



MONROE COUNTY BID PROPOSAL

Division of Purchasing
County Office Building, Room 200
39 West Main Street
Rochester, NY 14614
(585) 753-1100

BID PROJECT NUMBER: 1201-13

BID TITLE: BIOSOLIDS BUILDING REPAIR - FEV

BUYER: Sharon A. Berndt

BID TIME: 11:00 AM

PHONE: (585) 753-1110

BID DATE: December 27, 2013

BID SECURITY REQUIRED: No: X
Yes, in the amount of _____ as specified herein

| ITEM AND/OR GROUP NO. | ESTIMATED QUANTITY | ARTICLES OR SERVICES | UNIT PRICE | EXTENSION |
|-----------------------|--------------------|---|------------|-----------------------|
| | 1 JOB | BIOSOLIDS BUILDING REPAIR - FEV Per attached specifications <i>PLEASE SUBMIT TWO (2) COPIES OF BID PROPOSAL AT TIME OF BID OPENING.</i> | | \$ _____ TOTAL BID |

PRE-BID SITE VISIT FOR PROSPECTIVE BIDDERS WILL BE HELD:

DATE: Friday, December 13, 2013
TIME: 10:00 AM
LOCATION: FEV WWTF, 1574 Lakeshore Boulevard, Rochester, NY 14617
(first building next to the smoke stack)

I have received, read and agree to the terms and conditions as set forth in General Terms and Conditions, Monroe County, attached, and any special terms and conditions set forth in the General and Technical Specifications herein. I have read, understand and agree to all Instructions to Bidders (including the Non-Collusion Bidding Certification) on the reverse hereof. I hereby recognize and agree that upon execution of this document by an authorized officer of Monroe County, that this document, together with the Contractor's bid as accepted by Monroe County and all other documents prepared by or on behalf of Monroe County for this bid solicitation, shall become the binding contract between the parties for the services to be provided in accordance with the terms and conditions set forth herein.

FIRM NAME _____

SIGNED BY _____

ADDRESS _____

PRINTED NAME _____

TITLE _____

FEDERAL ID NO. _____

PHONE NO. _____

E-MAIL ADDRESS _____

FAX NO. _____

BID ACCEPTANCE AND CONTRACT AWARD

The above bid is accepted, except as noted, and the contract is awarded to you for the following item(s):

Authorization to furnish supplies/services will be made via Purchase Order, as appropriate, signed by the Monroe County Purchasing Manager, or designated agent. Contract period from _____ to _____.

Date: _____

BY: _____

Dawn C. Staub, Purchasing Manager, Monroe County

DCS

INSTRUCTIONS TO BIDDERS

- All public bids must be submitted to Purchasing in sealed envelopes which clearly identify the bid project number and the title of the service/product being bid. Any other writing on the envelope, with the exception of company logos, etc. may result in bids being misplaced and otherwise rejected.
- Unsigned bids may be rejected as informal.
- Questions regarding ambiguities or the propriety of these specifications should be addressed, in writing, to the Buyer, prior to the formal bid opening. Such questions will not be entertained after said bid opening.
- Where a Bid Security is indicated on the face of the proposal, the security must be attached to the Proposal as an earnest of good faith. In this case, any bid without a bid security may be rejected as informal.

The Purchasing Manager reserves the right to reject any and all bids, to waive any informality in the bids and to make awards in the best interest of Monroe County.

NON-COLLUSION BIDDING CERTIFICATION

By submission of this bid, each bidder and each person signing on behalf of any bidder, certifies and in the case of a joint bid, each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

1. The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor.
2. Unless otherwise required by law, the prices, which have been quoted in its bid, have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly, to any other bidder or to any competitor.
3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit a bid for the purpose of restricting competition.

**CERTIFICATION REGARDING
DEBARMENT, SUSPENSION AND RESPONSIBILITY**

The undersigned certifies, to the best of his/her knowledge and belief, that the Bidder and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded by any Federal department or agency;
2. Have not within a three (3) year period preceding this transaction/application/proposal/contract/agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 2 of this certification; and
4. Have not within a three (3) year period preceding this transaction/application/proposal/contract/agreement had one or more public transactions (Federal, State or local) terminated for cause or default.

**CERTIFICATION REGARDING MONROE COUNTY PROCUREMENT POLICY
AND CONSEQUENCES FOR VIOLATION**

The undersigned certifies, to the best of his/her knowledge and belief, that the Bidder and its principals:

5. Have read and understand the Monroe County Procurement Policy and agree to abide by its terms (<http://www2.monroecounty.gov/purch-overview.php>);
6. Understand that any violation of the Monroe County Procurement Policy may result in the exclusion of any response to a public bid, Request for Proposals (RFP) or Request for Qualifications (RFQ) submitted on our behalf; and
7. Understand that any contract or agreement entered into subsequent to a violation of this policy during the procurement process is null and void.

Date: _____

[Print Name of Bidder]

By: _____
[Signature]

[Print Name]

[Print Title/Office]

BIDDER MUST COMPLETE THIS FORM AND SUBMIT WITH BID.

TERMS AND CONDITIONS

- BID ITEM:** BIOSOLIDS BUILDING REPAIR - FEV
- FOR:** Department of Environmental Services
- DUPLICATE COPIES:** **PLEASE SUBMIT YOUR BID IN DUPLICATE; THE ORIGINAL AND ONE (1) COPY.**
- BID INFORMATION:** At the time of bid, the bidder shall supply detailed specifications covering the item(s) contained herein and shall clearly indicate any areas in which item or items offered do not fully comply with the specifications contained herein.
- SUBMITTAL OF FORMAL PROPOSAL:** Bid proposal must be legible and submitted in the original form, bearing an original signature. **EMAILS AND FACSIMILES ARE NOT ACCEPTABLE.**
- Bidders must submit proof that they have obtained the required **Workers' Compensation** and **disability benefits** coverage or proof that they are exempt **if awarded the contract.**
- SPECIFICATION ALTERATIONS:** Specifications will be construed to be complete and be considered the entire description of the goods or services upon which Monroe County is now seeking bids. **Only formal written addenda can materially alter this set of specifications.** No verbal statement made by a Monroe County employee or anyone else is binding nor shall such statement be considered an official part of this public bid proposal.
- NYS WAGE RATES:** Pursuant to the provision of Section 220-A of the New York State Labor Law, as amended, the Contractor (and related Subcontractors) will be obligated to pay all workers in the covered classes only the applicable prevailing wage rates and supplements. The minimum hourly wage rate to be paid the various classes of labor performing work under this contract shall be in accordance with schedules which have been established or may hereafter be established or increased, by the New York State Department of Labor during the contract term. **Refer to NYS Wage Schedule PRC# 2013010551 developed for this project.**
- BRAND REFERENCE:** References to a manufacturer's product by brand name or number are done solely to establish the minimum quality and performance characteristics required. Bidders may submit bids on alternates, but must attach two (2) copies of manufacturer specifications for any alternate at the time of the bid. Further, the bidder must demonstrate that the alternate proposed has a sufficient operating track record to show the equipment will perform per the specified brand. The acceptance of a bidder's alternate rests solely with Monroe County.

