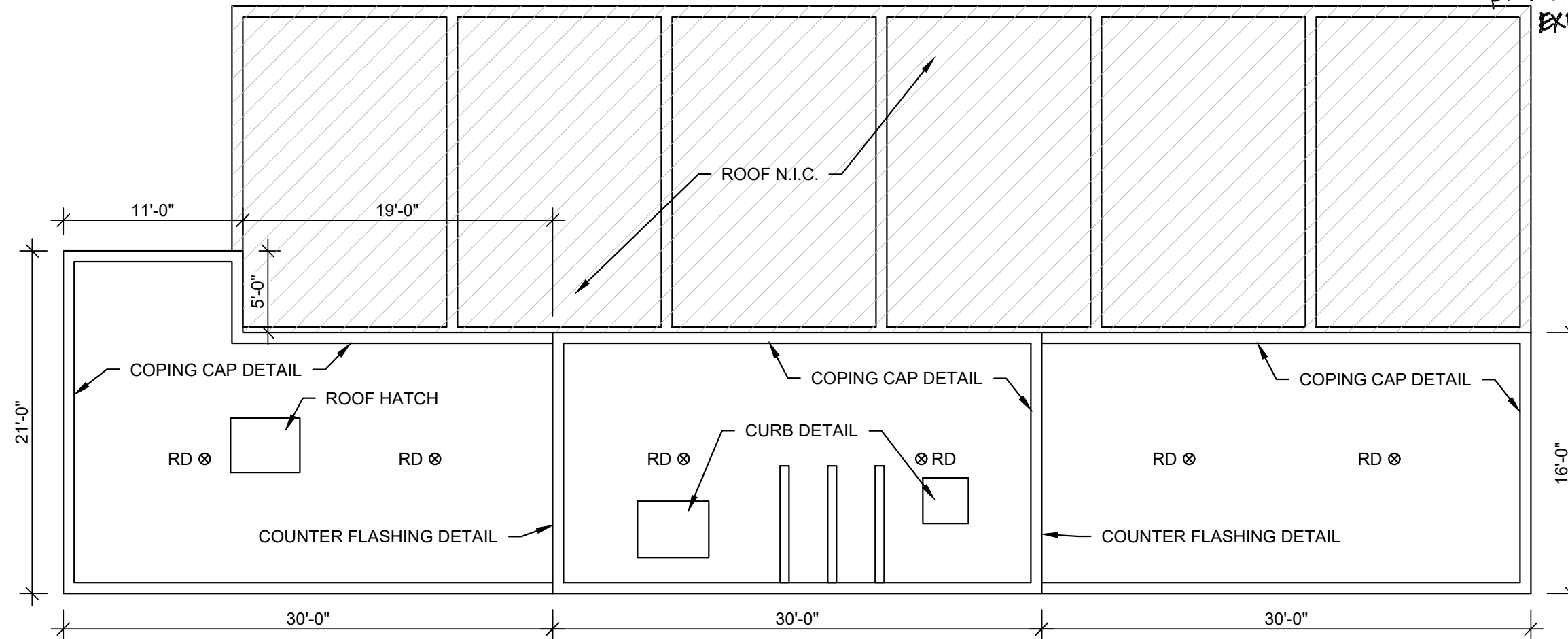
- 1.) IT IS THE ROOFING CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH ALL DETAILS INVOLVED IN THE ROOFING CONTRACT.
- 2.) ALL DRAWINGS ARE GRAPHIC REPRESENTATION OF APPROXIMATE LOCATIONS OF EXISTING AND NEW MATERIALS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
- 3.) THE ROOFING CONTRACTOR TO PROTECT ALL ADJACENT SURFACES NOT SCHEDULED FOR WORK AND TO REPAIR ANY DAMAGED AREAS AS A RESULT OF CONTRACTOR WORK AT NO ADDITIONAL COST TO THE OWNER.
- 4.) THE ROOFING CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN WATER TIGHTNESS AND PROVIDE PROTECTION AT ANY/ALL OPENINGS IN THE ROOF LEFT AT THE END OF EACH CONSTRUCTION DAY.
- 5.) CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, CONDITIONS AND QUANTITIES.



*BRENDAN GRADY #0814560
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2 TYPICAL ROOF SECTION GRAVEL FINISH
 A-101 SCALE: N.T.S.

