



March 1, 2021

TO: HOLDERS LIST

**SUBJECT: WUT Admin & Marine Building Roof Project
CONTRACT NO. 071399**

ADDENDUM NUMBER # 02

This addendum is issued to add the following:

SECTION 07 53 00 – SINGLE-PLY MEMBRANE ROOFING (PVC)

2.02 PVC MATERIALS

A. Description, 60-mil, minimum thickness, single-ply PVC, white

1. ASTM D 4434-95 standard for polyvinyl chloride sheet roofing. Classification: Type II

a. Sarnafil: G-410, fully-adhered

b. Soprema Sentinel P150, fully-adhered

c. Carlisle: Sure-Flex, fully-adhered

d. Duro-Last: 60-mil White Fully Adhered Duro-Tuff Roofing Membrane System

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Existing roof membrane preparation
 - 2. PVC Roof Membrane Assembly
 - a. Single-Ply PVC Roofing
 - b. Cover board
 - 3. Roof system documentation plaque
- B. Related Sections:
 - 1. 07 62 00 - Sheet Metal Flashing and Trim
- C. The Drawings, the provisions of the Agreement, the General Conditions, and Division 1 specification sections apply to all work of this Section.
- D. Substitutions: Substitute products will be considered only under the terms and conditions of Division 1 Requirements, and products meeting the requirements of this Section
- E. Roof Recover Description:
 - 1. Roof Assembly: Top-down summary:
 - a. Fully adhered PVC membrane roofing with membrane base flashings and penetration flashings
 - b. 1/4-inch cover board adhered in low-rise foam adhesive.
 - c. Existing fully adhered Hypalon roof
 - d. Existing coverboard
 - e. Existing insulation
 - f. Existing metal deck

1.02 QUALITY ASSURANCE:

- A. Manufacturer Qualifications: Provide primary products, produced by a single manufacturer, which has produced that type product successfully for not less than five (5) years. Provide secondary products only as recommended by manufacturer of primary products for use with roofing system specified.
- B. Membrane Certification: submit letter from manufacturer (or outlined in manufacturer's certification data sheet) attesting to the following membrane system requirements outline in Section 2
 - 1. Minimum membrane thickness: 60 mils
 - 2. Minimum wear layer of 30 mils
 - 3. Membrane with above characteristics has been manufactured for at least five (5) years
- C. Manufacturer Field Quality Control: A technical representative of the materials manufacturer shall be available for consultation at site with a maximum of 24-hour notice.

- D. Manufacturer's representative shall make regular site inspections, no less than one per week. Representative shall provide a copy of a written summary report of the visit to the Engineer no more than 2 days after.
- E. Installer Qualifications: A single Installer ("Roofer") shall perform the work of this section; and shall be a firm with not less than ten (10) years of successful experience in installation of roofing systems similar to those required for this project and who is trained and authorized by the manufacturer of primary roofing materials for no less than ten (10) years.
- F. Installer shall provide all personnel trained in the application of the materials and systems and shall maintain supervision as specified elsewhere. Provide written certification from manufacturer of roofing system certifying that Installer is approved by manufacturer for installation of specified roofing system prior to bid.
- G. Manufacturer's Inspection: Upon completion of the installation, and the delivery to the membrane manufacturer's representative by the Contractor of a certification that all work has been done in strict accordance with the contract specifications and membrane manufacturer requirements, an inspection shall be made by a representative of the manufacturer to ascertain that the roofing system has been installed according to applicable manufacturer's specifications and details.
- H. Testing: The Owner reserves the right to perform any testing as may be required to determine compliance with these Contract Documents. Costs for such testing will be the Owner's responsibility unless testing indicates non-compliance. Costs for such testing indicating non-complying work shall be corrected and testing will be repeated until the work complies with the Contract Documents.
- I. UL Listing: Provide roofing system and component materials which have been tested for application and slopes indicated and are listed by Underwriters Laboratories, Inc. (UL) for class A external fire exposure over noncombustible decks.
- J. Provide roof-covering materials bearing Classification Marking (UL) on bundle, package or container indicating that materials have been produced under UL's Classification and Follow-up Service.

