ADDENDUM NO. 01

The following Addendum shall be appended to and become part of the Plans and Specifications for **AEOA Gilbert Office Addition, 1001 Broadway Ave South, Gilbert, MN 55741**

This Addendum supersedes and supplants all previous reference to similar items.

Architecture Advantage, LLC
2715 Piedmont Avenue
Duluth, Minnesota 55811

Addendum Item:

Bidding RFI's

Q: 2.3.A doesn't list the specific item needed for ACP-1 Can you confirm the name of the item needed for ACP-1?
A: Basis of design is USG Mars or equivalent product.

Q: Request for addition of Elevate UC-14 metal roof panel and UC-500 flush panel to specs
A: **Products have been added to the specification**

Q: Request for alternate MEP equipment
A: See changes to Specifications below

Q: Is Build America Buy America required for this project?
A: No, Build America Buy America is not included in this project.

Q: Bid opening clarification
A: Bids will be opened on April 24th. Bids are due on April 23rd at 2:00pm

Q: Clarification about the requirements regarding the walkthrough
A: Walkthrough on April 6th is not mandatory.

Q: On plan sheet A001, detail 2, shows the interior demo of the existing 2nd floor tie-in thru the existing offices & common area - is there any existing flooring demolition work for these rooms?
A: Existing carpet in Rooms 201 and 207 to be patched and replaced where necessary.

Q: on Room Finish Schedule on plan sheet A401, it does not show any flooring patch or tie-in on the Existing Common Area E213.
A: Existing carpet in Existing Common Area E213 to be patched and replaced where necessary.

Q: On plan sheet A101, or on other sheets throughout the current plan set, there is no Reflected Ceiling Plan for the Level 01 ceiling that is being removed during demolition.

A: Removed ceiling on Level 01 are to be removed and replaced.

Q: Is there a specification section for the exterior concrete @ the sidewalk and ADA ramp?

A: No specification section, please reference the MnDOT Standard Specifications for Construction 2025 edition page 665.

Q: Is there a specification section for the Parking Lot Striping?

A: Sherwin-Williams Pro-Park Yellow or equivalent

Q: Is there a Bidder's List for the project?

A: There is no official bidders list as the project documents have been posted in multiple locations. Attached to this Addendum is a list of General Contractors that are known to have received the project documents.

Q: Clarifications for Section 004513 – Bidder Qualifications

A: Language and requirements around 1.2.A.4 Targeted Groups Removed

Q: Would EPDM be a better option for the flat roof over the stairway landing?

A: Preference is to keep metal panels on roof at stairway landing

Q: The roof construction on 1/A106 shows 3/4" plywood over the metal deck, but the spec calls for fiber-reinforced gypsum board under Substrate Boards, can you get clarification on this?

A: ¾" Plywood over the metal deck for this roof construction.

Q: Access to the existing plenum space on the lower level?

A: You can access the site by contacting AEOA during their business hours

Changes to the Specification

ARCHITECTURAL

1. **SECTION 074213 METAL WALL PANELS**

   Addition to products: Elevate Una-Clad

2. **SECTION 074113 METAL ROOF PANELS**

   Addition to products: Elevate Una-Clad

3. **SECTION 004513 BIDDER'S QUALIFICATIONS**

   Language and requirements around 1.2.A.4 Targeted Groups removed

4. **SECTION 235400 FURNACES**

   Approved Manufacturer: Rheem

5. **SECTION 236231 AIR-COOLED CONDENSING UNIT**

   Approved Manufacturer: Rheem

6. **SECTION 265100 LIGHT FIGURE TYPE 'A'**

   Approved Manufacturer: H.E Williams, Oracle Lighting

7. **SECTION 265100 LIGHT FIGURE TYPE 'B'**

   Approved Manufacturer: G Lighting, TechnoLED, Above All

8. **SECTION 265100 LIGHT FIGURE TYPE 'DS1'**

   Approved Manufacturer: ETI Solid State Lighting, Elite, Halo

9. **SECTION 265100 LIGHT FIGURE TYPE 'EM1R'**

   Approved Manufacturer: Isolite

10. **SECTION 265100 LIGHT FIGURE TYPE 'Z6'**

    Approved Manufacturer: Exo Outdoor Lighting, Oracle

11. **SECTION 250923 2.01.A LIGHTING CONTROLS**

    Approved Manufacturer: Leviton, Cooper Lighting

Changes to the Plans

NONE

Attachments:

Sign-in Sheet from Pre-Bid Walkthrough on 4/6/2026

Microsoft Teams link for the Bid Opening:
https://teams.microsoft.com/meet/282700527694O9?p=4fw4byjPhYaosgy8RJ

Designs for Gilbert from 2013 – Dispatch Addition

ADDENDUM – 01

Date	4/16/2026
Project #	2025141
Project Name	AEOA Gilbert Office Expansion
Project Location	Gilbert, MN

NOTICE TO BIDDERS: This Addendum is prepared to supplement information presented in the Drawings and Project Manual for the above referenced project. All additions, changes, omissions, and conditions listed herein shall become an integral part of the Contract Documents.

PRIOR APPROVALS

SECTION	DESCRIPTION OF EQUIPMENT	APPROVED MANUFACTURER
23 54 00	Furnaces	Rheem
23 62 31	Air-Cooled Condensing Unit	Rheem
26 51 00	Light Figure Type 'A'	H.E. Williams Oracle Lighting
26 51 00	Light Figure Type 'B'	G Lighting TechoLED Above All
26 51 00	Light Figure Type 'DS1'	ETI Solid State Lighting Elite Halo
26 51 00	Light Figure Type 'E1'	Isolite
26 51 00	Light Figure Type 'EM1R'	Dual-Lite Isolite
26 51 00	Light Figure Type 'Z6'	Exo Outdoor Lighting Oracle
26 09 23 2.01.A	Lighting Controls	Leviton, Cooper Lighting

END OF ADDENDUM

ARCHITECTURE ADVANTAGE

PRE-BID MEETING SIGN-IN SHEET

PROJECT: AEOA Gilbert Office Addition PROJECT NO.: 2506

DATE: April 6, 2026

SUBJECT: Pre-Bid Walkthrough

ATTENDEES:

	NAME	COMPANY/DEPARTMENT	EMAIL
	BEN NICKILA	JOHNSON WILSON	BNICKILA@JOHNSONWILSON.COM
	Jonah Liubakka	IRPH	jonah@ironrangeplumbing.com
	Paul Chuk	MGC	pchuk@Maxgray construction.com
	Kris Clusiau	JK MECHANICAL	JKMechKris@gmail.com
	JAY BRUNNER	LENCI ENTERPRISES	jay@lenclenterprises.com
	DAN MURNEN	TRUMCO ELECTRIC	dan@trumcoelectric.com
	Greg Gargano	MGC	ggargano@maxgrayconstruction.com
	Brien Konkol	MnDOT	brien.konkol@state.mn.us
	Royce Prchett	Arch Advan	royce@architectureadvantage.com

2715 Piedmont Avenue | Duluth, MN 55811 | 218.724.5568
375 Jackson Street, Suite 420E | St. Paul, MN 55101 | 651.224.4831
www.architectureadvantage.com

ARCHITECTURE ADVANTAGE

UNOFFICIAL PLAN HOLDERS LIST

PROJECT: AEOA Gilbert Office Addition PROJECT NO.: 2506

DATE: April 15, 2026

SUBJECT: Unofficial Plan Holders List

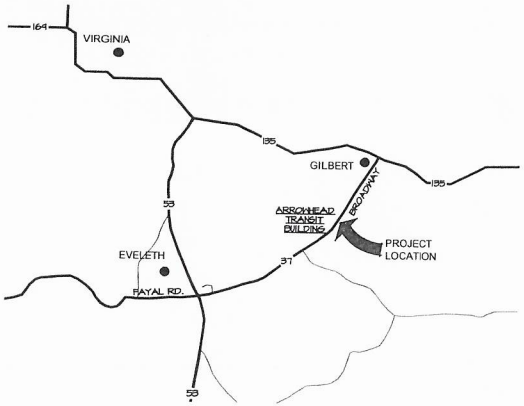
	COMPANY
	Holm Construction
	Boldt Construction
	Johnson-Wilson
	BP Builders
	Max Gray Construction
	Lenci Enterprises
	Maertens Brenny

