Indian River County
Purchasing Division
1800 27th Street
Vero Beach, FL 32960
Phone (772) 226-1416

ADDENDUM NO. 1

Date: **April 6, 2021**

Project Number: **IRC-1764**

Project Name: **INDIAN RIVER COUNTY COURTHOUSE ROOF REPLACEMENT**

Bid Number: **2021036**

Bid Opening Date: **Thursday, APRIL 29, 2021 at 2:00 p.m.**

This addendum is being released to modify the bidding documents to add to the project, the following: Plans and specifications for the replacement of the three (3) standing seam metal roofing assemblies located at three corners of the walkway entrances to the Indian River County Courthouse. This includes the removal and disposal of the existing roof system (approximately 1,166 square feet) including flashings, gutters and downspouts, and new plaster ceilings (approximately 972 square feet). The new roofing assembly shall provide a complete, watertight, 20-year warrantable roof system. All work must be competed as specified in the technical specification prepared by Jay Ammon Architect, Inc. dated 2/2/21 attached and incorporated by reference.

The information and documents contained in this addendum are hereby incorporated in the bidding documents. **This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.**

Additions to Bid Documents:

Specifications and Plan Set have been added, Itemized Bid Schedule has been modified to reflect the addition of the standing seam roof section.

Replace the previously provided Itemized Bid Schedule with the one listed in the attachments at the end of this addendum.

Attachments:

1. Indian River County Courthouse Metal Roof Replacement Specifications, Jay Ammon, Architect, Inc.
2. Indian River County Courthouse Metal Roof Replacement Drawing Plan Set, Jay Ammon, Architect, Inc.
3. Itemized Bid Schedule
4. IRC Building Department Permit Application #2021020748

The **MANDATORY** Pre-Bid Conference is still scheduled for **Wednesday, April 14, 2021 at 10:00 A.M.**

100% REVIEW DOCUMENTS
TECHNICAL SPECIFICATIONS

FOR THE

INDIAN RIVER COUNTY COURTHOUSE
METAL ROOFING REPLACEMENT PROJECT

IRC - 1764

JANUARY 15, 2021

PREPARED FOR:

INDIAN RIVER COUNTY, FLORIDA

PREPARED BY:

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779 • FAX (407) 333-4686 • OFFICE **(407) 333-1977**

INDEX TO PROJECT MANUAL

THE CONTRACTOR IS REQUIRED TO COMPARE THIS PROJECT MANUAL WITH THE INDEX BELOW FOR COMPLETENESS. IF ANY PAGES ARE MISSING OR ILLEGIBLE IT IS THEIR RESPONSIBILITY TO REQUEST REPLACEMENTS FROM THE ARCHITECT.

DIVISION 0 - BIDDING AND CONTRACT REQUIREMENTS
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SECTION 00002 DRAWING LIST
SECTION 00005 A/E'S OF RESPONSIBILITY

DIVISION 1 - GENERAL REQUIREMENTS (See Volume 1 Project Manual for Owner Provided Division 1 Requirements)

DIVISION 2 - SITE WORK
SECTION 024119 SELECTIVE DEMOLITION

DIVISION 3 - NOT USED

DIVISION 4 - NOT USED

DIVISION 5 - NOT USED

DIVISION 6 - WOOD AND PLASTICS
SECTION 061000 ROUGH CARPENTRY

DIVISION 7 - THERMAL AND MOISTURE PROTECTION
SECTION 074110 STANDING-SEAM METAL ROOF PANELS
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SHEET NUMBER:	SHEET TITLE:	REVISION:	ISSUE DATE:
A0.1	COVER SHEET	0	15 JAN 2021
A1.1	SYMBOLS, ABBREVIATIONS	0	15 JAN 2021
	AND CODE INFORMATION	0	15 JAN 2021
A1.2	GENERAL NOTES	0	15 JAN 2021
A1.3	SCOPE OF WORK	0	15 JAN 2021
A1.4	LOCATION AND SITE PLAN	0	15 JAN 2021
A2.1	DEMOLITION ROOF PLAN	0	15 JAN 2021
A2.2	ENLARGED PROPOSED ROOF PLANS	0	15 JAN 2021
A2.3	ENLARGED REFLECTED CEILING PLANS	0	15 JAN 2021
A2.4	WIND UPLIFT PRESSURE ROOF PLANS	0	15 JAN 2021
A2.5	DRAINAGE PLANS	0	15 JAN 2021
A3.1	ROOF DETAILS	0	15 JAN 2021
A3.2	ROOF DETAILS	0	15 JAN 2021
A3.3	EXTERIOR CEILING DETAILS	0	15 JAN 2021
A3.4	GUTTER AND DOWNSPOUT DETAILS	0	15 JAN 2021
A4.1	PHOTOGRAPHS	0	15 JAN 2021
A4.2	PHOTOGRAPHS	0	15 JAN 2021

Contract drawings will be attached at the end of the project manual.

ARCHITECT OF RECORD:	**JAY AMMON AIA**
Company:	Jay Ammon Architect, Inc.
Telephone No:	407-333-1977
LANDSCAPE ARCHITECT OF RECORD:	N/A
Company:	
Telephone No:	
STRUCTURAL ENGINEER OF RECORD:	N/A
Company:	
Telephone No:	
CIVIL ENGINEER OF RECORD:	N/A
Company:	
Telephone No:	
MECHANICAL ENGINEER OF RECORD:	N/A
Company:	
Telephone No:	
ELECTRICAL ENGINEER OF RECORD:	N/A
Company:	
Telephone No:	
AM&CS ENGINEER OF RECORD:	N/A
Company:	
Telephone No:	

PROJECT MANAGER:	**Michael Heller**
Owner:	INDIAN RIVER COUNTY – ENGINEERING DIVISION
Telephone No:	772-226-1585

END OF SECTION

DIVISION 2 – SITE WORK

SECTION 024119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Salvage of existing items to be reused or recycled.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 INFORMATIONAL SUBMITTALS

A. A pre-construction video and photos shall be submitted prior to mobilization or work commencing on the jobsite.

1.4 CLOSEOUT SUBMITTALS

A. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.5 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 PEFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

D. Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs or preconstruction videotapes.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

1. Comply with requirements for existing services/systems interruptions specified in the Division 1 Documents.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
1. Arrange to shut off indicated utilities with utility companies.
2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.

a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Owner provided Division 1 documents.

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of

construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly.

B. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Protect items from damage during transport and storage.
3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION

DIVISION 6 – WOOD AND PLASTICS

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Wood blocking and nailers.
   2. Plywood

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

   1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.

B. Evaluation Reports: For the following, from ICC-ES:

   1. Wood-preservative-treated wood.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

   1. Factory mark each piece of lumber with grade stamp of grading agency.

B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal (38-mm actual) thickness or less, 19 percent for more than 2-inch nominal (38-mm actual) thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat all rough carpentry unless otherwise indicated.

E. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.

F. For items of dimension lumber size, provide Construction or No. 2 grade lumber of any species.

G. For concealed boards, provide lumber with 15 percent maximum moisture content and any of the following species and grades:

1. Mixed southern pine; No. 2 grade; SPIB.
2. Eastern softwoods; No. 2 Common grade; NeLMA.
3. Northern species; No. 2 Common grade; NLGA.
4. Western woods; Construction or No. 2 Common grade; WCLIB or WWPA.

2.3 PLYWOOD

A. Equipment Backing Panels: Plywood, DOC PS 1, Exterior, A-C in thickness indicated or, if not indicated. Match existing thickness.

2.4 FASTENERS

A. General: Provide fasteners of size and type indicated.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners of Type 304 stainless steel.

B. Power-Driven Fasteners: NES NER-272.

C. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Do not splice structural members between supports unless otherwise indicated.

C. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes sufficiently wet that moisture content exceeds that specified, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

SECTION 074110 - STANDING-SEAM METAL ROOF PANELS

PART 1 - GENERAL

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes standing-seam metal roof panels.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at project site.

1. Meet with Owner, Architect, Owner's insurer if applicable, metal panel Installer, metal panel manufacturer's representative, structural-support Installer, and installers whose work interfaces with or affects metal panels, including installers of roof accessories and roof-mounted equipment.
2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
3. Review methods and procedures related to metal panel installation, including manufacturer's written instructions.
4. Examine support conditions for compliance with requirements, including alignment between and attachment to structural members.
5. Review structural loading limitations of deck, purlins, and rafters during and after roofing.
6. Review flashings, special details, drainage, penetrations, equipment curbs, and condition of other construction that affect metal panels.
7. Review governing regulations and requirements for insurance, certificates, and tests and inspections if applicable.
8. Review temporary protection requirements for metal panel systems during and after installation.
9. Review procedures for repair of metal panels damaged after installation.
10. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.4 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 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 (1:10).

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

1. Metal Panels: 12 inches (305 mm) long by actual panel width. Include clips, fasteners, closures, and other metal panel accessories.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Field quality-control reports.

D. Sample Warranties: For special warranties.

1.6 CLOSEOUT SUBMITTALS

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

1.7 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.

C. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical roof area and eave, including fascia, and soffit as shown on Drawings; approximately 48 inches (1200 mm) square by full thickness, including attachments, underlayment, and accessories.

2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 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.

1.9 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.

1.10 COORDINATION

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

B. 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.

1.11 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of metal panel systems that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including rupturing, cracking, or puncturing.
b. Deterioration of metals and other materials beyond normal weathering.

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

B. 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 Hunter units when tested according to ASTM D 2244.
b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 20 years from date of Substantial Completion.

C. Special Weathertightness Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, within specified warranty period.

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

D. Wind-Speed Warranty: Metal roof panels will resist blow-off or damage caused by wind speeds of up to 120 mph for 20 years from date of Substantial Completion.

E. Installers Warranty: Contractor’s form in which Contractor agrees to repair or replace standing-seam metal roof panel assemblies that fail to remain weathertight, including leaks, for 5 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Energy Performance: Provide roof panels that are listed on the EPA/DOE's ENERGY STAR "Roof Product List" for steep-slope roof products.

B. Structural Performance: Provide metal panel systems capable of withstanding the effects of the following loads, based on testing according to ASTM E 1592:

1. Wind Loads: As indicated on Drawings.
2. Deflection Limits: For wind loads, no greater than 1/180 of the span.

C. Water Penetration under Static Pressure: No water penetration when tested according to ASTM E 1646 at the following test-pressure difference:

1. Test-Pressure Difference: 6.24 lbf/sq. ft. (300 Pa).

D. Hydrostatic-Head Resistance: No water penetration when tested according to ASTM E 2140.

E. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 STANDING-SEAM METAL ROOF PANELS

A. General: Provide factory-formed metal roof panels designed to be installed by lapping and interconnecting raised side edges of adjacent panels with joint type indicated and mechanically attaching panels to supports using concealed clips in side laps. Include clips, cleats, pressure plates, and accessories required for weathertight installation.
   1. Aluminum Panel Systems: Unless more stringent requirements are indicated, comply with ASTM E 1637.

B. Vertical-Rib, Double Locked, Standing-Seam Metal Roof Panels: Formed with vertical ribs at panel edges and intermediate stiffening ribs symmetrically spaced] between ribs; 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 mechanically seaming panels together. Panels are to be formed to comply with existing building radius configurations.

1. Subject to compliance with the construction documents, the following manufacturers are approved:
   a. Peterson Aluminum
   b. Merchant and Evans
   c. IMETCO

2. Aluminum Sheet: Coil-coated sheet, ASTM B 209 (ASTM B 209M), alloy as standard with manufacturer, with temper as required to suit forming operations and structural performance required.

   a. Thickness: 0.040 inch (1.02 mm).
   b. Surface: Two equally spaced ribs.
   c. Exterior Finish: Two-coat fluoropolymer.
   d. Color: Match adjacent panels from manufacturer’s standard colors.

3. Clips: Two-piece floating to accommodate thermal movement.
   a. Material: 0.062-inch- (1.59-mm-) thick, stainless-steel sheet.

4. Joint Type: Double Lock.
5. Panel Width: 16 inches (305 mm).
6. Panel Height: 2 inches (38 mm).

2.3 UNDERLAYMENT MATERIALS

A. Self-Adhering, High-Temperature Underlayment: Provide self-adhering, cold-applied, sheet underlayment, a minimum of 40 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 over the cover board prior to installation of the underlayment.

1. Thermal Stability: Stable after testing at 250 deg F (116 deg C); ASTM D 1970.
2. Low-Temperature Flexibility: Passes after testing at minus 20 deg F (29 deg C); ASTM D 1970.
3. Subject to compliance with the construction documents, the following manufacturers are approved:
   a. Carlisle WIP 300HT
   b. Grace Ice & Water Shield HT

2.4 MISCELLANEOUS MATERIALS

A. Miscellaneous Metal Sub-framing and Furring: ASTM C 645; cold-formed, metallic-coated steel sheet, ASTM A 653/A 653M, G90 (Z275 hot-dip galvanized) coating designation or ASTM A 792/A 792M, Class AZ50 (Class AZM150) 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 ridges, fabricated of same metal as metal panels.

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, eaves, rakes, corners, bases, framed openings, ridges, fasciae, and fillers. Finish flashing and trim with same finish system as adjacent metal panels. The drawings indicate the thickness of the metal.

D. Gutters: Formed from material as designated within specification section 076200, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch- (2400-mm-) long sections, of size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced a maximum of 30 inches (914 mm) o.c., fabricated from same metal as gutters. The drawings indicate the thickness of the metal.

E. Downspouts: Formed from material as designated within specification section 076200. Fabricate in 10-foot- (3-m-) long sections, complete with formed elbows and offsets, of

size and metal thickness according to SMACNA's "Architectural Sheet Metal Manual." Finish downspouts to match gutters.

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

G. Panel Sealants: Provide sealant type recommended by manufacturer that are compatible with panel materials, are non-staining, 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, non-staining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
2. Joint Sealant: ASTM C 920; 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 C 1311.

2.5 FABRICATION

A. General: 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. On-Site Fabrication: Subject to compliance with requirements of this Section, metal 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 according to equipment manufacturer's written instructions and to comply with details shown. All panels must be continuous. No end joints are permitted.

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

D. 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.

E. 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: Adhere with Methacrylate Adhesive for all non-moving joints and seams. Basis of Design: “SG300” manufactured by SCIGRIP Adhesives. Provide mock-up for Owner / Architect approval.
3. Sealed Joints: Form nonexpansion, but movable, joints in metal to accommodate sealant and to comply with SMACNA standards.
4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces of accessories exposed to view.
5. 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 indicated, as recommended by SMACNA's "Architectural Sheet Metal Manual" or metal panel manufacturer for application, but not less than thickness of metal being secured.

2.6 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 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 Panels and Accessories:

    1. Two-coat fluoropolymer.

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 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 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: If required, install sub-framing, furring, and other miscellaneous panel support members and anchorages according to ASTM C 754 and metal panel manufacturer's written recommendations.

3.3 UNDERLAYMENT INSTALLATION

A. Self-Adhering Sheet Underlayment: Apply primer if required by manufacturer. Comply with temperature restrictions of underlayment manufacturer for installation. Apply at locations indicated on Drawings, wrinkle free, in shingle fashion to shed water, and with end laps of not less than 6 inches (152 mm) staggered 24 inches (610 mm) between courses. Overlap side edges not less than 3-1/2 inches (90 mm). Extend underlayment into gutter trough. Roll laps with roller. Cover underlayment within 14 days.

1. Apply over the entire roof surface.

B. Flashings: Install flashings to cover underlayment to comply with requirements specified in Section 076200 "Sheet Metal Flashing and Trim."

3.4 METAL PANEL INSTALLATION

A. General: 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. No panel splices are permitted.

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 stainless-steel fasteners.

C. Anchor Clips: Anchor metal roof panels and other components of the Work securely in place, using manufacturer's approved fasteners according to manufacturers' written instructions.

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

E. 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.
3. Joint: Double lock joints with factory-applied butyl sealant. Completely engage all joints.
4. Watertight Installation:

a. Apply a continuous ribbon of sealant or tape to seal joints of metal panels, using sealant or tape as recommend in writing by manufacturer as needed to make panels watertight.
b. Provide sealant or tape between panels and protruding equipment, vents, and accessories.

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 roof panel manufacturers; or, if not indicated, types recommended by metal roof 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 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 feet (3 m) with no joints allowed within 24 inches (610 mm) 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 (25 mm) deep, filled with mastic sealant (concealed within joints).

H. Gutters: Join sections with riveted and welded sealed joints. Attach gutters to eave with gutter hangers and gutter straps, each spaced not more than 30 o.c. using manufacturer's standard fasteners. Provide end closures and seal watertight with sealant. Provide for thermal expansion.

I. Downspouts: Join sections with telescoping joints. Provide fasteners designed to hold downspouts securely 1 inch (25 mm) away from walls; locate fasteners at top and bottom and at approximately 60 inches (1524 mm) o.c. in between.

1. Provide elbows at base of downspouts to direct water away from building.
2. Connect downspouts to existing PVC downspouts.

J. Roof Curbs: Install flashing around bases where they meet metal roof panels.

K. Pipe Flashing: Form flashing around pipe penetration and metal roof panels. Fasten and seal to metal roof panels as recommended by manufacturer.

3.5 ERECTION TOLERANCES

A. Installation Tolerances: Shim and align metal panel units within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.6 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.

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

END OF SECTION 074110

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

SECTION 076200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Carlisle WIP 300HT
   2. Grace Ice & Water Shield HT

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data: For each of the following

   1. Underlayment materials.
   2. Elastomeric sealant.
   3. Butyl sealant.

B. Shop Drawings: For sheet metal flashing and trim.

   1. Include plans, elevations, sections, and attachment details.
   2. Detail fabrication and installation layouts, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled Work.
   3. Include identification of material, thickness, weight, and finish for each item and location in Project.
   4. Include details for forming, including profiles, shapes, seams, and dimensions.
   5. Include details for joining, supporting, and securing, including layout and spacing of fasteners, cleats, clips, and other attachments. Include pattern of seams.
   6. Include details of termination points and assemblies.
   7. Include details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction from fixed points.
   8. Include details of roof-penetration flashing.
   9. Include details of edge conditions.
   10. Include details of special conditions.
   11. Include details of connections to adjoining work.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of coping and roof edge flashing that is ANSI/SPRI/FM 4435/ES-1 tested.

B. Sample warranty.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance data.

B. Special warranty.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: Employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.

1.7 WARRANTY

A. Special Warranty on Finishes: Manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within specified warranty period.

a. Cracking, checking, peeling, or failure of paint to adhere to bare metal.

2. Finish Warranty Period: 20 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. General: Sheet metal flashing and trim assemblies, including cleats, anchors, and fasteners, shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

B. Sheet Metal Standard for Flashing and Trim: Comply with NRCA's "The NRCA Roofing Manual: Architectural Metal Flashing, Condensation and Air Leakage Control, and Reroofing" and SMACNA's "Architectural Sheet Metal Manual" requirements for dimensions and profiles shown unless more stringent requirements are indicated.

C. SPRI Wind Design Standard: Manufacture and install copings and roof edge flashings tested in accordance with ANSI/SPRI/FM 4435/ES-1 and capable of resisting the following design pressure:

1. Design Pressure: As indicated on Drawings.

D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying strippable, temporary protective film before shipping.

B. Stainless Steel Sheet: ASTM A240/A240M, Type 304, dead soft, fully annealed; with smooth, flat surface.
1. Finish: ASTM A480/A480M, No. 2D (dull, cold rolled) or shop pre-coated with PVDF coating; color to match roof and wall panels.

C. Aluminum Sheet: ASTM B 209 (ASTM B 209M), alloy as standard with manufacturer for finish required, with temper as required to suit forming operations and performance required; with smooth surface.
1. Finish: Shop pre-coated with PVDF coating; custom color to match roof and wall panels.

D. Sheet metal fastenings:
1. Rivets, nails, sheet metal screws, machine screws, self-tapping screws, and stove bolts, of the types and size best adapted to conditions of use.
a. Stainless steel: Use Type 302 stainless steel or other type to match stainless steel being fastened.

2. Pop rivets, by United Shoe Machinery Corp., may be used for metal-to-metal connections when future disassembly is not required. Open-end type may be used for all applications except where watertight connections are required, in which case use closed-end type. Use pop rivets made from same type material as metals to be fastened.

2.3 UNDERLAYMENT MATERIALS

A. Self-Adhering, High-Temperature Sheet Underlayment: Minimum 30 mils (0.76 mm) thick, consisting of a slip-resistant polyethylene- or polypropylene-film top surface laminated to a layer of butyl- adhesive, with release-paper backing; specifically designed to withstand high metal temperatures beneath metal roofing. Provide primer in accordance with underlayment manufacturer's written instructions.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. GCP Applied Technologies Inc.
   b. Henry Company.

2. Low-Temperature Flexibility: ASTM D1970/D1970M; passes after testing at minus 20 deg F (29 deg C) or lower.

3. Standard Testing method for linear dimensional changes of nonrigid thermoplastic sheeting or film at elevated temperature: ASTM D1204 – above 280 degrees F service temp.

2.4 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, protective coatings, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and as recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.

B. Fasteners: Self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.

   1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
   2. Fasteners for Stainless Steel Sheet: Series 300 stainless steel.
   3. Fasteners for Steel Sheet: Series 300 stainless steel

C. Solder:
   1. For Stainless Steel: ASTM B32, Grade Sn60, with acid flux of type recommended by stainless steel sheet manufacturer.
   2. For Zinc-Coated (Galvanized) Steel: ASTM B32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead.

D. Sealant Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.

E. Elastomeric Sealant: ASTM C920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

F. Butyl Sealant: ASTM C1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.

2.5 FABRICATION, GENERAL

A. Custom fabricate sheet metal flashing and trim to comply with details indicated and recommendations in cited sheet metal standard that apply to design, dimensions, geometry, metal thickness, and other characteristics of item required.

1. Fabricate sheet metal flashing and trim in shop to greatest extent possible.
2. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
3. Verify shapes and dimensions of surfaces to be covered and obtain field measurements for accurate fit before shop fabrication.
4. Form sheet metal flashing and trim to fit substrates without excessive oil-canning, buckling, and tool marks; true to line, levels, and slopes; and with exposed edges folded back to form hems.
5. Conceal fasteners and expansion provisions where possible. Do not use exposed fasteners on faces exposed to view.

B. Fabrication Tolerances:

1. Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines indicated on Drawings and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.
2. Fabricate sheet metal flashing and trim that is capable of installation to tolerances specified.

C. Expansion Provisions: Form metal for thermal expansion of exposed flashing and trim.
1. Use lapped expansion joints only where indicated on Drawings.

D. Sealant Joints: Where movable, nonexpansion-type joints are required, form metal in accordance with cited sheet metal standard to provide for proper installation of elastomeric sealant.

E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal.

F. Fabricate cleats and attachment devices of sizes as recommended by cited sheet metal standard for application, but not less than thickness of metal being secured.

G. Seams:

1. Tin edges to be seamed, form seams, and solder.

2.6 ROOF-DRAINAGE SHEET METAL FABRICATIONS

A. Hanging Gutters:

1. Fabricate to cross section required, complete with end pieces, outlet tubes, and other accessories as required.

2. Fabricate in minimum 96-inch- (2400-mm-) long sections.
3. Fabricate expansion joints, expansion-joint covers, gutter bead reinforcing bars, and gutter accessories from same metal as gutters. Shop fabricate interior and exterior corners.

B. Downspouts: .050 Aluminum, .060 Aluminum at bottom 6', primed and painted to match the wall color.

C. Downspout Strap: .050 Aluminum, ASTM B209.

D. Gutter: .050 Aluminum, ASTM B209.

E. Gutter Bracket: 1/8" x 1" Aluminum, ASTM B209.

F. Gutter Strap: .050 Aluminum, ASTM B209.

G. Gutter Throat: .050 Aluminum, ASTM B209.

H. Metal Cleat: 20 Gauge Stainless Steel, Type 316

I. Metal Counter-flashing Type 2: .040 Aluminum, ASTM B209.

J. Metal Edge: .050 Aluminum, ASTM B209.

K. One-Piece Transition Flashing: .050 Aluminum, ASTM B209.

PART 3 - EXECUTION

3.1 INSTALLATION OF UNDERLAYMENT

A. Felt Underlayment: Install felt underlayment, wrinkle free, using adhesive to minimize use of mechanical fasteners under sheet metal flashing and trim.

1. Install in shingle fashion to shed water.
2. Lap joints not less than 2 inches (50 mm).

B. Self-Adhering, High-Temperature Sheet Underlayment:

1. Install self-adhering, high-temperature sheet underlayment; wrinkle free.
2. Prime substrate if recommended by underlayment manufacturer.
3. Comply with temperature restrictions of underlayment manufacturer for installation; use primer for installing underlayment at low temperatures.
4. Apply in shingle fashion to shed water, with end laps of not less than 6 inches (150 mm) staggered 24 inches (600 mm) between courses.
5. Overlap side edges not less than 3-1/2 inches (90 mm). Roll laps and edges with roller.
6. Roll laps and edges with roller.
7. Cover underlayment within 14 days.

3.2 INSTALLATION, GENERAL

A. Install sheet metal flashing and trim to comply with details indicated and recommendations of cited sheet metal standard that apply to installation characteristics required unless otherwise indicated on Drawings.

1. Install fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
2. Install sheet metal flashing and trim true to line, levels, and slopes. Provide uniform, neat seams with minimum exposure of solder and sealant.
3. Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement.
4. Install sheet metal flashing and trim to fit substrates and to result in watertight performance.
5. Install continuous cleats with fasteners spaced not more than 12 inches (300 mm) o.c.
6. Install exposed sheet metal flashing and trim with limited oil-canning, and free of buckling and tool marks.
7. Do not field cut sheet metal flashing and trim by torch.

B. Metal Protection: Where dissimilar metals contact each other, or where metal contacts pressure-treated wood or other corrosive substrates, protect against galvanic action or corrosion by painting contact surfaces with bituminous coating or by other permanent separation as recommended by sheet metal manufacturer or cited sheet metal standard.

1. Coat concealed side of stainless steel sheet metal flashing and trim with bituminous coating where flashing and trim contact wood, ferrous metal, or cementitious construction.
2. Underlayment: Where installing sheet metal flashing and trim directly on cementitious or wood substrates, install underlayment and cover with slip sheet.

C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim.

1. Space movement joints at maximum of 10 feet (3 m) with no joints within 24 inches (600 mm) of corner or intersection.
2. Use lapped expansion joints only where indicated on Drawings.

D. Fasteners: Use fastener sizes that penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Conceal fasteners and expansion provisions where possible in exposed work and locate to minimize possibility of leakage. Cover and seal fasteners and anchors as required for a tight installation.

F. Seal joints as required for watertight construction.

1. Use sealant-filled joints unless otherwise indicated.
   a. Form joints to completely conceal sealant.

b. When ambient temperature at time of installation is between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way.
c. Adjust setting proportionately for installation at higher ambient temperatures.

1) Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).

2. Prepare joints and apply sealants to comply with requirements in Section 079200 "Joint Sealants."

G. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter.

1. Pretin edges of sheets with solder to width of 1-1/2 inches (38 mm); however, reduce pretinning where pretinned surface would show in completed Work.
2. Do not use torches for soldering.
3. Heat surfaces to receive solder, and flow solder into joint.

a. Fill joint completely.
b. Completely remove flux and spatter from exposed surfaces.

4. Stainless Steel Soldering:

a. Tin edges of uncoated sheets, using solder for stainless steel and acid flux.
b. Promptly remove acid-flux residue from metal after tinning and soldering.
c. Comply with solder manufacturer's recommended methods for cleaning and neutralization.

3.3 INSTALLATION OF ROOF-DRAINAGE SYSTEM

A. Install sheet metal roof-drainage items to produce complete roof-drainage system in accordance with cited sheet metal standard unless otherwise indicated. Coordinate installation of roof perimeter flashing with installation of roof-drainage system.