1.03 SUBMITTALS

- A. Make submittals in accordance with Section 01 33 00.
- B. Product Literature: Submit product literature for the following:
 - 1. Roofing materials.
 - 2. Insulation boards.
 - 3. Cover boards
 - 4. Adhesives.
 - 5. Attachment requirements to meet wind uplift identifying fastener rates to meet uplift requirements
 - 6. Submit drawing showing each layer of the roof assembly, method of attachment, including rates of fasteners or adhesive beads to meet wind uplift requirements.
- C. Insulation and Roof Board Approval: Manufacturer's written approval for rigid polyisocyanurate insulation and roof board.

- D. Samples: Three 3 x 6 inch samples of the insulation and each sheet component of the roofing and flashing membranes.
- E. Warranty: Copy of membrane manufacturer's proposed warranty.
- F. Evidence of UL and ICBO approvals.
- G. Shop Drawings: Submit shop drawings to describe all proposed details which deviate from what is shown on Contract Drawings, fully noted and drawn to scale with references to a roof plan.
- H. Roof Board and Insulation Layout: Submit roof plan indicating proposed insulation, crickets, roof board layout and sump taper system to meet FM requirements and manufacturer approval and sump taper system. Include submittals for fastening pattern for roof board meeting FM requirements.
- I. Roof Plaque layout
- J. Quality Assurance Submittals:
 - 1. Certifications: Letter from roofing manufacturer stating that proposed applicator of roofing system is approved to install roofs meeting the requirements of a 20-year unlimited penal sum warranty. Submit whether the warranty is required or not.
 - 2. Immediately after completion of the roofing system installation, submit report from the roofing system manufacturer, including inspection notes, stating the following:
 - a. Roofing system was installed in accordance with the manufacturer's recommendations to meet the warranty requirements specified.

1.04 QUALITY ASSURANCE

- 1. Inspection: Roofing installation may be inspected. Give 72 hours' notice to the Engineer, prior to the start of each work phase.
- B. Qualifications of Installers:
 - 1. Approved by the membrane roofing manufacturer to install roofing systems meeting the requirements of a 20-year unlimited warranty.
 - 2. Minimum of 5 years' experience; use only competent and skilled roofers familiar with the products and the manufacturer's current recommended methods of installation.
- C. Pre-Installation Meeting:
 - 1. Prior to starting the work of this Section administer a pre-roofing meeting.
 - 2. Require in attendance the following parties:
 - a. Owner.
 - b. Architect.
 - c. Owner's roofing consultant.
 - d. Roofing installer.
 - e. Sheet metal and canopy cladding installers.
 - f. Mechanical installer.
 - g. Roofing manufacturer's representative.

3. Agenda: Review all procedures, details, and sequence of construction. Discuss and determine responsibility for protection of the work during and after construction, and subsequent maintenance of the roofing system.
- D. Phased Application: Except as otherwise approved, phased application of the roofing system will not be permitted. If emergency dry-in becomes necessary, utilize necessary means/methods to prevent water entry into the building. Upon resumption of work all substrates shall be dry prior to new roof installation.
- E. Provide roofing membrane materials from a single manufacturer. Use only roofing accessories and insulation that are approved by the roofing membrane manufacturer, and are warrantable by the manufacturer as part of the entire roofing system.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to job site in sealed, undamaged, original containers imprinted with manufacturer's name, product name, and pertinent identifying numbers.
- B. Handle all materials to prevent damage. Place all materials on pallets and fully protected from moisture with clean canvas tarpaulins.
- C. Membrane rolls shall be stored lying down on pallets, and fully protected from moisture with clean canvas tarpaulins.
- D. Bonding adhesive shall be stored at temperatures above 40 degrees F.
- E. All flammable materials shall be stored in a cool dry area away from sparks and open flames. Follow precautions outlined on container or supplied by material manufacturer/supplier.
- F. Any materials that are determined by the Engineer and/or manufacturer to be damaged are to be removed from the job site and replaced at no cost to the Owner.

1.06 JOB CONDITIONS

- A. Roofing Loading Limitations: Okay for contractor to load roofing materials from and stage roofing activities from the roof.
- B. Contractor shall verify that all roof drain lines are unblocked, and free running, before starting work. Report any such blockages to the Engineer in writing.
- C. Only as much of the new roofing as can be made watertight each day, including flashing work, shall be installed.
- D. All roofing, insulation, flashings and metal work removed for construction shall be taken off the site to a legal dumping area for disposal daily.
- E. Weather Condition Limitations: Roofing materials shall not be applied when water in any form, i.e., rain, dew, ice, frost, snow, etc., is present on the deck. All surfaces to receive new membrane or flashing shall be thoroughly dry. Should excessive surface moisture occur, the Contractor shall provide the necessary equipment to dry the surface prior to application.
- F. Prior to and during all applications, all dirt, debris, and dust shall be removed from surfaces either by vacuuming, sweeping, blowing with compressed air and/or similar methods.
- G. Do not install the PVC membrane in direct contact with any product containing asphalt, coal-tar pitch, creosote or penta-based materials. Consult manufacturer's representative for special installation requirements.