2715 Piedmont Avenue I Duluth, MN 55811 I 218.724.5568
375 Jackson Street, Suite 420E I St. Paul, MN 55101 I 651.224.4831

www.architectureadvantage.com

AEOA DISPATCH OFFICES GILBERT, MN

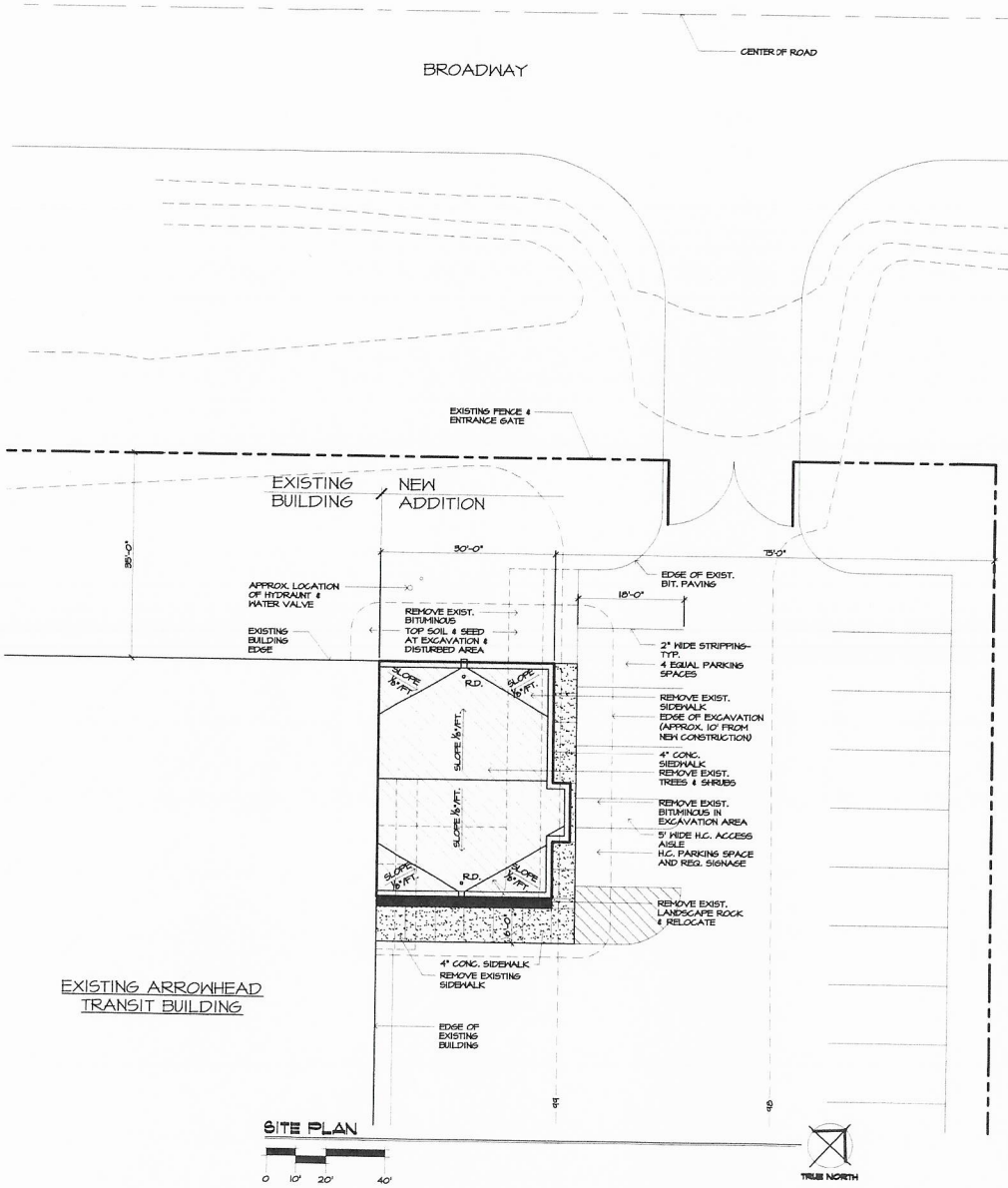
SHEET INDEX



VICINITY MAP

0 .5 1 MILE 2 MILE

NORTH



SITE PLAN

0 10' 20' 40'

TRUE NORTH

AEOA DISPATCH OFFICES

GILBERT, MN

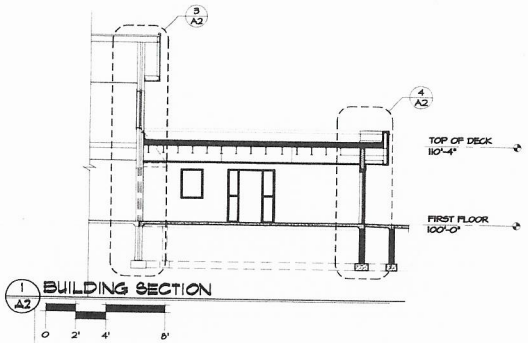
ARCHITECTURAL:
Michael J. Lopac, A.I.A.
1020 West River Parkway
Champlin, MN 55316
763-421-2252

ROGER SACCOMAN ARCHITECTURE LIMITED
615 EAST HOWARD STREET•HIBBING, MN 55746•218 262 4059

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly registered Architect under the laws of the state of Minnesota.

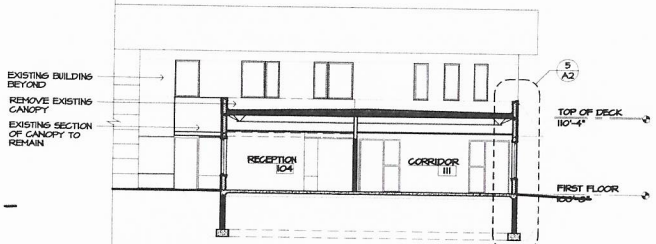
REG. 25 JUNE 13 DATE

A1



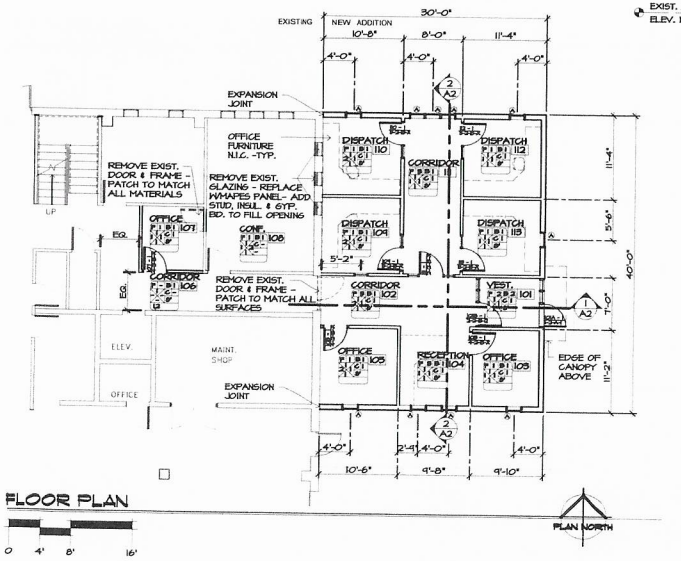
1 A2 BUILDING SECTION

0 2' 4' 8'



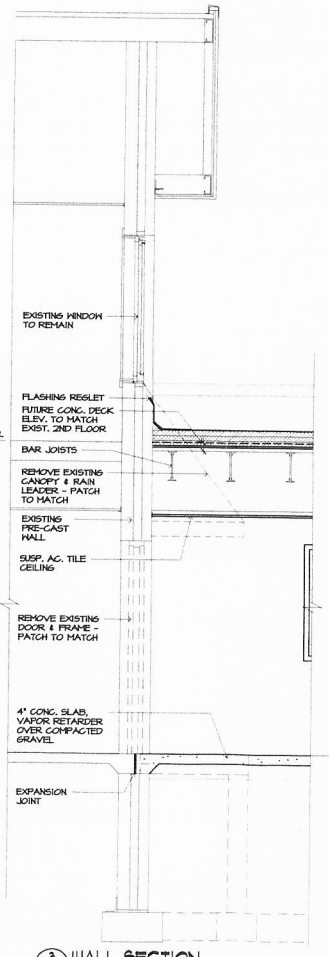
2 A2 BUILDING SECTION

0 2' 4' 8'