B. Hanging Gutters:

1. Join sections with riveted and soldered joints.
2. Provide for thermal expansion.
3. Attach gutters at eave or fascia to firmly anchor them in position.
4. Provide soldered end closures.
5. Slope to downspouts.
6. Install gutter with expansion joints at locations indicated on Drawings, but not exceeding, 40 feet (15.2 m) apart. Install expansion-joint caps.

3.4 INSTALLATION OF ROOF FLASHINGS

A. Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and cited sheet metal standard.

1. Provide concealed fasteners where possible, and set units true to line, levels, and slopes.
2. Install work with laps, joints, and seams that are permanently watertight and weather resistant.

B. Roof Edge Flashing:

1. Install roof edge flashings in accordance with ANSI/SPRI/FM 4435/ES-1.
2. Anchor to resist uplift and outward forces in accordance with recommendations in cited sheet metal standard unless otherwise indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch (75-mm) centers.

3.5 INSTALLATION TOLERANCES

A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines indicated on Drawings and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.6 CLEANING

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean and neutralize flux materials. Clean off excess solder.

C. Clean off excess sealants.

3.7 PROTECTION

A. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.

B. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures, as determined by Architect.

END OF SECTION 076200

DIVISION 7 – THERMAL AND MOISTURE PROTECTION

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Silicone joint sealants.
2. Urethane joint sealants.
3. Butyl joint sealants

1.2 SUBMITTALS

A. Product Data: For each joint-sealant product indicated.

B. Samples: For each kind and color of joint sealant required.

C. Product test reports.

D. Warranties.

1.3 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1021 to conduct the testing indicated.

1.4 WARRANTY

A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

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

B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

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

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

2.2 SILICONE JOINT SEALANTS

A. Mildew-Resistant Neutral-Curing Acid-Curing Silicone Joint Sealant: ASTM C 920.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

   a. BASF Building Systems.
   b. Dow Corning Corporation.
   c. Sika Corporation, Construction Products Division.

2. Type: Single component (S).
3. Grade: nonsag (NS).
4. Class: 100/50.
5. Uses Related to Exposure: Nontraffic (NT).

2.3 URETHANE JOINT SEALANTS

A. Urethane Joint Sealant: ASTM C 920.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. Sika Corporation; Construction Products Division.
   b. BASF Building System
   c. Dow Corning Coroporation

2. Type: Single component (S).
3. Grade: nonsag (NS).
4. Class: 100/50.
5. Uses Related to Exposure: Nontraffic (NT).

2.4 SOLVENT-RELEASE-CURING JOINT SEALANTS (Butyl)

A. Butyl-Rubber-Based Joint Sealant: ASTM C 1311.

1. Products: Subject to compliance with requirements, provide the following:

   a. Bostik, Inc.; Chem-Calk 300.
   b. Pecora Corporation; BC-158.
   c. Tremco Incorporated; Tremco Butyl Sealant.

2.5 JOINT SEALANT BACKING

A. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin), and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.6 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.

1. Remove laitance and form-release agents from concrete.
2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.2 INSTALLATION

A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

   1. Do not leave gaps between ends of sealant backings.
   2. Do not stretch, twist, puncture, or tear sealant backings.
   3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

   1. Place sealants so they directly contact and fully wet joint substrates.
   2. Completely fill recesses in each joint configuration.
   3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

   1. Remove excess sealant from surfaces adjacent to joints.
   2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
   3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.

F. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.3 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:

   1. Extent of Testing: Test completed and cured sealant joints as follows:

a. Perform 3 tests for each type of adhesive and at each material type.

2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.

B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.4 JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

1. Joint Locations:

a. All non-painted joints which are exposed to weather elements:

2. Joint Sealant: Silicone.
3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

B. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

1. Joint Locations:

a. At all painted joints which are exposed to weather elements.

2. Joint Sealant: Urethane.
3. Joint-Sealant Color: As selected by Architect from manufacturer's full range of colors.

C. Joint-Sealant Application: Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

1. Joint Sealant Location:
a. At all joints which are concealed and not directly exposed to weather elements.

2. Joint Sealant: Butyl.
3. Joint-Sealant Color: Black.

END OF SECTION

DIVISION 9 – FINISHES

SECTION 092513 – ACRYLIC PLASTER FINISH

PART 1.00 - GENERAL

1.01 SECTION INCLUDES

A. Textured finish system for exterior cement board soffic surfaces.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Sealants: Section 079200.

1.03 QUALITY ASSURANCE

A. Comply with requirements of regulatory agencies.

1. In addition to complying with other legal requirements, comply with fire-resistive ratings of UL tested and listed assemblies for classification of construction required.

B. Reference specifications and standards:

1. ASTM B 117 (Federal Test Standard 141A Method 6061) Test Method of Salt Spray (Fog) Testing.
2. ASTM C 67 Test Method for Sampling and Testing Brick and Structural Tile.
3. ASTM C 150 Specification for Portland Cement.
4. ASTM C 297 Test Method for Tensile Strength of Flat Sandwich Constructions in Flatwise Plane.
5. ASTM C 1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
6. ASTM C 1396 (formerly C 79) Standard Specification for Gypsum Board
7. ASTM D 968 (Federal Test Standard 141A Method 6191) Test Method for Abrasion Resistance of Organic Coatings by Falling Abrasive.
8. ASTM D 3273 Test Method for Resistance to Growth of Mold on Surfaces.
9. ASTM E 84 Test Method for Surface Burning Characteristics of Building Materials.
10. ASTM E 96 Test Methods for Water Vapor Transmission of Materials.
11. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference.
12. ASTM G 23 (Federal Test Standard 141A Method 6151) Recommended Practice for Operating Exposure ApparatC.

C. Manufacturer's Qualifications: The textured finish system manufacturer shall be a company with at least twenty years of experience in manufacturing specialty finishes and regularly engaged in the manufacture and marketing of products specified herein. The manufacturer shall have an ISO 9001:2008 certified quality system and ISO 14001:2004 certified environmental management system.

D. Installer's Qualifications: The contractor shall be qualified to perform the work specified by reason of experience. Contractor shall have at least 5 years of experience in commercial textured finish application, and shall have completed at least 3 projects of similar size and complexity. Contractor shall provide proof before commencement of work that he/she will maintain and supervise a qualified crew of applicators through the duration of the work. When requested Contractor shall provide a list of the last three comparable jobs including the name, location, and start and finish dates for the work.

E. Mock-ups: The contractor shall install a 4 ft. x 8 ft mock-up of the system for evaluation and approval by the design professional, building owner, or owner's representative/quality assurance agent.

F. Testing: Testing shall be conducted as directed by the design professional, building owner, or owner's representative/quality assurance agent to verify soffit/ceiling assembly performance and adhesion to prepared substrates.

1.04 SUBMITTALS

A. Procedure: In accord with Owner requests.

B. Certificates: Manufacturer's certification that materials conform to Specifications requirements.

C. Product data: Manufacturer's written recommendations for mix proportions and application for factory-prepared finish materials.

D. Samples: The Contractor shall submit to the owner/architect two samples of each finish, texture and color to be used on the project. The same tools and techniques proposed for the actual installatioun shall be used to prepare the samples. Samples shall be 24 in. square panel to accurately represent each color and texture to be utilized on the project

1.05 PRODUCT HANDLING

A. Procedures: In accord with Owner requests.

B. Immediately remove from site all materials which have been delivered in broken, damaged, or unlabeled condition.

C. Protect materials from dampness.

D. Store materials indoors, off floor.

E. Deliver products in original packaging, labeled with product identification, manufacturer and batch number.

F. Store projects in a dry area with temperature maintained between 50 and 85 degrees F. Protect from direct sunlight. Protect from freezing. Protect from extreme heat above 90 degrees F.

1.06 WARRANTY

A. Provide manufacturer's standard limited warranty.

PART 2.00 - PRODUCTS

2.01 MATERIALS

A. Textured Finish: High performance decorative and protective acrylic-based textyred wall finish with integral color, complies with SCAQMD Rule 1113 for acthirectural finishes.

Basis of Design: Sto Essence DPR by Sto Corp.

B. Primer: Acrylic-based saneded primer, complies with SCAQMD Rule 1113 for primers.

Basis of Design: StoPrime by Sto Corp.

C. Base Coat: One component polymer modified Portland cement high build base coat.

Basis of Design: Sto BTS Plus by Sto Corp.

D. Surface Reinforcement: maximum nominal 4.5 glass fiber reinforcing mesh by approved manufacturer.

Basis of Design: Sto Mesh by Sto Corp.

E. Coverboard: USG Securock or approved equal.

2.02 ACCESSORIES

A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.

B. Plastic Accessories:

1. Casing Beads: With perforated flanges in depth required to suit plaster bases indicated and flange length to suit application indicated.
   a. Square-edge style; use unless otherwise indicated.
2. Control Joints: One-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.
3. Expansion Joints: Two-piece type, formed to produce slip-joint and square edges sized to match existing, with perforate concealed flanges.

PART 3.00 - EXECUTION

3.01 EXAMINATION

A. Examine surfaces for conditions that will adversely affect execution, permanence, and quality of work.

B. Do not proceed with work until unsatisfactory conditions have been corrected.

C. Verify that surfaces to be plastered are free of dust, loose particles, oil, and foreign matter which would affect bond of plaster coats.

D. Examine framing, grounds, and accessories to ensure that finished plaster surfaces will be true to line, level and plumb, without requiring additional thicknesses of plaster. Soffit board surface shall not have irregularities in excess of 1/16".

3.02 PREPARATION

A. Cover or otherwise protect finish materials subject to damage by plaster.

B. Cover and protect all adjacent surfaces from plaster stains, including surfaces which will be covered by other finish materials.

3.03 MIXING

A. Mix products in accordance with manufacturer's published literature. Refer to applicable product bulletins for specific information on use, handling, application, precautions and limitations of specific products.

3.04 APPLICATION

A. General:

1. Install corrosion proof termination accessories per ASTM D1784 (PVC) with perforated flanges for keying of the base coat at junctures with penetrations such as soffit vents, electrical fixtures, and with abutting walls and columns. Install corrosion proof control joints per ASTM D1784 (PVC) with perforated flanges for keying of the base coat at intervals as required by the soffit board manufacturer.

2. Reinforce perforated flanges of accessories with minimum 4 inch (102 mm) wide strips mesh embedded in base coat. Where cement board is used tape joints between boards with minimum 4 inch (102 mm) wide mesh and skim with base coat. Alternatively tape joints with minimum 4 inch (1023 mm) wide mesh embedded in base coat. Allow base coat to dry.

3. Install nominal 1/8-inch (3 mm) base coat by trowel to the soffit/ceiling board surface. Work horizontally or vertically in strips of 40 inches (1016 mm), and immediately embed the mesh into the wet base coat by troweling from the center to the edge of the mesh. Overlap mesh installed at perforated accessory flanges by installing mesh up to the termination bead of the accessory. Overlap mesh not less than 2-½ inches (64 mm) at mesh seams and feather at seams. Double wrap all inside and outside corners with minimum 8-inch (203 mm) overlap in each direction (except where corner bead is used at outside corners lap mesh over perforated flange of accessory). Avoid wrinkles in the mesh. The mesh must be fully embedded so that no mesh color shows through the base coat when it is dry. Re-skim with additional base coat if mesh color is visible. Do not install base coat and mesh onto solid (unperforated) portions of accessories.

4. When the base coat application is dry apply the primer by brush or roller to the entire base coat surface.

5. When the primer application is dry apply the textured finish by trowel. Apply finish in a continuous application, and work to a wet edge. Float the finish to achieve the desired texture.

6. Control joints shall be installed to match existing, not exceeding more than 20 linear feet or soffit areas which exceed 200 square feet. Expansion joints shall be installed at existing locations.

D. Cleaning:

1. All excess materials shall be removed from the job site by the Contractor in accordance with contract provisions.
2. All surrounding areas, where acrylic plaster finish system was installed, shall be left free of debris and foreign substances resulting from the Contractor's work.

E. Protection: Provide protect of the installed material from water infiltration into or behind them during and after construction. Provide protection of installed materials from dust, dirt, precipitation, freezing and continuous high humidiy until they are fully dry. Seal penetrations through the finished surface with backer rod and sealant or other appropriate means.

END OF SECTION

100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY
INDIAN RIVER COUNTY COURTHOUSE
METAL ROOFING REPLACEMENT PROJECT

2000 16TH AVENUE
VERO BEACH, FLORIDA 32960

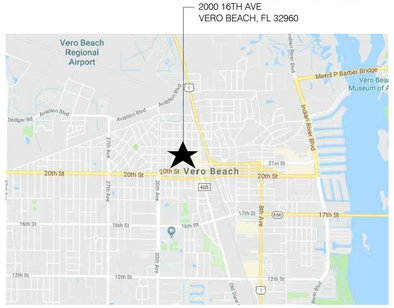
PREPARED FOR:

JANUARY 15, 2021

DRAWING INDEX

SHEET NUMBER	SHEET TITLE	ORIGINAL DATE	REVISION NUMBER	REVISION DATE
C1.0	COVER SHEET	01/15/2021	0	NA
A1.1	SYMBOLS, ABBREVIATIONS & CODE INFORMATION	01/15/2021	0	N/A
A1.2	GENERAL NOTES	01/15/2021	0	N/A
A1.3	SCOPE OF WORK	01/15/2021	0	NA
A1.4	LOCATION AND SITE PLAN	01/15/2021	0	NA
A2.1	DEMOLITION ROOF PLAN	01/15/2021	0	NA
A2.2	ENLARGED PROPOSED ROOF PLANS	01/15/2021	0	NA
A2.3	ENLARGED REFLECTED CEILING PLANS	01/15/2021	0	NA
A2.4	WIND UPLIFT PRESSURE ROOF PLANS	01/15/2021	0	NA
A2.5	DRAINAGE PLANS	01/15/2021	0	NA
A3.1	ROOF DETAILS	01/15/2021	0	N/A
A3.2	ROOF DETAILS	01/15/2021	0	N/A
A3.3	EXTERIOR CEILING DETAILS	01/15/2021	0	N/A
A3.4	GUTTER AND DOWNSPOUTS DETAILS	01/15/2021	0	N/A
A4.1	PHOTOGRAPHS	01/15/2021	0	N/A

INDIAN RIVER COUNTY COURTHOUSE
2000 16TH AVE
VERO BEACH, FL 32960



SITE VICINITY MAP

N

STATEMENT OF COMPLIANCE
TO THE BEST OF OUR KNOWLEDGE THESE DRAWINGS ARE COMPLETE AND COMPLY WITH THE FLORIDA BUILDING CODE 2020 (7TH ED), AND REFERENCED STATUTES, CODES, RULES AND REGULATIONS REFERENCED THEREIN.

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA
METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-082
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

COVER SHEET

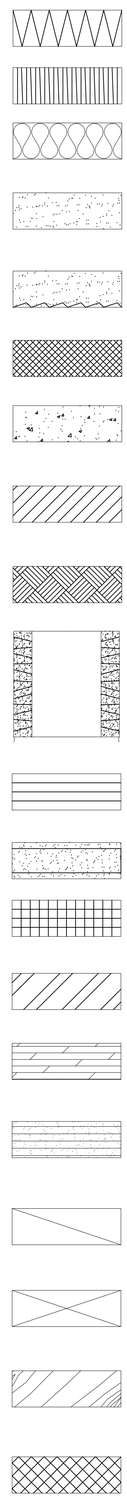
PLOT: N.T.S.

SHEET C1.0

ARCHITECTURAL ABBREVIATIONS

A/C	AIR CONDITIONING
ACT	ACOUSTICAL CEILING TILE or ACOUSTICAL TREATMENT
AD	AREA DRAIN or AREA DEVELOPMENT
AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
APPROX	APPROXIMATELY
ARF	ACRYLIC RESIN FLOORING
AHU	AIR HANDLING UNIT
BD	BOARD
BF	BRICK FACE
BLDG	BUILDING
BO	BOTTOM OF
BOH	BACK OF HOUSE
BOT	BOTTOM
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CJ	CONTROL JOINT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
CT	CERAMIC TILE
D	DEPTH
DBL	DOUBLE
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DMP	DISTRESSED METAL PROCESS
DN	DOWN
DS	DOWN SPOUT
DWG	DRAWING
DWP	DISTRESSED WOOD PROCESS
DWR	DRAWER
DL	DEAD LOAD
(E)	EXISTING
EA	EACH
EDF	ELECTRICAL DRINKING FOUNTAIN
EER	ELECTRONIC EQUIPMENT ROOM
EH	EYEHOOK
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
EXP	EXPOSED
EXT	EXTERIOR
FBR	FABRIC
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FMG	FACTORY MUTUAL GLOBAL
FRT	FIRE RETARDANT TREATED
FIN	FINISH
FLR	FLOOR
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FRP	FIBERGLASS REINFORCED PLASTIC
FS	FLOOR SINK or FINISH SEALER
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GFRC	GLASS FIBER REINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GAL	GALLON
GL	GLASS
GYP BD	GYPSUM BOARD
H	HIGH
HB	HOSE BIBB
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING VENTILATING & AIR CONDITIONING
ID	INSIDE DIAMETER
INSUL	INSULATION
INT	INTERIOR
JT	JOINT
KEC	KITCHEN EQUIPMENT CONTRACTOR
KD	KILN DRIED
KDAT	KILN DRIED AFTER TREATMENT
LAV	LAVATORY
LL	LIVE LOAD
LP	LOW POINT
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MBSR	MODIFIED BITUMINOUS SHEET ROOFING
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MET	METAL
MEZZ	MEZZANINE
MF	METAL FACE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MRT	MOISTURE RESISTANT TREATMENT
(N)	NEW
NIC	NOT IN CONTRACT
NR	NOT RATED
NTS	NOT TO SCALE
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
OC	ON CENTER
OCC	OPERATOR CONTROL CONSOLE
OCP	OPERATOR CONTROL PANEL
OD	OUTSIDE DIAMETER or OVERFLOW DRAIN
OFI	OWNER FURNISHED ITEM
OFOI	OWNER FURNISHED OWNER INSTALLED
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OPP	OPPOSITE
P.S.I.	POUNDS PER SQUARE INCH
PF	PLASTER FACE
PL	PLATE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PNT	PAINT
POC	POINT OF CONNECTION
POS	POINT OF SALE
PR	PAIR
PREP	PREPARATION
PROJ	PROJECTION
PSF	POUNDS PER SQUARE FPPT
PT	PRESSURE TREATED
QT	QUARRY TILE
R	RISER
R or RAD	RADIUS
RBC	RESILIENT BASE COVE
RBS	RESILIENT BASE STRAIGHT
RC	REINFORCED CONCRETE
RD	ROOF DRAIN
RCP	REFLECTED CEILING PLAN
REF	REFERENCE
REQD	REQUIRED
RF	RESILIENT FLOOR
RM	ROOM
RO	ROUGH OPENING
RS	ROUGH SAWN
SC	SOLID CORE
SF	SQUARE FEET or STONE FACE
SHT	SHEET
SIM	SIMILAR
SPF	SPECIAL FINISH
SQ	SQUARE
SQ FT	SQUARE FEET OR SQUARE FOOT
SS	STAINLESS STEEL
SSP	SANITARY SHEET PLASTIC
ST	STONE
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUSP	SUSPENDED
S4S	SURFACED FOUR SIDES
SYP	SOUTHERN YELLOW PINE
T	TREAD
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
TOC	TOP OF CONCRETE or CURB
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES INC.
UNO	UNLESS NOTED OTHERWISE
UPH	UPHOLSTERY
VCT	VINYL COMPOSITION TILE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W	WIDE
W/	WITH
WC	WALL COVERING OR WATER CLOSET
W/O	WITHOUT
WF	WOOD FACE
WD	WOOD
WDB	WOOD BASE
WDF	WOOD FLOOR
WP	WORK POINT
WR	WATER RESISTANT

MATERIALS LEGEND



ACOUSTICAL INSULATION

ACOUSTICAL TILE

BATT INSULATION

PORTLAND CEMENT PLASTER

PORTLAND CEMENT PLASTER OVER METAL LATH

COMPRESSIBLE FILLER

CONCRETE

CONCRETE MASONRY UNIT

EARTH

C.M.U. (SECTION)

GLASS

GYPSUM BOARD

RIGID INSULATION

METAL

PLYWOOD

DENS DECK SHEATHING

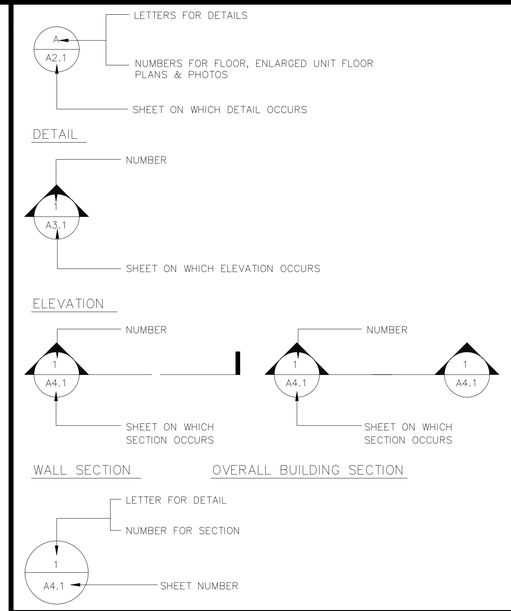
WOOD BLOCKING

CONTINUOUS WOOD MEMBER

FINISHED WOOD MEMBER

EXTERIOR INSULATION & FINISH SYSTEM

SYMBOLS



CODE INFORMATION

APPLICABLE BUILDING CODES

BUILDING :	2020 FLORIDA BUILDING CODE – BUILDING	Edition : SEVENTH
EXISTING :	2020 FLORIDA BUILDING CODE – EXISTING BUILDING	Edition : SEVENTH
MECHANICAL :	2020 FLORIDA BUILDING CODE – MECHANICAL	Edition : SEVENTH
PLUMBING :	2020 FLORIDA BUILDING CODE – PLUMBING	Edition : SEVENTH
FUEL GAS :	2020 FLORIDA BUILDING CODE – FUEL GAS	Edition : SEVENTH
ACCESSIBILITY :	2020 FLORIDA BUILDING CODE – ACCESSIBILITY	Edition : SEVENTH
ENERGY :	2020 FLORIDA BUILDING CODE – ENERGY CONSERVATION	Edition : SEVENTH
FIRE :	FLORIDA FIRE PREVENTION CODE (2020)	Edition : SEVENTH

CORNER GAZEBOS

CONSTRUCTION TYPE:	TYPE I–A
FIRE SPRINKLERS:	NO
OCCUPANCY:	CLASSIFICATION: BUSINESS GROUP – B
STORIES:	1
BUILDING HEIGHT:	25'–2" TO TOP OF RIDGES
PROJECT AREA:	ROOF AREA – 342 SQ. FT. (ONE GAZEBO)
	TOTAL AREA – 1,026 SQ. FT. (ALL 3 GAZEBOS)

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA
METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

SYMBOLS, ABBREVIATIONS AND CODE INFORMATION

PLOT: N.T.S.
SHEET A1.1

SPECIFIC NOTES:

1. **PERFORMANCE REQUIREMENTS:** THE CONTRACTOR SHALL BASE THE BID UPON PROVIDING A COMPLETE ROOFING REPLACEMENT PROJECT AS REQUIRED TO PROVIDE ASSEMBLIES WHICH WILL REMAIN WATERTIGHT FOR A MINIMUM PERIOD OF 20 YEARS.
2. **EXISTING CONDITIONS VERIFICATION:** THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, INCLUDING BUT NOT LIMITED TO, ROOF AREA SIZES, ROOF SLOPES, EXISTING ROOF MATERIALS AND DETAILS. THE CONTRACTOR SHALL ADVISE THE ARCHITECT OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE CONSTRUCTION DOCUMENTS, PRIOR TO SUBMISSION OF THE BID.
3. **COMPLIANCE WITH INDUSTRY STANDARDS:** ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE DOCUMENT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, AND OTHER RECOGNIZED INDUSTRY STANDARDS, INCLUDING BUT NOT LIMITED TO, "THE NRCA "ROOFING MANUAL: MEMBRANE ROOF SYSTEMS 2019", "THE NRCA "ROOFING MANUAL: ARCHITECTURAL METAL FLASHING AND CONDENSATION CONTROL AND AIR LEAKAGE CONTROL 2018, AND THE SMACNA "ARCHITECTURAL SHEET METAL MANUAL 7TH EDITION".
4. **COMPLIANCE WITH FLORIDA BUILDING CODE 2020 (7TH ED) AND AUTHORITY HAVING JURISDICTION (AHJ):** ALL WORK TO MEET OR EXCEED REQUIREMENTS OF THE FLORIDA BUILDING CODE 2020 (7TH ED) AND AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT.
5. **TESTING:** CONDUCT APPROPRIATE TESTS FOR EACH NEWLY INSTALLED COMPONENT.
6. **TYPICAL NOTES, SECTIONS AND DETAILS:** NOTES, SECTIONS, AND DETAILS DESCRIBING REQUIRED WORK AT EACH COMPONENT ARE TYPICAL FOR ALL SIMILAR COMPONENTS AND THE NOTE, SECTION, OR DETAIL SHALL APPLY AS IF CALLED OUT SEPARATELY AT EACH LOCATION. THE DETAILS REFLECT A GENERAL DESIGN OF EACH DETAIL. THE CONTRACTOR SHALL MAKE ANY REQUIRED MODIFICATIONS TO THE GIVEN DETAILS NECESSARY TO MAKE THE DETAIL COMPATIBLE WITH EXISTING CONDITIONS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ARCHITECT FOR ALL MODIFIED DETAILS BEFORE THE DETAILS ARE CONSTRUCTED.
7. **PATCHING:** PATCH ALL EXISTING COMPONENTS THAT ARE AFFECTED BY THE WORK OF THIS PROJECT WHETHER OR NOT IDENTIFIED BY THE CONSTRUCTION DOCUMENTS TO BE PATCHED. PATCHING IS DEFINED AS: REPAIRING ALL EXISTING COMPONENTS INCLUDING BUT NOT LIMITED TO SUBSTRATE MATERIALS, STRUCTURAL COMPONENTS, AND FINISHES IN ACCORDANCE WITH INDUSTRY STANDARDS. ALL FINISHES SHALL BE PATCHED TO MATCH ALL CHARACTERISTICS OF EXISTING ADJACENT MATERIALS INCLUDING BUT NOT LIMITED TO MATERIAL TYPE, FINISH TEXTURE, AND COLOR OF FINISH.
8. **POSITIVE SLOPE:** INSTALL NEW SLOPE WHERE DESIGNATED AND WHERE REQUIRED TO ACHIEVE A POSITIVE ROOF SLOPE THAT DOES NOT POND WATER.
9. **MOCKUPS:** PREPARE IN-PLACE MOCKUPS OF EACH APPLICATION AND DETAIL. RECEIVE WRITTEN APPROVAL FROM ALL MATERIAL MANUFACTURER'S FOR PRODUCTS INCLUDED IN THE MOCKUP, FROM THE ARCHITECT, AND FROM THE OWNER PRIOR TO FURTHER APPLICATION OR INSTALLATION.
10. **REFERENCE TO "ALL":** WHERE SCOPE OF WORK REFERS TO "ALL", THIS IS DEFINED AS ALL SIMILAR COMPONENTS WHETHER OR NOT THAT REFERENCED COMPONENT IS DEPICTED ON THE DRAWING.
11. **NEW COMPONENTS:** ALL DEPICTED COMPONENTS ON DRAWINGS ARE NEW UNLESS IDENTIFIED AS EXISTING.
12. **INTERIOR PROTECTION:** PRIOR TO DEMOLITION, INSTALL PROTECTION OVER INTERIOR SPACES AS REQUIRED TO PROTECT OCCUPANTS, BUILDING COMPONENTS, AND EQUIPMENT FROM WEATHER ELEMENTS AND CONSTRUCTION RELATED DEBRIS.
13. **WEATHERPROOF ENCLOSURE:** APPLY WEATHERPROOF ROOF COVERINGS OVER THE ROOF AREAS DESIGNATED FOR REPLACEMENT OR REPAIR AS REQUIRED TO PREVENT THE INTRUSION OF WEATHER ELEMENTS INTO THE BUILDING DURING THE CONSTRUCTION PROCESS.
14. **HOUSEKEEPING:** THOROUGHLY CLEAN ALL CONSTRUCTION RELATED DEBRIS FROM ALL INTERIOR SURFACES, EXTERIOR SURFACES, AND SITE SURFACES ON A DAILY BASIS. ALL CONSTRUCTION EQUIPMENT, DEBRIS, AND NEW MATERIAL STORED ON THE SITE SHALL BE SECURED TO PREVENT WIND DISPLACEMENT.
15. **SAFETY:** PROVIDE ALL NECESSARY MEASURES TO ENSURE SAFETY TO BUILDING OCCUPANTS DURING THE PERIODS WHEN THE BUILDING IS OCCUPIED. PREVENT ACCESS TO THE CONSTRUCTION AREAS AND STAGING AREAS BY SIGNS, FENCES, AND OTHER BARRIERS. INSTALL A TEMPORARY BARRIER OVER THE TOP OF ALL ENTRANCES FOR A DISTANCE OF 10 FEET BEYOND THE ENTRANCE AS REQUIRED TO PROTECT PEDESTRIANS FROM FALLING DEBRIS.
16. **MANUFACTURER'S AND PRODUCTS:** MANUFACTURER'S AND PRODUCTS LISTED ARE A BASIS OF DESIGN. FOR ANY OTHER MANUFACTURER'S PRODUCTS, SUBMIT REQUEST FOR CONSIDERATION OF EACH COMPARABLE PRODUCT DURING THE BIDDING PHASE. ALL COMPARABLE PRODUCTS APPROVED WILL BE LISTED IN AN ADDENDUM.
17. **TRADES:** ALL WORK SHALL BE PERFORMED BY CONTRACTORS LICENSED IN THEIR TRADES AND AS REQUIRED BY THE BUILDING DEPARTMENT OFFICIALS. THESE TRADES INCLUDE BUT ARE NOT LIMITED TO ROOFING CONTRACTORS, GENERAL CONTRACTORS, ELECTRICAL CONTRACTORS, HVAC CONTRACTORS, PLUMBING CONTRACTORS, AND SEALANT CONTRACTORS.
18. **FINAL INSPECTION:** THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AFTER ALL WORK HAS BEEN COMPLETED. A FINAL INSPECTION SHALL BE PERFORMED JOINTLY BY THE ARCHITECT, COUNTY STAFF, AND BUILDING OFFICIAL, IN ACCORDANCE WITH FLORIDA BUILDING CODE 2020 (7TH ED) 1512.4.3.3.