- H. Do not allow waste products containing petroleum, grease, acid, solvents, vegetable or mineral oil, animal oil, animal fat, etc. or direct steam venting to come into direct contact with roofing membrane.
- I. The contractor shall follow all safety regulations as recommended by OSHA.
- J. All local building codes and requirements must be followed where applicable.
- K. Solvent welding of detail seams is not allowed.

1.07 PROTECTIONS

- A. Provide tarps or plastic sheeting, as required, to adequately protect opened roofs and flashings and to prevent entrance of moisture or rain water into the existing structure until new materials have been applied and roof is in a water tight condition.
 - 1. All glass-faced insulation board (including HD board) shall have the factory wrap removed to allow the boards to breathe, and breathable tarps installed to provide weather protection.
- B. Do not open up any more roof surface at one time than can be adequately covered and protected in the event of sudden unexpected rainfall.
- C. Have necessary waterproof canvas or plastic sheeting handy in case of emergency. Contractor will be held liable for any damage to building interior due to his negligence.
- D. All new and temporary construction, including equipment and accessories, shall be secured against wind blow-off or damage.
- E. The Contractor shall provide all necessary protection and barriers to segregate the work area and to prevent damage to adjacent areas.
- F. Temporary cut-offs shall be installed at the end of each day's work, and shall be removed before proceeding with the next day's work. Waterstops shall be compatible with all materials, shall provide a 100% watertight seal, shall be as recommended by the roofing membrane manufacturer, and shall not emit dangerous or incompatible fumes.
- G. The contractor is warned that certain PVC membranes are incompatible with asphalt and oil-based materials and cements. Creosote and penta-based materials are also incompatible. Such materials shall not come into contact with PVC membranes at any time. If such contact occurs, the material shall be cut out and discarded. The contractor should consult membrane manufacturer with respect to material compatibility, precautions, and recommendations.
 - 1. Contractor to install insulation and cover board in such a way to prevent seepage of asphalt to areas where contact with new membrane could occur. Existing asphalt surfaces must be removed completely or separated per manufacture's recommendations.
- H. Precaution should be taken when using membrane adhesives at or near rooftop vent or air intakes. Potentially hazardous fumes could enter the building. Coordinate vents and air intakes to be closed or shut off during roofing and flashing operations in the area of such penetrations.

1.08 WARRANTIES

- A. Submit in accordance with Division 1 requirements.
- B. Installer's Guarantee: The Contractor shall furnish from the roofing installer, a 2-year unlimited guarantee against defects in workmanship and materials.

- C. **Manufacturer's Warranty:** The PVC roofing materials manufacturer shall provide a written twenty (20) year warranty signed by a corporate officer for an unlimited penal sum guarantee covering both materials and installation of the materials and systems. The warranty shall include the entire membrane assembly and shall include replacement of insulation due to membrane system failure. The warranty shall be written to allow for minor roofing repairs by the Owner. All roofing work under this contract to be in accordance with the following warranty standards:
1. Meeting minimum warranty provisions using the warranty language provided at the end of this section as a template
 - a. Warranty structured such that Owner is not a signature party to the Warrantee
 2. Non-pro-rated, no dollar limit
 3. Duration: 20-years

1.09 ROOF MEMBRANE QUALITY CONTROL

- A. 60-mil minimum thickness roof membrane is required.
- B. Each roll delivered to the site is to be stamped by the manufacturer as "Certified 60-mil Minimum Thickness"; rolls delivered not bearing this certification will be rejected.
- C. The Engineer will field measure the thickness of each roll delivered to the site. Rolls not measuring at 60-mil minimum thickness will be rejected.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Approved Manufacturers: Sika Sarnafil, Carlisle, Soprema
- B. General: Ensure that all products used on this project are 100% asbestos free. Provide certification to this effect if requested by the Engineer.
- C. Insurance and Code Requirements: Provide materials complying with governing regulations, and which can be installed to comply with the following:
 1. Underwriter's Laboratories and/or ICBO approved for a Class "B" rating when installed on combustible decks. Provide documentation meets SEI/ASCE 7 for wind uplift of membrane attachment.
- D. Warranty Requirements: Roof membrane manufacturer must approve the use of all accessory materials that affect the manufacturer's warranty and include them in their warranty.

