COUNTY OF TUSCOLA

DEPARTMENT OF BUILDINGS & GROUNDS

125 W. Lincoln St
Caro, Michigan 48723-1660
(989)672-3756

MICHAEL MILLER
Director

THOMAS McLANE
Assistant Director

TO: INTERESTED CONTRACTORS
FROM: MIKE MILLER
DATE: April 9, 2024
RE: Roof Replacement

Tuscola County will be accepting bids on the replacement of the Department of Health and Human Services building, located at 1365 Cleaver RD, Caro MI 48723. The following specifications shall be considered in your bid:

Roof system to be used is Duro-Last

1. Remove existing PVC roof membrane, palletize and return to Duro Last for recycling.
2. Install tapered saddles between roof drains to assist with roof drainage
3. Install a ½" HD ISO board over the entire roof area.
4. Install a 50 mil, prefabricated PVC roof system. Roof system shall be mechanically fastened per manufacturers specifications.
5. Flash and seal all roof penetrations per manufacturers specifications.
6. Install (15) two way breather vents.
7. Install walk pads around all RTUs per roof drawing.
8. Install (1) Ladder Anchor at roof perimeter. Owner to determine location.
9. Install new 24 gauge – kynar coated Two Piece Compression metal to roof perimeter. Perimeter metal to be supplied and warrantied by roof manufacturer.
10. Install (4) new overflow scuppers. The scuppers are to have a beauty ring on the outside.
11. Provide complete clean up and removal of all job related debris.
12. Repair any damaged landscaping, sidewalks or parking lot that occurred from construction work.
13. Provide a 20 year No Dollar Limit full system warranty covering material and labor for 20 years and consequential damages for 15 years
14. Provide complete clean up and removal of all job related debris.
15. Repair any damaged landscaping, sidewalks or parking lot that occurred from construction work.
16. Contractor is responsible for any Permits and must follow all Federal, State, and local building codes.
17. Contractor shall provide copies of liability and workers comp insurance.

There will be a mandatory Pre-bid meeting on April 23, 2024 at 10am. Duro-last rep will be on site to answer questions. The meeting will take place at the Dept of Health and Human Services building rain or shine. If you are interested in bidding the project a company representative must attend.

Please do not come to the location before the Pre-bid meeting, and after the meeting please call ahead if you need to come back and view the location.

Proposals shall be submitted in a **Sealed** envelope to Tuscola County Buildings and Grounds at 125 W. Lincoln St. Caro, Michigan 48723, no later than 4:00 p.m. May 10, 2024.

Please call 989-672-3756 or 989-672-3716 if you have questions, please do not stop at DHHS before calling to set up an appointment.

Disclaimer

Tuscola County reserves the right at its sole discretion to reject any and all proposals received without penalty and not to enter a contract as a result of this RFP. The County also reserves the right to negotiate separately with any source whatsoever in any manner necessary to attend to the best interests of the County, to waive irregularities in any proposal and to accept a proposal which best meets the needs of the County, irrespective of the bid price."

By submitting a bid, the bidder is acknowledging that there will be no contractual relationship between Tuscola County and the bidder until both parties have formally approved and signed a written contract to be developed by Tuscola County legal counsel.