GENERAL NOTES:

A. ALL DETAILS INDICATE MINIMUM INSTALLATION REQUIREMENTS. IF THE MANUFACTURER'S STANDARDS DETAILS ARE MORE STRINGENT, IN THE OPINION OF THE ARCHITECT, THEY SHALL GOVERN. IF THE DETAILS SHOWN ARE MORE STRINGENT THAN THE MANUFACTURER'S STANDARD DETAILS, IN THE OPINION OF THE ARCHITECT, THE DETAILS SHOWN SHALL GOVERN, REGARDLESS OF THE MANUFACTURER'S WILLINGNESS TO WARRANT / GUARANTY THE LESSER DETAIL. BY SUBMITTING A BID FOR THIS PROJECT, IT IS UNDERSTOOD THAT THE CONTRACTOR AND MANUFACTURER AGREE TO WARRANT / GUARANTY THE DETAILS SHOWN. THE ARCHITECT MAY, BUT IS NOT OBLIGATED TO, ACCEPT ANY PROPOSED CHANGES TO THE DETAILS SHOWN.

B. THE CONTRACTOR IS TO PROVIDE ALL LABOR AND MATERIAL FOR A COMPLETE AND WATERTIGHT JOB WHICH IS FULLY WARRANTED / GUARANTEED BY THE MANUFACTURER AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. ANY DETAILS OR WORK REQUIRED FOR A COMPLETE JOB, BUT NOT SHOWN OR SPECIFIED BY THE CONTRACT DOCUMENTS, SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER. ANY ADDITIONAL LABOR AND MATERIAL REQUIRED TO MEET MANUFACTURER'S WARRANTY / GUARANTY REQUIREMENTS, BUT NOT INDICATED BY THE CONTRACT DOCUMENTS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

C. ALL REFINISHING REQUIREMENTS, SHALL INCLUDE THE FOLLOWING: REMOVE ALL RUST FROM METAL SURFACES AND APPLY COAT OF RUST INHIBITOR. REPLACE ALL METAL COMPONENTS WHICH ARE CORRODED THROUGH THE METAL. PRESSURE CLEAN ALL EXPOSED SURFACES. SECURE ALL LOOSE COMPONENTS WITH STAINLESS STEEL FASTENERS WHICH EXTEND INTO SOLID SUBSTRATE BELOW OR BEHIND COMPONENT BEING SECURED. CONCEAL FASTENER HEADS WITH MATERIAL WHICH MATCHES ADJACENT SURFACES. REPAINT ALL EXPOSED SURFACES TO MATCH EXISTING FINISHES.

D. ALL COMPONENTS AND ASSEMBLIES SHALL MEET OR EXCEED UL STANDARDS FOR A CLASS A FIRE RATING.

GENERAL SCOPE OF WORK:

A. SEE SHEET G1.3 FOR DESCRIPTION OF WORK.

BUILDING PROTECTION NOTES:

A. THE BUILDING MAY BE FULLY OR PARTIALLY OCCUPIED AND WILL REMAIN FUNCTIONAL THROUGHOUT THE CONSTRUCTION PERIOD. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO CONTENTS AND OCCUPANTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION AND FOR THE SAFETY OF ALL PERSONS AT THE PROJECT SITE.

B. THE BUILDING SHALL BE WATERTIGHT AT THE END OF EACH DAYS CONSTRUCTION AND WHEN INCLEMENT WEATHER THREATENS.

C. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING CONSTRUCTION TO REMAIN, INCLUDING THE BUILDING, ADJACENT ROOFS, WALLS, LANDSCAPE/VEGETATION, GROUNDS, EXTERIOR SURFACES, THE INTERIOR OF THE BUILDING AND ALL PROMENADE CONCRETE WITHIN THE PROJECT BOUNDARIES. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO PAINT, WATER, DUST, DEBRIS AND PHYSICAL DAMAGE. ALL SURFACES SHALL BE RESTORED TO THEIR PRE-DAMAGE CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER AND TO THE SATISFACTION OF THE OWNER AND ARCHITECT.

D. ANY SURFACES STAINED, MARKED, MARRED, OR DAMAGED BY THE CONTRACTOR SHALL BE RETURNED TO THE ORIGINAL CONDITION AND TO MATCH ADJACENT SURFACES.

E. LAYDOWN/STORAGE AREA IS LIMITED AND SHALL BE AS APPROVED BY THE OWNER.

F. PRIOR TO PERFORMING WORK, CONTRACTOR SHALL INSPECT WORK SITE AND EXISTING CONSTRUCTION FOR POTENTIAL SAFETY HAZARDS. PROVIDE FOR THE SAFETY AND PROTECTION OF WORKERS AND OCCUPANTS THROUGHOUT COURSE OF WORK. COMPLY WITH OSHA REQUIREMENTS.

G. BUILDING ACCESS IS RESTRICTED AND ALLOWED ONLY AS REQUIRED TO ACCOMPLISH CONTRACT WORK. COORDINATE ANY REQUIRED ACCESS WITH THE OWNER.

H. SITE SHALL BE CLEANED AND SECURED ON A DAILY BASIS AT THE END OF EACH WORK SHIFT.

EXTERIOR RESTORATION NOTES:

A. FOR PURPOSES OF THIS PROJECT, REMOVE SHALL MEAN REMOVE AND DISPOSE OF IN AN APPROVED AND LEGAL MANNER.

B. CONTRACTOR SHALL VERIFY THE TOTAL NUMBER OF DETAIL CONDITIONS IN THE FIELD AND PERFORM NEW WORK IN ACCORDANCE WITH THE DETAIL REFERENCED OR THOSE WHICH ARE SIMILAR. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD.

C. DAMAGED OR DETERIORATED ROOF / WALL OR OTHER SUBSTRATE UNCOVERED DURING DEMOLITION SHALL BE DOCUMENTED BY THE CONTRACTOR, REPORTED TO THE PROJECT MANAGER IN WRITING.

D. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS IN THE FIELD, INCLUDING EXISTING MATERIALS AND METHODS OF INSTALLATION BEFORE THE START OF WORK. ANY DISCREPANCIES BETWEEN THE INFORMATION PROVIDED BY THE CONTRACT DOCUMENTS AND CONDITIONS ENCOUNTERED BY THE CONTRACTOR BEFORE THE START OF WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER AND ARCHITECT IN WRITING. THE CONTRACTOR SHALL NOT BE ENTITLED TO COMPENSATION FOR ANY ADDITIONAL LABOR OR MATERIALS DUE TO DIFFERING EXISTING CONDITIONS WHICH ARE NOT BROUGHT TO THE ATTENTION OF THE OWNER AND ARCHITECT PRIOR TO THE START OF WORK.

E. THE CONTRACTOR SHALL REMOVE ALL EXISTING EXTERIOR CONDUIT, PIPING, LIGHTING FIXTURES, LIGHTNING PROTECTION SYSTEMS AND ANY OTHER ITEMS WHICH INTERFERE WITH THE INSTALLATION OF THE NEW EXTERIOR BUILDING ENVELOPE COMPONENTS AND OR RELATED WORK. ALL SUCH EQUIPMENT AND ITEMS SHALL BE TEMPORARILY RE-ROUTED AS NECESSARY IF IT IS REQUIRED TO STAY IN SERVICE. ANY ITEMS NOT REQUIRED TO STAY IN SERVICE SHALL BE PROPERLY STORED BY THE CONTRACTOR AND REINSTALLED AT THE COMPLETION OF THE WORK. ALL WORK SHALL BE PERFORMED BY QUALIFIED, LICENSED CRAFTSMEN IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AT NO ADDITIONAL COST TO THE OWNER. ANY EXISTING WORK WHICH DOES NOT CONFORM TO APPLICABLE CURRENT CODES SHALL BE REPORTED TO THE OWNER IN WRITING PRIOR TO THE REMOVAL.

MOCK-UPS:

A. COMPLETE IN FIELD MOCK-UPS FOR OWNER AND MANUFACTURER REVIEW. OBTAIN WRITTEN OWNER AND MANUFACTURER APPROVAL PRIOR TO INSTALLING ADDITIONAL FLASHINGS COMPONENTS. AT ALL TRANSITION FLASHINGS INCLUDING INSIDE AND OUTSIDE CORNERS, TERMINATIONS, AND INTERFACES WITH ADJACENT DETAILS, PREPARE TRANSITION FLASHING MOCK-UP FOR THE ARCHITECT'S APPROVAL OF EACH DETAIL. FULLY SOLDER OR WELD ALL NON-MOVING JOINTS.

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA

METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
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REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:

PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

GENERAL NOTES

PLOT: N.T.S.

SHEET A1.2

SCOPE OF WORK:

THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1.0 GENERAL:

1.1 ENGINEERING: CONDUCT PULL TESTS OF THE EXISTING ROOF DECK. PROVIDE ENGINEERING CALCULATIONS PREPARED BY A FLORIDA LICENSED STRUCTURAL ENGINEER INCLUDING THE FASTENER SPACING FOR EACH ROOF WIND ZONE. SUBMIT PULL TEST RESULTS AND THE ENGINEERING CALCULATIONS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF THE ROOFING INSTALLATION. SEE DRAWINGS FOR WIND PRESSURES.

1.2 SUBSTRATE PREPARATION: PREPARE, REPAIR, OR REPLACE ALL SURFACES AS NECESSARY TO COMPLY WITH REQUIREMENTS INCLUDING BUT NOT LIMITED TO: WIND UPLIFT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, BUILDING CODE REQUIREMENTS, AND RELEVANT INDUSTRY STANDARDS. PRIOR TO INSTALLATION OF THE ROOFING ASSEMBLY SUBMIT A WRITTEN APPROVAL TO THE ARCHITECT, FROM THE MANUFACTURER OF THE ROOFING ASSEMBLY THAT ALL SUBSTRATES ARE PROPERLY PREPARED FOR THE INSTALLATION OF THE ASSEMBLY.

1.3 WARRANTY: THE NEW ROOFING ASSEMBLY IS TO BE EXAMINED AND APPROVED BY THE MANUFACTURER'S OF THE ROOFING ASSEMBLY AND SHALL RECEIVE A 20 YEAR NDL LABOR AND MATERIAL WARRANTY AGAINST DEFECTS AND LEAKS. THE CONTRACTOR SHALL SUBMIT A 5 YEAR NDL WARRANTY FOR ALL WORK AGAINST DEFECTS AND LEAKS UPON COMPLETION OF THE WORK. ADJUST THE SCOPE OF WORK AS REQUIRED TO OBTAIN THIS WARRANTY.

2.0 STANDING SEAM METAL ROOF PANEL ASSEMBLY:

2.1 DEMOLITION: REMOVE THE EXISTING STANDING SEAM METAL ROOF PANEL COMPONENTS FROM THREE ALL CORNER STANDING SEAM METAL ROOFING ASSEMBLIES. ROOFING ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO METAL ROOF PANELS, CLIPS, FASTENERS, FLASHINGS, GUTTERS AND UNDERLAYMENTS. REMOVE THE EXISTING PVC RAIN LEADERS FROM WITHIN CEILING CAVITY AND CAP EXISTING RAIN LEADERS.

2.2 ROOF DECK PREPARATION: REPLACE ANY DETERIORATED PLYWOOD SHEATHING OR WOOD BLOCKING OBSERVED DURING THE EXISTING ROOF SYSTEM REMOVAL. INCLUDE 320 SQUARE FEET OF 5/8 INCH EXTERIOR GRADE PLYWOOD REPLACEMENT IN BASE BID. INCLUDE 100 LINEAR FEET OF PRESSURE TREATED 2"X8" WOOD BLOCKING CUT AND SIZED AS REQUIRED IN THE BASE BID. ALSO, INCLUDE A UNIT COST PER SQUARE FOOT FOR PLYWOOD REPLACEMENT AND A UNIT COST PER BOARD FOOT FOR WOOD BLOCKING REPLACEMENT IN THE BID TO ADJUST THE CONTRACT AMOUNT FOR ACTUAL FIELD CONDITIONS. SEE SPECIFICATION SECTION 06100.

2.3 ROOF DECK RESECUREMENT: RE-SECURE ALL EXISTING PLYWOOD DECK TO THE EXISTING METAL TRUSSES WITH THE FOLLOWING FASTENERS.

1). CORNER ZONE: #10 SHEET METAL SCREW AT 4" OC EACH STEEL TRUSS.

2). EDGE ZONE: #10 SHEET METAL SCREW AT 6" OC EACH STEEL TRUSS.

3). FIELD ZONE: #10 SHEET METAL SCREW AT 6" OC EACH STEEL TRUSS.

2.4 UNDERLAYMENT: PREPARE ALL ROOF SURFACES TO RECEIVE THE NEW UNDERLAYMENT AS REQUIRED BY THE UNDERLAYMENT MANUFACTURER. APPLY PRIMER OVER ALL EXISTING AND PROPERLY PREPARED UNDERLAYMENT SURFACES. APPLY ONE PLY OF HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT OVER ALL SURFACES AND OVER DESIGNATED ADJACENT WALL SURFACES. APPLY AN ADDITIONAL UNDERLAYMENT PLY OVER ALL HIPS AND OVER ALL PRIMED METAL FLASHING FLANGES.

2.5 METAL ROOF PANELS: INSTALL A METAL STANDING SEAM ROOF PANEL WITH STIFFENING RIBS USING STAINLESS STEEL CONCEALED CLIPS FABRICATED WITH THERMALLY MOVABLE COMPONENTS. SECURE CLIPS THROUGH THE ROOFING ASSEMBLY AND INTO THE EXISTING STEEL DECK. SEE SPECIFICATION SECTION 074110.

2.6 METAL FLASHINGS: INSTALL METAL FLASHINGS WITH FULLY WELDED NON-MOVING SEAMS AND SECURE WITH STAINLESS STEEL FASTENERS AS REQUIRED TO COMPLY WITH THE DESIGNATED WIND PRESSURES.

2.7 INTERNAL GUTTERS AND DOWNSPOUTS: INSTALL NEW 16 GAUGE BENT METAL PLATES AND PLYWOOD SHEATHING TO CONCEAL EXISTING INTERNAL GUTTER SUBSTRATE. FABRICATE AND INSTALL NEW SLOPED GUTTERS AND DOWNSPOUTS AT THE EXISTING EAVES. REMOVE AND CAP EXISTING PVC DOWNSPOUTS. MATCH THE EXISTING DOWNSPOUT LOCATIONS. INSTALL SLOPED SEAMLESS ALUMINUM GUTTERS. INSTALL ROUND ALUMINUM TUBE DOWNSPOUTS AND TIE DISCHARGE END INTO EXISTING STORM LINES WITH A PVC OR ALUMINUM TRANSITION FLASHING.

3.0 EXTERIOR CEILINGS AT CORNER GAZEBOS:

3.1 PLASTER CEILINGS REPLACEMENT: REMOVE ALL EXISTING INTERIOR PLASTER CEILINGS FROM THE EXISTING STEEL EXTERIOR CEILING FRAMING. REMOVE ALL CORROSION DEPOSITS FROM EXISTING STEEL FRAMING AND COAT PREVIOUS CORRODED STEEL WITH PPG AMERLOK 2 EPOXY COATING. AT DETERIORATED OR DAMAGED STEEL FRAMING, REMOVE AND REPLACE WITH NEW STEEL FRAMING COMPONENTS SECURED WITH STAINLESS STEEL FASTENERS. INSTALL NEW CEMENTITIOUS SHEATHING TO EXISTING AND REPAIRED STEEL FRAMING. INSTALL NEW STO ESSENCE DPR EXTERIOR CEILING FINISH FINISH SYSTEM WITH COLOR TO MATCH ADJACENT EXTERIOR CEILINGS. INSTALL NEW PERIMETER VENTS TO MATCH ADJACENT EXTERIOR CEILINGS. SEE SPECIFICATION SECTION 092513.)

4.0 INTERIOR CEILING ELECTRICAL LIGHTS:

4.1 EXISTING EXTERIOR CAN LIGHTS: TEMPORARILY REMOVE ALL EXISTING LIGHT FIXTURES FROM THE EXTERIOR CEILINGS AT ALL GAZEBOS AND REINSTALL ONCE EXISTING CEILING COMPONENTS ARE COMPLETED. ALL ELECTRICAL WORK TO BE COMPLETED BY A STATE OF FLORIDA LICENSED ELECTRICIAN.

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REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

SCOPE OF WORK

PLOT: N.T.S.
SHEET A1.3

LEGEND

CORNER GAZEBOS INCLUDED IN THE SCOPE OF WORK

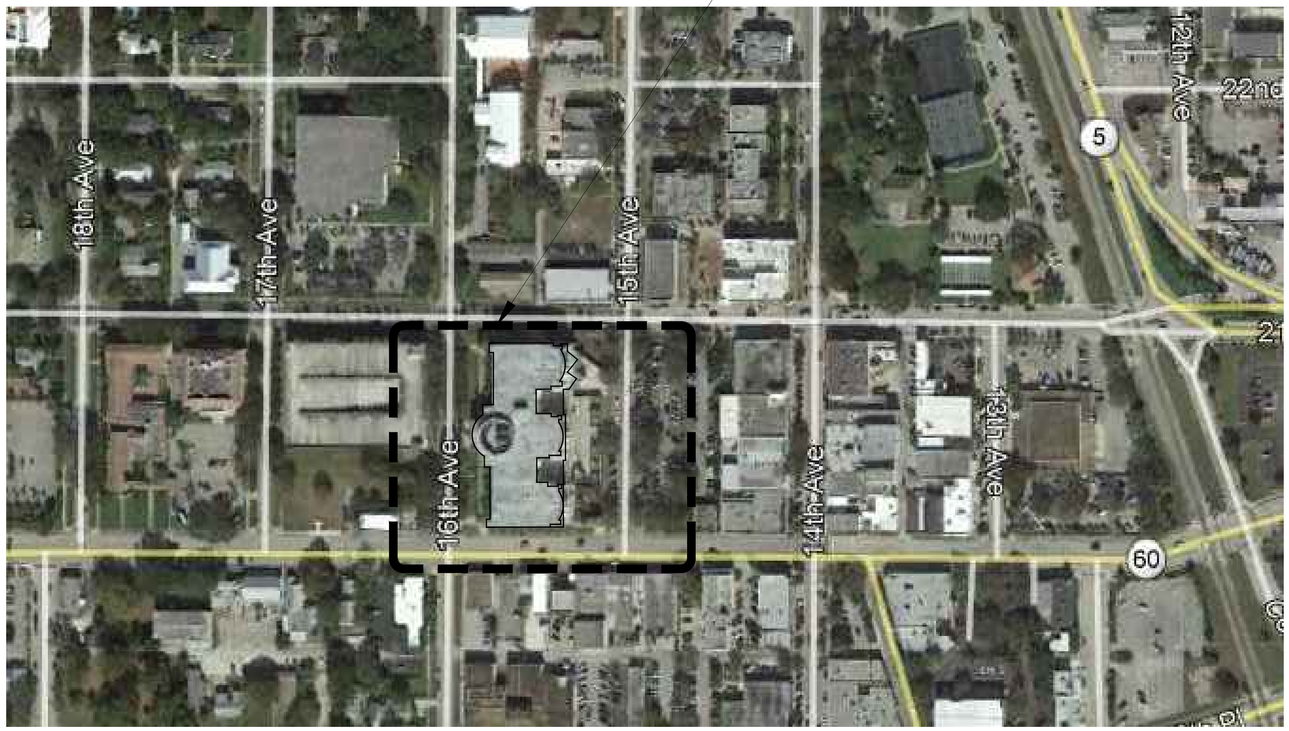
CONSTRUCTION SITE NOTES:

1. **CONSTRUCTION LIMITS:** LIMITS ARE WITHIN 10 FEET MAXIMUM OF BUILDINGS EXCEPT WHERE OTHERWISE INDICATED.
2. **ACCESSIBLE PATH:** THE ACCESSIBLE PATH DESIGNATED MUST BE LEFT UNIMPEDED THROUGHOUT THE CONSTRUCTION. PROVIDE BARRIERS BETWEEN THE CONSTRUCTION AND THE ACCESSIBLE PATH AS NECESSARY TO PROVIDE SAFE ACCESS.

SPECIFIC IRC COURTHOUSE - CONTRACTOR SITE REQUIREMENTS:

1. CONTRACTOR MUST SUCCESSFULLY PASS A BACKGROUND CHECK PRIOR TO AUTHORIZATION TO WORK ON THE PREMISES. BACKGROUND MUST REVEAL NO ACTIVE WARRANTS TO BE OUT ON BOND. CRIMINAL HISTORY WILL BE EVALUATED ON A CASE BY CASE BASIS.
2. CONTRACTOR ONCE APPROVED, WILL BE ISSUED A SITE BADGE AND HE OR SHE MUST CHECK IN WITH THE SITE SUPERVISOR OR DESIGNEE AT THE BEGINNING AND END OF EACH WORKDAY.
3. CONTRACTOR WILL COMPLETE A TOOL INVENTORY AT THE BEGINNING AND END OF EACH WORKDAY. SECURITY DEPUTY ASSIGNED TO THE DETAIL FOR THAT DAY WILL VERIFY TOOL INVENTORY. APPROXIMATELY 30 MINUTES DAILY TO CONDUCT TOOL INVENTORY.
4. CONTRACTOR WILL HAVE NO COMMUNICATION WITH INCARCERATED PERSONS UNLESS APPROVED BY SECURITY DEPUTY. ANY VIOLATION OF THIS RULE WILL BE GROUNDS FOR HAVING SITE BADGE REVOKED.
5. ALL WORK WILL BE COMPLETED DURING NORMAL BUSINESS HOURS 8AM - 5 PM. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO SITE SUPERVISOR OR DESIGNEE WHEN PROJECT WORK WILL INTERFERE WITH FACILITY OPERATIONS.
6. CONTRACTOR WILL PROVIDE A PROJECT SUPERVISOR TO BE PRESENT ANYTIME WORK IS BEING COMPLETED.
7. INDIAN RIVER COUNTY SHERIFF'S OFFICE WILL HAVE A SUPERVISOR AVAILABLE ANYTIME PROJECT WORK IS BEING PERFORMED.

SEE ROOF PLANS ON SHEETS A2.1 AND A2.2



1 A1.4 LOCATION PLAN
SCALE: N.T.S.

2 A1.4 SITE PLAN
SCALE: N.T.S.

NOT FOR CONSTRUCTION
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REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
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PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

LOCATION AND SITE PLAN

PLOT: N.T.S.
SHEET A1.4

LEGEND:

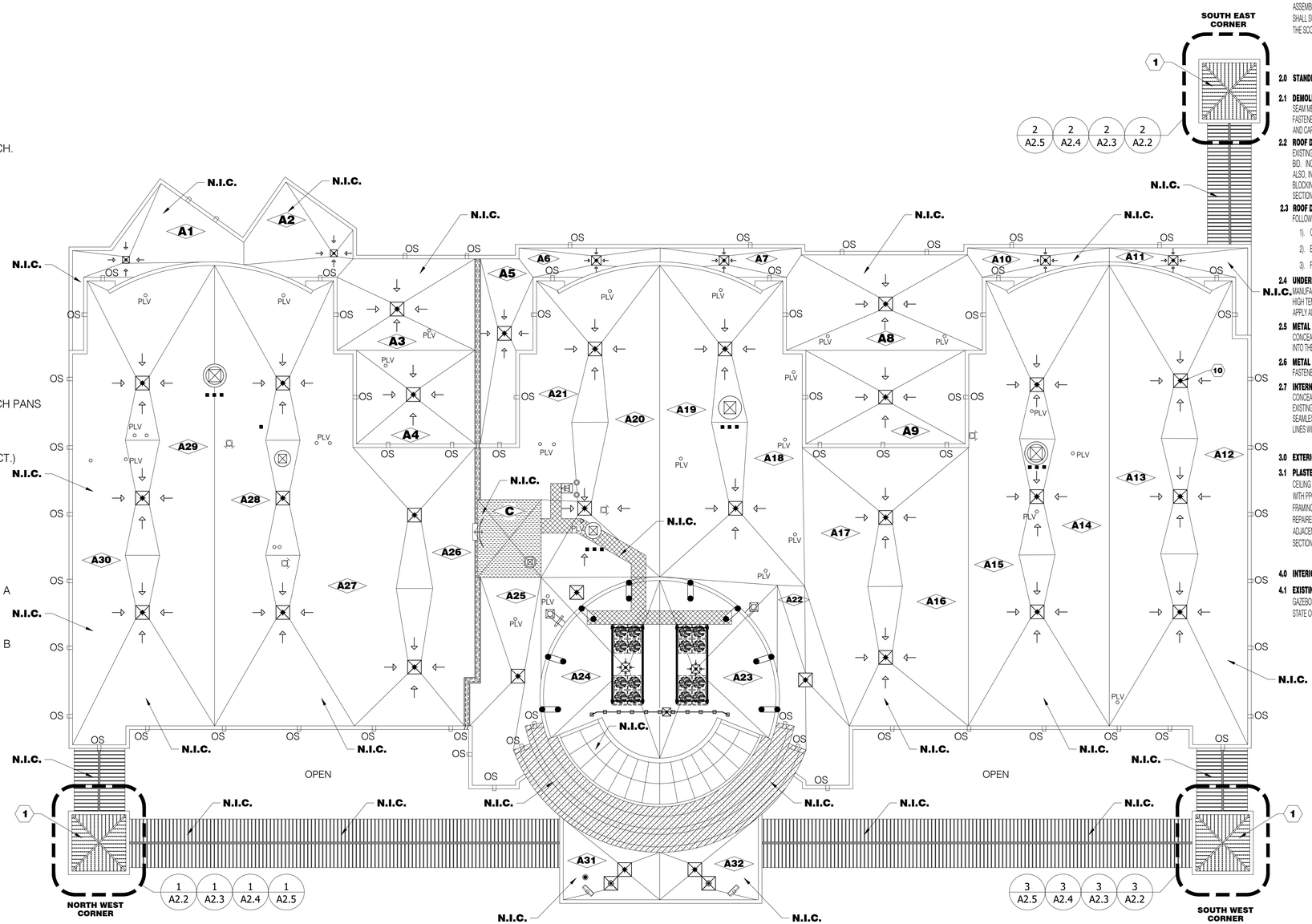
- PARAPET WALL
- OS — EXISTING OVERFLOW SCUPPER (NOT IN CONTRACT.)
- EXPANSION JOINT (NOT IN CONTRACT.)
- ACTIVE ROOF DRAIN (NOT IN CONTRACT.)
- OVERFLOW ROOF DRAIN (NOT IN CONTRACT.)
- PLV — PLUMBING VENT (NOT IN CONTRACT.)
- ROOF MOUNTED EQUIPMENT (NOT IN CONTRACT.)
- STEEL SUPPORTS PIPES FOR MECH. (NOT IN CONTRACT.)
- DUCT WORK PENETRATION (NOT IN CONTRACT.)
- ROOF HATCH DOOR (NOT IN CONTRACT.)
- ROOF TOP ANTENNA (NOT IN CONTRACT.)
- ROOF DECK VENTS (NOT IN CONTRACT.)
- ABANDONED ROOF DECK VENT (NOT IN CONTRACT.)
- SC — SIAMESE CONNECTION WITH PITCH PANS (NOT IN CONTRACT.)
- ROOF PITCH PANS WITH PIPE PENETRATIONS (NOT IN CONTRACT.)
- SKYLIGHT GUARDRAILS OVER PITCH PANS (NOT IN CONTRACT.)
- EXISTING ROOF LIGHT FIXTURES (NOT IN CONTRACT.)
- EXISTING ROOF ASSEMBLY - TYPE A (NOT IN CONTRACT)
- EXISTING ROOF ASSEMBLY - TYPE B (NOT IN CONTRACT)
- ROOF ASSEMBLY - TYPE C (NOT IN CONTRACT)
- METAL ROOFS - TYPE D (NOT IN CONTRACT)
- GAZEBO METAL ROOFS - TYPE 1 (SEE DEMOLITION NOTE 1.)
- EXISTING ROOF TRAFFIC PADS
- EXISTING SLOPE
- 1 — DEMOLITION NOTE DESIGNATION
- A — ROOF AREA DESIGNATION
- N.I.C. — NOT IN CONTRACT

DEMOLITION NOTES:

1. **EXISTING ROOF ASSEMBLY - TYPE D:** REMOVE EXISTING METAL ROOFING ASSEMBLY OF ALL THE EXISTING CORNER GAZEBOS TO THE TOP OF THE EXISTING PLYWOOD DECKS. (SEE SCOPE OF WORK ITEM 2.1).