2.02 PVC MATERIALS

- A. Description, 60-mil, minimum thickness, single-ply PVC, white
 1. ASTM D 4434-95 standard for polyvinyl chloride sheet roofing. Classification: Type II
 - a. Sarnafil: G-410, fully-adhered
 - b. Soprema Sentinel P150, fully-adhered
 - c. Carlisle: Sure-Flex, fully-adhered
 - d. Duro-Last: 60-mil White Fully Adhered Duro-Tuff Roofing Membrane System
 2. Scrim:

- a. Type: fiberglass
- b. Stitching: 9" x 9" x 1000 Diniers
- 3. Membrane requirements
 - a. Overall membrane thickness: minimum 60 mils
 - b. Wear layer minimum thickness: 30 mils

2.03 INSULATION

- A. Install new insulation at areas where existing insulation is wet/or damaged.
 - 1. Verify insulation required by membrane manufacturer for system warranty applications.
 - 2. Approved manufacturers:
 - a. Carlisle: "SecurShield Polyiso
 - b. Soprema: Sopra-Iso Insulation
 - c. Hunter, Tapered H-Shield CG
 - d. Note equal products must have non-organic facers.
- B. Flat Stock Roof Insulation: Rigid closed cell polyisocyanurate foam insulation with fiberglass facers, 48" x 96", or approved equal. Minimum edge thickness shall be one-quarter inch (1/4"). Maximum thickness of any single layer shall be 2.5". ASTM C 1289, Type II, Class 2, Grade 2, (20 psi).
 - 1. Verify insulation required by membrane manufacturer for system warranty applications.
 - 2. Approved manufacturers:
 - a. Carlisle: "SecurShield Polyiso
 - b. Soprema: "Sopra-Iso Insulation"
 - c. Sika Sarnafil: "Sarnatherm ISO"

2.04 COVER BOARD

- A. Glass-mat, pre-primed water-resistant gypsum board
 - 1. Board Size: 48" x 96", or approved equal
 - 2. Thickness: 1/4 inch
 - 3. Manufacturers:
 - a. Georgia Pacific, Dens Deck Prime
 - b. USG Secure-Rock (pre-primed for fully adhered membrane application)
 - c. or approve equal

2.05 MISCELLANEOUS PRODUCTS

- A. General: Provide installation accessories as required for complete roofing system and as recommended by membrane manufacturer
- B. Membrane Adhesive: water-based adhesive as recommended by manufacturer for particular substrate and project condition, formulated to withstand minimum 60 psf uplift force and as approved by membrane manufacturer.

1. Screws and plates for insulation (where described in roof assemblies): Factory-coated steel fasteners and 3" diameter metal or plastic plates complying with corrosion-resistance provisions in FM Global 4470, designed for fastening substrate board, insulation, to the roof deck.
2. Ensure fasteners do not penetrate the roof deck as the underneath side of the roof deck is an exposed surface.
- C. Coverboard Fasteners: Coated galvanized steel; with factory-applied corrosion-resistant coating, with three-inch metal disks. Size and type required for substrate type and thickness and for deck type. Provide fasteners which meet requirements for pullout resistance.
- D. Coated metal flashings: Galvanized steel, minimum 25 gage, coated with PVC for direct heat welding with membrane.
 1. Sarnaclad: PVC-coated, heat-weldable sheet metal capable of being formed into a variety of shapes and profiles.
 2. Soprema, Carlisle equivalent to Sarnaclad PVC-coated metal
- E. Walkways: Preformed walkway boards: As manufactured or recommended by membrane manufacturer. Size: 36 inches wide X 30 inches long; minimum 1/8 inch thick.
- F. Walkway board adhesive: As recommended by membrane manufacturer.
- G. Preformed Pipe Boot Flashings: Molded from same material as flexible flashings. Provide stainless steel band clamp for top edge.
- H. Asphalt Resistant Membrane Flashing: Utilize asphalt resistant membrane where in contact with any existing asphalt residue, if necessary for manufacturer chosen.
- I. Provide 1/4" x 1" aluminum termination bar to secure top edge of membrane at wall surfaces.
- J. Conduit Blocking: pressure treated 4 x 4 blocking. Provide separate protection under each block to protect roof membrane.