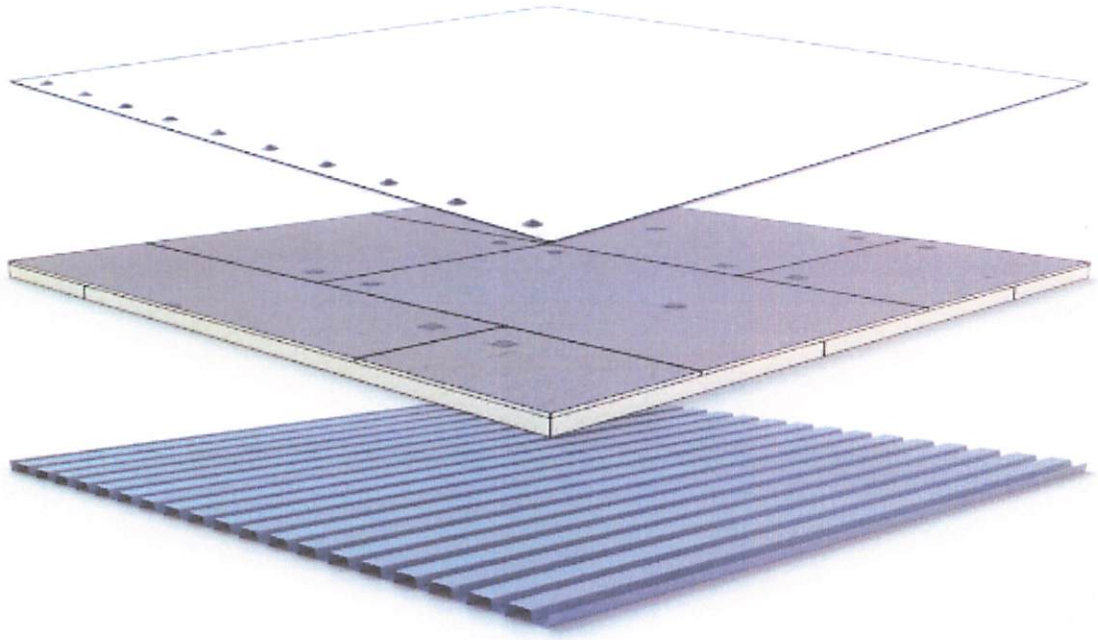
The County reserves the right to make an award without further discussion of any proposal submitted. Therefore, the proposal should be submitted initially on the most favorable terms which the offer can propose. There will be no best and final offer procedure. The County does reserve the right to contact an offer for clarification of its proposal."

3-part Specification

Tuscola County Human Services Building

ENTIRE BUILDING

1365 Cleaver
Caro, MI 48723



PART 1 GENERAL

1.1 SUMMARY

A. Membrane Type: Duro-Last 50-mil Membrane (Custom Fab: Regular Rolls)
   1. Roll Width: 60" (Installed widths may vary)
   2. Membrane Color: White
   3. Attachment Type: Mechanically Fastened
   4. Fasteners: Duro-Last® HD Screw (#14)
   5. Plates: Duro-Last® Cleat Plate™

B. Insulation Assembly Type: Duro-Guard® ISO HD (Coated Glass Facer)
   1. Board Application: Flat Stock

2. Board Style: Assembly Thickness
3. Board Size: 4' x 8'
4. Thickness/R-Value: 0.5"
5. Attachment Type: Mechanically Fastened
6. Fasteners: Duro-Last® HD Screw (#14)
7. Plates: Duro-Last® 3-Inch Metal Plate

C. Deck Type: Steel Deck (22 ga)
D. Prefabricated flashings, corners, parapets, stacks, vents, and related details.
E. Fasteners, adhesives, and other accessories required for a complete roofing installation.
F. Traffic Protection.

1.2 REFERENCES

A. ASTM INTERNATIONAL (ASTM)
   1. (2019) Standard Test Methods for Coated Fabrics (D751)
   2. (2021) Standard Specification for Poly(Vinyl Chloride) Sheet Roofing (D4434/D4434M)
   3. (2022) Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board (C1289)
   4. (2020) Standard Test Methods for Fire Tests of Roof Coverings (E108)
   5. (2020) Standard Test Methods for Fire Tests of Building Construction and Materials (E119)
B. UL SOLUTIONS (UL)
   1. (2021) UL Roofing Systems (TGFU.R10128)
C. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)
   1. (2007) Minimum Design Loads for Buildings And Other Structures (ASCE Standard - ASCE/SEI 7-05)
   2. (2014) Minimum Design Loads for Buildings and Other Structures (ASCE Standard - ASCE/SEI 7-10)
   3. (2017) Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE Standard - ASCE/SEI 7-16)
D. NATIONAL ROOFING CONTRACTORS ASSOCIATION (NRCA)
   1. (2019) NRCA Roofing Manual - Membrane Systems

1.3 SYSTEM DESCRIPTION

A. General: Provide installed roofing membrane and base flashings that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required, as demonstrated by roofing membrane manufacturer based on testing and field experience.