EXISTING ROOFING ASSEMBLY - TYPE A

	ROOF COMPONENTS
ROOF COVER	STANDING SEAM ROOF PANELS
BASE INSULATION	NONE
STRUCTURAL DECK	EXTERIOR GRADE FRT PLYWOOD
ROOF FLASHINGS	STAINLESS STEEL
DRAINAGE	INTERNAL GUTTERS AND DOWNSPOUTS



N — 1 / A2.1

OVERALL EXISTING AND DEMOLITION ROOF PLAN

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

SCOPE OF WORK:

THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1.0 GENERAL:

1.1 ENGINEERING: CONDUCT PULL TESTS OF THE EXISTING ROOF DECK. PROVIDE ENGINEERING CALCULATIONS PREPARED BY A FLORIDA LICENSED STRUCTURAL ENGINEER INCLUDING THE FASTENER SPACING FOR EACH ROOF WIND ZONE. SUBMIT PULL TEST RESULTS AND THE ENGINEERING CALCULATIONS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF THE ROOFING INSTALLATION. SEE DRAWINGS FOR WIND PRESSURES.

1.2 SUBSTRATE PREPARATION: PREPARE, REPAIR, OR REPLACE ALL SURFACES AS NECESSARY TO COMPLY WITH REQUIREMENTS INCLUDING BUT NOT LIMITED TO: WIND UPLIFT REQUIREMENTS, MANUFACTURERS RECOMMENDATIONS, BUILDING CODE REQUIREMENTS, AND RELEVANT INDUSTRY STANDARDS. PRIOR TO INSTALLATION OF THE ROOFING ASSEMBLY SUBMIT A WRITTEN APPROVAL TO THE ARCHITECT, FROM THE MANUFACTURER OF THE ROOFING ASSEMBLY THAT ALL SUBSTRATES ARE PROPERLY PREPARED FOR THE INSTALLATION OF THE ASSEMBLY.

1.3 WARRANTY: THE NEW ROOFING ASSEMBLY IS TO BE EXAMINED AND APPROVED BY THE MANUFACTURERS OF THE ROOFING ASSEMBLY AND SHALL RECEIVE A 20 YEAR NDL LABOR AND MATERIAL WARRANTY AGAINST DEFECTS AND LEAKS. THE CONTRACTOR SHALL SUBMIT A 5 YEAR NDL WARRANTY FOR ALL WORK AGAINST DEFECTS AND LEAKS UPON COMPLETION OF THE WORK. ADJUST THE SCOPE OF WORK AS REQUIRED TO OBTAIN THIS WARRANTY.

2.0 STANDING SEAM METAL ROOF PANEL ASSEMBLY:

2.1 DEMOLITION: REMOVE THE EXISTING STANDING SEAM METAL ROOF PANEL COMPONENTS FROM THREE ALL CORNER STANDING SEAM METAL ROOFING ASSEMBLIES. ROOFING ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO METAL ROOF PANELS, CLIPS, FASTENERS, FLASHINGS, GUTTERS AND UNDERLAYMENTS. REMOVE THE EXISTING PVC RAIN LEADERS FROM WITHIN CEILING CAVITY AND CAP EXISTING RAIN LEADERS.

2.2 ROOF DECK PREPARATION: REPLACE ANY DETERIORATED PLYWOOD SHEATHING OR WOOD BLOCKING OBSERVED DURING THE EXISTING ROOF SYSTEM REMOVAL. INCLUDE 320 SQUARE FEET OF 5/8 INCH EXTERIOR GRADE PLYWOOD REPLACEMENT IN BASE BID. INCLUDE 100 LINEAR FEET OF PRESSURE TREATED 2"X8" WOOD BLOCKING CUT AND SIZED AS REQUIRED IN THE BASE BID. ALSO, INCLUDE A UNIT COST PER SQUARE FOOT FOR PLYWOOD REPLACEMENT AND A UNIT COST PER BOARD FOOT FOR WOOD BLOCKING REPLACEMENT IN THE BID TO ADJUST THE CONTRACT AMOUNT FOR ACTUAL FIELD CONDITIONS. SEE SPECIFICATION SECTION 06100.

2.3 ROOF DECK RESECUREMENT: RE-SECURE ALL EXISTING PLYWOOD DECK TO THE EXISTING METAL TRUSSES WITH THE FOLLOWING FASTENERS:

1). CORNER ZONE: #10 SHEET METAL SCREW AT 4" OC EACH STEEL TRUSS.

2). EDGE ZONE: #10 SHEET METAL SCREW AT 8" OC EACH STEEL TRUSS.

3). FIELD ZONE: #10 SHEET METAL SCREW AT 8" OC EACH STEEL TRUSS.

2.4 UNDERLAYMENT: PREPARE ALL ROOF SURFACES TO RECEIVE THE NEW UNDERLAYMENT AS REQUIRED BY THE UNDERLAYMENT MANUFACTURER. APPLY PRIMER OVER ALL EXISTING AND PROPERLY PREPARED UNDERLAYMENT SURFACES. APPLY ONE PLY OF HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT OVER ALL SURFACES AND OVER DESIGNATED ADJACENT WALL SURFACES. APPLY AN ADDITIONAL UNDERLAYMENT PLY OVER ALL HIPS AND OVER ALL PRIMED METAL FLASHING FLANGES.

2.5 METAL ROOF PANELS: INSTALL A METAL STANDING SEAM ROOF PANEL WITH STIFFENING RIBS USING STAINLESS STEEL CONCEALED CLIPS FABRICATED WITH THERMALLY MOVABLE COMPONENTS. SECURE CLIPS THROUGH THE ROOFING ASSEMBLY AND INTO THE EXISTING STEEL DECK. SEE SPECIFICATION SECTION 074110.

2.6 METAL FLASHINGS: INSTALL METAL FLASHINGS WITH FULLY WELDED NON-MOVING SEAMS AND SECURE WITH STAINLESS STEEL FASTENERS AS REQUIRED TO COMPLY WITH THE DESIGNATED WIND PRESSURES.

2.7 INTERNAL GUTTERS AND DOWNSPOUTS: INSTALL NEW 16 GAUGE BENT METAL PLATES AND PLYWOOD SHEATHING TO CONCEAL EXISTING INTERNAL GUTTER SUBSTRATE. FABRICATE AND INSTALL NEW SLOPED GUTTERS AND DOWNSPOUTS AT THE EXISTING EAVES. REMOVE AND CAP EXISTING PVC DOWNSPOUTS. MATCH THE EXISTING DOWNSPOUT LOCATIONS. INSTALL SLOPED SEAMLESS ALUMINUM GUTTERS. INSTALL ROUND ALUMINUM TUBE DOWNSPOUTS AND TIE DISCHARGE END INTO EXISTING STORM LINES WITH A PVC OR ALUMINUM TRANSITION FLASHING.

3.0 EXTERIOR CEILINGS AT CORNER GAZEBOS:

3.1 PLASTER CEILINGS REPLACEMENT: REMOVE ALL EXISTING INTERIOR PLASTER CEILINGS FROM THE EXISTING STEEL EXTERIOR CEILING FRAMING. REMOVE ALL CORROSION DEPOSITS FROM EXISTING STEEL FRAMING AND COAT PREVIOUS CORRODED STEEL WITH PPG AMERLOK 2 EPOXY COATING. AT DETERIORATED OR DAMAGED STEEL FRAMING, REMOVE AND REPLACE WITH NEW STEEL FRAMING COMPONENTS SECURED WITH STAINLESS STEEL FASTENERS. INSTALL NEW CEMENTITIOUS SHEATHING TO EXISTING AND REPAIRED STEEL FRAMING. INSTALL NEW STO ESSENCE DPR EXTERIOR CEILING FINISH FINISH SYSTEM WITH COLOR TO MATCH ADJACENT EXTERIOR CEILINGS. INSTALL NEW PERIMETER VENTS TO MATCH ADJACENT EXTERIOR CEILINGS. SEE SPECIFICATION SECTION 092513.)

4.0 INTERIOR CEILING ELECTRICAL LIGHTS:

4.1 EXISTING EXTERIOR CAN LIGHTS: TEMPORARILY REMOVE ALL EXISTING LIGHT FIXTURES FROM THE EXTERIOR CEILINGS AT ALL GAZEBOS AND REINSTALL ONCE EXISTING CEILING COMPONENTS ARE COMPLETED. ALL ELECTRICAL WORK TO BE COMPLETED BY A STATE OF FLORIDA LICENSED ELECTRICIAN.

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA

METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

REVISIONS

NUMBER	TYPE	DATE:

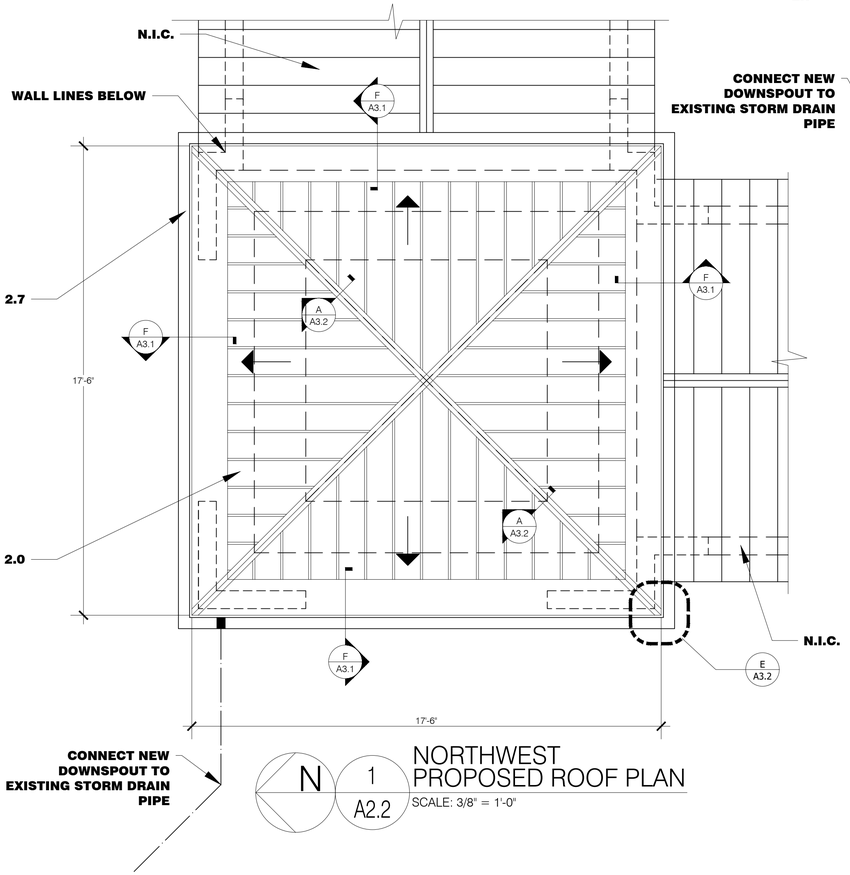
DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

DEMOLITION ROOF PLAN

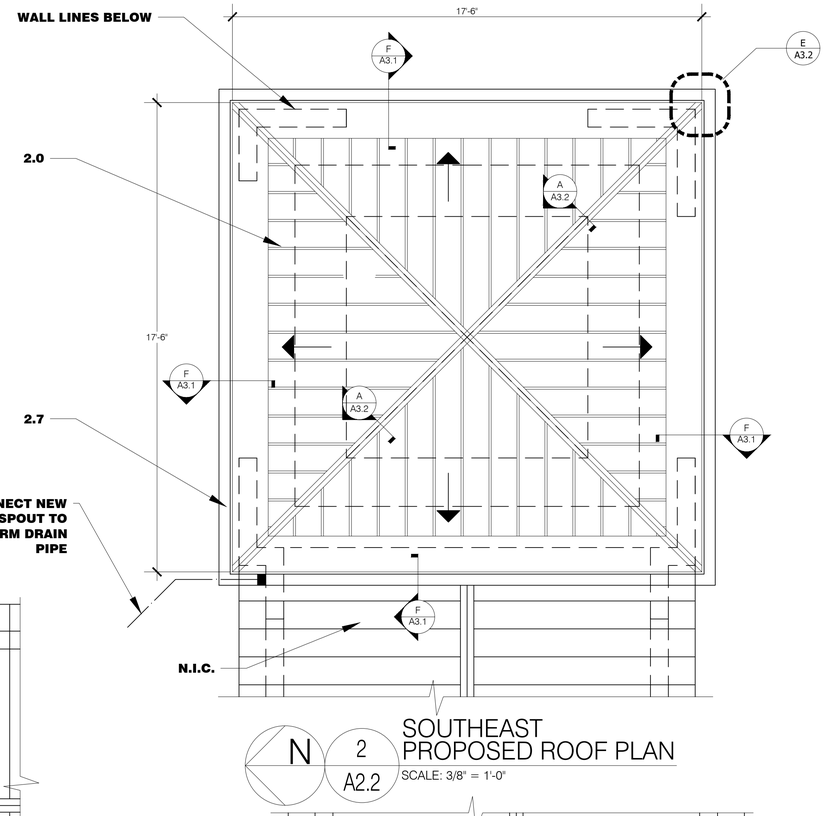
PLOT: 1/16" = 1'-0"
SHEET A2.1

LEGEND:

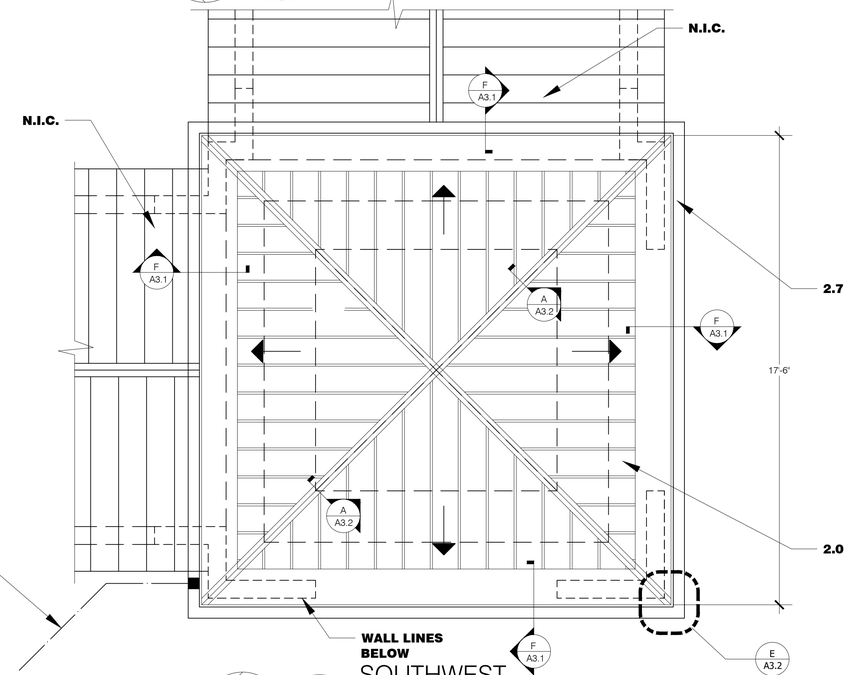
- ROOF EDGE WITH NEW GUTTER AND DOWNSPOUTS
- ROOF HIP / RIDGE LINE
- METAL ROOFS - TYPE 1 (SEE DETAILS ON SHEETS A3.1, A3.2 & A3.3 AND SCOPE OF WORK ITEM 2.0)
- NEW SLOPE - (TO MATCH EXISTING)
- 1. NEW CONSTRUCTION NOTE DESIGNATION
- ROOF AREA DESIGNATION
- B / A-450 SECTION DESIGNATION
- **N.I.C.** NOT IN CONTRACT



N 1 A2.2 NORTHWEST PROPOSED ROOF PLAN
SCALE: 3/8" = 1'-0"



N 2 A2.2 SOUTHEAST PROPOSED ROOF PLAN
SCALE: 3/8" = 1'-0"



N 3 A2.2 SOUTHWEST PROPOSED ROOF PLAN
SCALE: 3/8" = 1'-0"

SCOPE OF WORK:

THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1.0 GENERAL:

1.1 ENGINEERING: CONDUCT PULL TESTS OF THE EXISTING ROOF DECK. PROVIDE ENGINEERING CALCULATIONS PREPARED BY A FLORIDA LICENSED STRUCTURAL ENGINEER INCLUDING THE FASTENER SPACING FOR EACH ROOF WIND ZONE. SUBMIT PULL TEST RESULTS AND THE ENGINEERING CALCULATIONS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF THE ROOFING INSTALLATION. SEE DRAWINGS FOR WIND PRESSURES.

1.2 SUBSTRATE PREPARATION: PREPARE, REPAIR, OR REPLACE ALL SURFACES AS NECESSARY TO COMPLY WITH REQUIREMENTS INCLUDING BUT NOT LIMITED TO: WIND UPLIFT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, BUILDING CODE REQUIREMENTS, AND RELEVANT INDUSTRY STANDARDS. PRIOR TO INSTALLATION OF THE ROOFING ASSEMBLY SUBMIT A WRITTEN APPROVAL TO THE ARCHITECT, FROM THE MANUFACTURER OF THE ROOFING ASSEMBLY THAT ALL SUBSTRATES ARE PROPERLY PREPARED FOR THE INSTALLATION OF THE ASSEMBLY.

1.3 WARRANTY: THE NEW ROOFING ASSEMBLY IS TO BE EXAMINED AND APPROVED BY THE MANUFACTURER'S OF THE ROOFING ASSEMBLY AND SHALL RECEIVE A 20 YEAR NDL LABOR AND MATERIAL WARRANTY AGAINST DEFECTS AND LEAKS. THE CONTRACTOR SHALL SUBMIT A 5 YEAR NDL WARRANTY FOR ALL WORK AGAINST DEFECTS AND LEAKS UPON COMPLETION OF THE WORK. ADJUST THE SCOPE OF WORK AS REQUIRED TO OBTAIN THIS WARRANTY.

2.0 STANDING SEAM METAL ROOF PANEL ASSEMBLY:

2.1 DEMOLITION: REMOVE THE EXISTING STANDING SEAM METAL ROOF PANEL COMPONENTS FROM THREE ALL CORNER STANDING SEAM METAL ROOFING ASSEMBLIES. ROOFING ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO METAL ROOF PANELS, CLIPS, FASTENERS, FLASHINGS, GUTTERS AND UNDERLAYMENTS. REMOVE THE EXISTING PVC RAIN LEADERS FROM WITHIN CEILING CAVITY AND CAP EXISTING RAIN LEADERS.

2.2 ROOF DECK PREPARATION: REPLACE ANY DETERIORATED PLYWOOD SHEATHING OR WOOD BLOCKING OBSERVED DURING THE EXISTING ROOF SYSTEM REMOVAL. INCLUDE 320 SQUARE FEET OF 5/8 INCH EXTERIOR GRADE PLYWOOD REPLACEMENT IN BASE BID. INCLUDE 100 LINEAR FEET OF PRESSURE TREATED 2"X8" WOOD BLOCKING CUT AND SIZED AS REQUIRED IN THE BASE BID. ALSO, INCLUDE A UNIT COST PER SQUARE FOOT FOR PLYWOOD REPLACEMENT AND A UNIT COST PER BOARD FOOT FOR WOOD BLOCKING REPLACEMENT IN THE BID TO ADJUST THE CONTRACT AMOUNT FOR ACTUAL FIELD CONDITIONS. SEE SPECIFICATION SECTION 06100.

2.3 ROOF DECK RESECUREMENT: RE-SECURE ALL EXISTING PLYWOOD DECK TO THE EXISTING METAL TRUSSES WITH THE FOLLOWING FASTENERS.

1). CORNER ZONE: #10 SHEET METAL SCREW AT 4" OC EACH STEEL TRUSS.

2). EDGE ZONE: #10 SHEET METAL SCREW AT 6" OC EACH STEEL TRUSS.

3). FIELD ZONE: #10 SHEET METAL SCREW AT 6" OC EACH STEEL TRUSS.

2.4 UNDERLAYMENT: PREPARE ALL ROOF SURFACES TO RECEIVE THE NEW UNDERLAYMENT AS REQUIRED BY THE UNDERLAYMENT MANUFACTURER. APPLY PRIMER OVER ALL EXISTING AND PROPERLY PREPARED UNDERLAYMENT SURFACES. APPLY ONE PLY OF HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT OVER ALL SURFACES AND OVER DESIGNATED ADJACENT WALL SURFACES. APPLY AN ADDITIONAL UNDERLAYMENT PLY OVER ALL HIPS AND OVER ALL PRIMED METAL FLASHING FLANGES.

2.5 METAL ROOF PANELS: INSTALL A METAL STANDING SEAM ROOF PANEL WITH STIFFENING RIBS USING STAINLESS STEEL CONCEALED CLIPS FABRICATED WITH THERMALLY MOVABLE COMPONENTS. SECURE CLIPS THROUGH THE ROOFING ASSEMBLY AND INTO THE EXISTING STEEL DECK. SEE SPECIFICATION SECTION 074110.

2.6 METAL FLASHINGS: INSTALL METAL FLASHINGS WITH FULLY WELDED NON-MOVING SEAMS AND SECURE WITH STAINLESS STEEL FASTENERS AS REQUIRED TO COMPLY WITH THE DESIGNATED WIND PRESSURES.

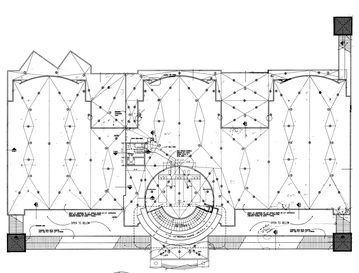
2.7 INTERNAL GUTTERS AND DOWNSPOUTS: INSTALL NEW 16 GAUGE BENT METAL PLATES AND PLYWOOD SHEATHING TO CONCEAL EXISTING INTERNAL GUTTER SUBSTRATE. FABRICATE AND INSTALL NEW SLOPED GUTTERS AND DOWNSPOUTS AT THE EXISTING EAVES. REMOVE AND CAP EXISTING PVC DOWNSPOUTS. MATCH THE EXISTING DOWNSPOUT LOCATIONS. INSTALL SLOPED SEAMLESS ALUMINUM GUTTERS. INSTALL ROUND ALUMINUM TUBE DOWNSPOUTS AND TIE DISCHARGE END INTO EXISTING STORM LINES WITH A PVC OR ALUMINUM TRANSITION FLASHING.

3.0 EXTERIOR CEILINGS AT CORNER GAZEBOS:

3.1 PLASTER CEILINGS REPLACEMENT: REMOVE ALL EXISTING INTERIOR PLASTER CEILINGS FROM THE EXISTING STEEL EXTERIOR CEILING FRAMING. REMOVE ALL CORROSION DEPOSITS FROM EXISTING STEEL FRAMING AND COAT PREVIOUS CORRODED STEEL WITH PPG AMERLOK 2 EPOXY COATING. AT DETERIORATED OR DAMAGED STEEL FRAMING, REMOVE AND REPLACE WITH NEW STEEL FRAMING COMPONENTS SECURED WITH STAINLESS STEEL FASTENERS. INSTALL NEW CEMENTITIOUS SHEATHING TO EXISTING AND REPAIRED STEEL FRAMING. INSTALL NEW STO ESSENCE DPR EXTERIOR CEILING FINISH FINISH SYSTEM WITH COLOR TO MATCH ADJACENT EXTERIOR CEILINGS. INSTALL NEW PERIMETER VENTS TO MATCH ADJACENT EXTERIOR CEILINGS. SEE SPECIFICATION SECTION 092513.)

4.0 INTERIOR CEILING ELECTRICAL LIGHTS:

4.1 EXISTING EXTERIOR CAN LIGHTS: TEMPORARILY REMOVE ALL EXISTING LIGHT FIXTURES FROM THE EXTERIOR CEILINGS AT ALL GAZEBOS AND REINSTALL ONCE EXISTING CEILING COMPONENTS ARE COMPLETED. ALL ELECTRICAL WORK TO BE COMPLETED BY A STATE OF FLORIDA LICENSED ELECTRICIAN.