2.06 ROOF PLAQUE

- A. Furnish and install "Roof Installation Information Plaque"
 1. Plaque: photo-engraved, aluminum card (for exterior display) at location to be determined by the Engineer.
 - a. Size: 5.5" x 8.5" x 3/16".
- B. Engraved Information:
 1. Name of Building
 2. Date of Substantial Completion
 3. Date of Install Warranty Expiration
 4. Date of Roof Manufacturer Warranty Expiration
 5. Roof Manufacturer and warranty reference number

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Carefully inspect substrate and adjacent construction and verify that conditions are suitable for installation of the work as indicated and specified.
 - 1. Verify that all surfaces to be covered by roofing are properly pitched to drain, and suitable for installation of roofing system.
 - 2. Examine surfaces for low areas that will not drain properly, foreign material, ice, wet insulation, unevenness, or any other defect which would prevent the proper execution and quality application of the Roofing System as specified.
 - 3. Verify that installation of wood blocking and grounds, vents, drains, curbs, and other projections has been completed.
 - 4. Verify that roof penetrations are tubular.
- B. Discrepancies: In the event of discrepancy, notify the Engineer, and do not proceed with installation until discrepancies have been corrected.
- C. Commencement of roofing installation constitutes Contractor acceptance of substrate condition as satisfactory.
- D. Removal and Preparation of Existing Roof System(s):
 - 1. Remove existing built-up roof membrane, flashings and other materials noted in the drawings and legally dispose off-site.
 - 2. Remove only enough roofing to accommodate the day's work and ensure the exposed area can be made 100% watertight at the end of the day or first sign of inclement weather.
 - 3. Ensure that all drains are clear and clamping rings tightened at the end of each work day.

3.02 INSULATION AND COVERBOARD INSTALLATION

- A. General Installation Requirements:
 - 1. Install coverboard and substrate coverboard in accordance with approved shop drawings and insulation and adhesive manufacturer's printed instructions.
 - 2. Securely butt edges without deformation. Miter board edges at ridges and elsewhere to prevent open joints.
 - 3. Protect insulation from weather exposure at all times until roofing is installed.
 - 4. Stagger joints between layers
 - 5. Mechanically fasten substrate coverboard (HD board) to substrate with mechanical fasteners and 3 inch metal disks.
 - 6. Fully-adhere coverboard with manufacturer's recommended adhesive

3.03 ROOF MEMBRANE INSTALLATION

- A. Install membrane materials in accordance with Manufacturer's current published application instructions and these contract documents. Application of roofing membrane shall immediately follow application of insulation assembly as a continuous process with no phased application.

- B. Loosely lay sheet membrane over roof insulation and allow the membrane to relax thirty (30) minutes minimum before bonding or splicing. Apply adjoining sheets by lapping the edges and splicing.
- C. Accurately align roofing membrane and maintain uniform side and end laps of minimum dimensions required by manufacturer. Stagger end laps.
- D. Bonding Adhesive: Apply bonding adhesive to substrate and underside of roofing membrane at rate required by manufacturer and allow to partially dry before installing roofing membrane. Do not apply bonding adhesive to splice area of roofing membrane.
- E. Mechanically fasten roofing membrane securely at terminations, penetrations, and perimeter of roofing.
- F. Apply roofing membrane with side laps shingled with slope of roof deck where possible.
- G. Seams: Clean seam areas, overlap roofing membrane, and weld side and end laps of roofing membrane and sheet flashings according to manufacturer's written instructions to ensure a watertight seam installation. Weld seams as follows:
 - 1. Weld Method: Hot air.
 - a. All side and end lap joints shall be hot air welded. Lap areas shall be a minimum of 3" wide when machine welding and 4" wide when hand welding.
 - 2. Test lap edges with probe to verify seam weld continuity. Apply lap sealant to seal cut edges of sheet membrane if required by manufacturer.
 - 3. Verify field strength of seams a minimum of twice daily and repair seam sample areas.
 - 4. Repair tears, voids, and lapped seams in roofing that does not meet requirements.
- H. Spread sealant bed over deck drain flange at deck drains and securely seal roofing membrane in place with clamping ring.
- I. Membrane securement: Provide securement at all locations where membrane ends or goes through angle change except for round pipe penetrations less than 18" in diameter and square penetrations less than 4" square. Utilize batten strips at all horizontal terminations of field plies.
- J. Flash all penetrations passing through the sheet membrane. Flashing shall be installed per manufacturer's approved details at roof intersections, parapets, and around penetrations. Use longest pieces practicable