QUALIFIED BIDDER:

Each bidder must be prepared to present satisfactory proof of his capacity and ability to perform this contract. Such proof may include, but is not limited to, an inspection of the bidder's facilities and equipment, financial statements, references and performance of similar contracts. **The Purchasing Manager reserves the right to reject any bid where the bidder cannot satisfy the County as to their ability to perform. Monroe County reserves the right to reject any and all bids** if the Monroe County Purchasing Manager deems said action to be in the best interests of Monroe County.

METHOD OF AWARD:

Monroe County intends to award the bid to the lowest responsive and responsible bidder based on the **TOTAL**. **The County reserves the right to reject any and all bids** if the Purchasing Manager deems said action to be in the best interest of the County.

**PURCHASE ORDER
ISSUANCE:**

Delivery of services may be directed by the receipt of a Purchase Order only. **Items that are not part of this bid will not be paid for by Monroe County.** Purchase orders may be adjusted to accommodate unforeseen conditions that may arise within the original scope of work.

As to all purchase orders issued by Monroe County, exceptions may only be authorized, in writing, by the Purchasing Manager or her authorized agent prior to delivery.

**WARRANTY/
GUARANTEE:**

All warranties by manufacturer shall apply. Bidder shall, as part of its proposal, furnish its warranty/guarantee for all goods/services to be furnished hereunder. As a minimum, Bidder shall warrant all goods/services for a period as stated herein. Bidder shall be obligated to repair or replace all defects in material or workmanship which are discovered or exist during said period. All labor, parts and transportation shall be at Bidder's expense.

**SECURITIES AND
INSURANCE:**

Any Certificate of Insurance, Bonds, or other forms of security required by this bid are to be submitted to the Purchasing Manager no later than ten (10) normal business days following the date of notification of award. Documents must be received by the close of business, 5:00 PM, on that day.

**COMPLIANCE WITH
THE LAW:**

The Contractor agrees to procure all necessary licenses and permits. The Contractor shall comply with all laws, rules and regulations pertaining to the payment of wages and all other matters applicable to the work performed under this contract.

SUBCONTRACT:

The **Contractor shall not subcontract** any work **without first obtaining the written consent of the Monroe County Purchasing Manager.**

INDEMNIFICATION:

The Contractor agrees to defend, indemnify and save harmless the County, its officers, agents, servants and employees from and against any and all liability, damages, costs or expenses, causes of action, suits, judgments, losses and claims of every name not described, including attorneys' fees and disbursements, brought against the County which may arise, be sustained, or occasioned directly or indirectly by any person, firm or corporation arising out of or resulting from the performance of the services by the Contractor, arising from any act, omission or negligence of the Contractor, its agents and employees, or arising from any breach or default by the Contractor under this Agreement. Nothing herein is intended to relieve the County from its own negligence or misfeasance or to assume any such liability for the County by the Contractor.

Terms & Conditions-One Time Purchase-Service or Repair Furnish&Install (8/03)

BP #1206-13
BIOSOLIDS BUILDING REPAIR - VAN LARE WASTE WATER TREATMENT PLANT

1.00 **SCOPE**

The Monroe County Department of Environmental Services is seeking a qualified bidder to provide labor, materials, supervision, and equipment to perform various repairs on the Biosolids building at this County Facility. The work includes, but is not limited to:

1. Repainting siding.
2. Sandblasting and recoating metal roofing.
3. Replacing gutters, downspouts and flashings.
4. Replacing windows.
5. Sandblasting and coating metal roof joists and structural beams.
6. Replacing door hardware.

See attached drawings.

It is the responsibility of the bidder to verify the completeness of the material lists and of the suitability of materials needed to meet the intent of the specifications. Any additional equipment or service required, even if not mentioned herein, shall be provided by the bidder without claims for additional payment; it being understood that a complete repair of the identified areas, satisfactory to the County is required.

Work for this repair project will not commence until spring of 2014.

1.01 **PURCHASING CONTACT**

The Buyer, identified below, is the sole point of contact regarding this Bid from the date of issuance until the bids are opened and the results made public.

Sharon Berndt
Monroe County Division of Purchasing
200 County Office Building
39 West Main Street
Rochester, NY 14614
Email: sberndt@monroecounty.gov

All requests for bid clarification must be submitted in writing to the Buyer referenced above and received no later than close of business (5:00 PM Eastern Standard Time) on **Tuesday, December 17, 2013**.

All questions will be answered and documented in writing as an Addendum to the Bid. These will be sent out to all Bidders who received the original Bid no later than **Thursday, December 19, 2013**.

1.02 QUALIFICATIONS OF CONTRACTOR

Consideration will be given only to bidders who can demonstrate that they are regularly engaged in the type of work defined in this specification and can therefore comply with the specifications. Consideration will be given only to bidders who can demonstrate that their equipment, background and technical abilities comply with the specifications. The County shall have the sole responsibility for determining from the information submitted by the low bidder if the bidder can meet the specifications. Should the apparent low bidder fail to meet the requirements of the specifications as determined by the County's review, the bid shall be rejected and the next low bidder shall be considered. The County may require additional supplementary information during the review process. The bidder must provide sufficient detail to permit an evaluation.

1.03 PRE- BID SITE VISIT

It is in the best interest of potential Contractors to attend the pre-bid site visit which has been scheduled for **Friday, December 13, 2013 @ 10:00 AM** at the Frank E. VanLare Wastewater Treatment Facility, 1574 Lakeshore Boulevard, Rochester, NY 14617, Building 38 (first building next to the smoke stack).

1.04 WARRANTY

All products and labor shall be warranted for a two (2) year period.

1.05 REPLACED/REMOVED–SALVAGED MATERIAL IS THE PROPERTY OF THE COUNTY

Any salvaged material and/or equipment shall remain the property of the County. The project manager will indicate to the contractor where he wants the salvaged material placed.

2.00 COORDINATION WITH OWNER'S OPERATIONS

2.01 DESCRIPTION

- A. Contractor shall provide labor, materials, tools, equipment and incidentals shown, specified and required to coordinate with County's operations during the work.
- B. Performance of the work shall be such that the County's facility remains in continuous satisfactory operation during the project. Schedule and conduct of the work shall not: impede the County's production or processes, create potential hazards to operating equipment and personnel, reduce the quality of the facility's products or effluent, or cause odors or other nuisances.

2.02 GENERAL CONSTRAINTS

- A. The following constraints apply to coordination with Owner's operations:

1. Operational Access: County's personnel shall have access to equipment and areas that remain in operation.
2. Temporary Partitions and Enclosures: Contractor shall provide temporary partitions and enclosures necessary to maintain dust-free, heated, and ventilated spaces in areas that are adjacent to the work and that must be kept operational.