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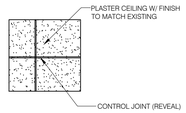
ENLARGED
PROPOSED GAZEBOS
ROOF PLANS

PLOT: 3/8" = 1'-0"
SHEET A2.2

CEILING SYMBOLS LEGEND:

NEW GUTTER LINE ABOVE

NEW ROOF EDGE ABOVE



NEW PLASTER CEILING (MATCH EXISTING)

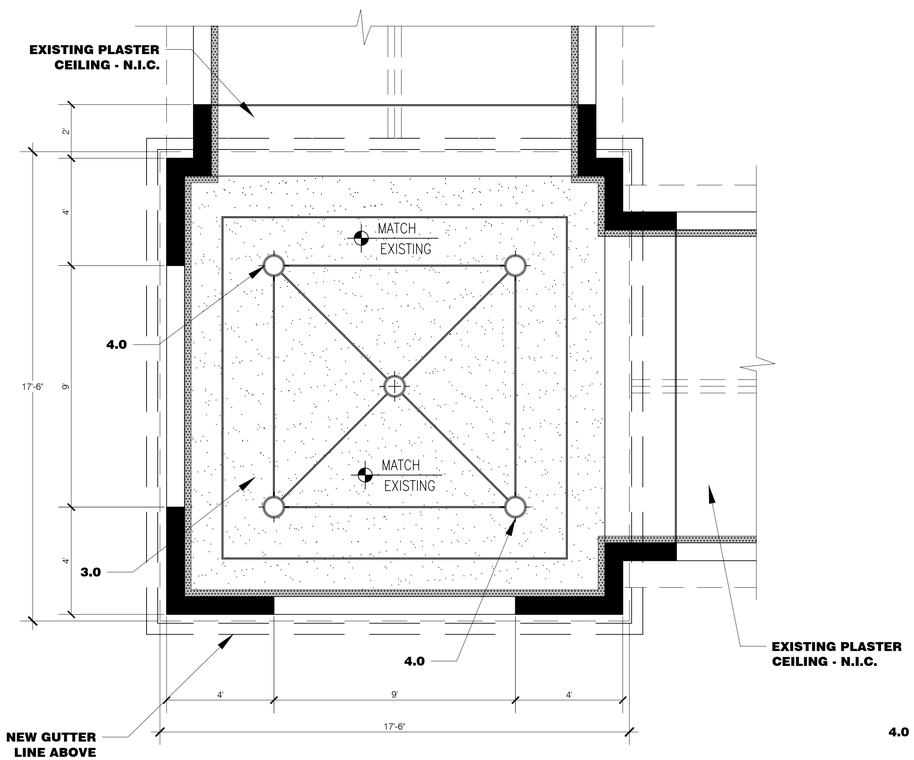
LED DOWNLIGHT / RECESSED FIXTURES

NEW SOFFIT CEILING VENTS

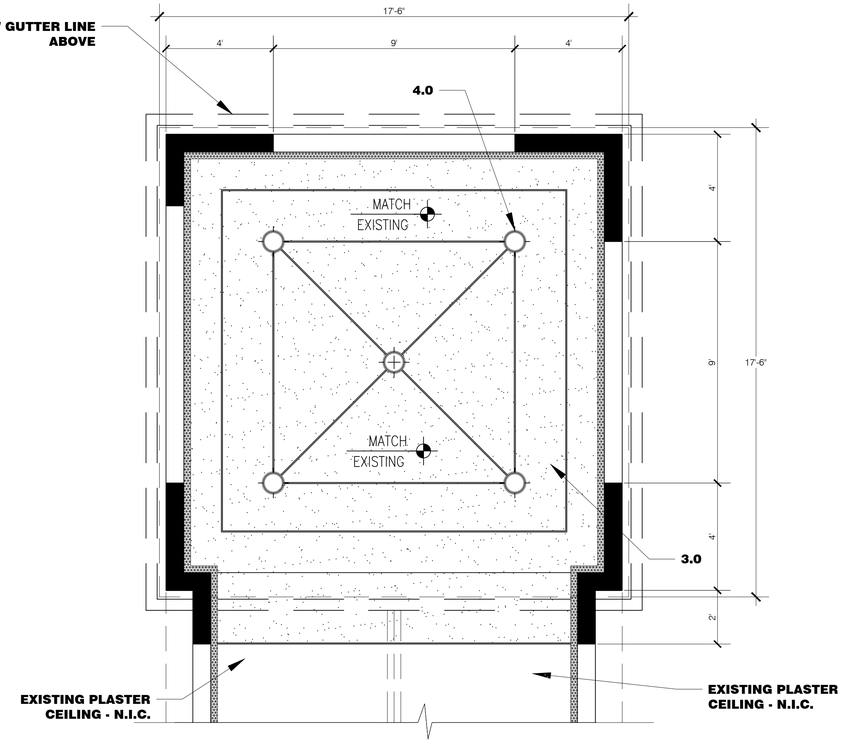
B
A-450

SECTION DETAIL DESIGNATION

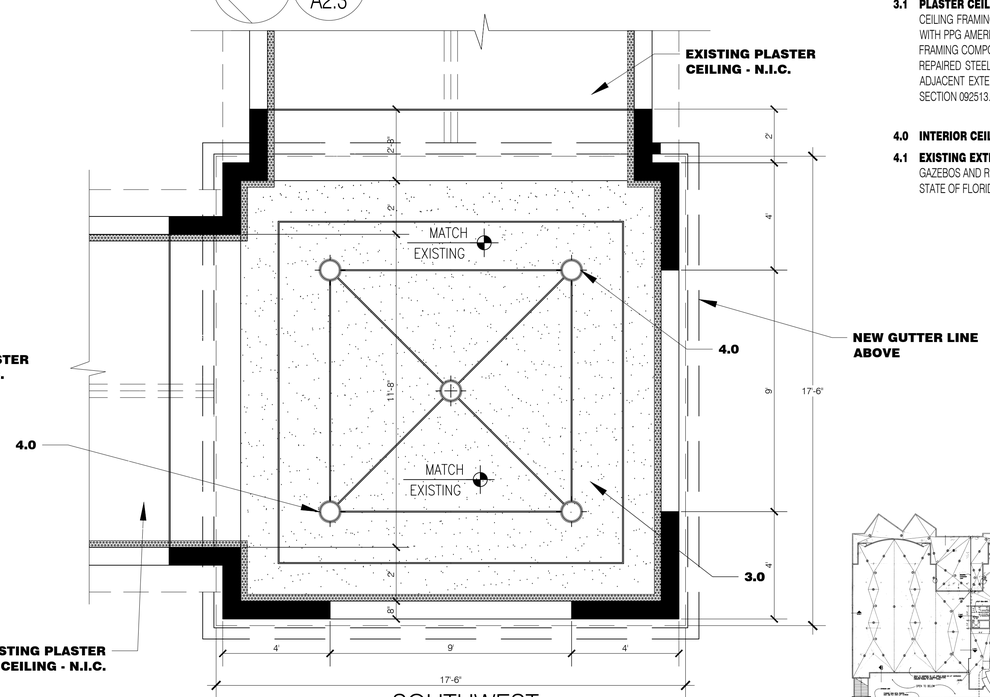
N.I.C. NOT IN CONTRACT



N 1 A2.3 NORTHWEST PROPOSED RCP PLAN
SCALE: 3/8" = 1'-0"



N 2 A2.3 SOUTHEAST PROPOSED ROOF PLAN
SCALE: 3/8" = 1'-0"



N 3 A2.3 SOUTHWEST PROPOSED ROOF PLAN
SCALE: 3/8" = 1'-0"

SCOPE OF WORK:

THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1.0 GENERAL:

1.1 ENGINEERING: CONDUCT PULL TESTS OF THE EXISTING ROOF DECK. PROVIDE ENGINEERING CALCULATIONS PREPARED BY A FLORIDA LICENSED STRUCTURAL ENGINEER INCLUDING THE FASTENER SPACING FOR EACH ROOF WIND ZONE. SUBMIT PULL TEST RESULTS AND THE ENGINEERING CALCULATIONS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF THE ROOFING INSTALLATION. SEE DRAWINGS FOR WIND PRESSURES.

1.2 SUBSTRATE PREPARATION: PREPARE, REPAIR, OR REPLACE ALL SURFACES AS NECESSARY TO COMPLY WITH REQUIREMENTS INCLUDING BUT NOT LIMITED TO: WIND UPLIFT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, BUILDING CODE REQUIREMENTS, AND RELEVANT INDUSTRY STANDARDS. PRIOR TO INSTALLATION OF THE ROOFING ASSEMBLY SUBMIT A WRITTEN APPROVAL TO THE ARCHITECT, FROM THE MANUFACTURER OF THE ROOFING ASSEMBLY THAT ALL SUBSTRATES ARE PROPERLY PREPARED FOR THE INSTALLATION OF THE ASSEMBLY.

1.3 WARRANTY: THE NEW ROOFING ASSEMBLY IS TO BE EXAMINED AND APPROVED BY THE MANUFACTURER'S OF THE ROOFING ASSEMBLY AND SHALL RECEIVE A 20 YEAR NDL LABOR AND MATERIAL WARRANTY AGAINST DEFECTS AND LEAKS. THE CONTRACTOR SHALL SUBMIT A 5 YEAR NDL WARRANTY FOR ALL WORK AGAINST DEFECTS AND LEAKS UPON COMPLETION OF THE WORK. ADJUST THE SCOPE OF WORK AS REQUIRED TO OBTAIN THIS WARRANTY.

2.0 STANDING SEAM METAL ROOF PANEL ASSEMBLY:

2.1 DEMOLITION: REMOVE THE EXISTING STANDING SEAM METAL ROOF PANEL COMPONENTS FROM THREE ALL CORNER STANDING SEAM METAL ROOFING ASSEMBLIES. ROOFING ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO METAL ROOF PANELS, CLIPS, FASTENERS, FLASHINGS, GUTTERS AND UNDERLAYMENTS. REMOVE THE EXISTING PVC RAIN LEADERS FROM WITHIN CEILING CAVITY AND CAP EXISTING RAIN LEADERS.

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2.3 ROOF DECK RESECUREMENT: RE-SECURE ALL EXISTING PLYWOOD DECK TO THE EXISTING METAL TRUSSES WITH THE FOLLOWING FASTENERS.

1). CORNER ZONE: #10 SHEET METAL SCREW AT 4" OC EACH STEEL TRUSS.

2). EDGE ZONE: #10 SHEET METAL SCREW AT 6" OC EACH STEEL TRUSS.

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2.6 METAL FLASHINGS: INSTALL METAL FLASHINGS WITH FULLY WELDED NON-MOVING SEAMS AND SECURE WITH STAINLESS STEEL FASTENERS AS REQUIRED TO COMPLY WITH THE DESIGNATED WIND PRESSURES.

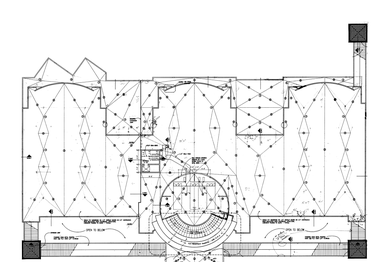
2.7 INTERNAL GUTTERS AND DOWNSPOUTS: INSTALL NEW 16 GAUGE BENT METAL PLATES AND PLYWOOD SHEATHING TO CONCEAL EXISTING INTERNAL GUTTER SUBSTRATE. FABRICATE AND INSTALL NEW SLOPED GUTTERS AND DOWNSPOUTS AT THE EXISTING EAVES. REMOVE AND CAP EXISTING PVC DOWNSPOUTS. MATCH THE EXISTING DOWNSPOUT LOCATIONS. INSTALL SLOPED SEAMLESS ALUMINUM GUTTERS. INSTALL ROUND ALUMINUM TUBE DOWNSPOUTS AND TIE DISCHARGE END INTO EXISTING STORM LINES WITH A PVC OR ALUMINUM TRANSITION FLASHING.

3.0 EXTERIOR CEILINGS AT CORNER GAZEBOS:

3.1 PLASTER CEILINGS REPLACEMENT: REMOVE ALL EXISTING INTERIOR PLASTER CEILINGS FROM THE EXISTING STEEL EXTERIOR CEILING FRAMING. REMOVE ALL CORROSION DEPOSITS FROM EXISTING STEEL FRAMING AND COAT PREVIOUS CORRODED STEEL WITH PPG AMERLOK 2 EPOXY COATING. AT DETERIORATED OR DAMAGED STEEL FRAMING, REMOVE AND REPLACE WITH NEW STEEL FRAMING COMPONENTS SECURED WITH STAINLESS STEEL FASTENERS. INSTALL NEW CEMENTITIOUS SHEATHING TO EXISTING AND REPAIRED STEEL FRAMING. INSTALL NEW STO ESSENCE DPR EXTERIOR CEILING FINISH FINISH SYSTEM WITH COLOR TO MATCH ADJACENT EXTERIOR CEILINGS. INSTALL NEW PERIMETER VENTS TO MATCH ADJACENT EXTERIOR CEILINGS. SEE SPECIFICATION SECTION 092513.)

4.0 INTERIOR CEILING ELECTRICAL LIGHTS:

4.1 EXISTING EXTERIOR CAN LIGHTS: TEMPORARILY REMOVE ALL EXISTING LIGHT FIXTURES FROM THE EXTERIOR CEILINGS AT ALL GAZEBOS AND REINSTALL ONCE EXISTING CEILING COMPONENTS ARE COMPLETED. ALL ELECTRICAL WORK TO BE COMPLETED BY A STATE OF FLORIDA LICENSED ELECTRICIAN.



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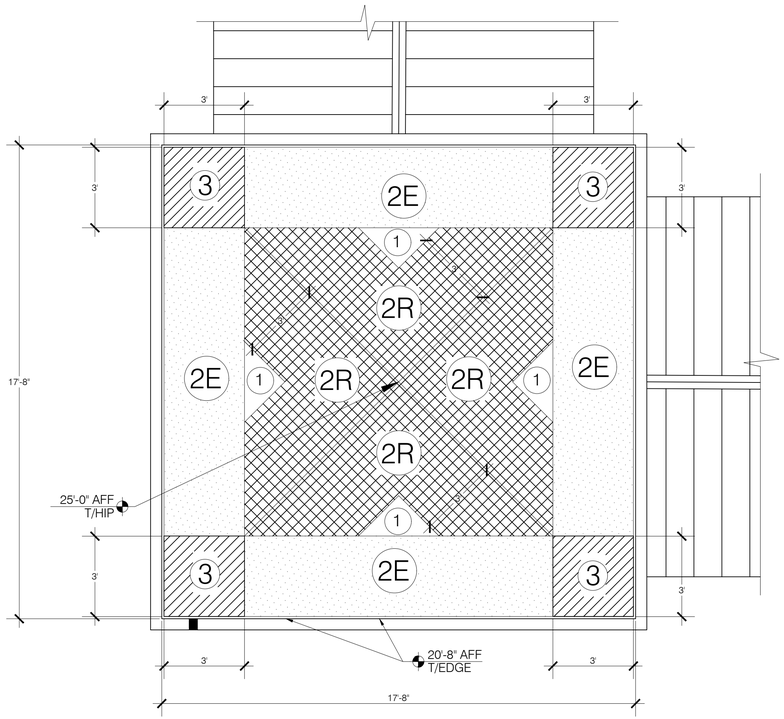
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

ENLARGED
PROPOSED GAZEBOS
ROOF PLANS

PLOT: 3/8" = 1'-0"
SHEET A2.3

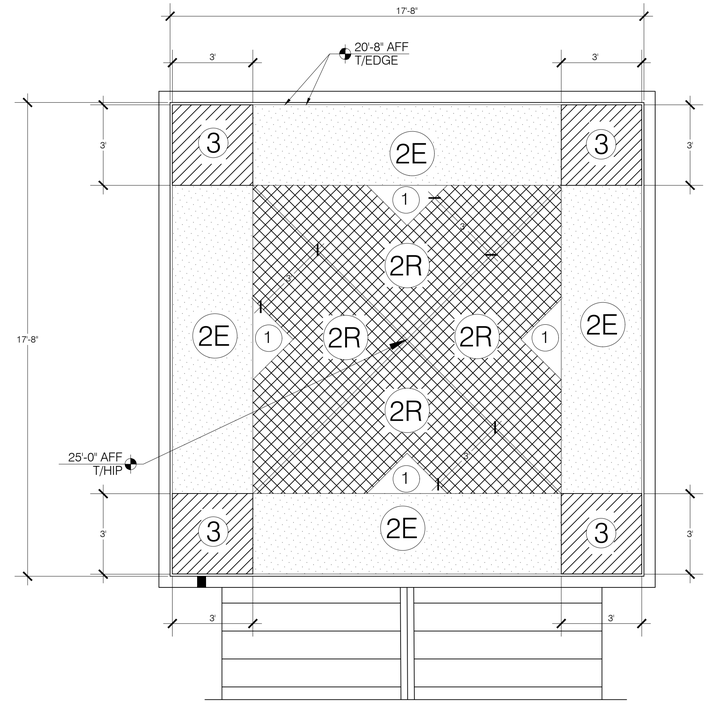
LEGEND:

- ROOF EDGE WITH NEW GUTTER AND DOWNSPOUTS
- ROOF HIP / RIDGE LINE
- (3) ZONE DESIGNATIONS
- EXISTING SLOPE - 7:12
- ROOF AREA DESIGNATION



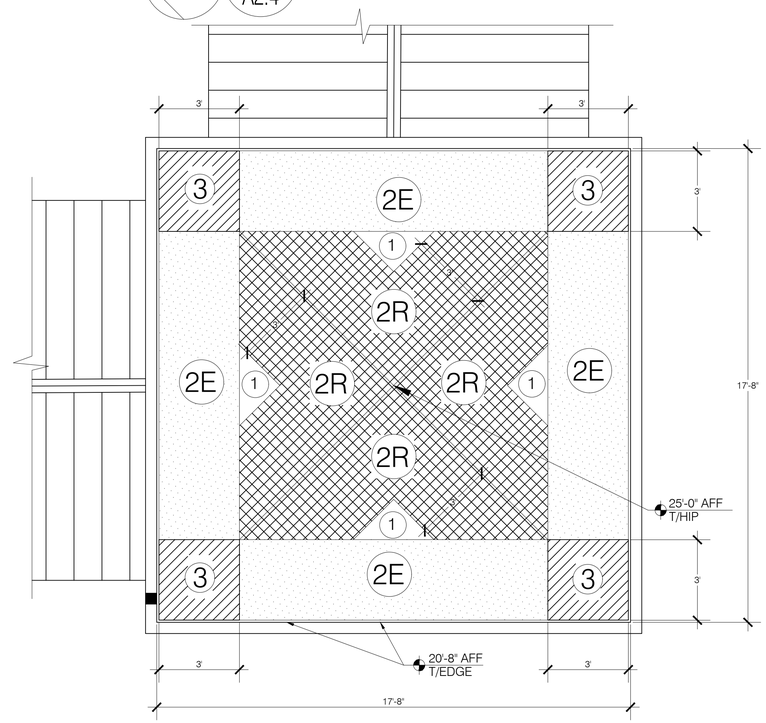
N 1 A2.4 NORTHWEST - WIND UPLIFT PRESSURE ROOF PLANS

SCALE: 3/8" = 1'-0"



N 2 A2.4 SOUTHEAST - WIND UPLIFT PRESSURE ROOF PLANS

SCALE: 3/8" = 1'-0"



N 3 A2.4 SOUTHWEST - WIND UPLIFT PRESSURE ROOF PLANS

SCALE: 3/8" = 1'-0"

WIND PRESSURES:

WIND DESIGN FOR ROOFING COMPONENTS AND CLADDING:
ASCE 7-16, Vult=170 mph wind, Vasd=132 mph wind, category III, Exposure "C", Kd = 0.85, h = 25 ft., OPEN BUILDING: GCpi = ± 0.18.

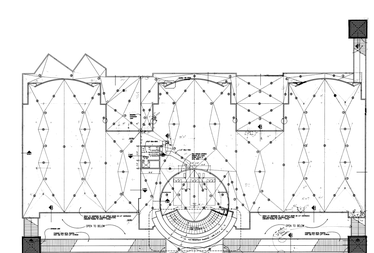
WIND UPLIFT PRESSURES SHOWN ARE GROSS PRESSURES FOR CORNER ZONE, EDGE ZONE, AND FIELD ZONE FOR ROOF COMPONENTS AND CLADDING (C & C). AREA ≤ 10 SF. WIND HAS BEEN CHECKED FOR AN ENCLOSED STRUCTURE AT EACH ROOF SLOPE AND HIGHEST WIND PRESSURES ARE SHOWN FOR EACH AREA.

CODES: FLORIDA BUILDING CODE 2020 ASCE 7-16.

WIND PRESSURES FOR METAL ROOFS:

WIND UPLIFT PRESSURE LEGEND:	ASCE 7-16 ROOF TYPE "D" DESIGN PRESSURES
ZONE 1 - FIELD ZONE (1)	-59.9 PSF
ZONE 2E - EDGE ZONE (2E)	-71.7 PSF
ZONE 2R - CORNER ZONE (2R)	-97.4 PSF
ZONE 3 - CORNER ZONE (3)	-95.2 PSF

ALL PRESSURES ARE ALLOWABLE STRESS DESIGN (ASD).
DEPTH OF PERIMETER AND CORNER ZONES
FROM ROOF EDGE - 'a' DIMENSION IS 3 FEET



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DATE: JANUARY 15, 2021

WIND UPLIFT PRESSURE PLANS

PLOT: 3/8" = 1'-0"

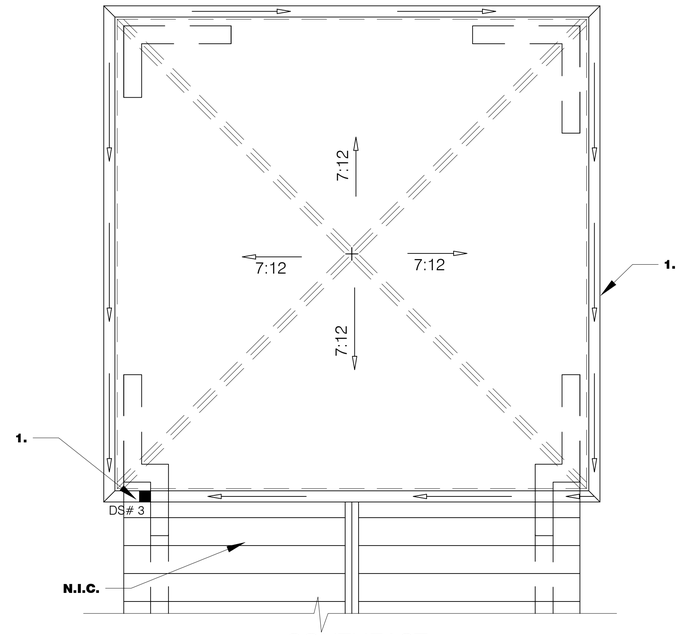
SHEET A2.4

LEGEND:

- NEW ROOF EDGE PERIMETER (SEE SCOPE OF WORK ITEM 2.0)
- NEW GUTTER WITH DOWNSPOUTS. (SEE SCOPE OF WORK ITEM 2.7)
- EXISTING BUILDING LINE BELOW
- DS# — DOWNSPOUTS DESIGNATIONS
- SLOPE — METAL ROOF PANEL SLOPE
- GUTTER SLOPE
- A — SPECIFIC NOTE LOCATION

ROOF DRAINAGE CALCULATION:

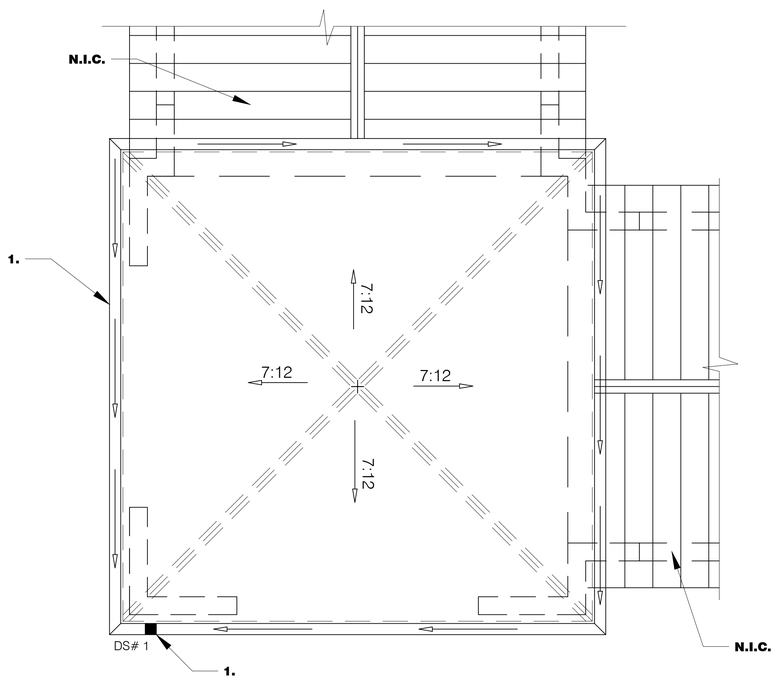
PROPOSED DOWNSPOTS DESIGNATION	PROPOSED OVERFLOW DESIGNATION	ROOF AREA (SF)	TOTAL AREA (SF)	FLOW RATE CONSTANT	FLOW RATE OF ROOF AREA (GPM)	PROPOSED GUTTER SIZES	PROPOSED GUTTER FLOW RATE (GPM)	PROPOSED DOWNSPOUT SIZES	PROPOSED DOWNSPOUT FLOW RATE (GPM)
DS1	N/A	312	312	0.0104	15	5x5	472	4x4	563
DS2	N/A	312	312	0.0104	13	5x5	472	4x4	563
DS3	N/A	312	312	0.0104	13	5x5	472	4x4	563



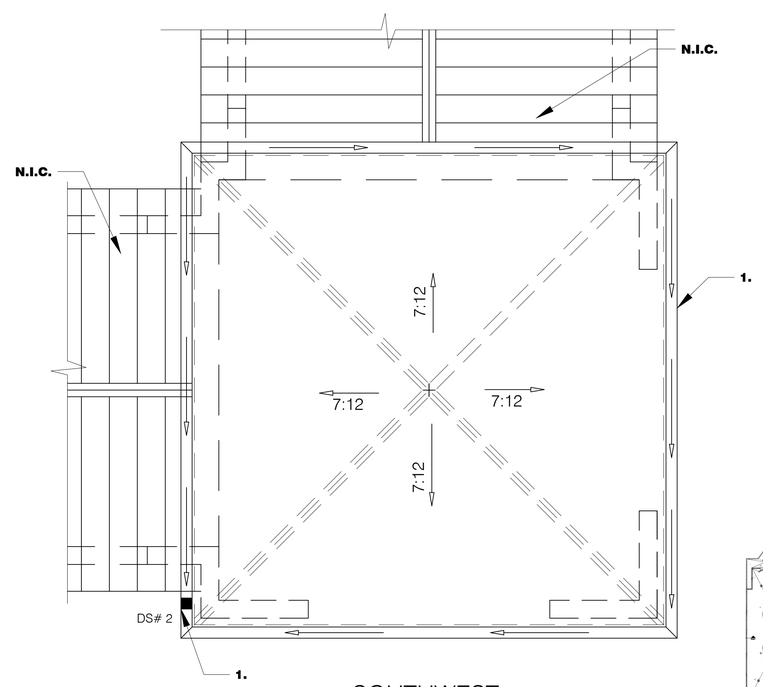
N 2 A2.5 SOUTHEAST DRAINAGE ROOF PLAN
SCALE: 3/8" = 1'-0"

NEW CONSTRUCTION NOTES

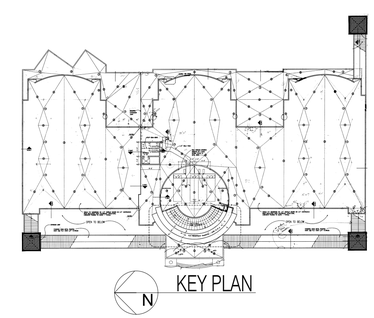
1. **GUTTERS AND DOWNSPOUTS:** INSTALL NEW GUTTERS AND NEW DOWNSPOUTS IN SAME LOCATIONS AS WHERE THEY WERE REMOVED. SEE DETAILS ON SHEET A3.4.
2. **ONE-PIECE TRANSITION FLASHING:** INSTALL NEW ONE-PIECE TRANSITION FLASHING WITH ALL ADHERED NON-MOVING JOINTS. PREPARE IN-PLACE MOCKUP FOR OWNER AND A/E APPROVAL.