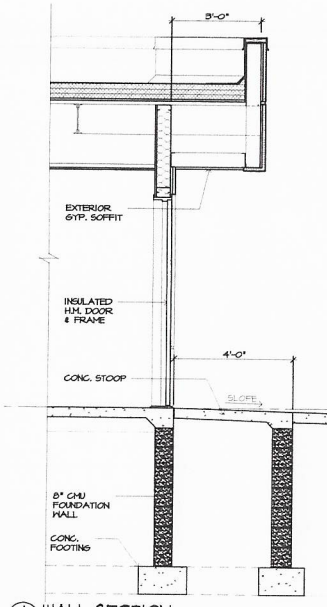
FLOOR PLAN

0 4' 8' 16'



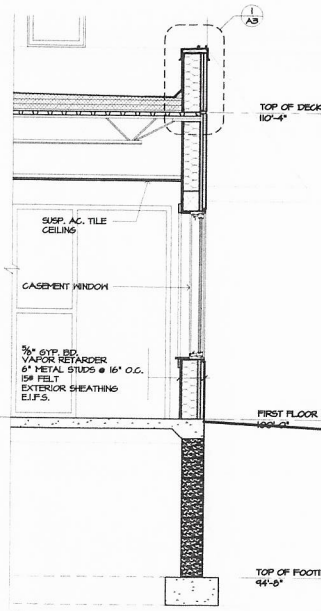
3 A2 WALL SECTION

0 1' 2' 4'



4 A2 WALL SECTION

0 1' 2' 4'



5 A2 WALL SECTION

0 1' 2' 4'

ROOM FINISH SCHEDULE

FLOOR	F	BASE
	B	CEILING
WALLS	W	CEILING HEIGHT
REMARKS		

FLOOR
1. CARPET
2. QUARRY TILE
3. VCT

BASE
1. 4"x1/8" RUBBER
2. QUARRY TILE

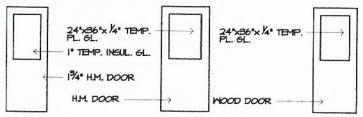
WALLS
1. 5/8" TYPE 'X' GYP. BD. PAINTED
2. EXIST. PRE-CAST WALL

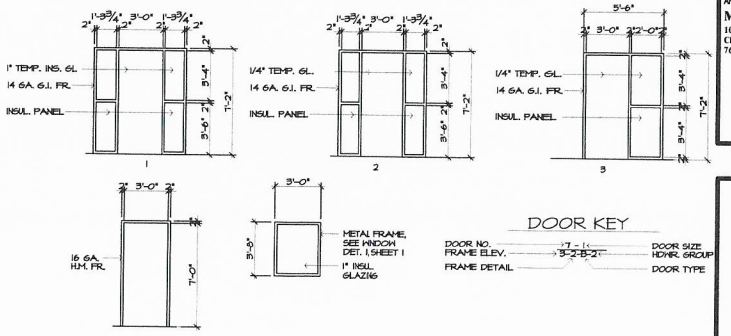
CEILING
1. AC. TILE SUSPENDED, 2'x2' GRID
2.

REMARKS
1. GYP. BD. AT NEW WALLS. PATCH TO MATCH ALL MATERIALS.
2. REPLACE CEILING TO EXTENT REQUIRED TO INSTALL NEW OFFICE - PATCH TO MATCH.

DOOR SCHEDULE

NO.	SIZE	REMARKS
1	3'-0" x 7'-0" x 1¾"	
2	3'-0" x 7'-0" x 1¾"	
3		





DOOR KEY

DOOR NO. — DOOR SIZE
FRAME ELEV. — HDWR. GROUP
FRAME DETAIL — DOOR TYPE

AEOA DISPATCH OFFICES

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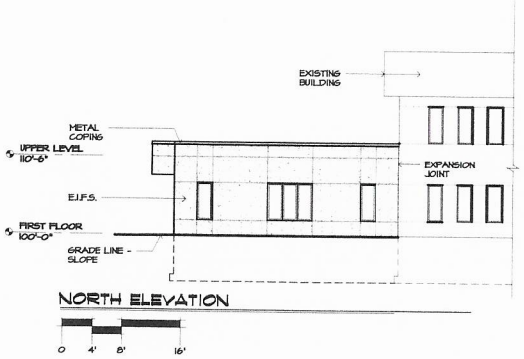
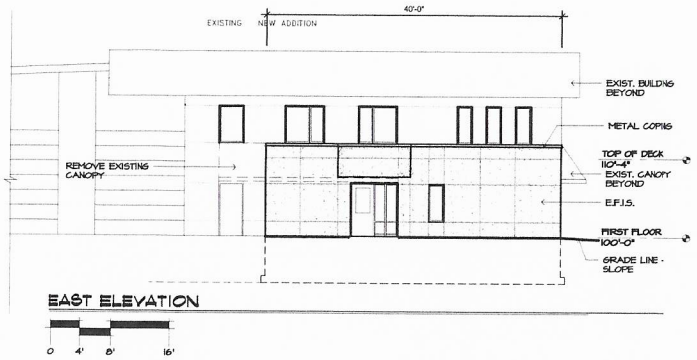
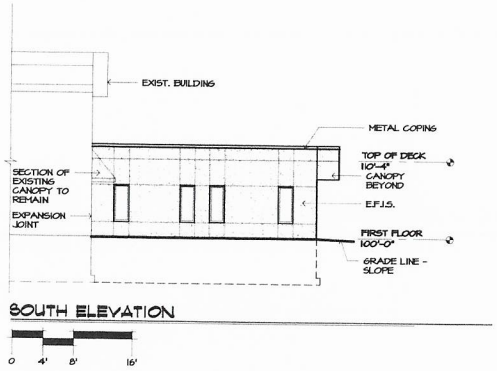
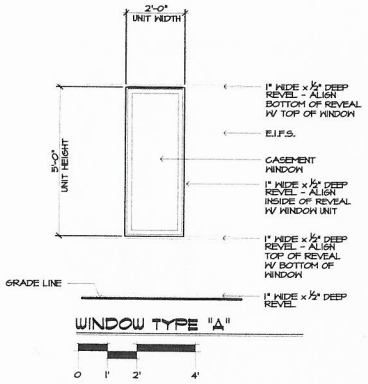
25 JUNE 13
REG. DATE

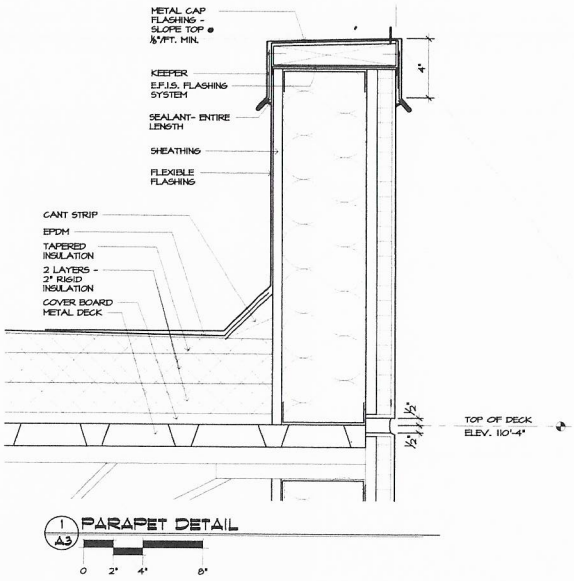
A2











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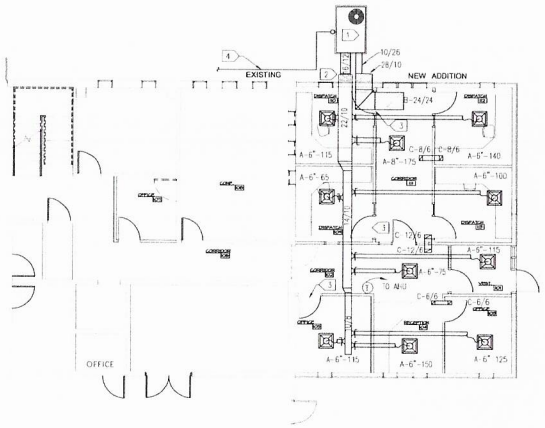
A3



MECHANICAL PLAN

NORTH

0 4 8 16

MECHANICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES IN ORDER TO AVOID ALL INTERFERENCE.
2. CONTRACTOR SHALL VERIFY ALL EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY FITTINGS AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED.
4. CONTRACTOR SHALL INSTALL EQUIPMENT, PIPING AND DUCTWORK IN SUCH A MANER AS TO AVOID ALL INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
5. SEE ARCHITECTURAL PLANS FOR FIRE RATED PARTITIONS. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILINGS (NEW AND EXISTING CONSTRUCTION) WHERE NEW PIPING AND DUCTWORK PASS THROUGH FIRE RATED PARTITIONS. REFER TO SPECIFICATION SCTION "FIRE STOPPING"
6. ALL OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON TH DRAWINGS SHALL BE BY THIS CONTRACTOR, PATCH AND PAINT TO MATCH EXISTING.