3 AIR HANDLING UNIT DETAIL
 A-101 SCALE: N.T.S.



1 ROOF PLAN
 A-101 SCALE: N.T.S.

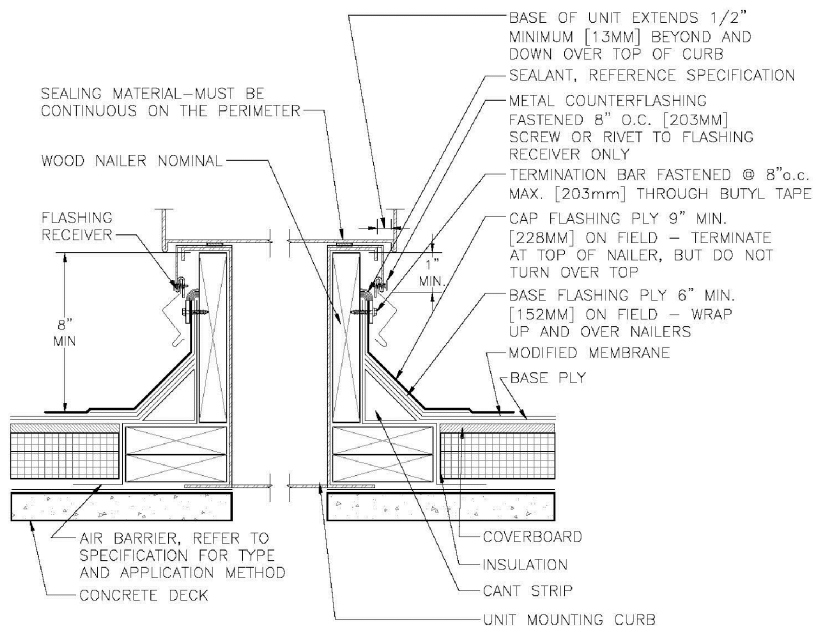


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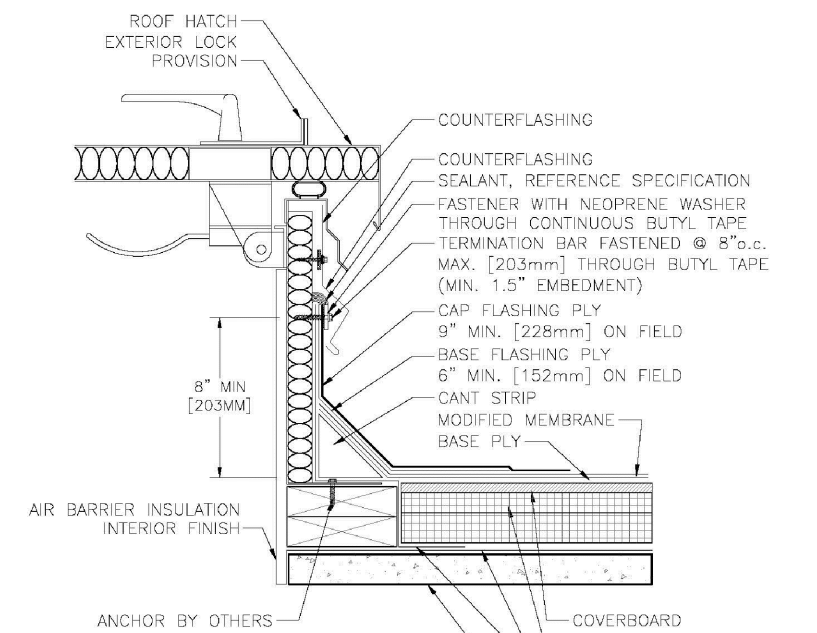
SCALE: AS NOTED
 DATE: 04/13/2021
 PROJ. #:
 DRAWN BY:

ROOF PLAN

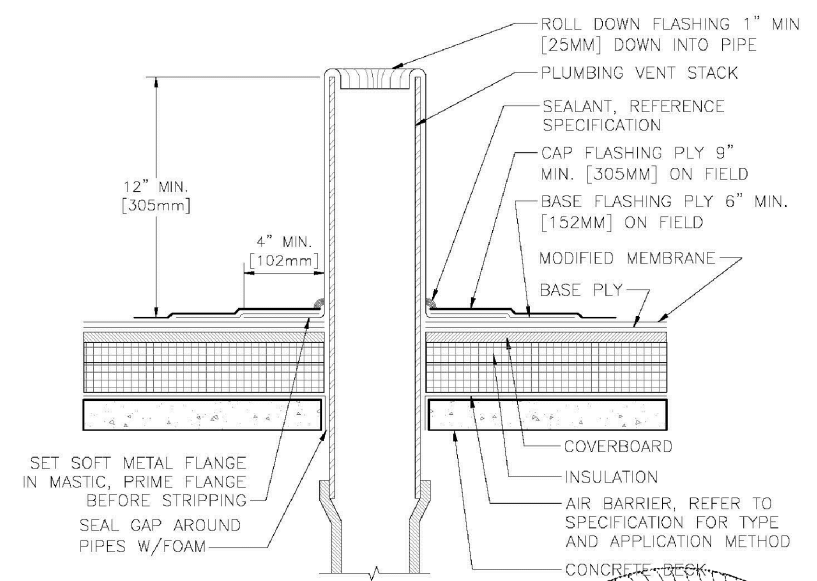
A-101



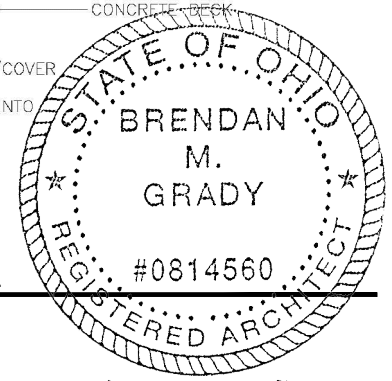
NOTE:
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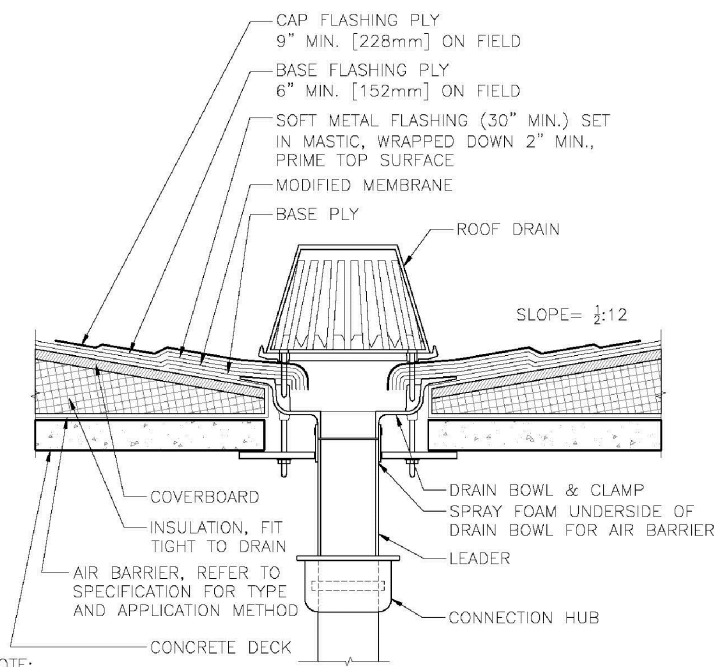
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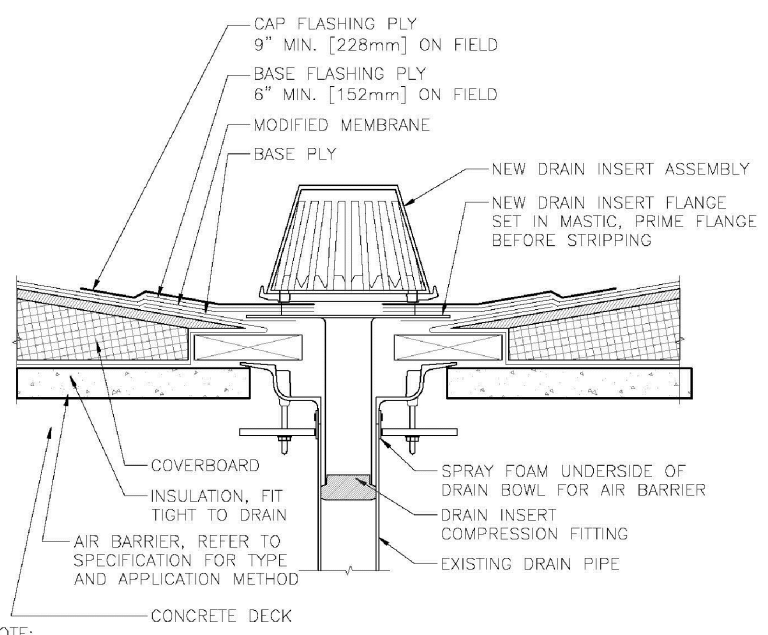
1 CURB AT AIR HANDLING STATION DETAIL
 A-501 SCALE: N.T.S.