C. Physical Properties (must meet or exceed):
    1. Roof product must meet the requirements of Type III PVC sheet roofing as defined by ASTM D4434.
    2. Thickness: 50 mil, nominal, in accordance with ASTM D751.
    3. Thickness over Scrim: ≥ 28 mil in accordance with ASTM D7635.
    4. Breaking Strength: ≥ 438 lbf. (machine direction) and ≥ 390 lbf. (cross machine direction) in accordance with ASTM D751 Grab Method.
    5. Elongation at Break: ≥ 31% (machine direction) and ≥ 31% (cross machine direction) in accordance with ASTM D751 Grab Method.
    6. Seam Strength: ≥ 417 lbf. in accordance with ASTM D751 Grab Method.
    7. Tear Strength: ≥ 132 lbf. (machine direction) and ≥ 163 lbf. (cross machine direction) in accordance with ASTM D751 Procedure B.
    8. Low Temperature Bend: Pass at -40 °F in accordance with ASTM D2136.
    9. Heat Aging: Pass after being conditioned for 56 days in oven maintained at 176 °F in accordance with ASTM D3045.
    10. Accelerated Aging: Pass after 10,000 hours of total test time in accordance with ASTM G155.
    11. Dimensional Stability: Change of -0.30% (machine direction) and -0.45% (cross machine direction) in accordance with ASTM 1204.
    12. Water Absorption: < 1.7% at 158 °F for 168 hours in accordance with ASTM D570.
    13. Static Puncture Resistance: ≥ 56 lbf. in accordance with ASTM D5602.
    14. Dynamic Puncture Resistance: ≥ 14.7 ft-lbf. in accordance with ASTM D5635.
D. Cool Roof Rating Council (CRRC) (Membrane must be listed on the CRRC website):
    1. Solar Reflectance (Initial): ≥ 86%
    2. Solar Reflectance (3-Year Aged): ≥ 74%
    3. Thermal Emittance (Initial): ≥ 89%
    4. Thermal Emittance (3-Year Aged): ≥ 89%
    5. Solar Reflectance Index (SRI) (Initial): ≥ 108%
    6. Solar Reflectance Index (SRI) (3-Year Aged): ≥ 91%
E. Insulation:
    1. General Requirements
        a. Install using a minimum of two layers.
        b. Configuration as indicated on the drawings.
    2. Duro-Guard® ISO HD (Coated Glass Facer)
        a. Assembly Thickness: 0.5"

1.4 SUBMITTALS

A. Product data sheets to be used, with the following information included:
    1. Preparation instructions and recommendations

2. Storage and handling requirements and recommendations
3. Installation methods
4. Maintenance requirements

B. Sustainability Documentation:
1. NSF/ANSI Standard 347 Certificate
2. Type III product-specific Environmental Product Declaration

C. Shop Drawings: Indicate insulation pattern, overall membrane layout, field seam locations, joint or termination detail conditions, and location of fasteners.

D. Provide verification samples for each product specified (two samples representing each product, color and finish):
1. 4-inch by 6-inch sample of roofing membrane, of color specified.
2. 4-inch by 6-inch sample of walkway pad.
3. Termination bar, fascia bar with cover, drip edge, and gravel stop if to be used.
4. Each fastener type to be used for installing membrane, insulation/recover board, termination bar and edge details.

E. Installer Certification: Certification from the roofing system manufacturer that Installer is approved, authorized, or licensed by manufacturer to install roofing system.

F. Manufacturer's warranties.

1.5 QUALITY ASSURANCE

A. Perform work in accordance with manufacturer's installation instructions.

B. Manufacturer Qualifications: A manufacturer specializing in the production of PVC membranes systems and utilizing a Quality Control Manual during the production of the membrane roofing system that has been approved by and is inspected by Underwriters Laboratories.

C. Installer Qualifications: Company specializing in installation of roofing systems similar to those specified in this project and approved by the roofing system manufacturer.

D. Source Limitations: Obtain components for membrane roofing system from roofing membrane manufacturer.

E. There shall be no deviations from the roof membrane manufacturer's specifications or the approved shop drawings without the prior written approval of the manufacturer.