MECHANICAL NOTES:

1. PROVIDE AND INSTALL PACKAGED ROOF TOP UNIT. CARRIER MODEL# 48HCED04A2A5-0A0A0 1200 CFM @ 0.5" E.S.P. COOLING CAPACITY 37.31 MBH – HEATING CAPACITY 93.0 MBH EAT 70 DEG – LAT 141.8 DEG 208V/3ø – 20 MCA PROVIDE AND INSTALL ON 4" CONCRETE PAD. PROVIDE AND INSTALL VIBRATION ISOLATORS. PROVIDE AND INSTALL FLEXIBLE CONNECTIONS ON DUCTS. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
2. EXTERIOR DUCTWORK TO HAVE 3" INSULATION WITH WEATHERPROOF COVERS.
3. UNDERCUT DOOR BY GENERAL CONTRACTOR
4. CONTRACTOR TO CONNECT NEW 1" GAS TO EXISTING 1-1/2" GAS AT METER LOCATD +/- 80'-0" FROM UNIT. CONTRACTOR CAN ROUTE NEW GAS PIPING UNDERGROUND FROM METER TO UNIT. PROVIDE SHUT-OFF, UNION, DRIP LEG AND REGULATOR AT UNIT.

KEY

REGISTER, GRILLE OR DIFFUSER
A-10x6-125
- CFM
- SIZE (IN) REGISTER & GRILLE
- SIZE (IN) DIFFUSER NECK
- STYLE ON SCHEDULE

REGISTER SCHEDULE

MARK	MODEL	MANUFACTURER	USE: RETURN	USE: SUPPLY	TYPE: CEILING	TYPE: WALL	LOCATION: WORK AREA	LOCATION: OFFICE	REMARKS
A	TMS	TITUS		X		X		X	NOTE 1, 2-LA-N
B	50F	TITUS	X		X			X	NOTE 1, 2, 3
C	350RL	TITUS		X	X			X	NOTE 1, 2, 3

NOTES:
1. FURNISH ALL HARDWARE REQUIRED TO PROVIDE A COMPLETE INSTALLATION.
2. COLOR TO BE DETERMINED BY THE ARCHITECT.
3. PAINT INSIDE OF RETURN DUCTWORK BLACK.

AEOA
DISPATCH
OFFICES

GILBERT, MN

ARCHITECTURAL:
Michael J. Lopac, A.I.A.
1020 West River Parkway
Champlin, MN 55316
763-421-2252

MECHANICAL/ELECTRICAL:
The Design Group, Inc.
1711 East 13th Street
Hibbing, MN 55746
PH: 218-262-1959
FX: 218-262-1976

ROGER SACCOMAN
ARCHITECTURE LIMITED
515 EAST HOWARD STREET*HIBBING, MN 55746*218 262 4059

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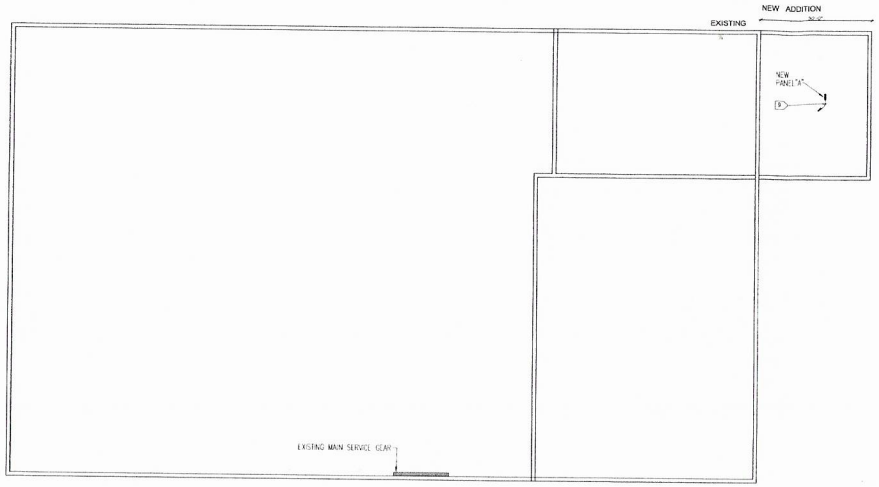
23569 6-25-2013
REG. DATE

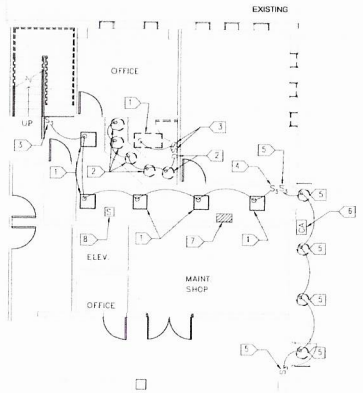
M1



OVERALL KEY PLAN

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

NORTH



ELECTRICAL DEMOLITION PLAN

NORTH

0 4 8 16

ELECTRICAL GENRAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES IN ORDER TO AVOID ALL INTERFERENCE
2. CONTRACTOR SHALL VERIFY ALL EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BEGINNING WORK
3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY FITTINGS, FIXTURES, AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED
4. ALL DEVICES SHOWN ON THE DEMOLITION DRAWING ARE TO BE DISCONNECTED AND REMOVED UNLESS NOTED ALL MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE REVIEWED BY THE OWNER. MATERIAL NOT WANTED BY OWNER SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO KEEP SHALL BE STORED BY THE CONTRACTOR. THIS CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, WIRING, CONDUIT ETC. AS INDICATED ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE WORK. CONCEALED CONDUIT TO BE REUSED MAY BE ABANDONED IF DISCONNECTED FROM THE SYSTEM.
5. CONTRACTOR SHALL INSTALL EQUIPMENT, FIXTURES IN SUCH A MANNER AS TO AVOID ALL INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
6. WHEN REMOVING EXISTING EQUIPMENT, AS SHOWN AND AS NOTED, INCLUDING BUT NOT LIMITED TO ELECTRICAL WIRING AND ANY OTHER DEMOLITION WORK, ALL WIRING AND ANY OTHER CONNECTIONS SHALL BE REMOVE BELOW FLOORS, INSIDE WALL, AND/OR ABOVE CEILINGS. THE FLOORS, WALLS, AND/OR CEILINGS SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THIS CONTRACTOR.
7. ALL OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR, PATCH AND PAINT TO MATCH EXISTING.
8. SEE ARCHITECTURAL PLANS FOR FIRE RATED PARTITIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILINGS (NEW AND EXISTING CONSTRUCTION) WHERE NEW CONDUIT AND WIRING PASS THROUGH FIRE RATED PARTITIONS. REFER TO SPECIFICATION SECTION "FIRE STOPPING."

ELECTRICAL DEMOLITION NOTES:

1. DISCONNECT, REMOVE AND REINSTALL EXISTING LIGHT FIXTURE IN NEW CEILING. MODIFY WIRING AND CONDUIT AS NECESSARY FOR RECONNECTION.
2. DISCONNECT & REMOVE EXISTING LIGHT FIXTURE, DIMMER SWITCH, WIRING AND CONDUIT AS NECESSARY AND ALRELATED APPURTENANCES.
3. DISCONNECT & REMOVE EXISTING LIGHT SWITCH. SEE NEW LIGHTING PLAN E1 FOR NEW LOCATION OF NEW SWITCH.
4. EXISTING SWITCH TO REMAIN.
5. DISCONNECT & REMOVE EXISTING LIGHT FIXTURE, SWITCH, WIRING AND CONDUIT AS NECESSARY AND ALRELATED APPURTENANCES.
6. DISCONNECT, REMOVE AND REINSTALL EXISTING CARD ACCESS. MODIFY & EXTEND WIRING AND CONDUIT AS NECESSARY FOR RECONNECTION. SEE SHEET E1 FOR NEW LOCATION.
7. DISCONNECT & REMOVE WIRE AND CONDUIT FROM THE EXISTING CABINET UNIT HEATER. REMOVE CIRCUIT BREAKER FROM PANEL AND TURN OVER TO OWNER.
8. DISCONNECT, REMOVE AND REINSTALL EXISTING SMOKE/HEAT DETECTOR IN EXISTING CEILING. MODIFY WIRING AND CONDUITAS NECESSARY FOR RECONNECTION IN NEW CEILING.
9. (4)#3/0, (1)#4 GRD 2"C TO NEW 200A-3P BREAKER IN EXISTING SIEMENS SWITCHGEAR.