3.00 PROTECTION OF THE WORK AND PROPERTY

3.01 DESCRIPTION

- A. Contractor shall be responsible for taking all precautions, providing all programs, and taking all actions necessary to protect the work and all public and private property and facilities from damage, as specified in this section.
- B. To prevent damage, injury, or loss, Contractor's actions shall include the following:
 1. Storing apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with progress of the work or work of other contractors or utility company.
 2. Providing suitable storage facilities for materials subject to injury by exposure to weather, theft, breakage, or otherwise.
 3. Placing upon the work or any part thereof only loads consistent with the safety and integrity of that portion of the work.
 4. Frequently cleaning up refuse, rubbish, scrap materials, and debris caused by Contractor's operations so that, at all times, the site is safe and orderly, and workmanlike in appearance.
 5. Providing barricades and guard rails around the following: openings, for scaffolding, for temporary stairs and ramps, for elevated walkways, and other hazardous areas.
- C. Do not, except after written consent from proper parties, enter or occupy privately-owned land with personnel, tools, materials or equipment, except on lands and easements provided by the County.
- D. Contractor has full responsibility for preserving public and private property and facilities on and adjacent to the site. Direct or indirect damage done by, or on account of, any act, omission, neglect, or misconduct by Contractor in executing the work, shall be restored by Contractor, at his expense to condition equal to that existing before damage was done.

3.02 PROTECTION OF EXISTING STRUCTURES

A. Surface Structures

1. Surface structures are existing buildings, structures, and other facilities at or above ground surface, including their foundations or any extension below ground surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, exposed piping and utilities, poles, exposed wires, posts, signs, markers, curbs, walks, and other facilities visible at or above ground surface.
2. Existing surface facilities, including but not limited to guard rails, posts, guard cables, signs, poles, markers, and curbs that are temporarily removed to facilitate the work shall be replaced and restored to their original condition at Contractor's expense.

B. Protection of Surface Structures

1. Contractor shall sustain in their places and protect from direct or indirect injury all surface structures located within or adjacent to the limits of the work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure or facility. Before proceeding with the work of sustaining and supporting such structure or facility, Contractor shall satisfy the County that methods and procedures to be used have been approved by party owning same.
2. Contractor shall bear all risks attending the presence or proximity of all surface structures within or adjacent to limits of the work, in accordance with the Bid specifications. Contractor shall be responsible for damage and expense for direct or indirect injury caused by his work to structures and facilities. Contractor shall repair immediately damage caused by his work, to the satisfaction of owner of damaged structure or facility.

3.03 PROTECTION OF FLOORS AND ROOFS

A. Protection of Floors and Roofs – General

1. Protect floors and roofs until acceptance of the work.
2. Use proper protective covering when moving heavy equipment, handling materials or other loads, when painting, handling mortar or grout, and when cleaning walls and ceilings.
3. Use metal pans to collect oil and cuttings from pipe, conduit, and rod threading machines, and under metal cutting machines.
4. Do not load roofs without written permission of the County.

5. Restrict access to roofs, and keep Contractor personnel off existing roofs, except as required for the work.
6. If access to roofs is required, roofing, parapets, openings, and all other construction on or adjacent to roof shall be protected with suitable plywood or other acceptable means.

3.04 PROTECTION OF INSTALLED PRODUCTS

- A. Protect installed products to prevent damage from subsequent operations. Remove protection facilities when no longer needed prior to completion of work.
- B. Control traffic to prevent damage to equipment, materials, and surfaces.
- C. Coverings:
 1. Provide coverings to protect equipment and materials from damage.
 2. Cover projections, wall corners and jambs, sills, and soffits of openings, in areas used for traffic and for passage of products in subsequent work.

4.00 MISCELLANEOUS METAL FABRICATIONS

4.01 DESCRIPTION

- A. Scope
 1. Contractor shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish miscellaneous metal fabrications including surface preparation and shop priming.
 2. The work also includes:
 - a. Providing openings in miscellaneous metal fabrications to accommodate the Work under this and other Sections, and attaching to miscellaneous metal fabrications all items such as sleeves, bands, studs, fasteners, and all items required for which provision is not specifically included under other Sections.
 - b. Providing openings in and attachments to miscellaneous metal fabrications to accommodate the work under other contracts, and assisting other contractors in building on or attaching to miscellaneous metal fabrications items such as bands, fasteners, and studs, and providing all items required for which provision is not specifically included under other contracts.

B. Coordination

1. Review installation procedures under this and other Sections and coordinate the work to be installed with, or attached to miscellaneous metal fabrications work.
2. Notify other contractors in advance of installing miscellaneous metal fabrications work to provide other contractors with sufficient time for installing items included in their contracts that are to be installed in conjunction with or before miscellaneous metal fabrications work.
3. Hot-dip Galvanizing: Coordinate with steel fabricator detailing for and fabrication of assemblies to be hot-dip galvanized, to minimize distortion during galvanizing process.

C. Related Sections: 8.00 Painting.

4.02 REFERENCES

A. Standards referenced in this Section are:

1. ASTM A36/A36M, Specification for Carbon Structural Steel.
2. ASTM A53/A53M, Specification for Pipe Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
3. ASTM A123/A123M, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
4. ASTM A153/A153M, Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
5. ASTM A320/A320M, Specification for Alloy-Steel and Stainless Steel Bolting Materials for Low-Temperature Service.
6. ASTM A384/A384M-02 Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
7. ASTM A500, Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
8. ASTM A572/A572M, Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel.
9. ASTM A992/A992M, Specification for Structural Steel Shapes.
10. AWS D1.1/D1.1M, Structural Welding Code – Steel.

11. AWS D1.6, Structural Welding Code – Stainless Steel.
12. NAAMM, Metal Finishes Manual.

4.03 QUALITY ASSURANCE

A. Qualifications

1. Welding:

- a. Qualify welding processes and welding operators in accordance with AWS D1.1/D1.1M, D1.2/D1.2M, or D1.6, as applicable.
- b. When requested by OWNER, provide certification that each welder employed on or to be employed for the work have satisfactorily passed AWS qualification tests within previous 12 months. Ensure that all certifications are current.

- ##### **B. Regulatory Requirements: Conform to the following: 29 CFR 1910, Occupational Health and Safety Standards.**

4.04 ACTION SUBMITTALS

A. Shop Drawings

Fabrication and erection details for assemblies of miscellaneous metal work. Include plans, elevations, and details of sections and connections. Show anchorage and accessory items. Include setting drawings and templates for locating and installing miscellaneous metal items and anchorage devices.

B. Product Data

Copies of manufacturer's specifications, load tables, dimension diagrams, anchor details, and installation instructions for products to be used in miscellaneous metal work.

4.05 DELIVERY, STORAGE AND HANDLING

Packing, Shipping, Handling and Unloading: Deliver products to Site to ensure uninterrupted progress of the work.

4.06 PRODUCTS

A. Materials

1. Steel: Angles, Plates, Bars: ASTM A36/A36M.

2. Stainless Steel Fasteners and Fittings: ASTM A 320/A 320M, Type 304L or Type 316 Stainless Steel.
3. Zinc-coated Hardware: ASTM A153/A153M.