1.6 REGULATORY REQUIREMENTS

A. Conform to applicable code for roof assembly fire hazard, wind uplift, and cool roof requirements.

B. Fire Hazard Requirements: Provide membrane roofing materials with the following fire-test-response characteristics. Materials shall be identified with appropriate markings of applicable testing and inspecting agency.
1. Class A
2. Fire-test-response standard: Comply with ASTM E108 for application and roof slopes indicated.

3. Fire-Resistance Ratings: Comply with ASTM E119 for fire-resistance-rated roof assemblies of which roofing system is a part.
4. Conform to applicable code for roof assembly fire hazard requirements.

C. Wind Uplift Requirements: Roofing System Design: Provide a roofing system designed to resist uplift pressures calculated according to the current edition of ASCE/SEI 7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures.

1.7 PRE-INSTALLATION MEETING

A. Convene meeting not less than one week before starting work of this section.
B. Review methods and procedures related to roof deck construction and roofing system including, but not limited to, the following:
   1. Meet with Owner, Architect, Owner's insurer if applicable, testing and inspecting agency representative, roofing installer, roofing system manufacturer's representative, deck installer, and installers whose work interfaces with or affects roofing 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. Examine deck substrate conditions and finishes for compliance with requirements, including flatness and fastening.
   4. Review structural loading limitations of roof deck during and after roofing.
   5. Review base flashings, special roofing details, roof drainage, roof penetrations, equipment curbs, and condition of other construction that will affect roofing system.
   6. Review governing regulations and requirements for insurance and certificates if applicable.
   7. Review temporary protection requirements for roofing system during and after installation.
   8. Review roof observation and repair procedures after roofing installation.
   9. Review existing roof manufacturer's recycling program and return roofing system to the manufacturer for recycling.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and mixing with other components.
B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

D. Store roof materials and place equipment in a manner to avoid permanent deflection of deck.
E. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

1.9 WARRANTY

A. Contractor's Warranty: The contractor shall warrant the roof application with respect to workmanship and proper application for two (2) years from the effective date of the warranty issued by the manufacturer.
B. Manufacturer's Warranty: Must be no-dollar limit type and provide for completion of repairs, replacement of membrane or total replacement of the roofing system at the then-current material and labor prices throughout the life of the warranty. In addition the warranty must meet the following criteria:
    1. Warranty Period: 20 years from date issued by the manufacturer.
    2. Must provide adequate or sufficient drainage.
    3. Issued direct from and serviced by the roof membrane manufacturer.
    4. Transferable for the full term of the warranty.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: Duro-Last Roofing, which is located at: 525 Morley Drive, Saginaw, MI 48601. Telephone: 800-248-0280.
B. All roofing system components to be provided or approved by Duro-Last Roofing, Inc.
C. Substitutions: Not permitted.

2.2 ROOFING SYSTEM COMPONENTS

A. Roofing Membrane:
    1. Properties:
        a. Type: Duro-Last 50-mil Membrane (Custom Fab: Regular Rolls) or DLX roll goods
        b. Roll Width: 60" (Installed widths may vary)
        c. Membrane Color: White
        d. Attachment Type: Mechanically Fastened
        e. Fasteners: Duro-Last® HD Screw (#14)
        f. Plates: Duro-Last® Cleat Plate™
    2. Features:
        a. ASTM D4434, Type III
        b. Fabric-reinforced, PVC, NSF/ANSI 347 Gold or Platinum Certification, and a product-specific third-party verified Environmental Product Declaration.

c. Minimum recycle content 7% post-industrial and 0% post-consumer.
d. Recycled at end of life into resilient flooring or concrete expansion joints.

B. Insulation:
1. General Requirements
a. Provide preformed roof insulation boards that comply with requirements and referenced standards, as selected from manufacturer's standard sizes.
b. Provide preformed saddles, crickets, and other insulation shapes where indicated for sloping to drain. Fabricate to slopes indicated.
c. Provide roof insulation accessories approved by the roof membrane manufacturer and as recommended by insulation manufacturer for the intended use.
2. Component:
a. Properties:
1. Type: Duro-Guard® ISO HD (Coated Glass Facer)
2. Board Application: Flat Stock
3. Size: 4' x 8'
4. Method: Assembly Thickness: 0.5"
5. Attachment Type: Mechanically Fastened
6. Fasteners: Duro-Last® HD Screw (#14)
7. Plates: Duro-Last® 3-Inch Metal Plate
b. Features:
1. 1/2-inch thick high density polyisocyanurate insulation panel manufactured on-line using premium performance coated glass facers
2. Complying with ASTM C1289, Type II, felt or glass-fiber mat facer on both major surfaces
3. Provide Duro-Last factory-coated steel fasteners and metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening insulation and/or insulation cover boards in conformance to specified design requirements.