N 1 A2.5 NORTHWEST DRAINAGE ROOF PLAN
SCALE: 3/8" = 1'-0"



N 3 A2.5 SOUTHWEST DRAINAGE ROOF PLAN
SCALE: 3/8" = 1'-0"



N KEY PLAN

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA
METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

REVISIONS

NUMBER	TYPE	DATE:

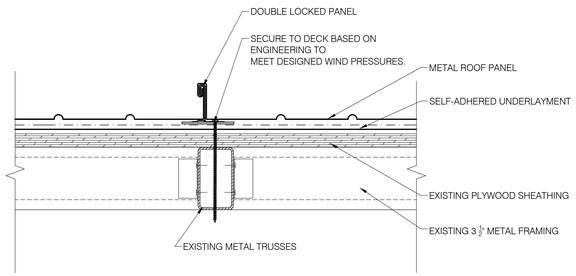
DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

PROPOSED DRAINAGE ROOF PLANS

PLOT: 3/8" = 1'-0"
SHEET A2.5

NOTES FOR A/A3.1:

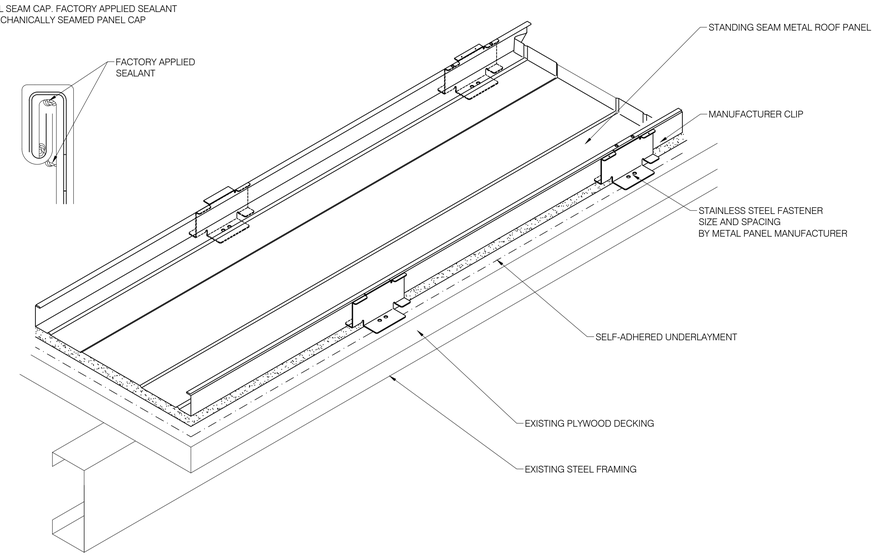
A. BASIS OF DESIGN: FLORIDA PRODUCT APPROVAL - FL24423.12; MIAMI-DADE NOA NO.: 19-0909.17.
B. BASIS OF DESIGN: .040" ALUMINUM, 16" WIDE, TITE-LOC PLUS PANEL MANUFACTURED BY PETERSEN ALUMINUM.
C. SITE SPECIFIC ENGINEERING REQUIRED BASED ON VARIANCE OF EXISTING CONDITIONS AND TOTAL ASSEMBLY THICKNESS. SUBMIT ENGINEERING TO A/E FOR APPROVAL PRIOR TO ORDERING MATERIALS.
D. FASTENER TYPE, CLIP AND SPACING PER SITE SPECIFIC ENGINEERING, MANUFACTURER'S RECOMMENDATION AND DESIGN WIND PRESSURES.
E. ALL FASTENERS TO HAVE A MINIMUM EMBEDMENT ACCORDING TO PRODUCT APPROVAL.
F. EXISTING ROOFING ASSEMBLY THICKNESSES ARE APPROXIMATE ONLY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, INCLUDING BUT NOT LIMITED TO ROOF ASSEMBLY THICKNESSES.



A / A3.1 TYPICAL METAL ROOFING ASSEMBLY AT CORNER GAZEBOS
N.T.S.

NOTE:

TYPICAL SEAM CAP. FACTORY APPLIED SEALANT IN A MECHANICALLY SEAMED PANEL CAP



B / A3.1 TYPICAL METAL ROOF PANEL ISOMETRIC
N.T.S.

MATERIAL COMPONENT SCHEDULE

ROUGH CARPENTRY

SPECIFICATION SECTION 061000
WOOD BLOCKING: EXTERIOR GRADE FIRE RETARDANT WOOD.
PLYWOOD SHEATHING: EXTERIOR GRADE FIRE RETARDANT PLYWOOD.

STANDING-SEAM METAL ROOF PANELS

SPECIFICATION SECTION 074110
BENT METAL PLATE: 16 GAGE STAINLESS STEEL ALLOY 410.
METAL ROOF CLIP: STAINLESS STEEL, SUPPLIED BY THE METAL ROOFING MANUFACTURER, SECURED TO EXISTING STEEL DECK WITH STAINLESS STEEL FASTENERS AND WITH THERMAL MOVEMENT PROVISIONS.
SELF-ADHERED UNDERLAYMENT: .040" SELF-ADHERED MODIFIED BITUMEN, ASTM D 1970, (W.R. GRACE "ICE & WATER SHIELD HT") ADHERED OVER PRIMED SUBSTRATE BELOW.
SUPPORT PLATE: 16 GAGE GALVANIZED STEEL, G90.
METAL ROOF PANEL: .040" THICK PRE-PAINTED ALUMINUM X 16" WIDE X 2" MIN. HIGH ARCHITECTURAL STANDING SEAM WITH STIFFENING RIBS, MECHANICALLY ATTACHED TO EXISTING PLYWOOD WITH CONCEALED CLIPS.
SHEET METAL FLASHING AND TRIM: .040" THICK PRE-PAINTED ALUMINUM.

SHEET METAL FLASHING AND TRIM

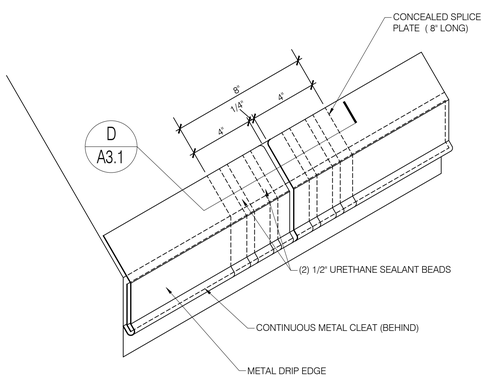
SPECIFICATION SECTION 076200
BENT METAL PLATE: 16 GAGE, GALVANIZED G90.
SUPPORT PLATE: 16 GAGE, GALVANIZED G90.
CONCEALED SPLICE PLATE: .040" THICK PRE-PAINTED ALUMINUM.
DOWNSPOUT: .050" PRE-PAINTED ALUMINUM.
DOWNSPOUT STRAPS: .063" THICK X 1" PRE-PAINTED ALUMINUM.
GUTTER: SEAMLESS .050" PRE-PAINTED ALUMINUM OR .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.
GUTTER BRACKET: 3/16" X 1" PRE-PAINTED ALUMINUM.
GUTTER STRAPS: .050" PRE-PAINTED ALUMINUM.
HEAD WALL FLASHING: .040" PRE-PAINTED ALUMINUM.
METAL CLEAT: 22 GAGE STAINLESS STEEL, TYPE 316.
METAL DRIP EDGE: .040" THICK PRE-PAINTED ALUMINUM.
METAL HIP/RIDGE CAP FLASHING: .050" THICK PRE-PAINTED ALUMINUM.
ONE-PIECE TRANSITION FLASHING: .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.

JOINT SEALANTS SPECIFICATION SECTION 079200

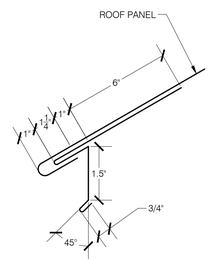
BACKER ROD: CLOSED-CELL BACKER ROD.
BUTYL SEALANT: ONE-PART GUN GRADE, BUTYL-RUBBER BASED JOINT SEALANT, ASTM C 1311.
SILICONE SEALANT: SINGLE-COMPONENT, NONSAG, NEUTRAL-CURING SILICONE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.
SEALANT TAPE: 1" WIDE BUTYL SEALANT TAPE, APPLIED BETWEEN METAL SURFACES AND UNDERLYING SURFACE.
STRUCTURAL SEALANT: SINGLE-COMPONENT, MOISTURE CURING, GUN GRADE ADHESIVE, "M-1" MANUFACTURED BY CHEM LINK ENGINEERED SYSTEMS.
URETHANE SEALANT: SINGLE-COMPONENT, NONSAG, POLYURETHANE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.

NOTE FOR C/A5.1:

A. PROVIDE MOCK-UP FOR OWNER / A/E APPROVAL PRIOR TO
B. FABRICATING AND INSTALLING SIMILAR DETAILS.

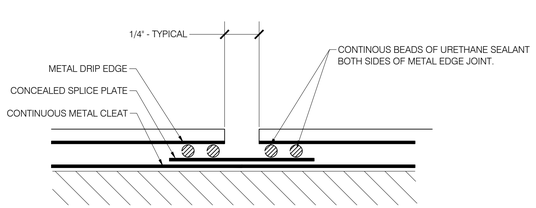


C / A3.1 METAL DRIP EDGE SPLICE PLATE
N.T.S.

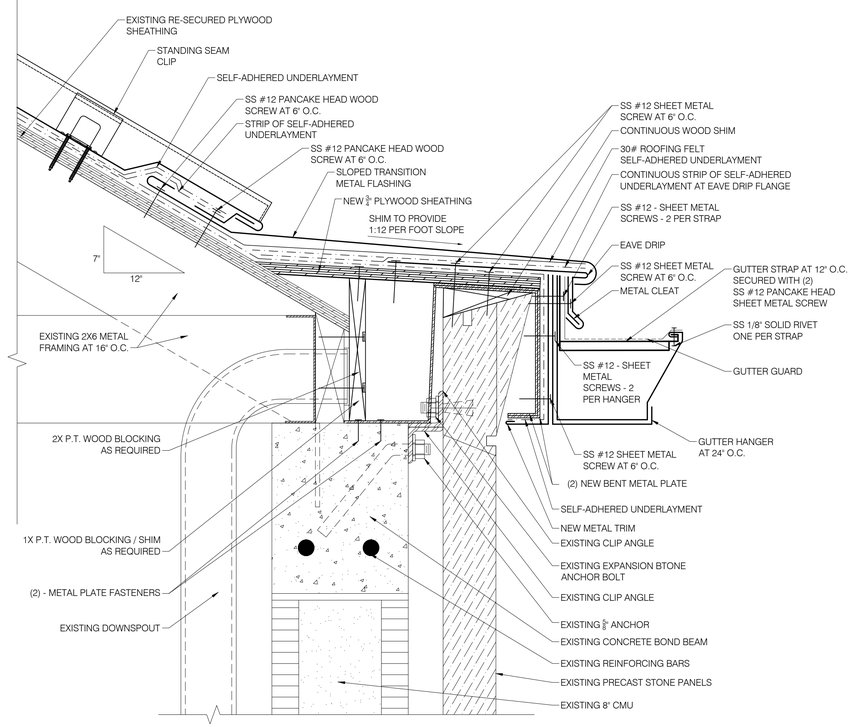


DETAIL A

E / A3.1 SECTION AT EAVEDRIP
N.T.S.



D / A3.1 SECTION THRU SPLICE PLATE
N.T.S.



F / A3.1 SECTION THROUGH EAVE - TYPICAL AT CORNER GAZEBOS - OPTIONAL
N.T.S.

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA
METAL ROOFING REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

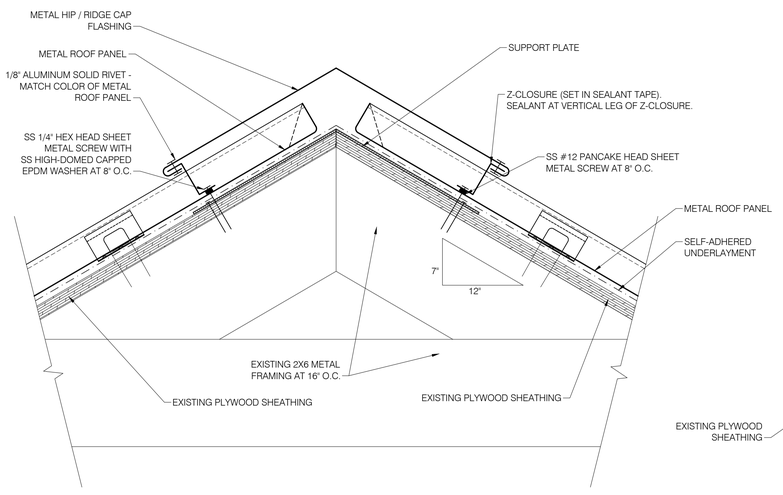
REVISIONS

NUMBER	TYPE	DATE:

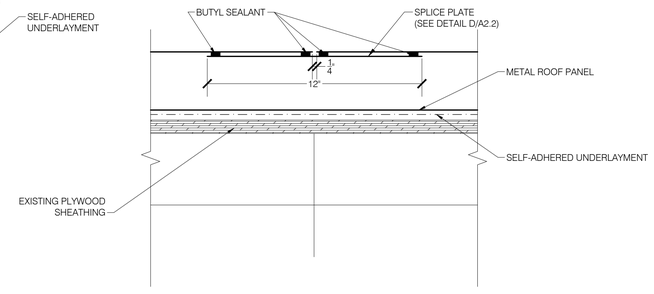
DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

ROOF DETAILS

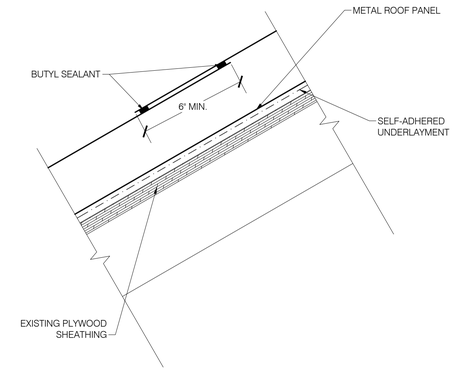
PLOT: N.T.S.
SHEET A3.1



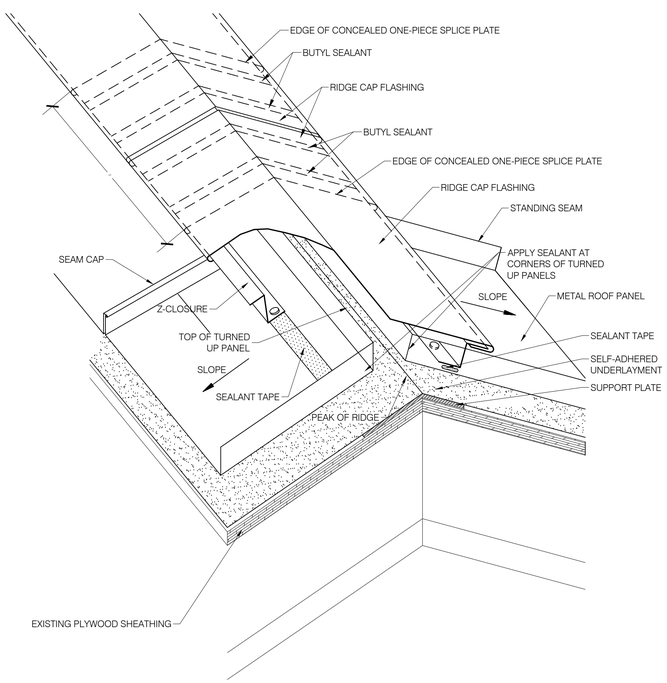
A / A3.2 HIP CAP FLASHING - TYPICAL AT CORNER GAZEBOS
N.T.S.



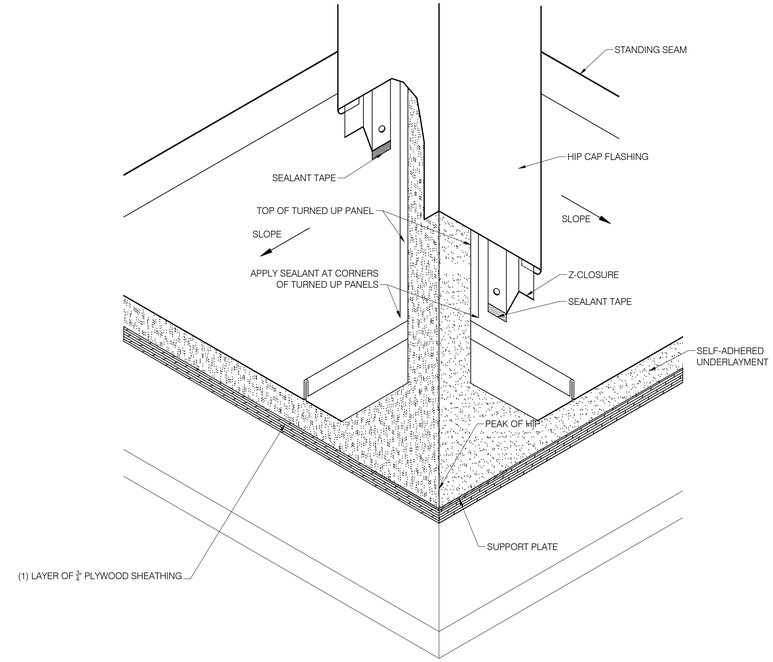
B / A3.2 HIP FLASHING - END LAP
N.T.S.



C / A3.2 HIP CAP FLASHING - END LAP
N.T.S.



D / A3.2 HIP CAP FLASHING / SPLICE PLATE ISOMETRIC
N.T.S.



E / A3.2 HIP CAP FLASHING / SPLICE PLATE ISOMETRIC
N.T.S.

MATERIAL COMPONENT SCHEDULE

ROUGH CARPENTRY
SPECIFICATION SECTION 061000
WOOD BLOCKING: EXTERIOR GRADE FIRE RETARDANT WOOD.
PLYWOOD SHEATHING: EXTERIOR GRADE FIRE RETARDANT PLYWOOD.

STANDING-SEAM METAL ROOF PANELS
SPECIFICATION SECTION 074110
BENT METAL PLATE: 16 GAGE STAINLESS STEEL ALLOY 410.
METAL ROOF CLIP: STAINLESS STEEL, SUPPLIED BY THE METAL ROOFING MANUFACTURER, SECURED TO EXISTING STEEL DECK WITH STAINLESS STEEL FASTENERS AND WITH THERMAL MOVEMENT PROVISIONS.
SELF-ADHERED UNDERLAYMENT: .040" SELF-ADHERED MODIFIED BITUMEN, ASTM D 1970, (W.R. GRACE "ICE & WATER SHIELD HT") ADHERED OVER PRIMED SUBSTRATE BELOW.
SUPPORT PLATE: 16 GAGE GALVANIZED STEEL, G90.
METAL ROOF PANEL: .040" THICK PRE-PAINTED ALUMINUM X 16" WIDE X 2" MIN. HIGH ARCHITECTURAL STANDING SEAM WITH STIFFENING RIBS, MECHANICALLY ATTACHED TO EXISTING PLYWOOD WITH CONCEALED CLIPS.
SHEET METAL FLASHING AND TRIM: .040" THICK PRE-PAINTED ALUMINUM.

SHEET METAL FLASHING AND TRIM
SPECIFICATION SECTION 076200
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SUPPORT PLATE: 16 GAGE, GALVANIZED G90.
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DOWNSPOUT: .050" PRE-PAINTED ALUMINUM.
DOWNSPOUT STRAPS: .063" THICK X 1" PRE-PAINTED ALUMINUM.
GUTTER: SEAMLESS .050" PRE-PAINTED ALUMINUM OR .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.
GUTTER BRACKET: 3/16" X 1" PRE-PAINTED ALUMINUM.
GUTTER STRAPS: .050" PRE-PAINTED ALUMINUM.
HEAD WALL FLASHING: .040" PRE-PAINTED ALUMINUM.
METAL CLEAT: 22 GAGE STAINLESS STEEL, TYPE 316.
METAL DRIP EDGE: .040" THICK PRE-PAINTED ALUMINUM.
METAL HIP/RIDGE CAP FLASHING: .050" THICK PRE-PAINTED ALUMINUM.
ONE-PIECE TRANSITION FLASHING: .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.

JOINT SEALANTS SPECIFICATION SECTION 079200
BACKER ROD: CLOSED-CELL BACKER ROD.
BUTYL SEALANT: ONE-PART GUN GRADE, BUTYL-RUBBER BASED JOINT SEALANT, ASTM C 1311.
SILICONE SEALANT: SINGLE-COMPONENT, NONSAG, NEUTRAL-CURING SILICONE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.
SEALANT TAPE: 1" WIDE BUTYL SEALANT TAPE, APPLIED BETWEEN METAL SURFACES AND UNDERLYING SURFACE.
STRUCTURAL SEALANT: SINGLE-COMPONENT, MOISTURE CURING, GUN GRADE ADHESIVE, "M-1" MANUFACTURED BY CHEM LINK ENGINEERED SYSTEMS.
URETHANE SEALANT: SINGLE-COMPONENT, NONSAG, POLYURETHANE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.

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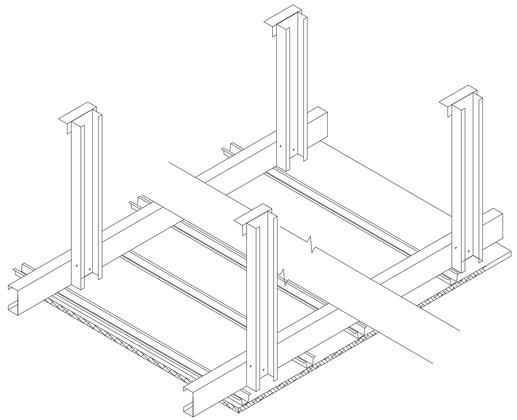
REVISIONS

NUMBER	TYPE	DATE:

DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

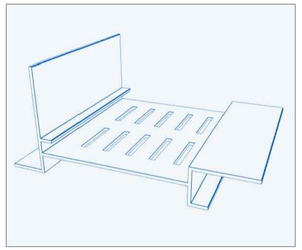
ROOF DETAILS

PLOT: N.T.S.
SHEET A3.2



TYPICAL METAL STUD SUSPENDED CEILING

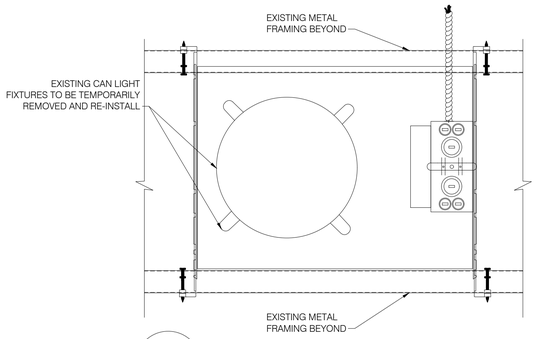
EXISTING SUSPENDED CEILING FRAMING



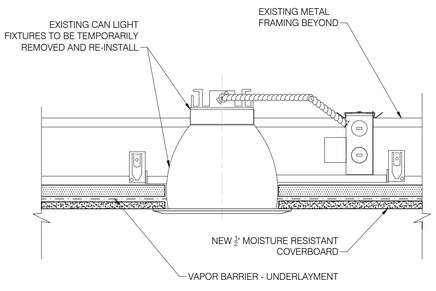
CONTINUOUS METAL SOFFIT STRIP

ROOF DOWNSPOUT AND CEILING CONIDTION

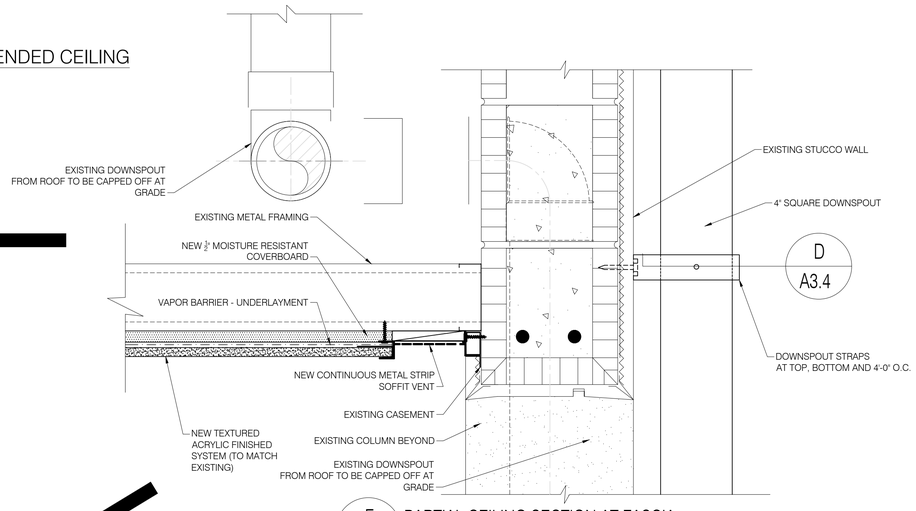
TYPICAL GAZEBOS CEILING LIGHTS LAYOUT



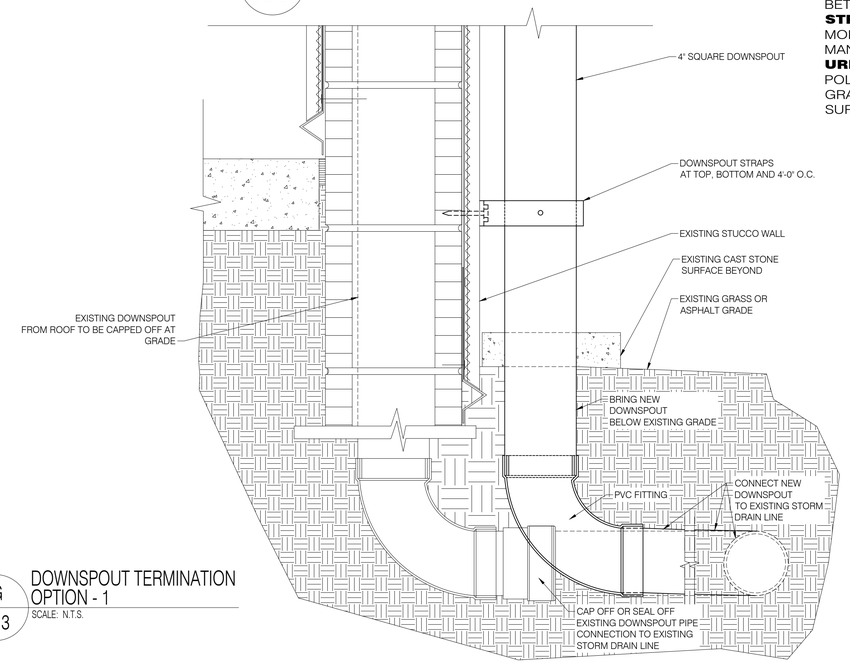
D / A3.3 PLAN VIEW OF LIGHT FIXTURE
SCALE: NTS



E / A3.3 SECTION AT NEW LIGHT FIXTURE
SCALE: NTS



F / A3.3 PARTIAL CEILING SECTION AT FASCIA
SCALE: NTS



G / A3.3 DOWNSPOUT TERMINATION OPTION - 1
SCALE: N.T.S.

MATERIAL COMPONENT SCHEDULE

ROUGH CARPENTRY
SPECIFICATION SECTION 061000
WOOD BLOCKING: EXTERIOR GRADE FIRE RETARDANT WOOD.
PLYWOOD SHEATHING: EXTERIOR GRADE FIRE RETARDANT PLYWOOD.