AEOA DISPATCH OFFICES

GILBERT, MN

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Champlin, MN 55316
763-421-2252

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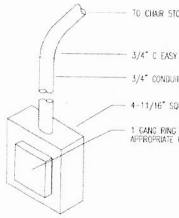
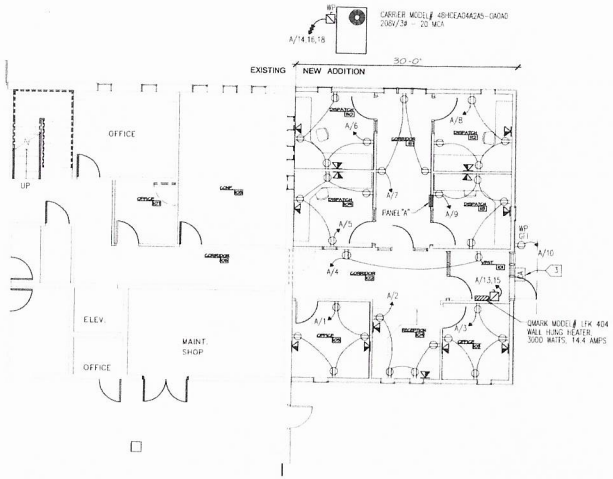
23569 6-25-2013
REG. DATE

E0



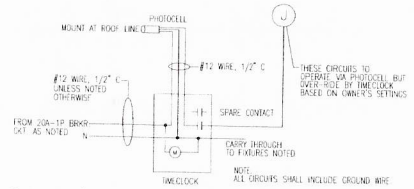
TYPICAL TELEPHONE/DATA OUTLET LOCATION DETAIL

NO SCALE



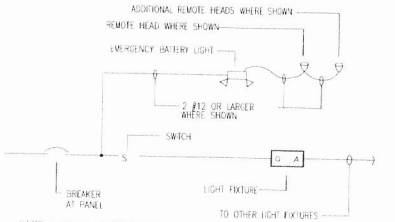
POWER PLAN

NORTH



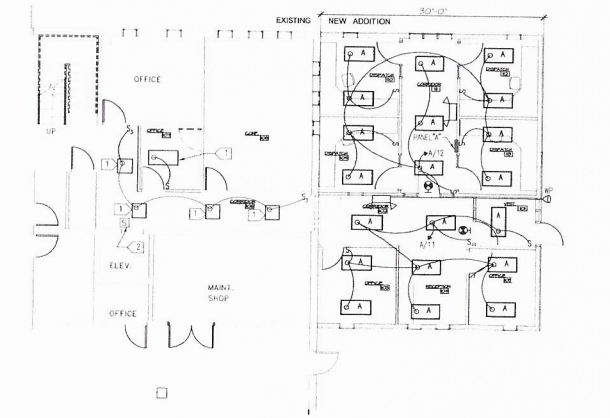
TIMECLOCK/PHOTOCELL LIGHTING CONTROL DETAIL

NO SCALE



EMB LIGHT CONNECTION DETAIL

NO SCALE



LIGHTING PLAN

NORTH

ELECTRICAL GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES IN ORDER TO AVOID ALL INTERFERENCE.
2. CONTRACTOR SHALL VERIFY ALL EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BEGINNING WORK.
3. CONTRACTOR SHALL SUPPLY AND INSTALL ALL NECESSARY FITTINGS, FIXTURES, AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED.
4. ALL DEVICES SHOWN ON THE DEMOLITION DRAWING ARE TO BE DISCONNECTED AND REMOVED UNLESS NOTED ALL MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE DISPOSED OF BY THE OWNER'S MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO SALVAGE SHALL BE STORED BY THE OWNER. THIS CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING EQUIPMENT, WIRING, CONDUIT ETC. AS INDICATED ON THE DRAWINGS OR AS REQUIRED TO COMPLETE THE WORK. WIRING, CONDUIT CONCEALED ITEMS NOT TO BE REUSED MAY BE ABANDONED IF DISCONNECTED FROM THE SYSTEM.
5. CONTRACTOR SHALL INSTALL EQUIPMENT, FIXTURES, IN SUCH A MANNER AS TO AVOID ALL INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
6. WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, INCLUDING, BUT NOT LIMITED TO ELECTRICAL WIRING AND ANY OTHER DEMOLITION WORK, ALL WIRING AND ANY OTHER CONNECTIONS SHALL BE REMOVED BELOW FLOORS, INSIDE WALL AND/OR ABOVE CEILINGS. THE FLOORS, WALLS, AND/OR CEILINGS SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THIS CONTRACTOR.
7. ALL OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR. PATCH AND PAINT TO MATCH EXISTING.
8. SEE ARCHITECTURAL PLANS FOR FIRE RATED PARTITIONS. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILINGS (NEW AND EXISTING CONSTRUCTION) WHERE NEW CONDUIT AND WIRING PASS THROUGH FIRE RATED PARTITIONS. REFER TO SPECIFICATION, SECTION "FIRE STOPPING"

NUMBERED ELECTRICAL NOTES:

1. NEW LOCATION OF EXISING LIGHT FIXTURE IN NEW CEILING. MODIFY AND EXTEND WIRING AND CONDUIT AS NECESARY FOR RECONNECTION.
2. NEW LOCATION OF EXISTING SMOKE DETECTOR IN NEW CEILING. EXTEND WIRING AND CONDUIT AS NECESSARY FOR RECONNECTION.
3. NEW LOCATION OF EXISTING CARD ACCESS. EXTEND WIRING AND CONDUIT AS NECESSARY FOR RECONNECTION.

PANEL "A" SCHEDULE

TYPE: SQD2 VOLT: 120/208V/3Ø,5W,4W MNT: RECESSED FEED: BOT MAIN: DISC. AMPS: 200

CKT	LOAD	WATTS	BRKR	PH A	PH B	PH C	BRKR	WATTS	LOAD	CKT
1		720	20A-1P				20A-1P	720		2
3		720	20A-1P				20A-1P	360		4
5		720	20A-1P				20A-1P	720		6
7		540	20A-1P				20A-1P	720		8
9		720	20A-1P				20A-1P	180		10
11	LIGHTS	576	20A-1P				20A-1P	704	LIGHTS	12
13	EXH. UNIT HEATER	3000	20A-2P							14
15							30A-3P	7200	AIR HANDLING UNIT	16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42

PANEL SHALL BE RATED AT 22 KAIC

LIGHT FIXTURE SCHEDULE

TYPE A	2' X 4' RECESSED TROFFER METAL PARTS SHALL BE DIE-FORMED 22 GAUGE STEEL. BALLAST SHALL BE ELECTRONIC PROGRAMMABLE TYPE. FIXTURE SHALL HAVE ACRYLIC PRISMATIC DIFFUSER. PROVIDE AND INSTALL (2) T8 32W LAMPS PER FIXTURE. MODEL# COOPER/METALUX 2GR8-232A-120V-FR8
L.E.D. EXIT SIGN	PROVIDE AND INSTALL EXIT SIGNS WERE SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED. EXIT SIGNS SHALL BE L.E.D. TYPE. WITH DIE-CAST HOUSING TO HAVE 6" HIGH RED LETTERS AND DIRECT ARROWS. LAMPS SHALL BE INCLUDED AND SHALL HAVE A MINIMUM OF A 20 YEAR WARRANTY. LAMPS SHALL BE CONCEALED BY A LENS TO DIFFUSE LAMPS. SIGN SHALL HAVE BATTERY BACK-UP. SIGN SHALL BE BY LITHONIA, DUAL LITE, PRESCOLITE, SURTRON, CHLORIDE, HUBBELL, SURE LITES OR APPROVED EQUAL
EMERG. BAT. UNIT	PROVIDE AND INSTALL WHERE SHOWN ON THE DRAWINGS AND HEREIN SPECIFIED, EMERGENCY BATTERY LIGHTING UNITS. HOUSING SHALL BE WHITE THERMOPLASTIC. BATTERY TO BE 12V., MAINTENANCE FREE, INPUT VOLTAGE EACH UNIT SHALL BE CAPABLE OF SUPPLYING THE CONNECTED LOAD FOR A MINIMUM OF 90 MINUTES.
WP	OUTDOOR REMOTE HEADS SHALL BE WEATHERPROOF, 12V, 35W, PAR 36 LAMP SUITABLE FOR WET LOCATIONS. REMOTE HEADS SHALL BE COMPATIBLE WITH EMERGENCY BATTERY UNIT.