4.07 MISCELLANEOUS METAL ITEMS

A. Shop Assembly

Pre-assemble items in the shop to the greatest extent possible to minimize field-splicing and field-assembly of units at the site. Disassemble units only to extent necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.

B. Edge Slab Plates

1. Provide galvanized structural steel angles of sizes shown, for attachment to concrete or masonry construction. Provide holes to receive 5/8 inch bolts, spaced not more than six inches from ends and not more than 24 inches on centers, unless otherwise shown.
2. Provide concrete anchors with edge slab plates as manufactured by Hilti, Carbon Steel HLC Sleeve Anchors or County-approved equal.

C. Fasteners and Hardware

Provide Type 316 stainless steel fasteners for aluminum fabrications and zinc-coated hardware for galvanized fabrications, unless otherwise shown or specified.

4.08 FINISHING

A. Surface Preparation and Shop Priming

Perform surface preparation and apply primer coat to miscellaneous metal fabrications in the shop. Conform to surface preparation and shop priming requirements in Section 8.00 Painting.

B. Galvanizing

1. Galvanizing of fabricated steel items shall comply with ASTM A123/A123M.
2. Details of fabrication of steel items and assemblies to be hot-dip galvanized shall conform to recommendations of ASTM A384/A384M to minimize the potential for distortion.

4.09 EXECUTION

A. Examination

Examine conditions under which the work is to be performed and notify Owner in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions are corrected.

B. Installation

1. Install miscellaneous metal fabrications accurately in location, alignment, and elevation, plumb, level, true, and free of rack, measured from established lines and levels. Brace temporarily or anchor temporarily in formwork where fabrications are to be built other construction.

2. Anchor securely as shown and as required for the intended use, using concealed anchors where possible.

3. Fit exposed connections accurately together to form tight, hairline joints. Field-weld steel connections that are not to be exposed joints and cannot be shop-welded because of shipping size limitations. Comply with AWS D1.1/D1.1M, D1.2/D1.2M and D1.6, as applicable to the material being welded. Grind steel joints smooth and touch-up shop paint coat. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication, and are intended for bolted or screwed field connections.

4. Protection of Aluminum from Dissimilar Materials:

Coat surfaces of aluminum that will contact dissimilar materials such as concrete, masonry, and steel, in accordance with Section 8.00, Painting.

5.00 CAULKING AND SEALANTS

5.01 DESCRIPTION

A. Scope

1. Contractor shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to furnish and install caulking and sealants.

2. Extent of each type of caulking and sealant is shown or indicated and includes the following:

a. Interior and exterior joints in equipment and construction systems not filled by another material, and that are not required to be open for operation.

- b. Exposed-to-view joints of all fire-rated sealants.
- c. Joints specified to be recaulked.

B. Coordination

- 1. Review installation procedures under other Sections and coordinate installation of items to be installed with or before caulking and sealants.
- 2. Notify other contractors in advance of installation of caulking and sealants to provide other contractors with sufficient time for installing items included in their contracts to be installed before caulking and sealants.
- 3. Coordinate final selection of caulking and sealants so that materials are compatible with all caulking and sealant substrates specified.

C. Related Sections

- 1. Section 9.00, Metal Roof Accessories.
- 2. Section 6.00, Fixed Aluminum Windows.
- 3. Section 8.00, Painting.

5.02 REFERENCES

Standards referenced in this Section are:

- A. ASTM C510, Test Method for Staining and Color Change of Single- or Multicomponent Joint Sealants
- B. ASTM C661, Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer.
- C. ASTM C793, Test Method for Effects of Accelerated Weathering on Elastomeric Joint Sealants.
- D. ASTM C794, Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants.
- E. ASTM C920, Specification for Elastomeric Joint Sealants.
- F. ASTM C1021, Practice for Laboratories Engaged in Testing Building Sealants.
- G. ASTM C1087, Test method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing Systems.
- H. ASTM C1193, Guide for Use of Joint Sealants.

- I. ASTM C1247, Practice for Durability of Sealants Exposed to Continuous Immersion in Liquids.
- J. BAAQMD Regulation 8, Rule 51.
- K. FS TT-S-00227, Sealing Compound: Elastomeric Type, Multi-component (for Calking, Sealing, and Glazing in Buildings and Other Structures).
- L. FS TT-S-00230 Sealing Compound: Elastomeric Type, Single Component (for Calking, Sealing, and Glazing in Buildings and Other Structures).
- M. NSF/ANSI Standard 61, Drinking Water System Components - Health Effects.
- N. SCAQMD Rule 1168.

5.03 **QUALITY ASSURANCE**

A. Installer Qualifications

Engage a single installer, approved by product manufacturer, regularly engaged in caulking and sealant installation and with successful experience in applying types of products required, and who employs only tradesmen with specific skill and successful experience in the type of work required.

B. Component Supply and Compatibility

Before purchasing each sealant, investigate its compatibility with joint surfaces, joint fillers, and other materials in joint system. Provide products that are fully compatible with actual installation condition, verified by manufacturer's published data or certification, and as shown on approved Shop Drawings and other approved submittals.

5.04 **SUBMITTALS**

A. Action Submittals: Contractor shall submit the following.

1. Shop Drawings

Schedule of calking and sealants installation, indication each specific surface where caulking or sealants are to be provided and the material proposed for each application.

2. Product Data

Copies of manufacturer's data sheets including color charts, specifications, recommendations, and installation instructions for each type of sealant, caulking compound, and associated miscellaneous material required. Include manufacturer's published data, indicating that each product complies with the Bid specifications and is intended for the applications shown or indicated.

B. Closeout Submittals: Contractor shall submit the following.

1. Operation and Maintenance Data

- a. Recommended inspection intervals.
- b. Instructions for repairing and replacing failed sealant joints.

2. Warranty

Submit written warranties as specified in this Section.

5.05 DELIVERY, STORAGE AND HANDLING

Comply with the following:

A. Delivery of Products

- 1. Deliver products in calking and sealant manufacturer's original unopened, undamaged containers, indicating compliance with approved Shop Drawings and approved sample color selections.
- 2. Include the following information on label:
 - a. Name of material and supplier.
 - b. Formula or specification section number, lot number, color and date of manufacture.
 - c. Mixing instructions, shelf life, and curing time, when applicable.

B. Storage of Products

- 1. Do not store or expose materials to temperature above 90 degrees F or store in direct sunlight.
- 2. Do not use materials that are outdated as indicated by shelf life.
- 3. Store sealant tape in manner that will not deform tape.
- 4. In cool or cold weather, store containers for sixteen hours before using in temperature of approximately 75 degrees F.
- 5. When high temperatures prevail, store mixed sealants in a cool place.

C. Handling

Do not open containers or mix components until necessary preparatory work and priming are complete.