C. Deck Type:
1. Properties:
a. Type: Steel Deck (22 ga)

D. Accessory Materials: Provide accessory materials supplied by or approved for use by Duro-Last Roofing, Inc.:
1. Sheet Flashing: Manufacturer's standard reinforced PVC sheet flashing.
2. Secondary Material: Manufactured using standard reinforced PVC membrane.
a. Duro-Last® Parapet Flashing
3. Prefab Flashings: Manufactured using standard reinforced PVC membrane.
a. Duro-Last® Inside and Outside Corners

b. Duro-Last® Stack Flashing
c. Duro-Last® Curb Flashing

4. Fasteners: Factory-coated steel fasteners meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane and insulation to substrate. Supplied by Duro-Last Roofing, Inc.
    a. Duro-Last® HD Screw (#14)
5. Plates: Metal or plastic plates meeting corrosion-resistance provisions in FMG 4470, designed for fastening membrane and insulation to substrate. Supplied by Duro-Last Roofing, Inc.
    a. Duro-Last® Cleat Plate™
    b. Duro-Last® 3-Inch Metal Plate

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that the surfaces and site conditions are ready to receive work.
B. Verify that the deck is supported and secured.
C. Verify that the deck is clean and smooth, free of depressions, waves, or projections, and properly sloped to drains, valleys, eaves, scuppers or gutters.
D. Verify that the deck surfaces are dry and free of standing water, ice or snow.
E. Verify that all roof openings or penetrations through the roof are solidly set.
F. If substrate preparation is the responsibility of another contractor, notify Architect of unsatisfactory preparation before proceeding.
G. Prior to re-covering an existing roofing system, conduct an inspection of the roof system accompanied by a representative of the membrane manufacturer or an authorized contractor.
    1. Determine required fastener type, length, and spacing.
    2. Verify that moisture content of existing roofing is within acceptable limits.
    3. Identify damaged areas requiring repair before installation of new roofing.
    4. Conduct core cuts as required to verify information required.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.
B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
C. Surfaces shall be clean, smooth, free of fins, sharp edges, loose and foreign material, oil, grease, and bitumen.
D. Re-Roofing Over Existing Single-Ply System:
    1. Remove all loose or high fasteners.

2. Membrane contaminated with bitumen must be immediately cleaned. If cleaning does not remove the bitumen, the contaminated membrane must be replaced, or covered with both a slip sheet and new membrane.
3. Blisters, buckles and other surface irregularities must be repaired or removed. If the damage is extensive, an approved rigid board insulation or a cover board must be installed.
4. When the system is smooth or granular-surfaced, any approved slip sheet, insulation or cover board may be used to provide separation of the roof system and new membrane. Duro-Guard fan folds may be used if the surface is pea gravel or crushed stone which is ¼ to 3/8 inch in size and has been leveled and maintained at 4 psf. For larger rock/gravel, utilize an approved rigid insulation or cover board.
5. If rock/gravel surfacing is removed, an approved fan fold, rigid insulation or cover board must be used. If embedded rock/gravel remains that protrudes out of the deck more than ¼ inch, do not use fan fold board. Instead, use an approved cover board or rigid insulation.
6. When installing polystyrene insulation over coal tar pitch or asphalt-based roof systems, a slip sheet must be used between the insulation and existing roof.