2 ROOF HATCH DETAIL
 A-501 SCALE: N.T.S.

3 PIPE PENETRATION DETAIL
 A-501 SCALE: N.T.S.

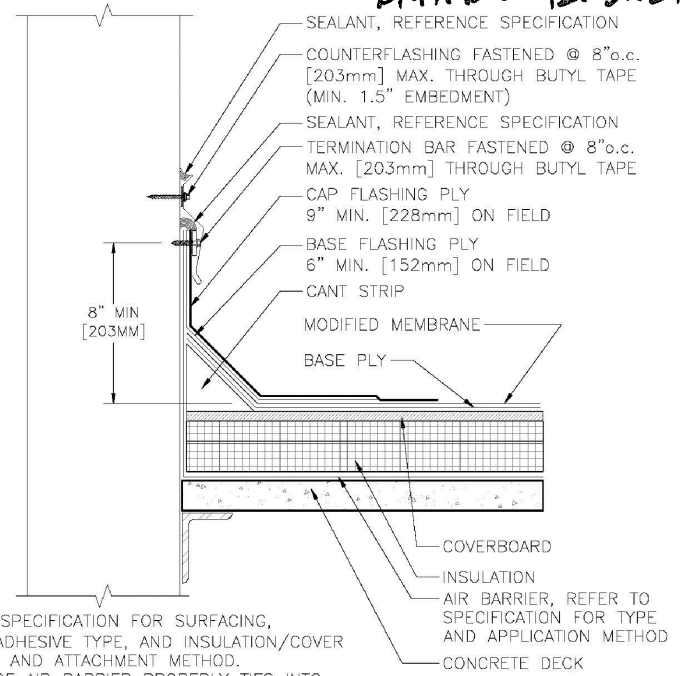


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5 ROOF DRAIN RETROFIT DETAIL
 A-501 SCALE: N.T.S.



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6 SURFACE MOUNTED COUNTERFLASHING DETAIL
 A-501 SCALE: N.T.S.

*Brendan Grady #0814560
 EXPIRES 12.31.21*

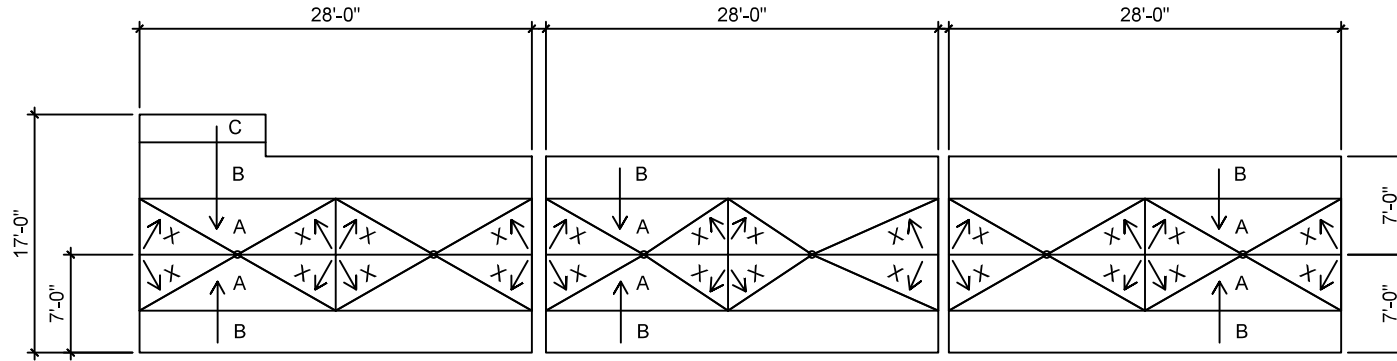
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SCALE: AS NOTED
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ROOF DETAILS

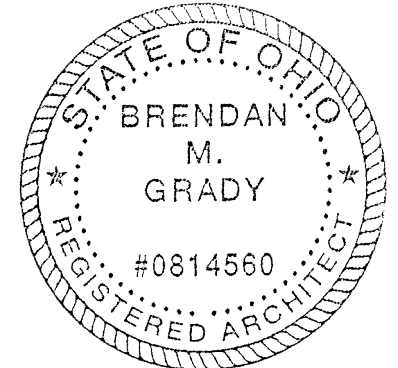
4 ROOF DRAIN DETAIL
 A-501 SCALE: N.T.S.