AEOA DISPATCH OFFICES

GILBERT, MN

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ROGER SACCOMAN ARCHITECTURE LIMITED
515 EAST HOWARD STREET*HIBBING, MN 55746*218 262 4059

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision, and that I am a duly registered Engineer under the laws of the state of Minnesota.

23569 6-25-2013
REG. DATE

E1

SECTION 004513 – BIDDER'S QUALIFICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies the required qualifications, documentation, and evaluation criteria for determining a responsible and qualified bidder for the Work of this Project.

B. The Owner reserves the right to reject any or all bids and to waive informalities and irregularities in the bidding process. The contract will be awarded not necessarily to the lowest bidder but to the bidder who, in the judgment of the Owner, best meets the evaluation criteria described herein.

C. See Section 004393 "Bid Submittal Checklist" for full list of forms and requirements for Bidder's submission.

1.2 SUBMITTALS

A. Each Bidder shall submit a qualifications package as part of their bid, including:

1. Location address of Corporate Office.
2. Location address of Office Facilitating the Project.
3. Proposed Construction Schedule.

    a. Bidders shall submit a proposed schedule for the Work in PDF format. The schedule may be presented in any clear and logical graphic format as deemed appropriate by the Bidder, and shall indicate major milestones, critical activities, and anticipated completion date(s).

~~4. Targeted groups form (see below).~~

~~a. This form shall be submitted by **all** Bidders, regardless of targeted group status.~~

PART 2 - PRODUCTS (Not Used)
PART 3 - EXECUTION (Not Used)

END OF SECTION 004513

SECTION 074113 - METAL ROOF PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vertical-rib, snap-joint, standing-seam metal roof panels to be installed at exit stair landing.
2. Underlayment.
3. Field-fabricated metal fascia.

B. Related Requirements:

1. Provide sloped rigid insulation for drainage purposes. See Section 072100 “Thermal Insulation” for information on polyisocyanurate board insulation and perlite board insulation to be used as cover board.
2. Section 074213 "Metal Wall Panels" for metal panels used as vertical siding applications. If possible, provide wall and roof panels from the same manufacturer.

1.2 COORDINATION

A. Coordinate sizes and locations of equipment supports, and roof penetrations with actual equipment provided.

B. Coordinate metal roof panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of panel and accessory.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal roof panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

C. Samples for Initial Selection: Manufacturer's standard color charts, showing full range of available colors for each type of exposed finish.

1. Include similar Samples of trim and accessories involving color selection.
2. Colors from PAC-CLAD: Black, Iron Ore, Onyx, Traditional Black

D. Samples for Verification: Actual sample of finished products for each type of exposed finish for metal roof panels and metal panel accessories.

1.4 INFORMATIONAL SUBMITTALS

A. Product Test Reports: For standing-seam metal roof panels, for tests performed by a qualified testing agency.

B. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal roof panels.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal roof panels, and other manufactured items so as not to be damaged or deformed. Package metal roof panels for protection during transportation and handling.

B. Unload, store, and erect metal roof panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal roof panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal roof panels to ensure dryness, with positive slope for drainage of water. Do not store metal roof panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal roof panels during installation.

1.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal roof panels to be performed in accordance with manufacturers' written installation instructions and warranty requirements.

1.8 WARRANTY

A. Special Warranty on Panel Finishes: Manufacturer agrees to repair finish or replace metal roof panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 35 years from date of Substantial Completion.

B. Special Weathertightness Warranty: Manufacturer agrees to repair or replace standing-seam metal roof panel systems that fail to remain weathertight, including leaks, within specified warranty period.

1. Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 VERTICAL-RIB, SNAP-JOINT, STANDING-SEAM METAL ROOF PANELS

A. Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with seamed joint type indicated and mechanically attaching panels to supports using concealed fasteners in side laps. Include all accessories required for weathertight installation.

B. Basis-of-Design Product: Subject to compliance with requirements, provide PAC-CLAD (Petersen; a Carlisle company); SNAP-CLAD PANEL or approved equal product. Available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. ATAS International, Inc.
2. CENTRA, a Nucor Brand
3. Fabral; a brand of Flack Global Metals
4. MBCI; Cornerstone Building Brands
5. McElroy Metal, Inc
6. Metal Sales Manufacturing Corporation
7. Elevate Una-Clad

C. Metal Roof Panels: Formed with vertical ribs at panel edges; designed for sequential installation by mechanically attaching panels to supports using concealed clips located under one side of panels, engaging opposite edge of adjacent panels, and snapping panels together.

1. Structural Support: Over solid deck. See structural drawings for designed roof deck.
2. Material: Aluminum
3. Panel Profile: Intermediate stiffening ribs symmetrically spaced between ribs.
4. Panel Coverage: 10 inches
5. Panel Height: 1.75 inches
6. Clips: One piece, fixed designed to accommodate thermal movement.

    a. Steel Clips: nominal thickness, zinc-coated (galvanized) or aluminum-zinc alloy-coated steel sheet.
    b. Stainless Steel Clips: 0.0250-inch thick, stainless steel sheet.
    c. Clip Spacing: 24 inches

2.2 METAL ROOF PANEL MATERIAL

A. Aluminum Sheet: Coil-coated sheet, ASTM B209/B209M, alloy as standard with manufacturer, with temper as required to suit forming operations and structural

performance required.

1. Thickness: 0.032 inch
2. Surface: Smooth, flat texture.
3. Exterior Finish: Two-coat fluoropolymer
4. Color: As selected by Architect from manufacturer's full range

2.3 COVER BOARD

A. See perlite board insulation specifications in Section 072100 “Thermal Insulation”.

2.4 UNDERLAYMENT

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 30 mils thick, consisting of slip-resistant, polyethylene-film top surface laminated to a layer of butyl or SBS-modified asphalt adhesive, with release-paper backing. Provide primer when recommended by underlayment manufacturer.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

    a. ATAS International, Inc.
    b. Carlisle WIP Products; a brand of Carlisle Construction Materials
    c. GCP Applied Technologies Inc.
    d. Henry, a Carlisle Company (formerly Henry Company and Carlisle Coatings & Waterproofing Inc. brands)
    e. Owens Corning
    f. Polyglass U.S.A., Inc.
    g. Protecto Wrap Company
    h. SDP Advanced Polymer Products Inc.

2. Thermal Stability: Stable after testing at 220 deg F; ASTM D1970/D1970M.
3. Low-Temperature Flexibility: Passes after testing at minus 20 deg F; ASTM D1970/D1970M.

2.5 FIELD-FABRICATED METAL FASCIA

A. Provide accessories and trim formed from the same material, thickness, and finish as roof panels, unless otherwise indicated. Fabricate to SMACNA “Architectural Sheet Metal Manual” standards and in accordance with manufacturer’s recommendations to ensure watertight installation.

B. Fabrication:

1. Form fascia, eave flashing, and drip edges from flat coil stock supplied by the metal roof panel manufacturer to ensure color and finish match.
2. Fabricate in lengths not exceeding 10 feet with shop-formed miters, lap joints, and concealed fasteners.
3. Coordinate profiles with roof-panel geometry, substrate thickness, and insulation slope.

4. Form edges with stiffening hems and continuous cleats where required for rigidity.

C. Finish: Factory-applied finish, color to match roof panels.

D. Provide ridge caps, gable trim, valley flashing, end closures, snow-retention accessories, and other formed components required for a complete installation, fabricated and finished to match roof panels.