5.06 JOB CONDITIONS

Environmental Conditions

- A. Do not install caulking and sealants under adverse weather conditions, or when temperatures are below or above manufacturer's recommended limitations for installation.
- B. Proceed with the work when forecasted weather conditions are favorable for proper cure and development of high-early bond strength.
- C. Where joint width is affected by ambient temperature variations, install elastomeric sealants when temperatures are in the lower third of manufacturer's recommended installation temperature range, so that sealant will not be subjected to excessive elongation and bond stress at subsequent low temperatures.
- D. When high temperatures prevail, avoid mixing sealants in direct sunlight.
- E. Supplemental heat sources required to maintain both ambient and surface temperatures within the range recommended by manufacturer for material applications are not available at the site.
- F. Provide supplemental heat and energy sources, power, equipment, and operating, maintenance, and temperature monitoring personnel.
- G. Do not use heat sources that emit carbon dioxide or carbon monoxide into areas of caulking, sealants, and painting work, and areas where Owner's personnel or construction personnel may work. Properly locate and vent such heat sources to outdoors so that caulking and sealants and other work are unaffected by exhaust.

5.07 WARRANTY

Provide written warranty agreeing to repair or replace sealants that fail to perform as air-tight and watertight joints; or fail in joint adhesion, cohesion, abrasion resistance, weather resistance, extrusion resistance, migration resistance, stain resistance, or general durability; or appear to deteriorate in any other manner not clearly specified in approved Shop Drawings and other submittals, as an inherent quality of material for exposure indicated.

- A. Provide manufacturer warranty for period of two (2) years from date of Substantial Completion of caulking and sealants work.
- B. Provide installer warranty for period of two (2) years from date of Substantial Completion of caulking and sealants work.

5.08 **PRODUCTS**

System Performance

- A. Provide elastomeric joint sealants for interior and exterior joint applications that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.
- B. VOC Performance Criteria:
- VOC content of sealants used shall comply with current VOC content limits of SCAQMD Rule 1168. Sealants used as fillers shall comply with or exceed requirements of BAAQMD Regulation 8, Rule 51.
1. Sealants: 250 g/L.
 2. Sealant Primers for Nonporous Substrates: 250 g/L.
 2. Sealant Primers for Porous Substrates: 775 g/L.
- C. Provide colors selected by the County from caulking and sealant manufacturer's standard and custom color charts. "Or equal" manufacturers shall provide same generic products and colors as available from manufacturers specified.

5.09 **MATERIALS**

A. Exterior and Interior Vertical Joints; Non-submerged

Two-component Polyurethane Sealant:

1. Products and Manufacturers: Provide one of the following:
 - a. Sikaflex- 2c NS by Sika Corporation.
 - b. Dymeric 240 FC by Tremco Sealant/Waterproofing Division of RPM International, Inc.
 - c. Or County-approved equal.
2. Polyurethane based, two-component elastomeric sealant complying with:
 - a. FS TT-S-00227E: Type II (non-sag) Class A and ASTM C920, Type M, Grade NS, Class 25.
 - b. Adhesion-in-Peel, FS TT-S-00227E and ASTM C794: (Minimum five pounds per linear inch with no adhesion failure): 10 pounds.

- c. Hardness (Standard Conditions), ASTM C661: 25 to 35 (Shore A).
- d. Stain and color change, FS TT-S-00227E and ASTM C510: No discoloration or stain.
- e. Accelerated Aging, ASTM C793: No change in sealant characteristics after 250 hours in weatherometer.
- f. Rheological Vertical Displacement at 120 degrees F, FS TT-S-00227E: No sag.
- g. VOC Content: 100 g/L, maximum.

B. Exterior and Interior Horizontal Joints; Non-submerged

Two-component Polyurethane Sealant:

1. Products and Manufacturers: Provide one of the following:
 - a. Sikaflex- 2c SL by Sika Corporation.
 - b. THC/900 by Tremco Sealant/Waterproofing Division of RPM International, Inc.
 - c. Or County-approved equal.
2. Polyurethane based, two-component elastomeric, self-leveling sealant complying with the following:
 - a. FS TT-S-00227E, Type I (self-leveling) Class A. and ASTM C920, Type M, Grade P, Class 25.
 - b. Water Immersion Bond, FS TT-S-00227E: Elongation of 50 percent with no adhesive failure.
 - c. Hardness (Standard Conditions), ASTM C661: 35 to 45.
 - d. Stain and Color Change, FS TT-S-00227E and ASTM C510: No discoloration or stain.
 - e. Accelerated Aging, ASTM C793: No change in sealant characteristics after 250 hours in weatherometer.
 - f. VOC Content: 165 g/L, maximum.

6.00 FIXED ALUMINUM WINDOWS

This Section includes Fixed Aluminum Window work and glazing.

6.01 SYSTEM DESCRIPTION

- A. The windows shall be Aluminum Fixed Windows in accordance with ANSI/AAMA 101 Voluntary Specifications for Aluminum and Poly Prime Windows and Glass Doors and AAMA 910, Voluntary "Life Cycle" Specifications and Test Methods for Architectural Grade Windows, Sliding Glass Doors for a Class and Grade of F-HC100 and F-AW10.
- B. Performance Requirements
1. Air Infiltration: The test specimen shall be tested in accordance with ASTM E283 at a minimum window size of 6 feet x 6 feet for F-HC100 and 5 feet x 8 feet for F-AW100. The air infiltration rate shall not exceed 0.06 cfm/ft at a static air pressure differential of 6.24 psf.
 2. Water Resistance: The test specimen shall be tested in accordance with ASTM E547 and ASTM E331 at a minimum window size of 6 feet x 6 feet for F-HC100 and 5 feet x 8 feet for F-AW100. There shall be no leakage as defined in the test method at a static air pressure differential of 15 psf.
 3. Uniform Load Deflection: A minimum static air pressure difference of 100 psf shall be applied in the positive and negative direction in accordance with ASTM E330. There shall be no deflection in excess of L.175 of the span of any framing member.
 4. Uniform Load Structural Test: A minimum static air pressure difference of 150 psf shall be applied in the positive and negative direction in accordance with ASTM E330. The unit shall be evaluated after each load.
 5. Component Testing: Window components shall be tested in accordance with procedures described in ANSI/AAMA 101.
 6. Condensation Resistance Test: (CRF) when tested in accordance with AAMA 1503.1, the condensation resistance factor shall not be less than 54 (frame) and 62 (glass).
 7. Thermal Transmittance Test: (U-Value): When tested in accordance with AAMA 1503.1, the conductive thermal transmittance (U-Value) shall not be more than 0.46 BTU/hr/sf/°F, when glazed with 1-inch insulated ¼-inch clear low emissivity, ½-inch air, ¼-inch clear glass.

6.03 SUBMITTALS

- A. Product Data: For each type of aluminum window and glazing indicated.

- B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other Work, and operational clearances.

Include structural analysis data indicating structural test pressures and design pressures from basic wind speeds indicated and deflection limitations of glass framing systems, signed and sealed by the qualified professional engineer responsible for their preparation.

- C. Samples: For each exposed finish, including glazing tint.