TAPERED QUOTE FOR MATERIAL PER SHOWN SRS DRAWING, APPROVAL REQUIRED ---ADD SUMPS AS NEEDED, NOT INCLUDED - DRAWING FOR BID ONLY, NOT FOR CONSTRUCTION

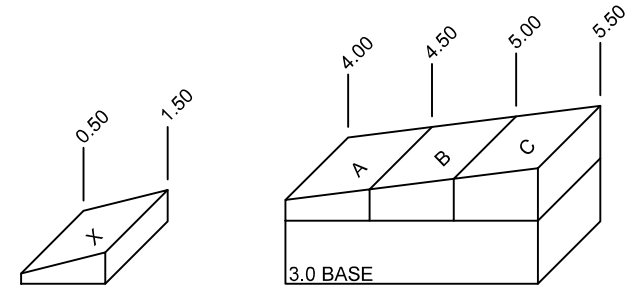


TAPERED PLAN

REFERENCE SECTIONS FOR BASE LAYER REQUIREMENTS NOT SHOWN ON PLAN VIEW



BRENDAN GRADY #0814560
EXPIRES 12.31.21



TAPERED SECTIONS

NOTES: BASE LAYERS INCLUDED IN TAPERED QUOTE TO ACHIEVE AVG R VALUE 25.

TAPERED PRICE

SPECIFICATIONS

Date: 4/20/21

Dwg By: DMD

Rev: _____

Rev: _____

Rev: _____

Rev: _____



250 S. Van Buren Ave.
Barberton OH
330.753.7718



CUYAHOGA FALLS WATER PLANT

21269

PRELIMINARY TAPERED LAYOUT

SQS APPLIED: 27.4
SQ AREA: +/- 12.0
AVG R: 25.5
MIN R VALUE: --

TAPER/FILL MATERIAL: ISO
TAPERED SLOPE": .125/FT
TAPERED MIN": 4.0
TAPERED MAX": 5.3
CRICKET SLOPE": .25/FT
CRICKET MIN": .5
CRICKET MAX": 1.4

BID



THE GARLAND COMPANY, INC.

HIGH PERFORMANCE ROOFING AND FLOORING SYSTEMS

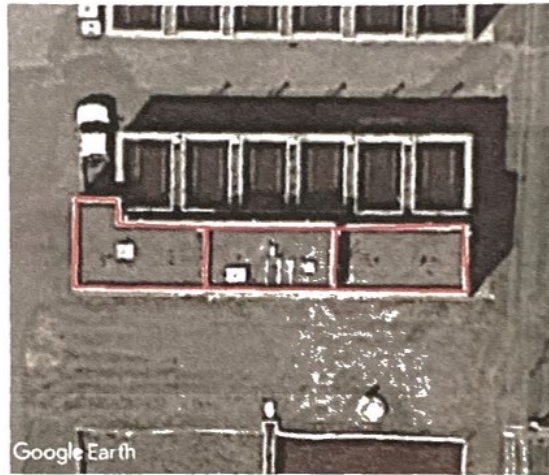
Matthew McGonigal

Akron, OH

Cell: 440-552-5126

Email: mmcgonigal@garlandind.com

City of Cuyahoga Falls Water Plant



Scope of Work

Cold applied, 2-ply modified bitumen roof system with vapor barrier 30 year warranty

- 1.) Tear off all roofing down to the concrete roof deck.
- 2.) Repair / Replace decking at a predetermined per sq. ft. cost.
- 3.) Prime concrete deck as needed to prepare substrate for vapor barrier.
- 4.) Torch specified vapor barrier directly to the concrete deck.
- 5.) Adhere tapered insulation at 1 1/2" base layer with a 1/8" taper to match existing crickets. Making sure all joints are staggered and butted up next to each other. 3/4 bead of insulation adhesive 12" O.C
- 6.) Adhere 1/2" Dens deck again, making sure all joints are staggered and butted up next to each other..
- 7.) Install 4' sumped drains with a gravel guard. Coat the smooth membrane.
- 8.) Install the specified base and cap sheet in a cold adhesive.
- 9.) Install a 2 ply flashing system using the specified cold adhesive.
- 10.) All vertical seams are to be 3 coursed.
- 11.) Flood coat with cold applied coal tar adhesive at a rate of 5 gal per square and gravel at a rate of 400 lbs per square.
- 12.) Coat all flashings and exposed membrane with aluminizer at the rate of 2 gallon per 100 sq ft.
- 13.) Install a new metal edge using Garland flat stock.
- 14.) Remove old units on roof where specified.
- 15.) Ensure positive drainage exists throughout.
- 16.) Add drain inserts with metal drain baskets.