3.04 MEMBRANE FLASHINGS

- A. Membrane flashing installation shall progress concurrently with the roof membrane installation.
- B. All field membranes shall be terminated at parapets and roof edges with mechanical fasteners fastened into wood nailers at 12" on center.
- C. Extend flashing membrane minimum 8 inches above roofing level unless detailed otherwise. All flashing membranes shall be fully adhered with cut and hot air welded interior, exterior and mitered corners and shall extend minimum 5 inches onto field membrane.
- D. Utilize pre manufactured inside and outside corners, flashing cones, etc. to greatest extent possible.

3.05 WALKWAYS

- A. Set walk pads in bed of adhesive, or as required by the manufacturer.

- B. Install walk pads at locations shown on drawings.
- C. Space walk pads as indicated or, if not indicated, space approximately 2-4 inches apart, or as specified by the manufacturer, where separate units are indicated.

3.06 DRAINS AND SCUPPERS

- A. Flash drains and scuppers using PVC membrane per the manufacturer's current details.
- B. Flashing material shall cover the flange of the scupper,
- C. Install clamping ring if provided as part of the drain or scupper design. Install strainer baskets.

3.07 ACCESSORY INSTALLATION

A. Miscellaneous Items

1. Prime metal flanges as required with a uniform coating of primer (as recommended by the roof membrane manufacturer). All flanges shall be set in a smooth even bed of waterblock sealant, or as detailed by the manufacturer..
2. Overnight seals: Exercise care that moisture does not enter beneath completed section of the roof. Temporarily seal loose edges of the membrane daily and when weather is threatening. Night seals can be built using plastic cement and roofing felts, and constructed to withstand protracted periods of service. Night seals must be completely removed, all felts employed removed, prior to the resumption of roofing.
3. All exposed cap sheet edges at waste stacks, vent stacks, etc., shall be caulked with sealant, tooled into the joint.
4. Raise conduit penetrations, insulated pipes, soil stacks, vents, and curbs as necessary to obtain an 8 inch height above the finished roof surface. Include rewiring and duct extension as necessary to raise or extend conduit or ducts.
5. Place conduit lying on the roof on new PT blocking placed on protection pad at a maximum of 8 feet on center. Adhere traffic pad to block, and not to roofing.
6. Electrical and mechanical work to be performed by journeyman worker experienced and trained in work performed to the building code.
7. Verify all drain lines and downspouts are functional prior to the start of work. Contractor to be responsible to assure drains are free draining upon completion of roofing work.
8. Install 1/4" x 1" aluminum termination bar to secure top edge of membrane at vertical wall surfaces. Fasten with anchors at 8" o.c.

3.08 TERMINATION BAR INSTALLATION

- A. Install termination bar in accordance with manufacturer's written instruction
- B. Install termination bar at all reglet and/or skirt flashing location
 1. Roof to wall transitions
 2. Equipment curbs
 3. Other locations as required by the manufacturer to meet warranty requirements
- C. Install water block sealant behind top of flashing. Anchor bar through pre-punched holes at a rate to maintain a seal (max 12" o.c.)
- D. Remove excess flashing material above bottom of lap sealant reservoir channel.

3.09 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services:
 - 1. Require the roofing manufacturer's representative to perform inspection services during the roofing installation period.
 - 2. The roofing manufacturer's representative shall notify the General Contractor and roofing contractor immediately of all observed unacceptable conditions.
- B. Ponding Water: Perform flood tests, or utilize rain events, to identify areas of ponding.
 - 1. All depressions subject to ponding to a depth 1/2 inch or greater at any point shall be reviewed for repair options.
 - 2. Repair depressions replacing substrate that has deflected.

3.10 CLEANUP

- A. Remove all traces of splashed and spilled roofing materials.
- B. Repair or replace with new, as directed, adjacent surfaces permanently damaged from roofing application.

3.11 PROTECTION

- A. Protect newly installed materials from damage.
- B. No foot or wheel traffic, nor storage of roofing materials or material handling equipment will be permitted over the newly installed roofing.
- C. Equipment or materials stored on the new roof surface shall be placed on minimum 5/8" plywood, separated from the roof membrane by a polyethylene sheet to avoid bonding of plywood to the roof surface.

END OF SECTION