3.3 INSTALLATION

A. Insulation:
   1. General Requirements
      a. Install insulation in accordance with the roof manufacturer's requirements.
      b. Insulation shall be adequately supported to sustain normal foot traffic without damage.
      c. Where field trimmed, insulation shall be fitted tightly around roof protrusions with no gaps greater than ¼ inch.
      d. Tapered insulation boards shall be installed in accordance with the insulation manufacturer's shop drawings.
      e. No more insulation shall be applied than can be covered with the roof membrane by the end of the day or the onset of inclement weather.
      f. If more than one layer of insulation is used, all joints between subsequent layers shall be offset by at least 6 inches.
   2. Duro-Guard® ISO HD (Coated Glass Facer)
      a. Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.
      b. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed must be replaced or corrected.
      c. Install all layers in parallel courses with end joints staggered 50% and adjacent boards butted together with no gaps greater than ¼ inch.

B. Roofing Membrane:
   1. General Requirements

a. Install membrane in accordance with the roof manufacturer's requirements.
b. Cut membrane to fit neatly around all penetrations and roof projections.

2. Duro-Last 50-mil Membrane (Custom Fab: Regular Rolls)
    a. Use only fasteners, stress plates and fastening patterns accepted for use by the roof manufacturer. Fastening patterns must meet applicable design requirements.
    b. Install fasteners in accordance with the roof manufacturer's requirements. Fasteners that are improperly installed must be replaced or corrected.
    c. Mechanically fasten membrane to the structural deck utilizing fasteners and fastening patterns in accordance with the roof manufacturer's requirements.

C. Weld overlapping sheets together using hot air. Minimum weld width is 1-1/2 inches.

D. Check field welded seams for continuity and integrity and repair all imperfections by the end of each work day.

E. Flashings: Complete all flashings and terminations as indicated on the drawings and in accordance with the membrane manufacturer's requirements.
    1. Provide securement at all membrane terminations at the perimeter of each roof level, roof section, curb flashing, skylight, expansion joint, interior wall, penthouse, and other similar condition.
        a. Do not apply flashing over existing thru-wall flashings or weep holes.
        b. Secure flashing on a vertical surface before the seam between the flashing and the main roof sheet is completed.
        c. Extend flashing membrane a minimum of 6 inches (152 mm) onto the main roof sheet beyond the mechanical securement.
        d. Use care to ensure that the flashing does not bridge locations where there is a change in direction (e.g. where the parapet meets the roof deck).
    2. Penetrations:
        a. Flash all pipes, supports, soil stacks, cold vents, and other penetrations passing through the roofing membrane as indicated on the Drawings and in accordance with the membrane manufacturer's requirements.
        b. Utilize custom prefabricated flashings supplied by the membrane manufacturer.
        c. Existing Flashings: Remove when necessary to allow new flashing to terminate directly to the penetration.
    3. Pipe Clusters and Unusual Shapes:
        a. Clusters of pipes or other penetrations which cannot be sealed with prefabricated membrane flashings shall be sealed by surrounding them with a prefabricated vinyl-coated metal pitch pan and sealant supplied by the membrane manufacturer.
        b. Vinyl-coated metal pitch pans shall be installed, flashed and filled with sealant in accordance with the membrane manufacturer's requirements.

c. Pitch pans shall not be used where prefabricated or field fabricated flashings are possible.

F. Roof Drains: Coordinate installation of roof drains and vents.
   1. Drain Assemblies with Clamping Rings:
      a. Remove existing roofing system materials from drain bowl and clamping ring.
      b. The membrane must extend beyond the inside of the clamping ring.
      c. Use a manufacturer supplied or approved sealant (1/2 tube minimum) between the membrane and drain bowl assembly.
      d. After the membrane is properly installed onto the bowl and the clamping ring set in place, all bolts securing the ring must be installed to provide constant, even compression on the sealant. If bolts are broken or missing, replacements must be installed.
   2. Drain Boots:
      a. Remove existing flashing and asphalt at existing drains in preparation for sealant and membrane.
      b. Use a manufacturer supplied or approved sealant (1/2 tube minimum) to the outside of the drain boot and insert it into the drain.
      c. Fasten membrane around the perimeter of the drain with the same fastening pattern as the field membrane, no less than 1 fastener per drain.
      d. Install a pair of composite drain rings (CDRs) to compress the boot to the pipe. Ensure the CDR openings face in opposite directions.
      e. Secure the manufacturer's drain guard over the opening by heat welding the attachment tabs to the roof membrane.