6.04 QUALITY ASSURANCE

- A. Installer: A qualified installer, approved by manufacturer to install manufacturer's products.
- B. Fenestration Standard: Comply with AAMA/NWWDA 101/I.S.2/NAFS-02, "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors," for minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
- C. Glazing Publications: Comply with published recommendations of glass manufacturers and GANA's "Glazing Manual" unless more stringent requirements are indicated.

6.05 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace aluminum windows that fail in materials and workmanship within two (2) years from date of Substantial Completion.
- B. Warranty Period for Metal Finishes: Five (5) years from date of Substantial Completion.
- C. Warranty Period for Glass: Five (5) years from date of Substantial Completion.

6.06 PRODUCTS

- A. Manufacturers

Basis-of-Design Product (Exterior window types A,B,C,D,E): The design for aluminum-framed systems is based on EFCO Corp., Series 2700, Fixed Windows. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:

1. Kawneer Company, Inc.
2. Acorn Window Systems
3. All Seasons Commercial Division, Inc.
4. Universal Aluminum, Inc.
5. Or County-approved equal.

B. Available Manufacturers: Subject to compliance with requirements, products that may be incorporated into the work include, but are not limited to, the manufacturers specified.

1. EFCO Corp.
2. Kawneer Company, Inc.
3. Acorn Window Systems
4. All Seasons Commercial Division, Inc.
5. Universal Aluminum, Inc.
6. Or County-approved equal.

C. Product/System Testing

ANSI/AAMA: Comply with ANSI/AAMA 101 for minimum product performance criteria.

6.07 **MATERIALS**

A. Aluminum for Windows and Components.

1. Extruded aluminum profiles shall be 6063-T6 alloy and temper (ASTM B221 G.S. 10A-T6).
2. The frame and ventilator depth shall be not less than 2–1.4".
3. All frame and ventilator members shall have minimum wall thickness of 0.125-inch and shall provide the structural strength sufficient to meet the specified performance requirements.
4. All glass pockets shall be wept to provide positive drainage.

B. Mullions and Cover Plates: Shall be extruded aluminum of 6063-T6 alloy and temper of profile and dimensions indicated on drawings. Mullions shall provide structural properties to resist wind pressure required by performance criteria and standards.

C. Thermal Barrier.

Provide a thermal barrier consisting of a two-part, chemically curing high density polyurethane which is mechanically and adhesively bonded to the aluminum.

6.08 **ACCESSORIES**

A. Fasteners: Fasteners: Aluminum, nonmagnetic stainless steel, epoxy adhesive, or other materials warranted by manufacturer to be noncorrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.

1. Reinforcement: Where fasteners screw-anchor into aluminum less than 0.125 inch thick, reinforce interior with aluminum or nonmagnetic stainless steel to receive screw threads, or provide standard, noncorrosive, pressed-in, splined grommet nuts.

2. Exposed Fasteners: Unless unavoidable for applying hardware, do not use exposed fasteners. For application of hardware, use fasteners that match finish of member or hardware being fastened, as appropriate.
- B. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- C. Compression-Type Weather Stripping: Provide compressible weather stripping designed for permanently resilient sealing under bumper or wiper action, and completely concealed when aluminum window is closed.

Weather-Stripping Material: Manufacturer's standard system and materials complying with AAMA/NWWDA 101/I.S.2.
- D. Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, nonshrinking, and nonmigrating type recommended by sealant manufacturer for joint size and movement.

6.09 GLASS AND GLAZING

- A. General: Glass thickness and type shall be in accordance with manufacturer's recommendations for prescribed design pressure. Factory glazing shall be in accordance with manufacturer's standard requirements.
 1. Glazing materials shall be compatible with aluminum and those sealants and sealing materials used in composite structure which have direct contact with the gasket.
 2. Glazing shall conform to ASTM C 1036-90.
 3. Use sealant manufacturer's standard test methods to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.

Submit sealant compatibility and adhesion test reports.
 4. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated. Refer to these publications for glazing terms not otherwise defined in this Section or in referenced standards.

IGMA Publication for Insulating Glass: SIGMA TM-3000, "Glazing Guidelines for Sealed Insulating Glass Units".

5. Insulating-Glass Certification Program: Permanently marked either on spacers or on at least one component lite of units with appropriate certification label of the Insulating Glass Certification Council.

B. Glass Materials

Exterior Units

1. 1-inch Insulating Glass: ASTM E 774.
 - a. Provide Kind HS (heat strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites.
 - b. ¼-inch lites.
 - c. Glazing shall be tinted to match the existing glazing of bronze tint exterior light and clear interior light.
2. Sealing System: Dual Seal with manufacturer's standard primary and secondary sealants.
3. Spacer: Manufacturer's standard.
4. Corner Construction: Manufacturer's standard.
5. Interspace Content: Air.

C. Glazing Sealants

General: Provide products of type indicated, complying with the following requirements:

1. Compatibility: Select glazing sealants that are compatible with one another and with other materials they will contact, including glass products, seals of insulating-glass units, and glazing channel substrates, under conditions of service and application, as demonstrated by sealant manufacturer based on testing and field experience.
2. Suitability: Comply with sealant and glass manufacturers' written instructions for selecting glazing sealants suitable for applications indicated and for conditions existing at time of installation.
3. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.
4. Elastomeric Glazing Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those

referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

D. Glazing Tapes

Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based elastomeric tape with a solids content of 100 percent; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers for application indicated; packaged on rolls with a release paper backing; and complying with ASTM C 1281 and AAMA 800 for products indicated below:

1. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
2. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

E. Expanded Cellular Glazing Tapes: Closed-cell, PVC foam tapes; factory coated with adhesive on both surfaces; packaged on rolls with release liner protecting adhesive; and complying with AAMA 800 for the following types:

1. Type 1, for glazing applications in which tape acts as the primary sealant.
2. Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

F. Miscellaneous Glazing Materials

1. General: Provide products of material, size, and shape complying with referenced glazing standard, requirements of manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.
2. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.
3. Setting Blocks: Elastomeric material with a Shore, Type A durometer hardness of 85, plus or minus 5.
4. Spacers: Elastomeric blocks or continuous extrusions with a Shore, Type A durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
5. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).

G. Warranty

1. Insulating Glass:

- a. Deterioration: Failure of hermetic seal resulting in obstruction of vision by dust, moisture, or film on interior surfaces of glass.
- b. Warranty Period: Five (5) years from date of Substantial Completion.

2. Coated Glass:

- a. Defects: Peeling, cracking, and other indications of degradation of metallic coating.
- b. Warranty Period: Five (5) years from the date of Substantial Completion.