E. Comply with Section 055000 “Metal Fabrications”.

2.6 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C645; cold-formed, metallic-coated steel sheet, minimum ASTM A653/A653M, G90 hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 coating designation. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Roof Panel Fasteners: Self-tapping screws designed to withstand design loads.

C. Roof Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with metal roof panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal roof panels and remain weathertight; and as recommended in writing by metal roof panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.7 FABRICATION

A. Fabricate and finish metal roof panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. On-site Fabrication: Subject to compliance with requirements of this Section, metal roof panels may be fabricated on-site using UL-certified, portable roll-forming equipment if panels are of same profile and warranted by manufacturer to be equal to factory-formed panels. Fabricate in accordance with equipment manufacturer's written instructions and to comply with details shown.

C. Provide roof panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

D. Fabricate metal roof panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

E. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with

manufacturer's recommendations that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
3. Seams for other than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with manufacturer's recommendations.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not permitted on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal roof panel manufacturer.

    a. Size: As recommended by metal roof panel manufacturer for application, but not less than thickness of metal being secured.

2.8 FINISHES

A. Protect finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Aluminum Roof Panels and Accessories:

1. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions[**for seacoast and severe environments**].

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal roof panel supports, and other conditions affecting performance of the Work.

1. Examine primary and secondary roof framing to verify that rafters, purlins, angles, channels, and other structural panel support members and anchorages have been installed within alignment tolerances required by metal roof panel manufacturer.
2. Examine solid roof sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by

metal roof panel manufacturer.

a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal roof panels to verify actual locations of penetrations relative to seam locations of metal roof panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages in accordance with ASTM C754 and metal roof panel manufacturer's written installation instructions.

3.3 INSTALLATION OF ROOF INSULATION

A. General: Install rigid insulation for drainage purposes concurrently with metal roof panel installation, in thickness indicated to cover entire surface, in accordance with manufacturer's written installation instructions.

3.4 INSTALLATION OF COVER BOARD

A. Install cover board over insulation in accordance with manufacturer's written installation instructions. Install with long joints in continuous straight lines with end joints staggered between rows. Offset joints of insulation below a minimum of 6 inches in each direction.

3.5 INSTALLATION OF UNDERLAYMENT

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches staggered 24 inches between courses. Overlap side edges not less than 3-1/2 inches. Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface that shall receive metal roof.

B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 055000 "Metal Fabrications."

3.6 INSTALLATION OF STANDING-SEAM METAL ROOF PANELS

A. Install metal roof panels in accordance with manufacturer's written installation instructions and approved Shop Drawings in orientation, sizes, and locations indicated. Anchor metal roof panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal roof panels.

2. Flash and seal metal roof panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal roof panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal roof panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal roof panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Steel Roof Panels: Use stainless steel fasteners for surfaces exposed to the exterior; use galvanized-steel fasteners for surfaces exposed to the interior.
2. Aluminum Roof Panels: Use aluminum or stainless steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.
3. Stainless Steel Roof Panels: Use stainless steel fasteners.
4. Copper Roof Panels: Use copper, stainless steel, or hardware-bronze fasteners.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal roof panel manufacturer.

D. Concealed Clip, Standing-Seam Metal Roof Panel Installation: Fasten metal roof panels to supports with concealed clips at each standing-seam joint at location, spacing, and with fasteners recommended in writing by manufacturer.

1. Install clips to supports with self-tapping fasteners.
2. Install pressure plates at locations indicated in manufacturer's written installation instructions.

E. Roof Panel Joints: Fasten panel joints to substrate in accordance with manufacturer's instructions.

1. Snap Joint: Nest standing seams and fasten together by interlocking and completely engaging factory-applied sealant.
2. Watertight Installation:

    a. Apply a continuous ribbon of sealant or tape to seal joints of metal roof panels, using sealant or tape as recommended in writing by manufacturer as needed to make panels watertight.
    b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
    c. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal roof panel system including trim,

copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal roof panel manufacturers; or, if not indicated, types recommended by metal roof panel manufacturer.

G. Flashing and Trim: Comply with performance requirements and manufacturer's written installation instructions. Provide concealed fasteners where possible and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof and weather-resistant performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 ft. with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently weather resistant and waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

H. Pipe and Conduit Penetrations: Fasten and seal to metal roof panels as recommended by manufacturer.

3.7 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal roof panels within installed tolerance of 1/4 inch in 20 ft. on slope and location lines as indicated and within 1/8-inch offset of adjoining faces and of alignment of matching profiles.

3.8 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect metal roof panel installation, including accessories. Report results in writing.

B. Remove and replace applications of metal roof panels where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.9 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal roof panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal roof panel installation, clean finished surfaces as recommended by metal roof panel manufacturer. Maintain in a clean condition during construction.

B. Replace metal roof panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074113

SECTION 074213 - METAL WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Concealed-fastener flush metal wall panels.

B. Related Requirements:

1. See Section 074113 “Metal Roof Panels” for information regarding standing seam metal roof panels.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

1. Include fabrication and installation layouts of metal panels; details of edge conditions, joints, panel profiles, corners, anchorages, attachment system, trim, flashings, closures, and accessories; and special details.
2. Accessories: Include details of the flashing, trim, and anchorage systems, at a scale of not less than 1-1/2 inches per 12 inches.

C. Samples for Initial Selection: For each type of metal panel indicated with factory-applied finishes.

1. Include Samples of trim and accessories involving color selection.
2. Colors from PAC-CLAD: Sandstone, Stone White, Bone White

D. Samples for Verification: For each type of exposed finish, prepared on Samples of size indicated below:

1. Metal Panels: 12 inches long by actual panel width. Include fasteners, closures, and other metal panel accessories.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For exposed-fastener, lap-seam metal wall panels, for tests performed by a qualified testing agency.

C. Field quality-control reports.

D. Sample Warranties: For special warranties.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For metal panels to include in maintenance manuals.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. UL-Certified, Portable Roll-Forming Equipment: UL-certified, portable roll-forming equipment capable of producing metal panels warranted by manufacturer to be the same as factory-formed products. Maintain UL certification of portable roll-forming equipment for duration of work.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver components, metal panels, and other manufactured items so as not to be damaged or deformed. Package metal panels for protection during transportation and handling.

B. Unload, store, and erect metal panels in a manner to prevent bending, warping, twisting, and surface damage.

C. Stack metal panels horizontally on platforms or pallets, covered with suitable weathertight and ventilated covering. Store metal panels to ensure dryness, with positive slope for drainage of water. Do not store metal panels in contact with other materials that might cause staining, denting, or other surface damage.

D. Retain strippable protective covering on metal panels during installation.

E. Copper Panels: Wear gloves when handling to prevent fingerprints and soiling of surface.

1.7 FIELD CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit assembly of metal panels to be performed according to manufacturers' written instructions and warranty requirements.

1.8 COORDINATION

A. Coordinate metal panel installation with rain drainage work, flashing, trim, construction of soffits, and other adjoining work to provide a leakproof, secure, and noncorrosive installation.

1.9 WARRANTY

A. Special Warranty on Panel Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace metal panels that show evidence of deterioration of factory-applied finishes within specified warranty period.

1. Exposed Panel Finish: Deterioration includes, but is not limited to, the following:

   a. Color fading more than 5 Delta E units when tested according to ASTM D2244.
   b. Chalking in excess of a No. 8 rating when tested according to ASTM D4214.
   c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 30 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 FLUSH-PROFILE, CONCEALED-FASTENER METAL WALL PANELS

A. Description: Flush-Profile, Concealed-Fastener Metal Wall Panels: Provide factory-formed metal panels design to be field assembled by interconnecting side edges of adjacent panels and mechanically attaching through panels to supports using concealed fasteners and factory-applied sealant in side laps. Include accessories required for weathertight installation.