G. Edge Details:
   1. Provide edge details as indicated on the Drawings. Install in accordance with the membrane manufacturer's requirements.
   2. Join individual sections in accordance with the membrane manufacturer's requirements.
   3. Coordinate installation of metal flashing and counter flashing.
   4. Manufactured Roof Specialties: Coordinate installation of copings, counter flashing systems, gutters, downspouts, and roof expansion assemblies.

H. Walkways:
   1. Install walkways in accordance with the membrane manufacturer's requirements.
   2. Provide walkways where indicated on the Drawings.
   3. Install walkway pads at roof hatches, access doors, rooftop ladders and all other traffic concentration points regardless of traffic frequency. Provided in areas receiving regular traffic to service rooftop units or where a passageway over the surface is required.
   4. Do not install walkways over flashings or field seams until manufacturer's warranty inspection has been completed.

I. Water Cut-Offs:
    1. Provide water cut-offs on a daily basis at the completion of work and at the onset of inclement weather.
    2. Provide water cut-offs to ensure that water does not flow beneath the completed sections of the new roofing system.
    3. Remove water cut-offs prior to the resumption of work.
    4. The integrity of the water cut-off is the sole responsibility of the roofing contractor.
    5. Any membrane contaminated by the cut-off material shall be cleaned or removed.

3.4 FIELD QUALITY CONTROL

A. The membrane manufacturer's representative shall provide a comprehensive final inspection after completion of the roof system. All application errors shall be addressed and final punch list completed.

3.5 PROTECTION

A. Protect installed roofing products from construction operations until completion of project.
B. Where traffic is anticipated over completed roofing membrane, protect from damage using durable materials that are compatible with membrane.
C. Repair or replace damaged products after work is completed.

END OF SECTION

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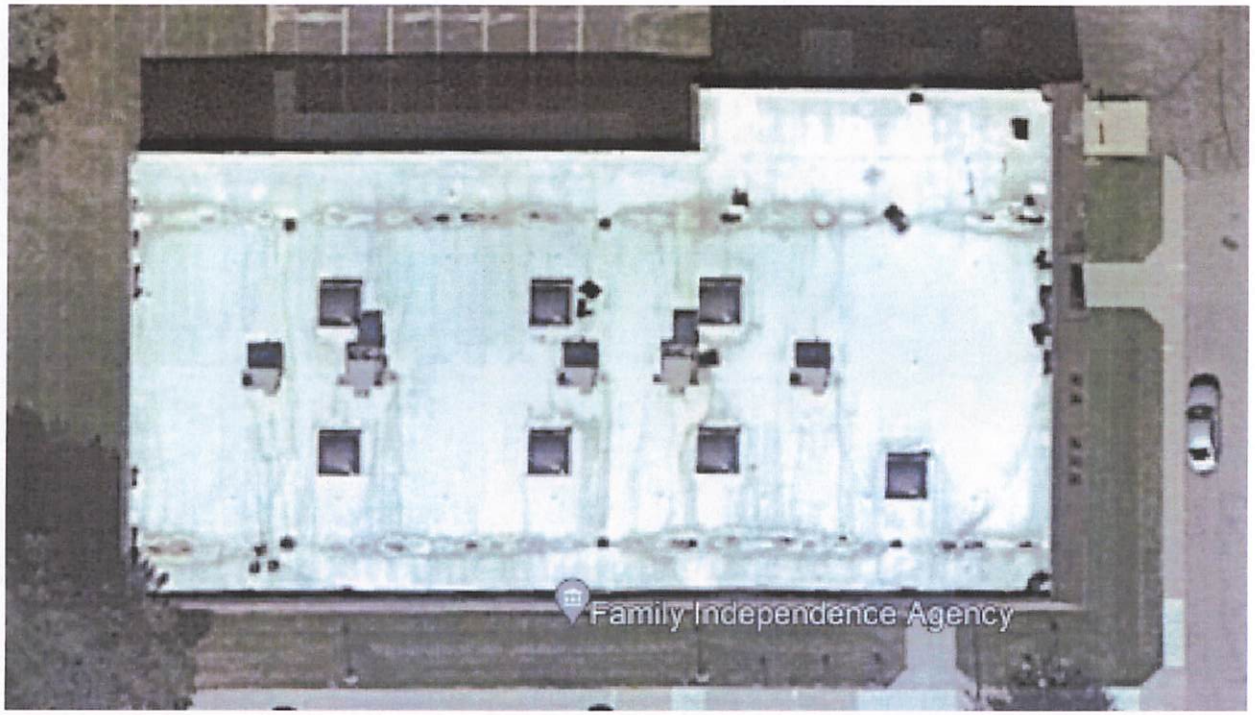