6.10 FABRICATION

- A. General: Fabricate aluminum windows, in sizes indicated, that comply with requirements and that meet or exceed AAMA/NWWDA 101/I.S.2 performance requirements for the following window type and performance class. Include a complete system for assembling components and anchoring windows.
- B. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator.
- C. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.
- D. Provide water-shed members above side-hinged ventilators and similar lines of natural water penetration.
- E. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.
- F. Subframes: Provide subframes with anchors for window units as shown, of profile and dimensions indicated but not less than 0.062-inch- thick extruded aluminum. Miter or cope corners, and weld and dress smooth with concealed mechanical joint fasteners. Finish to match window units. Provide subframes capable of withstanding design loads of window units.
- G. Glazing Stops: Provide snap-on glazing stops coordinated with Division 8 Section "Glazing" and glazing system indicated. Provide glazing stops to match sash and ventilator frames.

6.11 FINISHES

Baked-Enamel Finish: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603, medium gloss.

Color: EFCO, Hartford green, contractor shall verify color match prior to ordering.

6.12 INSTALLATION

- A. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- B. Set sill members in bed of sealant or with gaskets, as indicated, for weathertight construction.
- C. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.
- D. Metal Protection: Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.
- E. Adjust operating sashes and ventilators, screens, and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure. Lubricate hardware and moving parts.
- F. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.
- G. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- H. Clean factory-glazed glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels and clean surfaces.
- I. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

6.13 CLEANING

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with

manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

- B. Protection: Protect installed product's finish surfaces from damage during construction. Protect aluminum windows from damage from grinding and polishing compounds, plaster, lime, acid, cement, or other harmful contaminants. Remove and replace damaged aluminum windows at no extra cost.

7.00 FINISH HARDWARE

Drawings and general provisions of Contract apply to work of this section.

7.01 DESCRIPTION OF WORK

- A. Definition: "Finish Hardware" includes items known commercially as finish hardware which are required for swing, sliding and folding doors, except special types of unique and non-matching hardware specified in the same section as the door and door frame.
- B. Extent of finish hardware required is indicated on drawings and in schedules.
- C. Types of finish hardware required include, but are not limited to, the following:
 - 1. Continuous Hinges.
 - 2. Lock cylinders and keys.
 - 3. Lock and latch sets.
 - 4. Closers.

7.02 QUALITY ASSURANCE

- A. Manufacturer: Obtain each type of hardware (i.e., lock sets) from a single manufacturer, although several may be indicated as offering products complying with requirements.
- B. Supplier: A recognized architectural finish hardware supplier, with warehousing facilities, who has been furnishing hardware in the project's vicinity for a period of not less than 2 years, and who is, or who employs an experienced architectural hardware consultant who is available, at reasonable times during the course of the work, for consultation about project's hardware requirements, to Owner, Architect and Contractor. Supplier is responsible for proper coordination of all finished hardware with related sections to insure compatibility of products.
- C. Thru bolt all door closers and exit devices installed on wood doors.
- D. Unless otherwise specified, provide lever handle locksets.
- E. Provide and install tactile levers at the corridor side of lever sets for all mechanical and storage rooms in accordance with ANSI/ADA.

7.03 **SUBMITTALS**

- A. **Product Data**: Submit manufacturer's technical product data for each item of hardware. Include whatever information may be necessary to show compliance with requirements, and include instructions for installation and for maintenance of operating parts and finish.
- B. **Hardware Schedule**: Submit final hardware schedule in manner indicated below. Coordinate hardware with doors, frames and related work to ensure proper size, thickness, hand, function and finish of hardware.

Final Hardware Schedule Content: Based on finish hardware indicated, organize hardware schedule into "hardware sets" indicating complete designations of every item required for each door or opening. Include the following information:

1. Type, style, function, size and finish of each hardware item.
2. Name and manufacturer of each item.
3. Fastenings and other pertinent information.
4. Location of hardware set cross-referenced to indications on drawings both on floor plans and in door and frame schedule.
5. Explanation of all abbreviations, symbols, codes, etc., contained in schedule.
6. Mounting locations for hardware.
7. Keying information.

7.04 **PRODUCT HANDLING**

- A. Tag each item or package separately, with identification related to final hardware schedule, and include basic installation instructions with each item or package.
- B. Inventory hardware jointly with representatives of hardware supplier and hardware installer until each is satisfied that count is correct.
- C. Deliver individually packaged hardware items at the proper times to the proper locations (shop or project site) for installation.
- D. Provide secure lock-up for hardware delivered to the project, but not yet installed. Control handling and installation of hardware items which are not immediately replaceable, so that completion of the work will not be delayed by hardware losses, both before and after installation.

7.05 **PRODUCTS**

- A. **Scheduled Hardware**

Requirements for design, grade, function, finish, size and other distinctive qualities of each type of finish hardware is indicated in the Finish Hardware Data Sheet and Hardware Schedule at the end of this section. Products are identified by using hardware designation numbers of the following:

- | | | |
|----|-------------------------|---------------------|
| 1. | Continuous Hinges: | Select Products |
| 2. | Locksets: | Best |
| 3. | Stops: | Ives |
| 4. | Closers: | LCN |
| 5. | Flush Bolts: | Ives |
| 6. | Automatic Flush Bolts: | Ives |
| 7. | Miscellaneous Hardware: | Ives, Glynn-Johnson |

7.06 **MATERIALS AND FABRICATION**

A. General

1. Hand of door: Drawings show direction of slide, swing or hand of each door leaf. Furnish each item of hardware for proper installation and operation of door movement as shown.
2. Manufacturer's Name Plate: Do not use manufacturer's products which have manufacturer's name or trade name displayed in a visible location (omit removable nameplates), except in conjunction with required UL labels and as otherwise acceptable to Architect.
3. Manufacturer's identification will be permitted on rim of lock cylinders only.
4. Finishes: US26D/626
5. Lockset Design: Lever handle design shall be similar to 14H for mortise locks as manufactured by Best Access Systems.
6. Fasteners: Provide hardware manufactured to conform to published templates, generally prepared for machine screw installation. Do not provide hardware which has been prepared for self-tapping sheet metal screws, except as specifically indicated.
7. Furnish screws for installation, with each hardware item. Provide phillips flat-head screws except as otherwise indicated. Finish exposed (exposed under any condition) screws to match hardware finish or, if exposed in surfaces of other work, to match finish of such other work as closely as possible, including "prepared for paint" in surfaces to receive painted finish.
8. Provide concealed fasteners for hardware units which are exposed when door is closed, except to extent no standard units of type specified are available with concealed fasteners. Do not use thru-bolts for installation where bolt head or nut on opposite face is exposed in other work, except where it is not feasible to adequately reinforce the work. In such cases, provide sleeves for each thru-bolt or use sex screw fasteners.

9. Tools and Maintenance Instructions for Maintenance: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of finish hardware.