STANDING-SEAM METAL ROOF PANELS
SPECIFICATION SECTION 074110
BENT METAL PLATE: 16 GAGE STAINLESS STEEL ALLOY 410.
METAL ROOF CLIP: STAINLESS STEEL, SUPPLIED BY THE METAL ROOFING MANUFACTURER, SECURED TO EXISTING STEEL DECK WITH STAINLESS STEEL FASTENERS AND WITH THERMAL MOVEMENT PROVISIONS.
SELF-ADHERED UNDERLAYMENT: .040" SELF-ADHERED MODIFIED BITUMEN, ASTM D 1970, (W.R. GRACE "ICE & WATER SHIELD HT") ADHERED OVER PRIMED SUBSTRATE BELOW.
SUPPORT PLATE: 16 GAGE GALVANIZED STEEL, G90.
METAL ROOF PANEL: .040" THICK PRE-PAINTED ALUMINUM X 16" WIDE X 2" MIN. HIGH ARCHITECTURAL STANDING SEAM WITH STIFFENING RIBS, MECHANICALLY ATTACHED TO EXISTING PLYWOOD WITH CONCEALED CLIPS.
SHEET METAL FLASHING AND TRIM: .040" THICK PRE-PAINTED ALUMINUM.

SHEET METAL FLASHING AND TRIM
SPECIFICATION SECTION 076200
BENT METAL PLATE: 16 GAGE, GALVANIZED G90.
SUPPORT PLATE: 16 GAGE, GALVANIZED G90.
CONCEALED SPLICE PLATE: .040" THICK PRE-PAINTED ALUMINUM.
DOWNSPOUT: .050" PRE-PAINTED ALUMINUM.
DOWNSPOUT STRAPS: .063" THICK X 1" PRE-PAINTED ALUMINUM.
GUTTER: SEAMLESS .050" PRE-PAINTED ALUMINUM OR .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.
GUTTER BRACKET: 3/16" X 1" PRE-PAINTED ALUMINUM.
GUTTER STRAPS: .050" PRE-PAINTED ALUMINUM.
HEAD WALL FLASHING: .040" PRE-PAINTED ALUMINUM.
METAL CLEAT: 22 GAGE STAINLESS STEEL, TYPE 316.
METAL DRIP EDGE: .040" THICK PRE-PAINTED ALUMINUM.
METAL HIP/RIDGE CAP FLASHING: .050" THICK PRE-PAINTED ALUMINUM.
ONE-PIECE TRANSITION FLASHING: .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.

JOINT SEALANTS SPECIFICATION SECTION 079200
BACKER ROD: CLOSED-CELL BACKER ROD.
BUTYL SEALANT: ONE-PART GUN GRADE, BUTYL-RUBBER BASED JOINT SEALANT, ASTM C 1311.
SILICONE SEALANT: SINGLE-COMPONENT, NONSAG, NEUTRAL-CURING SILICONE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.
SEALANT TAPE: 1" WIDE BUTYL SEALANT TAPE, APPLIED BETWEEN METAL SURFACES AND UNDERLYING SURFACE.
STRUCTURAL SEALANT: SINGLE-COMPONENT, MOISTURE CURING, GUN GRADE ADHESIVE, "M-1" MANUFACTURED BY CHEM LINK ENGINEERED SYSTEMS.
URETHANE SEALANT: SINGLE-COMPONENT, NONSAG, POLYURETHANE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.

NOT FOR CONSTRUCTION
100% FINAL REVIEW DOCUMENTS

INDIAN RIVER COUNTY

INDIAN RIVER COUNTY COURTHOUSE
VERO BEACH, FLORIDA
METAL ROOFING
REPLACEMENT PROJECT

JAY AMMON ARCHITECT, INC.
3246 LAKEVIEW OAKS DRIVE • LONGWOOD, FLORIDA 32779
(407) 333-1977 • FAX: (407) 333-4686 • E MAIL: JAY@JAYAMMON.COM

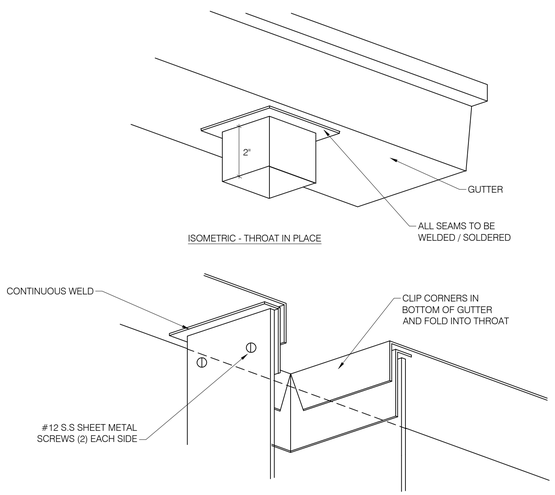
REVISIONS

NUMBER	TYPE	DATE:

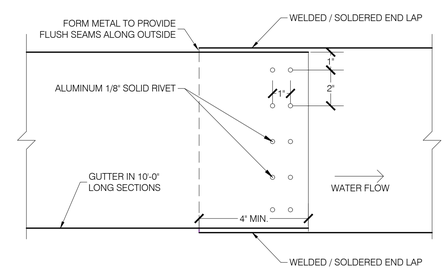
DRAWN BY: CAS
APPROVED BY: JPA
ENGINEER:
PROJECT NUMBER: 20-062
PHASE: 100% FINAL REVIEW DOCS
DATE: JANUARY 15, 2021

ROOF AND INTERIOR CEILING DETAILS

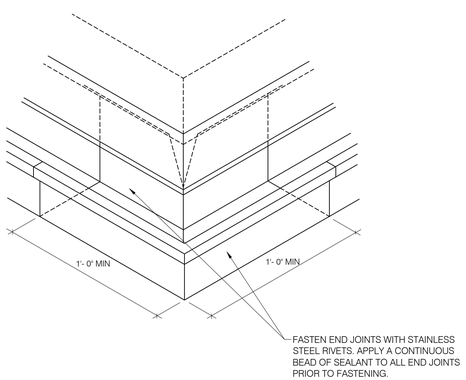
PLOT: N.T.S.
SHEET A3.3



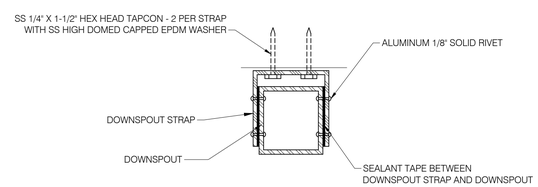
A / A3.4 GUTTER DOWNSPOUT CONNECTION
SCALE: N.T.S.



B / A3.4 GUTTER END LAP
N.T.S.



C / A3.4 GUTTER OUTSIDE CORNER
SCALE: N.T.S.



D / A3.4 INTERNAL DOWNSPOUT CONNECTION
SCALE: N.T.S.

MATERIAL COMPONENT SCHEDULE

ROUGH CARPENTRY
SPECIFICATION SECTION 061000
WOOD BLOCKING: EXTERIOR GRADE FIRE RETARDANT WOOD.
PLYWOOD SHEATHING: EXTERIOR GRADE FIRE RETARDANT PLYWOOD.

STANDING-SEAM METAL ROOF PANELS
SPECIFICATION SECTION 074110
BENT METAL PLATE: 16 GAGE STAINLESS STEEL ALLOY 410.
METAL ROOF CLIP: STAINLESS STEEL, SUPPLIED BY THE METAL ROOFING MANUFACTURER, SECURED TO EXISTING STEEL DECK WITH STAINLESS STEEL FASTENERS AND WITH THERMAL MOVEMENT PROVISIONS.
SELF-ADHERED UNDERLAYMENT: .040" SELF-ADHERED MODIFIED BITUMEN, ASTM D 1970, (W.R. GRACE "ICE & WATER SHIELD HT") ADHERED OVER PRIMED SUBSTRATE BELOW.
SUPPORT PLATE: 16 GAGE GALVANIZED STEEL, G90.
METAL ROOF PANEL: .040" THICK PRE-PAINTED ALUMINUM X 16" WIDE X 2" MIN. HIGH ARCHITECTURAL STANDING SEAM WITH STIFFENING RIBS, MECHANICALLY ATTACHED TO EXISTING PLYWOOD WITH CONCEALED CLIPS.
SHEET METAL FLASHING AND TRIM: .040" THICK PRE-PAINTED ALUMINUM.

SHEET METAL FLASHING AND TRIM
SPECIFICATION SECTION 076200
BENT METAL PLATE: 16 GAGE, GALVANIZED G90.
SUPPORT PLATE: 16 GAGE, GALVANIZED G90.
CONCEALED SPLICE PLATE: .040" THICK PRE-PAINTED ALUMINUM.
DOWNSPOUT: .050" PRE-PAINTED ALUMINUM.
DOWNSPOUT STRAPS: .063" THICK X 1" PRE-PAINTED ALUMINUM.
GUTTER: SEAMLESS .050" PRE-PAINTED ALUMINUM OR .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.
GUTTER BRACKET: 3/16" X 1" PRE-PAINTED ALUMINUM.
GUTTER STRAPS: .050" PRE-PAINTED ALUMINUM.
HEAD WALL FLASHING: .040" PRE-PAINTED ALUMINUM.
METAL CLEAT: 22 GAGE STAINLESS STEEL, TYPE 316.
METAL DRIP EDGE: .040" THICK PRE-PAINTED ALUMINUM.
METAL HIP/RIDGE CAP FLASHING: .050" THICK PRE-PAINTED ALUMINUM.
ONE-PIECE TRANSITION FLASHING: .050" ALUMINUM WITH ALL NON-MOVING JOINTS WELDED AND POST-PAINTED.

JOINT SEALANTS SPECIFICATION SECTION 079200
BACKER ROD: CLOSED-CELL BACKER ROD.
BUTYL SEALANT: ONE-PART GUN GRADE, BUTYL-RUBBER BASED JOINT SEALANT, ASTM C 1311.
SILICONE SEALANT: SINGLE-COMPONENT, NONSAG, NEUTRAL-CURING SILICONE JOINT SEALANT: ASTM C 920, TYPE S, GRADE NS, CLASS 100/50, FOR USE NT. APPLIED TO PRIMED SURFACES.
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DATE: JANUARY 15, 2021

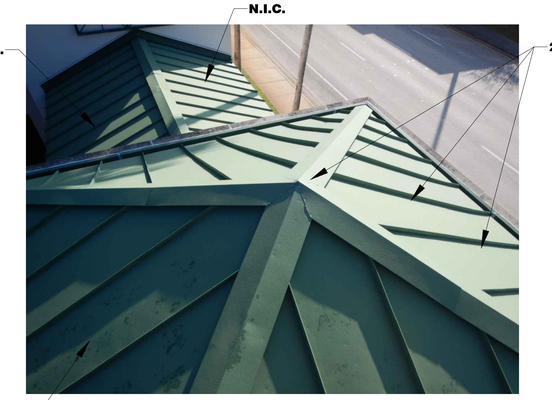
GUTTER AND DOWNSPOUTS DETAILS

PLOT: N.T.S.
SHEET A3.4

TYPICAL GAZEBO ROOF

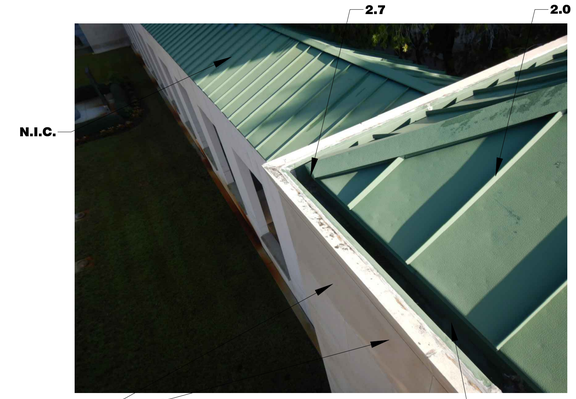
1 / A4.1 PHOTOGRAPH 1

HIP / RIDGE CONDITION



2 / A4.1 PHOTOGRAPH 2

BUILDING EXPANSION JOINT - PENTHOUSE WALL

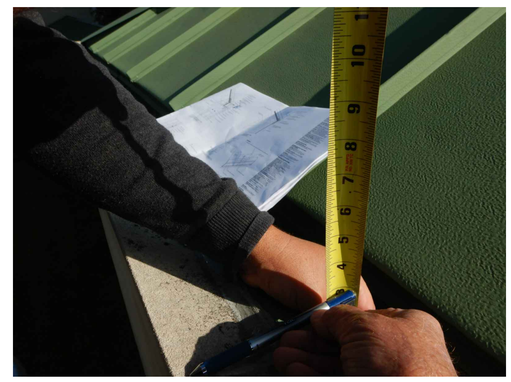


3 / A4.1 PHOTOGRAPH 3

INTERNAL GUTTER WIDTH

4 / A4.1 PHOTOGRAPH 4

INTERNAL GUTTER DEPTH



5 / A4.1 PHOTOGRAPH 5

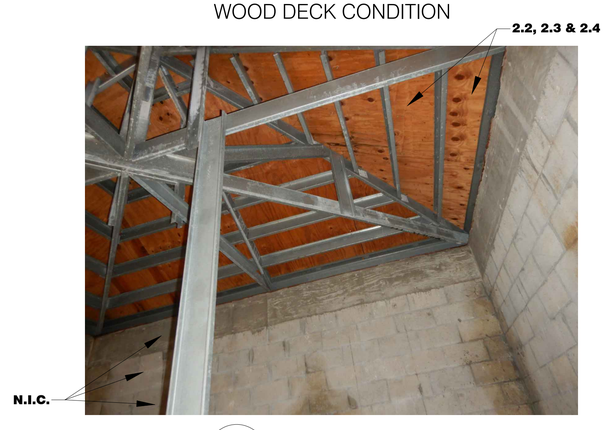
EAVE ROOF EDGE CONDITION

6 / A4.1 PHOTOGRAPH 6

INTERNAL GUTTER DEPTH

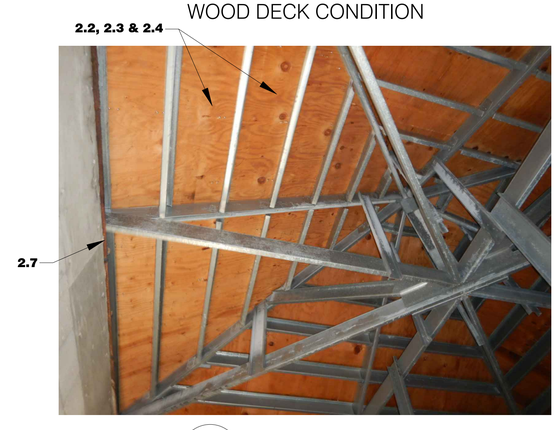
7 / A4.1 PHOTOGRAPH 7

WOOD DECK CONDITION



8 / A4.1 PHOTOGRAPH 8

WOOD DECK CONDITION



9 / A4.1 PHOTOGRAPH 9

A / A4.1 PHOTOGRAPHS

SCOPE OF WORK:

THE SCOPE OF WORK INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

1.0 GENERAL:

1.1 ENGINEERING: CONDUCT PULL TESTS OF THE EXISTING ROOF DECK. PROVIDE ENGINEERING CALCULATIONS PREPARED BY A FLORIDA LICENSED STRUCTURAL ENGINEER INCLUDING THE FASTENER SPACING FOR EACH ROOF WIND ZONE. SUBMIT PULL TEST RESULTS AND THE ENGINEERING CALCULATIONS TO THE ARCHITECT FOR REVIEW PRIOR TO COMMENCEMENT OF THE ROOFING INSTALLATION. SEE DRAWINGS FOR WIND PRESSURES.

1.2 SUBSTRATE PREPARATION: PREPARE, REPAIR, OR REPLACE ALL SURFACES AS NECESSARY TO COMPLY WITH REQUIREMENTS INCLUDING BUT NOT LIMITED TO: WIND UPLIFT REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, BUILDING CODE REQUIREMENTS, AND RELEVANT INDUSTRY STANDARDS. PRIOR TO INSTALLATION OF THE ROOFING ASSEMBLY SUBMIT A WRITTEN APPROVAL TO THE ARCHITECT, FROM THE MANUFACTURER OF THE ROOFING ASSEMBLY THAT ALL SUBSTRATES ARE PROPERLY PREPARED FOR THE INSTALLATION OF THE ASSEMBLY.

1.3 WARRANTY: THE NEW ROOFING ASSEMBLY IS TO BE EXAMINED AND APPROVED BY THE MANUFACTURER'S OF THE ROOFING ASSEMBLY AND SHALL RECEIVE A 20 YEAR NDL LABOR AND MATERIAL WARRANTY AGAINST DEFECTS AND LEAKS. THE CONTRACTOR SHALL SUBMIT A 5 YEAR NDL WARRANTY FOR ALL WORK AGAINST DEFECTS AND LEAKS UPON COMPLETION OF THE WORK. ADJUST THE SCOPE OF WORK AS REQUIRED TO OBTAIN THIS WARRANTY.

2.0 STANDING SEAM METAL ROOF PANEL ASSEMBLY:

2.1 DEMOLITION: REMOVE THE EXISTING STANDING SEAM METAL ROOF PANEL COMPONENTS FROM THREE ALL CORNER STANDING SEAM METAL ROOFING ASSEMBLIES. ROOFING ASSEMBLIES INCLUDE BUT ARE NOT LIMITED TO METAL ROOF PANELS, CLIPS, FASTENERS, FLASHINGS, GUTTERS AND UNDERLAYMENTS. REMOVE THE EXISTING PVC RAIN LEADERS FROM WITHIN CEILING CAVITY AND CAP EXISTING RAIN LEADERS.

2.2 ROOF DECK PREPARATION: REPLACE ANY DETERIORATED PLYWOOD SHEATHING OR WOOD BLOCKING OBSERVED DURING THE EXISTING ROOF SYSTEM REMOVAL. INCLUDE 320 SQUARE FEET OF 5/8 INCH EXTERIOR GRADE PLYWOOD REPLACEMENT IN BASE BID. INCLUDE 100 LINEAR FEET OF PRESSURE TREATED 2X8' WOOD BLOCKING CUT AND SIZED AS REQUIRED IN THE BASE BID. ALSO, INCLUDE A UNIT COST PER SQUARE FOOT FOR PLYWOOD REPLACEMENT AND A UNIT COST PER BOARD FOOT FOR WOOD BLOCKING REPLACEMENT IN THE BID TO ADJUST THE CONTRACT AMOUNT FOR ACTUAL FIELD CONDITIONS. SEE SPECIFICATION SECTION 06100.

2.3 ROOF DECK RESECUREMENT: RE-SECURE ALL EXISTING PLYWOOD DECK TO THE EXISTING METAL TRUSSES WITH THE FOLLOWING FASTENERS.

1). CORNER ZONE: #10 SHEET METAL SCREW AT 4' OC EACH STEEL TRUSS.

2). EDGE ZONE: #10 SHEET METAL SCREW AT 6' OC EACH STEEL TRUSS.

3). FIELD ZONE: #10 SHEET METAL SCREW AT 6' OC EACH STEEL TRUSS.

2.4 UNDERLAYMENT: PREPARE ALL ROOF SURFACES TO RECEIVE THE NEW UNDERLAYMENT AS REQUIRED BY THE UNDERLAYMENT MANUFACTURER. APPLY PRIMER OVER ALL EXISTING AND PROPERLY PREPARED UNDERLAYMENT SURFACES. APPLY ONE PLY OF HIGH TEMPERATURE SELF-ADHERED UNDERLAYMENT OVER ALL SURFACES AND OVER DESIGNATED ADJACENT WALL SURFACES. APPLY AN ADDITIONAL UNDERLAYMENT PLY OVER ALL HIPS AND OVER ALL PRIMED METAL FLASHING FLANGES.

2.5 METAL ROOF PANELS: INSTALL A METAL STANDING SEAM ROOF PANEL WITH STIFFENING RIBS USING STAINLESS STEEL CONCEALED CLIPS FABRICATED WITH THERMALLY MOVABLE COMPONENTS. SECURE CLIPS THROUGH THE ROOFING ASSEMBLY AND INTO THE EXISTING STEEL DECK. SEE SPECIFICATION SECTION 074110.

2.6 METAL FLASHINGS: INSTALL METAL FLASHINGS WITH FULLY WELDED NON-MOVING SEAMS AND SECURE WITH STAINLESS STEEL FASTENERS AS REQUIRED TO COMPLY WITH THE DESIGNATED WIND PRESSURES.

2.7 INTERNAL GUTTERS AND DOWNSPOUTS: INSTALL NEW 16 GAUGE BENT METAL PLATES AND PLYWOOD SHEATHING TO CONCEAL EXISTING INTERNAL GUTTER SUBSTRATE. FABRICATE AND INSTALL NEW SLOPED GUTTERS AND DOWNSPOUTS AT THE EXISTING EAVES. REMOVE AND CAP EXISTING PVC DOWNSPOUTS. MATCH THE EXISTING DOWNSPOUT LOCATIONS. INSTALL SLOPED SEAMLESS ALUMINUM GUTTERS. INSTALL ROUND ALUMINUM TUBE DOWNSPOUTS AND TIE DISCHARGE END INTO EXISTING STORM LINES WITH A PVC OR ALUMINUM TRANSITION FLASHING.

3.0 EXTERIOR CEILINGS AT CORNER GAZEBOS:

3.1 PLASTER CEILINGS REPLACEMENT: REMOVE ALL EXISTING INTERIOR PLASTER CEILINGS FROM THE EXISTING STEEL EXTERIOR CEILING FRAMING. REMOVE ALL CORROSION DEPOSITS FROM EXISTING STEEL FRAMING AND COAT PREVIOUS CORRODED STEEL WITH PPG AMERLOK 2 EPOXY COATING. AT DETERIORATED OR DAMAGED STEEL FRAMING, REMOVE AND REPLACE WITH NEW STEEL FRAMING COMPONENTS SECURED WITH STAINLESS STEEL FASTENERS. INSTALL NEW CEMENTITIOUS SHEATHING TO EXISTING AND REPAIRED STEEL FRAMING. INSTALL NEW STO ESSENCE DPR EXTERIOR CEILING FINISH FINISH SYSTEM WITH COLOR TO MATCH ADJACENT EXTERIOR CEILINGS. INSTALL NEW PERIMETER VENTS TO MATCH ADJACENT EXTERIOR CEILINGS. SEE SPECIFICATION SECTION 092513.)

4.0 INTERIOR CEILING ELECTRICAL LIGHTS:

4.1 EXISTING EXTERIOR CAN LIGHTS: TEMPORARILY REMOVE ALL EXISTING LIGHT FIXTURES FROM THE EXTERIOR CEILINGS AT ALL GAZEBOS AND REINSTALL ONCE EXISTING CEILING COMPONENTS ARE COMPLETED. ALL ELECTRICAL WORK TO BE COMPLETED BY A STATE OF FLORIDA LICENSED ELECTRICIAN.

NOT FOR CONSTRUCTION
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DATE: JANUARY 15, 2021

PHOTOGRAPHS

PLOT: N.T.S.
SHEET A4.1

ITEMIZED BID SCHEDULE

PROJECT NAME: IRC COURTHOUSE ROOF REPLACEMENT

IRC PROJECT NO. 1764 BID NO. 2021036

BIDDER'S NAME:_____

	Item No.	Description	Quantity	Unit	Unit Price	Amount
	1.1	MOBILIZATION - FOR CONTRACTS OF 120 CONTRACT DAYS DURATION OR LESS, PARTIAL PAYMENT WILL BE MADE AT 50% OF THE BID PRICE PER MONTH FOR THE FIRST TWO MONTHS. FOR CONTRACTS IN EXCESS OF 120 CONTRACT DAYS DURATION, PARTIAL PAYMENT WILL BE MADE AT 25% OF THE BID PRICE PER MONTH FOR THE FIRST FOUR MONTHS. IN NO EVENT SHALL MORE THAN 50% OF THE BID PRICE BE PAID PRIOR TO COMMENCING CONSTRUCTION ON THE PROJECT SITE	1	LS		
	2.1	PERMITTING (SEE APPENDIX "A")	1	LS		
	001	ROOF ASSEMBLY TYPE "A" LOW SLOPE ROOF AREAS: REPLACEMENT - REMOVE EXISTING ROOF SYSTEM AND INSTALL NEW LIGHTWEIGHT CONCRETE AT DESIGNATED AREAS. INSTALL NEW 2-PLY MODIFIED BITUMEN ROOFING ASSEMBLY. SEE ROOF AREA "A" PER PLANS SET	46,491	SF		
	002	ROOF ASSEMBLY TYPE "B" RADIUS ROOFS WITH PLYWOOD DECKS: REPLACEMENT - REMOVE EXISTING ROOF SYSTEM AND INSTALL NEW LIGHTWEIGHT CONCRETE AT DESIGNATED AREAS. INSTALL NEW 2-PLY MODIFIED BITUMEN ROOFING ASSEMBLY. SEE ROOF AREA "B" PER PLANS SET	1,979	SF		
	003	ROOF ASSEMBLY TYPE "C" ELEVATOR PENTHOUSE WITH CONCRETE DECK: REPLACEMENT - REMOVE EXISTING ROOF SYSTEM AND INSTALL NEW LIGHTWEIGHT CONCRETE AT DESIGNATED AREAS. INSTALL NEW 2-PLY MODIFIED BITUMEN ROOFING ASSEMBLY. SEE ROOF AREA "C" PER PLANS SET	385	SF		
	004	ROOF HATCH - REMOVE AND REPLACE - PER PLAN SET	1	EA		
	005	ACCESS DOORS RESTORE - PER PLAN SET	3	EA		
	006	COUNTERFLASHING STAINLESS STEEL - REPLACE - PER PLAN SET	1	LS		
	007	EXPANSION JOINT COVER - INSTALL - PER PLAN SET	132	LF		
	008	PRECAST CONCRETE PARAPET CAPS - RESTORE - PER PLAN SET	1	LS		
	009	SKYLIGHTS - RESEAL - PER PLAN SET	1	LS		
	010	GUARD RAIL FLASHINGS - REMOVE AND REPLACE - PER PLAN SET	1	LS		
	011	CONCRETE CHILLER PAD MOTORS - TEMPORARILY DISCONNECT AND REMOVE - PER PLAN SET	1	LS		
*		WALKWAY METAL ROOFS				
*	012	STANDING SEAM ROOF (REMOVE AND REPLACE)	1	LS		
*	013	PLASTER CEILINGS (REMOVE AND REPLACE)	736	SF		
*	014	CAN LIGHTS (REMOVE AND RESET)	15	EA		
	015	FORCE ACCOUNT				190,000.00
		TOTAL BID AMOUNT (INCLUDING FORCE ACCOUNT)			TOTAL	

TOTAL PROJECT BID AMOUNT IN WORDS_____

NOTE: IF THERE IS A DISCREPANCY BETWEEN THE PLANS (SUMMARY OF PAY ITEMS) AND THE ITEMIZED BID SCHEDULE, THE BID DOCUMENTS WILL GOVERN.