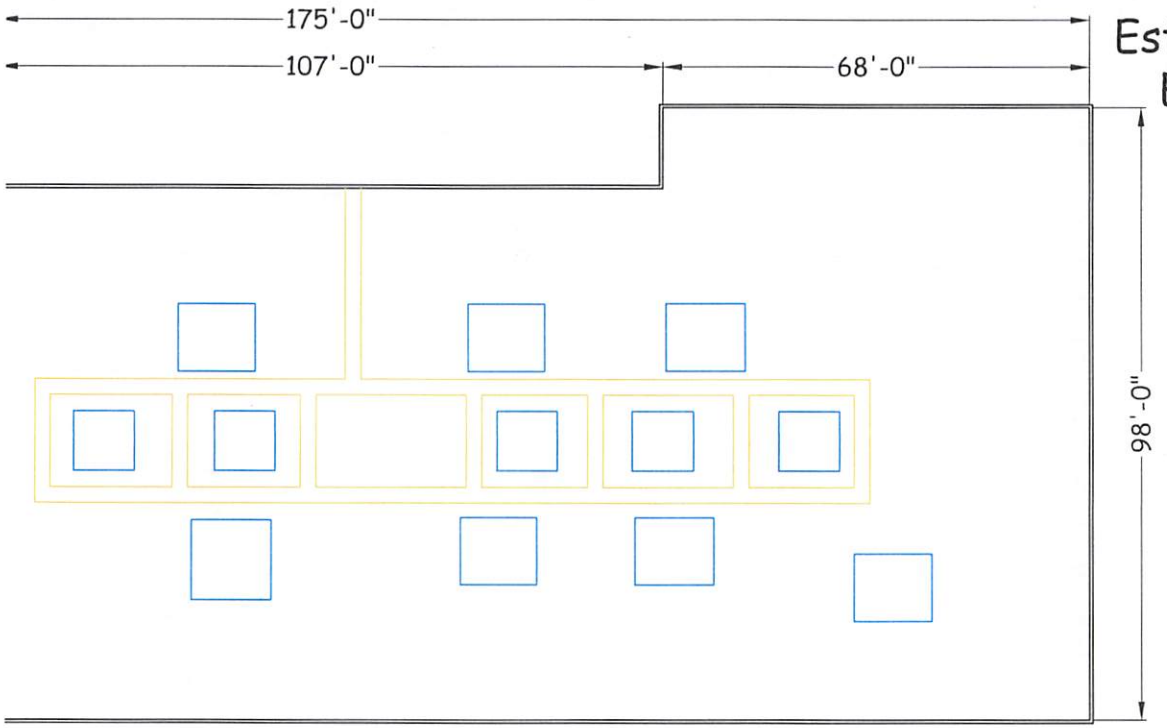

Estimated Walkpad Sq Ft: 1100
Estimated Deck Sq Ft: 15759
Presentation Drawing Only
Orange = Walkpads

DURO-LAST
THE WORLD'S BEST ROOF®
525 E Morley Drive
Saginaw, MI 48601
Fax: 989-758-6359
Phone: 800-248-0280
engineering@duro-last.com

Project #225710

Tuscola City Human Services
Caro, MI-
Trevor Wagester

By	Revision	Date
-	-	00/00/00
-	-	00/00/00

Drawn By: Dave Salo
Date: 02/12/24
Scale: N.T.S.

Legend
Factory
Field
Curb
Stack
Walkpad

Right to Know Hazardous Materials

The Contractor shall comply with the Michigan Right-to-Know Law (HB 411). Provide the owner with Proof of Compliance including a copy of the Contractor's written plan, a list of all chemicals to be brought on site, Material Safety Data Sheets (MSDS) and a certificate that all employees have been trained.

The contractor shall furnish owner with a copy of contractors safety program.