Contractor responsible to verify all measurements and core cuts.

Please Note: Under no circumstances will the gravel be installed with a gravel cart.



The Garland Company, Inc.
Low Slope Roofing Wind Uplift Calculations
3800 East 91st Street
Cleveland, Ohio 44105-2197
Phone: (800) 321-9336 Fax (216) 883-2046

Project **Water Plant Roof**
 Roof **Pump Station**
 Sales Rep. **Matt McGonigal**

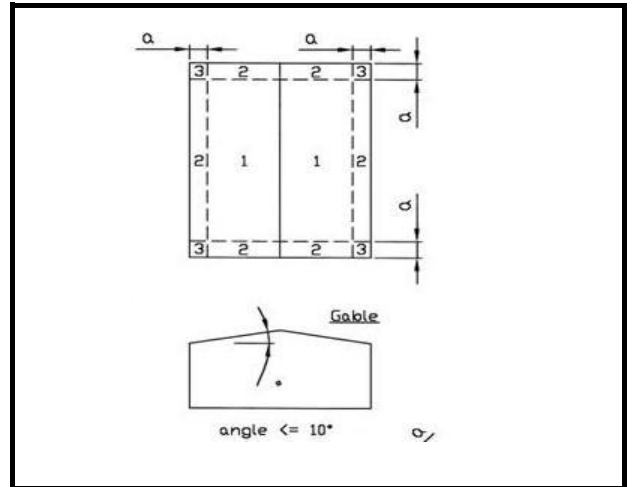
Location **Cuyahoga Falls, OH**

Zone 1 psf 15.5 Zone 2 psf 26.1
 (mid roof) (eaves, ridge, hip)

Zone 3 psf 39.3
 (corners)

Edge Zone Width "a" 3 ft. 0 in.
 Fastener Safety Factor 3.00
 Importance IV
 Importance Factor 1
 Wind Speed 120

Design Methodology ASCE 7-10
 Exposure Category B
 Design Roof 20.00
 Minimum Building Width 16.00
 Roof Pitch (X, Y) 0.13 : 12





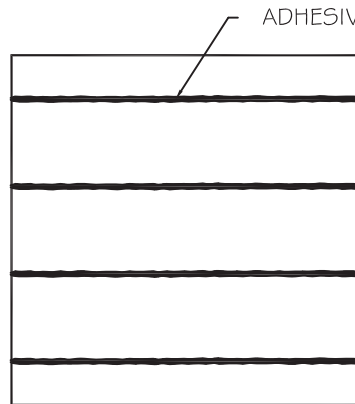
PROJECT Water Plant Roof
ROOF SECTION Pump Station
DATE 4/12/2021
BASIC VELOCITY PRESSURE 21.95 psf
DESIGN CODE ASCE 7-10

Building & Site Data

BASIC WIND SPEED	120	mph
EXPOSURE CATEGORY	B	
TOPOGRAPHY FACTOR	1.00	
BUILDING TYPE	Enclosed	
ROOF PITCH (X, Y)	0.13	12
RUN TO RIDGE	8	
EAVE HEIGHT	20	
DESIGN ROOF HEIGHT	20.00	ft
IMPORTANCE CLASS / FACTOR	IV	1
MIN. BLDG WIDTH	16	ft
WIND-BORNE DEBRIS REGION	No	
PARAPET	No	
ROOF ANGLE	0.62	deg
PROTECTED OPENINGS	Yes	
ROOF TYPE	Gable	

	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5		
ROOF PRESSURE (psf)	15.5	26.1	39.3	15.4	19.0		
OVERHANG PRESSURE (psf)	22.39	22.39	36.88				
EDGE ZONE WIDTH "a" =	3.00	ft					

TYPICAL ZONE 1, 2 AND 3 INSULATION BOARD ADHESIVE PATTERN: 12" OC BEADS PER BOARD



ADHESIVE RIBBON ENLARGED FOR CLARITY

4 ADHESIVE RIBBONS
EQUALLY SPACED AT
12" (30.5cm) O.C. (TYP.)



THE GARLAND COMPANY, INC.
GARLAND CANADA, INC.
THE GARLAND COMPANY UK, LTD

DETAIL:

4 X 4 BOARD PATTERN

SECTION:

INSULATION BOARD ADHESIVE PATTERN