B. Basis-of-Design Product: Subject to compliance with requirements, provide **PAC-CLAD (Petersen; a Carlisle company); Flush Wall Panels** or approved equal product. Available manufacturers offering products that may be incorporated into the Work include, but art not limited to, the following:

1. ATAS International, Inc.
2. CENTRA, a Nucor Brand
3. Fabral; a brand of Flack Global Metals
4. MBCI; Cornerstone Building Brands
5. Metal Sales Manufacturing Corporation
6. Elevate Una-Clad

C. Aluminum Sheet: Coil-coated sheet, ASTM B209, alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.

1. Thickness: 0.032 inch.
2. Surface: Smooth, flat finish.
3. Exterior Finish: Two-coat fluoropolymer
4. Color: As selected by Architect from manufacturer's full range

2.2 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Subframing and Furring: ASTM C645, cold-formed, metallic-coated steel sheet, ASTM A653/A653M, G90 hot-dip galvanized coating designation or ASTM A792/A792M, Class AZ50 aluminum-zinc-alloy coating designation unless otherwise indicated. Provide manufacturer's standard sections as required for support and alignment of metal panel system.

B. Panel Accessories: Provide components required for a complete, weathertight panel system including trim, copings, fasciae, mullions, sills, corner units, clips, flashings, sealants, gaskets, fillers, closure strips, and similar items. Match material and finish of metal panels unless otherwise indicated.

1. Closures: Provide closures at eaves and rakes, fabricated of same metal as metal panels.
2. Backing Plates: Provide metal backing plates at panel end splices, fabricated from material recommended by manufacturer.
3. Closure Strips: Closed-cell, expanded, cellular, rubber or crosslinked, polyolefin-foam or closed-cell laminated polyethylene; minimum 1-inch- thick, flexible closure strips; cut or premolded to match metal panel profile. Provide closure strips where indicated or necessary to ensure weathertight construction.

C. Flashing and Trim: Provide flashing and trim formed from same material as metal panels as required to seal against weather and to provide finished appearance. Locations include, but are not limited to, bases, drips, sills, jambs, corners, endwalls, framed openings, rakes, fasciae, parapet caps, soffits, reveals, and fillers. Finish flashing and trim with same finish system as adjacent metal panels.

D. Panel Fasteners: Self-tapping screws designed to withstand design loads. Provide exposed fasteners with heads matching color of metal panels by means of plastic caps or factory-applied coating. Provide EPDM or PVC sealing washers for exposed fasteners.

E. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are nonstaining, and do not damage panel finish.

1. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch wide and 1/8 inch thick.
2. Joint Sealant: ASTM C920; elastomeric polyurethane or silicone sealant; of type, grade, class, and use classifications required to seal joints in metal panels and remain weathertight; and as recommended in writing by metal panel manufacturer.
3. Butyl-Rubber-Based, Solvent-Release Sealant: ASTM C1311.

2.3 FABRICATION

A. Fabricate and finish metal panels and accessories at the factory, by manufacturer's standard procedures and processes, as necessary to fulfill indicated performance requirements demonstrated by laboratory testing. Comply with indicated profiles and with dimensional and structural requirements.

B. Provide panel profile, including major ribs and intermediate stiffening ribs, if any, for full length of panel.

C. Fabricate metal panel joints with factory-installed captive gaskets or separator strips that provide a weathertight seal and prevent metal-to-metal contact, and that minimize noise from movements.

D. Sheet Metal Flashing and Trim: Fabricate flashing and trim to comply with manufacturer's recommendations and recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated.

1. Form exposed sheet metal accessories that are without excessive oil canning, buckling, and tool marks and that are true to line and levels indicated, with exposed edges folded back to form hems.
2. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form

seams and seal with epoxy seam sealer. Rivet joints for additional strength.

3. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
4. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
5. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
6. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal recommended in writing by metal panel manufacturer.

    a. Size: As recommended by SMACNA's "Architectural Sheet Metal Manual" or metal wall panel manufacturer for application but not less than thickness of metal being secured.

2.4 FINISHES

A. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

C. Aluminum Panels and Accessories:

1. Two-Coat Fluoropolymer: AAMA 2605. Fluoropolymer finish containing not less than 70 percent polyvinylidene fluoride (PVDF resin by weight in color coat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions [**for seacoast and severe environments**] .

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, metal panel supports, and other conditions affecting performance of the Work.

1. Examine wall framing to verify that girts, angles, channels, studs, and other structural panel support members and anchorage have been installed within alignment tolerances required by metal wall panel manufacturer.
2. Examine wall sheathing to verify that sheathing joints are supported by framing or blocking and that installation is within flatness tolerances required by metal wall panel manufacturer.

    a. Verify that air- or water-resistive barriers have been installed over sheathing or backing substrate to prevent air infiltration or water penetration.

B. Examine roughing-in for components and systems penetrating metal panels to verify actual locations of penetrations relative to seam locations of metal panels before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Miscellaneous Supports: Install subframing, furring, and other miscellaneous panel support members and anchorages according to ASTM C754 and metal panel manufacturer's written recommendations.

3.3 INSTALLATION OF METAL PANELS

A. Install metal panels according to manufacturer's written instructions in orientation, sizes, and locations indicated. Install panels perpendicular to supports unless otherwise indicated. Anchor metal panels and other components of the Work securely in place, with provisions for thermal and structural movement.

1. Shim or otherwise plumb substrates receiving metal panels.
2. Flash and seal metal panels at perimeter of all openings. Fasten with self-tapping screws. Do not begin installation until air- or water-resistive barriers and flashings that will be concealed by metal panels are installed.
3. Install screw fasteners in predrilled holes.
4. Locate and space fastenings in uniform vertical and horizontal alignment.
5. Install flashing and trim as metal panel work proceeds.
6. Locate panel splices over, but not attached to, structural supports. Stagger panel splices and end laps to avoid a four-panel lap splice condition.
7. Align bottoms of metal panels and fasten with blind rivets, bolts, or self-tapping screws. Fasten flashings and trim around openings and similar elements with self-tapping screws.
8. Provide weathertight escutcheons for pipe- and conduit-penetrating panels.

B. Fasteners:

1. Aluminum Panels: Use aluminum or stainless steel fasteners for surfaces exposed to the exterior; use aluminum or galvanized-steel fasteners for surfaces exposed to the interior.

C. Metal Protection: Where dissimilar metals contact each other or corrosive substrates, protect against galvanic action as recommended in writing by metal panel manufacturer.

D. Lap-Seam Metal Panels: Flush panels shall be installed over a solid substrate with appropriate ice and water shield, or in limited applications over framing sections, spacing recommended by manufacturer.

1. Provide metal-backed washers under heads of exposed fasteners bearing on weather side of metal panels.
2. Locate and space exposed fasteners in uniform vertical and horizontal alignment. Use proper tools to obtain controlled uniform compression for positive seal without rupture of washer.
3. Install screw fasteners with power tools having controlled torque adjusted to compress washer tightly without damage to washer, screw threads, or panels.

Install screws in predrilled holes.

4. Flash and seal panels with weather closures at perimeter of all openings.

E. Watertight Installation:

1. Apply a continuous ribbon of sealant or tape to seal lapped joints of metal panels, using sealant or tape as recommend by manufacturer on side laps of nesting-type panels; and elsewhere as needed to make panels watertight.
2. Provide sealant or tape between panels and protruding equipment, vents, and accessories.
3. At panel splices, nest panels with minimum 6-inch end lap, sealed with sealant and fastened together by interlocking clamping plates.

F. Accessory Installation: Install accessories with positive anchorage to building and weathertight mounting, and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal panel system including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items. Provide types indicated by metal wall panel manufacturer; or, if not indicated, provide types recommended by metal panel manufacturer.

G. Flashing and Trim: Comply with performance requirements, manufacturer's written installation instructions, and SMACNA's "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that are permanently watertight.

1. Install exposed flashing and trim that is without buckling and tool marks, and that is true to line and levels indicated, with exposed edges folded back to form hems. Install sheet metal flashing and trim to fit substrates and achieve waterproof performance.
2. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently waterproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect completed metal wall panel installation, including accessories.

B. Remove and replace metal wall panels where tests and inspections indicate that they do not comply with specified requirements.

C. Additional tests and inspections, at Contractor's expense, are performed to determine compliance of replaced or additional work with specified requirements.

D. Prepare test and inspection reports.

3.5 CLEANING AND PROTECTION

A. Remove temporary protective coverings and strippable films, if any, as metal panels are installed, unless otherwise indicated in manufacturer's written installation instructions. On completion of metal panel installation, clean finished surfaces as recommended by metal panel manufacturer. Maintain in a clean condition during construction.

B. After metal panel installation, clear weep holes and drainage channels of obstructions, dirt, and sealant.

C. Replace metal panels that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 074213