LS = LUMP SUM SF = SQUARE FEET EA = EACH LF = LINEAR FOOT

Re-Roof Permit Checklist

The following items are required with submission of your re-roof permit application:

- **2 copies of completed Re-Roof permit application**
- **Roof Pressure Sheet completed as applicable**
- **Copy of signed contract with contractor or, Owner/Builder Disclosure Statement**
- **Florida Product Approvals or Miami-Dade NOA's. All product approval numbers must be provided on the application along with a copy at the time of application and provided on-site for inspection. Materials and methods used for recovering or replacing an existing roof covering must comply with Ch-15 of FBC, Ch-9 of FBC Residential, Ch-7 of FBC Existing Building and all manufacturer's product installation instructions.**
- **If current roof covering is a lightweight system (shingle/metal/etc.) and roof covering is changing to a heavy system (tile), a Florida Licensed Design Professional must provide structural member/system verification for items such as wood or metal trusses, rafters, joists, etc. to ensure existing structural system is adequate for increased load.**
- **Recorded Notice of Commencement (NOC) required to be submitted prior to first inspection if job value is greater than $2500.00.**
- **Commercial Roofs require a roof plan stating wind design criteria and components and cladding pressures, location and size for applicable zones prepared by a Florida Licensed Engineer in addition to the Roof Plan requirements for One & Two Family Dwellings.**
- **A Florida Licensed Engineer may need to extrapolate the attachment requirements of the Product Approval or Miami-Dade NOA to meet the components and cladding pressures of the roof or calculate the moment connection for a tile roof.**
- **Required Mechanical Equipment stands or curbs (FBCEB 301.5, FBCB 1510.10), guards and access guards (FBCM 304.11, FBCB 1011.13), roof access ladder and ladder extension (FBCM 306.5) will need to be brought into compliance with current codes prior to the roof receiving a final inspection.**
- **Resources for Applications/Forms and Product Approvals**

  https://floridabuilding.org/pr/pr_default.aspx
  http://irccdd.com/Applications/Building_Division.htm
  http://www.miamidade.gov/building/pc-search_app.asp
  Illustrations:
  https://www.fema.gov/sites/default/files/2020-07/best-practices-minimize-wind-water_hurricane-michael-florida.pdf or www.floridabuilding.org

INDIAN RIVER COUNTY BUILDING DEPARTMENT

RE-ROOFING / ROOF REPAIR PERMIT APPLICATION[6]

RESIDENTIAL
☐ Single Family Detached
☐ Single Family Attached

COMMERCIAL[2]
☒ Stand Alone Building
☐ Other _____

☒ RE-ROOF ☐ REPAIR[3] ☐ RECOVERING[5] (ROOF OVER)

Job Address: 2000 16th Avenue Vero Beach, Florida 32960

Parcel #: 33390200001045000001.0

JOB DESCRIPTION: Remove and replace metal roofing system and install new gutter system over the existing walkway canopy.

Owner: Indian River County BOCC / Michael Heller Phone: 772-226-1585

Contractor: TBD Phone: _____ Email: _____

Contractor FAX: _____ Contractor License Number: _____ IRC Certificate #: _____

Engineer: Jay Amon Architects, Inc. Phone: 407-3331977 Email: craig@jayammon.com

Contract Value: $ 76,054.00 Value of Structure[1]: $ 14,000,000.00 Year Built: 1992

TOTAL ROOF SQ. FEET (not squares): 1,026 REPAIR[3] AREA SQ. FEET (not squares): _____

PERCENT of ROOF REPAIR AREA: _____% (cannot exceed 25% of TOTAL roof area, see NOTES, Page 9)

Roof Slope: 7 : 12 Existing Roof Covering: Standing Seam Metal

New Material: ☐ Shingles ☒ Metal [2,4] ☐ Low Slope [2,4] ☐ Tile [2,4,7] ☐ Other _____

WIND SPEED ☐ 150 mph ☐ 160 mph ☒ Other 170 Exposure Category: ☐ B ☒ C ☐ D

Mean Roof Height: 25'

PLEASE SEE PAGES 6-8 OF THE APPLICATION TO COMPLETE THE BELOW INFORMATION. PLEASE NOTE THAT ROOF PRESSURES ARE NOW DEPENDENT ON ROOF PITCH AND SPECIFIC ROOF TYPE.

GABLE OR FLAT – ROOF PITCH ☐ 0 - 1 ½:12 ZONE 1, 1' _____ ZONE 2 _____ ZONE 3 _____

GABLE – ROOF PITCH ☐ >1 ½:12 – 6:12 ZONE 1, 2e _____ ZONE 2n, 2r, 3e _____ ZONE 3r _____

GABLE – ROOF PITCH ☐ >6:12 – 12:12 ZONE 1, 2e, 2r _____ ZONE 2n, 3r _____ ZONE 3e _____

HIP – ROOF PITCH ☐ >1 ½:12 – 4½ :12 ZONE 1 _____ ZONE 2r _____ ZONE 2e, 3 _____

HIP-- ROOF PITCH ☐ >4 ½:12 – 6:12 ZONE 1 _____ ZONE 2e, 2r, 3 _____

HIP—ROOF PITCH ☒ >6:12 – 12:12 ZONE 1 -59.9 PSF ZONE 2e -71.7 PSF ZONE 2r -97.4 PSF ZONE 3 -95.2 PSF

NAILING: ROOF SHEATHING TO BE NAILED ☒ 4" O.C. ☒ 6" O.C. WITH #10 sheet metal screw NAILS

☐ Recovering [2,5] Roof Recovering is NOT allowed unless you meet the following criteria: (1) An existing roof covering that was installed with the original construction of the building structure after March 1, 2002 or (2) A re-roof permit after October 1, 2007.

All Site Built Single Family Residential Re-Roofs, regardless of value, shall comply with the following:
Re-fastening: All sheathing / decking shall be fastened in accordance with the Florida Existing Building Code. Any roof sheathing with existing nails spaced greater than 6" O.C. requires additional nails to provide a minimum of 6" O.C. nail spacing. All stapled sheathing requires complete re-nailing. Added nails shall be 2 1/4" 8d ring shank round head minimum or the requirements in Miami-Dade NOA or Florida Product Approval whichever is applicable.

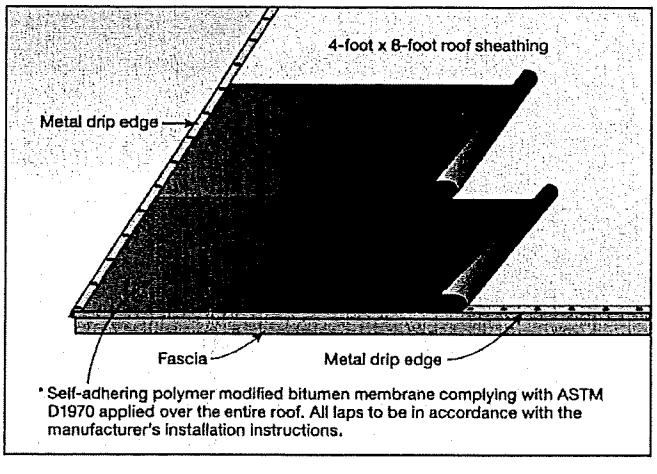
See page 4 of application for Footnote Explanations.

ROOF SUMMARY- For multiple roof sections/systems complete all applicable sections.

UNDERLAYMENT: ***For slopes 2:12 to less than 4:12***

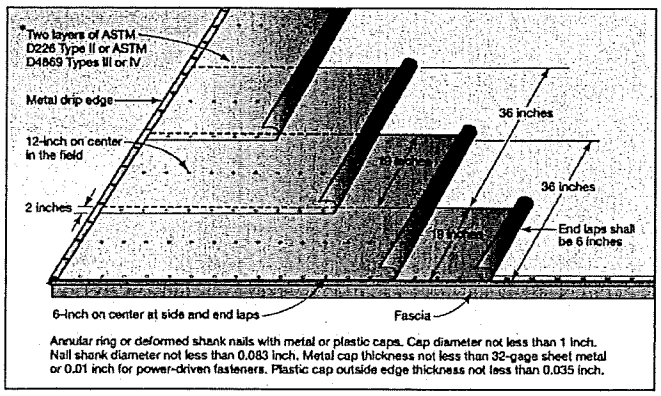
1ST-PLY PRODUCT: _____ ☐ SELF-ADHERING ☐ MECHANICAL ATTACHMENT
2nd-PLY PRODUCT: _____ ☐ SELF-ADHERING ☐ MECHANICAL ATTACHMENT

Note: Select a System (1-3) below by checking the box to the left of the diagrams.



☐

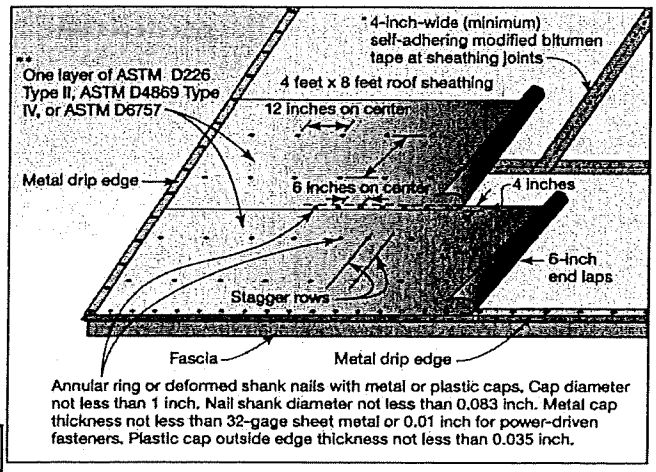
System # 1- Apply a Self-Adhering Polymer-Modified Bitumen underlayment complying with ASTM D1970 applied over entire roof deck.



☐

System #2- Apply two layers of felt underlayment complying with ASTM D226 Type II or ASTM D4869 Type III or IV or two layers of a synthetic underlayment meeting the performance requirements specified, lapped and fastened as specified. Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply a 36-inch wide sheet of underlayment, overlapping successive sheets 19 inches; end laps shall be 6 inches and offset by 6 feet. Where felt underlayment is used it must be 30# or equivalent.

For slopes 4:12 or greater the above options are available or applicant can use the below option. Please note that the option below is <u>NOT ALLOWED</u> for slopes less than 4:12.



☐

System # 3- Apply a minimum 4-inch wide strip of self-adhering polymer-modified bitumen complying with ASTM D1970 or a minimum 3 ¾-inch wide strip of self-adhering flexible flashing tape complying with AAMA 711, applied over all joints in roof decking. Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches, end laps shall be 6 inches and shall be offset by 6 feet. The underlayment shall be attached to a nailable deck with two staggered rows in the field of the sheet with a maximum fastener spacing of 12 inches o.c. and one row at the end and side laps fastened 6 inches o.c. Where felt underlayment is used it must be 30# or equivalent.

Illustrations: FEMA Hurricane Michael in Florida Recovery Advisory

INDIAN RIVER COUNTY BUILDING DEPARTMENT

SEE ENGINEERED DRAWINGS

ROOF COVERING: ☐**SHINGLE - Min. 2:12 slope** ☐**TILE- Min. 2:12 Slope** ☐**METAL** Min. ¼:12 Standing Seam
Min. ½:12 with Lap Sealant
Min. 3:12 without Lap Sealant

Refer to FRSA

SKYLIGHTS: ☐ **YES** ☐ **NO**
(If Yes, complete page 5 with Product Approval Information)

☐**SHINGLE/ SHAKE** MANUFACTURER: _____ BRAND/MODEL: _____

☐**TILE** MANUFACTURER: _____ BRAND/MODEL: _____

☐MECHANICALLY ATTACHED WITH: _____ SCREW(S) PER TILE OR _____ NAIL(S) PER TILE

☐ADHESIVE SET TILE ☐1-PART ADHESIVE FOAM ☐2-PART ADHESIVE FOAM ☐PATTY SIZE _____

☐**METAL ROOF MANUFACTURER:** (SEE ENGINEERED DRAWINGS) **GAGE:** _____ ☐**5-V** ☐**STANDING SEAM**

FASTENER SPACING : ZONE-1* _____ ZONE-2* _____ ZONE-3* _____

ROW SPACING : ZONE-1* _____ ZONE-2* _____ ZONE-3* _____

LAP SEALANT REQUIRED : ☐ **YES** ☐ **NO** ***REFER TO PAGE 1 OF THE APPLICATION FOR APPLICABLE ZONES**

LOW SLOPE ROOFING: ***For slopes less than 2:12***
For One and Two Family Dwellings refer to Pressure Sheet on Page 6 for applicable roof pressures.

System # shown in Miami-Dade N.O.A. or Florida Product Approval _____

☐**MODIFIED BITUMEN** ☐**THERMOPLASTIC SINGLE-PLY** ☐**OTHER** _____

ANCHOR SHEET: _____ ☐SELF-ADHERING For Mechanical Attachment complete section below
FASTENER: _____

FASTENER SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

ROW SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

INSULATION : _____ FASTENER : _____

FASTENER SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

ROW SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

BASE PLY : _____ ☐SELF-ADHERING For Mechanical Attachment complete section below
FASTENER : _____

FASTENER SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

ROW SPACING : ZONE-1 _____ ZONE-2 _____ ZONE-3 _____

CAP PLY PRODUCT : _____ ATTACHMENT: _____

INDIAN RIVER COUNTY BUILDING DEPARTMENT

Applicant's Affirmation

I affirm that I have verified that the roof components marked on roof summary pages are designed to be installed in conjunction with each other and as such meet all Miami-Dade NOA, Florida Product Approval and code requirements as a single component.

Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit, and that all work will be performed to meet the standards of all laws regulating construction, insurance, and worker's compensation. Properties on which earth spills or other debris falls shall be cleaned immediately. All streets, sidewalks, and curbs damaged due to this construction shall be repaired to the satisfaction of the engineering department prior to the issuance of certificate of completion.
IN APPLYING FOR THIS PERMIT, I HEREBY ATTEST THAT I HAVE THE KNOWLEDGE AND UNDERSTANDING OF ALL THAT IS REQUIRED BY THE FLORIDA BUILDING CODE AND ALL LAWS AND REGULATIONS PERTAINING TO PERFORMING AND COMPLETING THIS TYPE OF WORK.

Owner's Affidavit:
I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

Owner/Agent Signature Richard B. Szpyrka

Contractor Signature

State of Florida, County of Indian River	State of Florida, County of _____
The foregoing instrument was acknowledge before me	The foregoing instrument was acknowledged before me
24 day of February 2021	_____ day of _____ 20_____
By Richard B. Szpyrka	By _____
who is ☒personally known or ☐produced identification	who is ☐personally known or ☐produced identification
Type of ID produced NA	Type of ID produced _____
Printed Name of Notary Luanne Clark	Printed Name of Notary _____
Signature of Notary Luanne Clark	Signature of Notary _____
Notary Seal: LUANNE CLARK, Commission # GG 244341, Expires November 6, 2022, Bonded Thru Troy Fain Insurance 800-385-7019	Notary Seal

[1]**Value:** show proof of insured value of residential structure or a copy of the ad-valorem tax value.
[2]**Commercial Roofs:** Provide a roof plan with components and cladding pressures, location and size of applicable zones prepared by a Florida Licensed Engineer. A copy of the roofing material's Miami-Dade NOA or Florida Product Approval will be required with permit application. A Florida Licensed Engineer may need to data extrapolate the attachment requirements of the Product Approval to meet the components and cladding pressures of the roof or calculate the moment connection for a tile roof system.
[3]**Repairs: Provide a roof sketch (Page-9) showing location of the repair and % of the repair area to total roof area.**
[4]**RESIDENTIAL ONLY:** Roof Zone Wind Pressure sheet (see Pages 6-8 of this application) must be completed.
[5]**RESIDENTIAL/COMMERCIAL:** Roof Recovering requires an inspection of the existing roof prior to work commencing.
[6]**NOTE: ALL ROOF PERMITS REQUIRE A SKETCH TO BE SUBMITTED (SEE PAGE-9 OF THIS PERMIT PACKET)**
[7]**RESIDENTIAL/COMMERICAL:** If current roof covering is a lightweight system (shingle/metal/etc.) and roof covering is changing to a heavy system (tile), a Florida Licensed Design Professional must provide structural member/system verification for items such as wood or metal trusses, rafters, joists, etc. to ensure existing structural system is adequate for increased load.

ROOFING Product Approval Affidavit Form

As required by Florida Statute 553.842 and Florida Administrative Code 9B-72, please provide the information and the Product approval number(s) on the Roofing components listed below. In the event that any of the listed products in this form change during construction, this form must be revised and re-stamped.

The following information must be available on the jobsite for inspections:

1. This entire product approval form, stamped as "Reviewed" by the Building Department Plans Examiner.
2. Miami-Dade NOA or Florida Product Approval referenced in the product approval form.
3. A copy of the manufacture's installation instructions, details and requirements for each product.

Permit Number: _____

Address: _____

Contractor/Applicant: _____

Category/Subcategory	Approval Number(s)	Manufacturer	Product / Model Number
1. Roof Sheathing Fasteners			
2. Underlayment			
3. Asphalt Shingles			
4. Roofing Tiles			
5. Tile Adhesive			
6. Tile Fasteners			
7. Non-Structural Metal Roofing			
8. Wood Shingles/Shakes			
9. Wood Shingle/Shake Nails			
10. Roofing Slate			
Built-up roofing			
11. Modified bitumen			
12. Single-Ply roofing system			
13. Roofing insulation			
Liquid Applied Roof System			
14. Cements-adhesives-coatings			
15. Sprayed-on Polyurethane System			
Other			
16. Skylight			
17. Other			

I have reviewed the above components or cladding and these products provide adequate resistance to the wind loads and forces specified by current code provisions.

Name: _____ Signature: _____

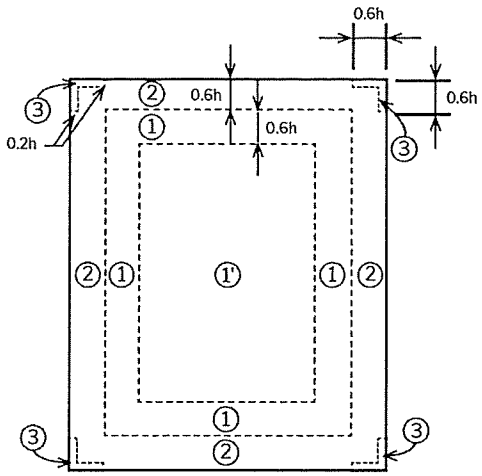
Date: _____ Contractor License: _____

THESE CHARTS ARE FOR 1 & 2 Family Dwellings ONLY

THESE ARE THE COMPONENTS AND CLADDING WORST CASE DESIGN PRESSURES THAT CAN BE USED TO COMPLETE PAGE-1 OF THIS APPLICATION. PLEASE NOTE THAT THE 7TH EDITION CODE NOW REFERENCES DIFFERENT ROOF TYPES (FLAT, GABLE AND HIP) AND NEW ZONES. PLEASE USE THE CHART THAT CORRESPONDS TO SPECIFIC ROOF TYPE AND SLOPE.

Gable or Flat Roof 0 to 7 degrees
(0-1½:12 Pitch)

Gable and Flat Roofs 1.5/12



Roof Slope	Zones	160 Exp. B One Story	160 Exp. B Two Story	160 Exp. C One Story	160 Exp. C Two Story	160 Exp. D One Story	160 Exp. D Two Story
Roof Slope >0 to 1 ½ :12	Zone1,1'	-36.1	-44.0	-53.3	-61.6	-64.7	-73.1
	Zone 2	-47.7	-58.1	-70.4	-81.4	-85.5	-96.5
	Zone 3	-64.9	-79.1	-95.8	-110.8	-116.3	-131.4

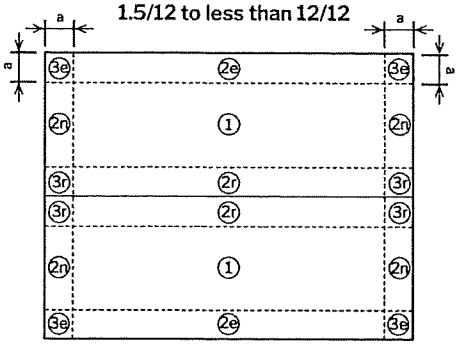
Roof Slope	Zones	150 Exp. B One Story	150 Exp. B Two Story	150 Exp. C One Story	150 Exp. C Two Story	150 Exp. D One Story	150 Exp. D Two Story
Roof Slope >0 to 1 ½ :12	Zone1,1'	-31.8	-38.7	-46.9	-54.2	-56.9	-64.3
	Zone 2	-41.9	-51.0	-61.8	-71.4	-75.0	-84.7
	Zone 3	-57.1	-69.6	-84.3	-97.5	-102.4	-115.6

Roof coverings installed on buildings with a Mean Roof Height of 30' or less Exposures B, C or D. Table R301.2 [2] altered per R301.2.1.6 of the FBC Residential. One Story max. roof height of 15 ft., Two Story max. roof height of 30 ft. Zone 3 based on Figure R301.2 [7] 160 mph winds east of I 95 and 150 mph west of I 95, per current I.R.C. Wind speed map.

Diagrams from FloridaBuilding.org, 2020 Florida Building Code, Residential, 7th Edition

Gable Roofs >7 degrees to 45 degrees (>1½:12 to 12:12 Pitch)

Gable and Flat Roofs
1.5/12 to less than 12/12



a= 4 Feet

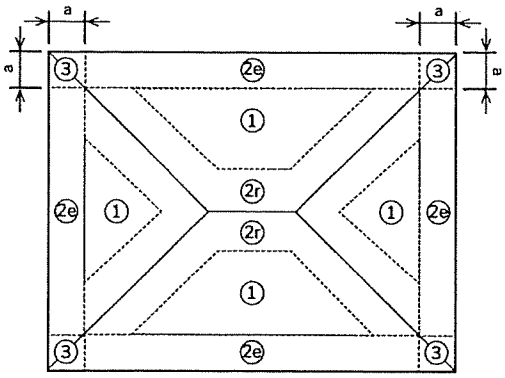
Roof Slope	Zones	160 Exp. B One Story	160 Exp. B Two Story	160 Exp. C One Story	160 Exp. C Two Story	160 Exp. D One Story	160 Exp. D Two Story
>1 ½ :12 to 4 ½: 12	Zone 1,2e Zone2n,2r,3e Zone 3r	-41.9 -61.1 -66.5	-51.0 -74.5 -81.0	-61.8 -90.2 -98.1	-71.4 -104.3 -113.4	-75.0 -109.6 -119.1	-84.7 -123.7 -134.7
>4 ½:12 to 6:12	Zone 1,2e Zone2n,2r,3e Zone 3r	-32.3 -51.5 -55.7	-39.3 -62.8 -67.5	-47.6 -76.0 -81.7	-55.1 -88.0 -94.5	-57.8 -92.4 -99.3	-65.3 -104.3 -112.1
>6:12 to 12:12	Zone 1,2e,2r Zone 2n,3r Zone 3e	-38.1 -41.9 -48.1	-46.4 -51.0 -58.6	-56.2 -61.8 -71.0	-65.0 -71.4 -82.1	-68.3 -75.0 -86.2	-77.1 -84.7 -97.3
Roof Slope	**Zones**	**150 Exp. B One Story**	**150 Exp. B Two Story**	**150 Exp. C One Story**	**150 Exp. C Two Story**	**150 Exp. D One Story**	**150 Exp. D Two Story**
>1 ½ :12 to 4 ½: 12	Zone 1,2e Zone2n,2r,3e Zone 3r	-36.9 -53.7 -58.4	-44.9 -65.4 -71.2	-54.4 -79.2 -86.2	-62.9 -91.6 -99.7	-66.1 -96.2 -104.7	-74.6 -108.6 -118.2
>4 ½:12 to 6:12	Zone 1,2e Zone2n,2r,3e Zone 3r	-28.4 -45.3 -48.7	-34.6 -55.2 -59.3	-41.9 -66.8 -71.8	-48.5 -77.3 -83.1	-50.9 -81.2 -87.2	-57.5 -91.7 -98.5
>6:12 to 12:12	Zone 1,2e,2r Zone 2n,3r Zone 3e	-33.5 -36.9 -42.3	-40.8 -44.9 -51.5	-49.4 -54.4 -62.4	-57.2 -62.9 -72.1	-60.0 -66.1 -75.8	-67.8 -74.6 -85.5

Roof coverings installed on buildings with a Mean Roof Height of 30' or less Exposures B, C or D. Table R301.2 [2] altered per R301.2.1.6 of the FBC Residential. <u>One Story</u> max. roof height of 15 ft., <u>Two Story</u> max. roof height of 30 ft. Zone 3 based on Figure R301.2 [7] 160 mph winds east of I 95 and 150 mph west of I 95, per current I.R.C. Wind speed map.

Diagrams from FloridaBuilding.org, 2020 Florida Building Code, Residential, 7th Edition

Hip Roofs >7 degrees to 45 degrees (>1½:12 to 12:12 Pitch)

Hip Roofs 1.5/12 to less than 12/12



a= 4 Feet

Roof Slope	Zones	160 Exp. B One Story	160 Exp. B Two Story	160 Exp. C One Story	160 Exp. C Two Story	160 Exp. D One Story	160 Exp. D Two Story
>1 ½ :12 to 4 ½: 12	Zone 1 Zone 2r Zone 2e,3	-38.1 -49.6 -50.2	-46.4 -60.4 -61.2	-56.2 -73.1 -74.1	-65.0 -84.6 -85.7	-68.3 -88.8 -90.0	-77.1 -100.3 -101.6
>4 ½:12 to 6:12	Zone 1 Zone 2e,2r,3	-30.4 -41.9	-37.0 -51.0	-44.8 -61.8	-51.8 -71.4	-54.4 -75.0	-61.5 -84.7
>6:12 to 12:12	Zone 1 Zone 2e Zone 2r Zone 3	-32.3 -38.4 -44.0 -44-2	-39.3 -46.8 -53.6 -53.8	-47.6 -56.7 -64.9 -65.1	-55.1 -65.6 -75.1 -75.4	-57.8 -68.8 -78.8 -79.1	-65.3 -77-7 -89.0 -89.4
Roof Slope	**Zones**	**150 Exp. B One Story**	**160 Exp. B Two Story**	**150 Exp. C One Story**	**150 Exp. C Two Story**	**150 Exp. D One Story**	**150 Exp. D Two Story**
>1 ½ :12 to 4 ½: 12	Zone 1 Zone 2r Zone 2e,3	-33.5 -43.6 -44.2	-40.8 -53.1 -53.8	-49.4 -64.3 -65.1	-57.2 -74.4 -75.4	-60.0 -78.1 -79.1	-67.8 -88.2 -89.4
>4 ½:12 to 6:12	Zone 1 Zone 2e,2r,3	-26.7 -36.9	-32.5 -44.9	-39.4 -54.4	-45.5 -62.9	-47.8 -66.1	-54.0 -74.6
>6:12 to 12:12	Zone 1 Zone 2e Zone 2r Zone 3	-28.4 -33.8 -38.7 -38.9	-34.6 -41.2 -47.1 -47.4	-41.9 -49.9 -57.0 -57.4	-48.5 -57.7 -66.0 -66.4	-50.9 -60.6 -69.3 -69.7	-57.5 -68.4 -78.2 -78.7

Roof coverings installed on buildings with a Mean Roof Height of 30' or less Exposures B, C or D. Table R301.2 [2] altered per R301.2.1.6 of the FBC Residential. <u>One Story</u> max. roof height of 15 ft., <u>Two Story</u> max. roof height of 30 ft. Zone 3 based on Figure R301.2 [7] 160 mph winds east of I 95 and 150 mph west of I 95, per current I.R.C. Wind speed map.

Diagrams from FloridaBuilding.org, 2020 Florida Building Code, Residential, 7th Edition

ROOF DIAGRAM REQUIRED FOR ALL ROOF PERMITS

Residential Roofs: Provide a roof plan sketched below - to be completed by the contractor or owner-builder.

Roof Plan: Illustrate all levels and sections, skylights, roof drains, scuppers, overflow scuppers and overflow drains. Include dimensions of sections and levels, clearly identify dimensions of elevated pressure zones and location of parapets. (Use area below or provide separate sheet, i.e. Property Appraiser's Sketch Page or Aerial View)

COMMERCIAL ROOFS - DO NOT USE THIS FORM.
For Commercial Roofs provide a roof plan prepared and signed/sealed by a Florida Licensed Engineer stating wind design criteria and components and cladding pressures, location and size for zones 1, 2 and 3.

NOTES:

REPAIRS: PROVIDE A ROOF SKETCH SHOWING THE REPAIR AREAS AND PROVIDE DIMENSIONS AND SQUARE FOOT OF REPAIRS ALONG WITH THE TOTAL ROOF AREA. PROVIDE % OF TOTAL ROOF AREA BEING REPAIRED.

FBCE 706.1.1: NOT MORE THAN 25 PERCENT OF THE TOTAL ROOF AREA OR ROOF SECTION OF ANY EXISTING BUILDING OR STRUCTURE SHALL BE REPAIRED, REPLACED OR RECOVERED IN ANY 12-MONTH PERIOD UNLESS THE ENTIRE EXISTING ROOFING SYSTEM OR ROOF SECTION IS REPLACED TO CONFORM TO REQUIREMENTS OF THIS CODE.