7.07 CONTINUOUS HINGES

- A. Hinge shall be a pinless assembly of three interlocking extrusions applied to the full height of the door and frame without mortising. The door leaf and jamb leaf shall be geared together for the entire length of the hinge and joined by a channel. Hinge knuckle shall be monolithic in appearance. Continuous hinge with visible knuckle separations are not acceptable. Vertical door loads shall be carried on minimum 3/4" acetal bearings through a full 180 degrees. Screw hole locations on door leaf and jamb leaf to be templated. All heavy duty hinges (HD) shall have a minimum of 32 bearings over a 7 foot length.
- B. Acceptable Manufacturers:
 1. Select Products Ltd.
 - a. SL-24HD-FR
 - b. SL-26HD
 2. Roton
 - a. 780-224HD x FR

7.08 LOCK CYLINDERS AND KEYING

- A. General: Supplier will meet with the County to finalize keying requirements and obtain final instructions in writing.
- B. Review the keying system with the Owner and provide the type required (master, grandmaster or great-grandmaster), either new or integrated with Owner's existing system.
- C. Equip locks with Best or Best compatible cylinders for interchangeable-core pin tumbler inserts to continue existing key system.
- D. Furnish only temporary inserts for the construction period, and remove these when directed.
- E. Equip locks with cylinders that comply with performance requirements for Grade 1 cylinders as listed in ANSI A156, and are UL-listed.
- F. Acceptable Manufacturers:
 1. Best Access Systems: 35H x 14H
 2. Falcon Lock: M Series x QG
- G. Metals: Construct lock cylinder parts from brass/bronze, stainless steel or nickel silver.

- H. Comply with the County's instructions for masterkeying and, except as otherwise indicated, provide individual change key for each lock which is not designated to be keyed alike with a group of related locks.
- I. Permanently inscribe each key with number or lock that identifies cylinder manufacturer key symbol, and notation "DO NOT DUPLICATE".
- J. Key Material: Provide keys of nickel silver only.
- K. Key Quantity: Furnish 3 change keys for each lock; 5 master keys for each master system; and 5 grandmaster keys for each grandmaster system.
- L. Furnish one extra blank for each lock.

7.09 LOCKS, LATCHES AND BOLTS

- A. Strikes: Provide manufacturer's standard wrought box strike for each latch or lock bolt, with curved lip extended to protect frame, finished to match hardware set.
- B. Provide dust-proof strikes for foot bolts, except where special threshold construction provides non-recessed strike for bolt.
- C. Provide roller type strikes where recommended by manufacturer of the latch and lock units.
- D. Lock Throw: Provide 3/4" minimum throw of latch and deadbolt used on pairs of doors. Comply with UL requirements for throw of bolts and latch bolts on rated fire openings.
- E. Provide 3/4" minimum throw on other latchbolts.
- F. Flush Bolt Heads: Minimum of 1/2" diameter rods of brass, bronze or stainless steel, with minimum 12" long rod for doors up to 7'-0" in height. Provide longer rods as necessary for doors exceeding 7'-0" in height.
- G. Rabbeted Doors: Where rabbeted door stiles are indicated, provide special rabbeted front on lock and latch units and bolts.

7.10 PUSH/PULL UNITS

Exposed Fasteners: Provide manufacturer's standard exposed fasteners for installation; through-bolted for matched pairs, but not for single units.

7.11 CLOSERS AND DOOR CONTROL DEVICES

- A. Size of Units: Except as otherwise specifically indicated, comply with the manufacturer's recommendations for size of door control unit, depending upon size of door, exposure to weather and anticipated frequency of use.

- B. Closers: All door closers shall be of one manufacturer to provide for proper installation and servicing after installation. All closers shall be inspected after installation by a factory representative to ensure proper adjustment and operation. A report shall be filed with the architect after said visit has been made. Closer shall carry a manufacturer's five (5) year warranty for hydraulic units and 2 year warranty for electrical and/or handicap power assist door closers against manufacturing defects and workmanship.
- C. Parallel Arm Closers: Shall incorporate one piece solid forged steel arms with bronze bushings. 1-9/16" x 1/2" steel stud shoulder bolts, shall be incorporated in regular arms, hold open arms, arms with stop built in, arms with hold open and stop built in. All other closers to have forged steel main arms for strength, and durability.
- D. Built-In Stops: Where closers with built-in positive stops are used, the stops shall be of one piece cast malleable iron material. Where required, the hold-open assembly handle for these stops shall rotate on ball bearings.
- E. Non-sized: All exterior closers shall be non-sized to provide a full range of Size 1 to 5 closing power.
- F. Hydraulic Fluid: All closers, with the exception of interior electronic closers, shall utilize temperature stable fluid capable of withstanding temperature ranges of 120°F. to -30°F. without requiring seasonal adjustment of closer speed to properly close the door.
- G. All closers have powder coat finish on closer body, arm, cover and adapter plate. If powder coat finish is not available, pretreat closer body, arm, cover and adapter plate with special rust inhibiting coating before painted finish is applied.
- H. All closers shall have metal covers
- I. Provide all drop plates, shoe supports, etc. to properly mount closers according to manufacturer's recommendations.
- J. Acceptable Manufacturers and Types:
1. LCN
 - a. 4111 CNS
 - b. 4111 SCNS
 2. Norton
 - a. PR7560 x OH Stop
 - b. PR7560 x OH Stop
 3. Yale
 - a. SAP4400 x OH Stop
 - b. SAP4400 x OH Stop

7.12 HARDWARE SCHEDULE

DOOR NUMBER: 100-4

HW SET: 01

| | | | | | |
|---|----|------------------|-----------|-----|-----|
| 1 | EA | CONTINUOUS HINGE | SL-26HD | 628 | SEL |
| 1 | EA | CLASSROOM LOCK | 35H-7J | 626 | BES |
| 1 | EA | SURFACE CLOSER | 4111 SCNS | 689 | LCN |

DOOR NUMBER: 101-1

HW SET: 02

| | | | | | |
|---|----|------------------|-----------|-----|-----|
| 1 | EA | CONTINUOUS HINGE | SL-26HD | 628 | SEL |
| 1 | EA | CLASSROOM LOCK | 35H-7J | 626 | BES |
| 1 | EA | SURFACE CLOSER | 4111 SCNS | 689 | LCN |

7.13 INSTALLATION

- A. Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect.
- B. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work. Do not install surface-mounted items until finishes have been completed on the substrate.
- C. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- D. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

7.14 ADJUST AND CLEAN

- A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in

such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

- D. Instruct the County's Personnel in proper adjustment and maintenance of hardware and hardware finishes, during the final adjustment of hardware.

8.00 PAINTING

8.01 DESCRIPTION

A. Scope:

1. Contractor shall provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to furnish and apply paint systems.
 - a. Contractor is responsible for surface preparation and painting of all new and existing interior and exterior items and surfaces of the project areas included under this Section.
2. Extent of painting includes the work specified below. Painting shown in schedules may not provide Contractor with complete indication of all painting work. Refer to 8.09, B. Painting Systems, where all surfaces of generic types specified are specified for preparation and painting according to their status, intended function, and location, using the painting system for that surface, function, and location as specified, unless specifically identified on the Drawings as a surface not to receive specified painting system.
 - a. Surface preparation and painting of specifically identified existing surfaces, both interior and exterior are included in the work.
 - b. Removal of all substances, top coats, primers and all intermediate coats of paint and other protective or decorative coatings on those items and surfaces to remain that are identified to receive a painting system under this Section, to provide surfaces acceptable for application of painting specified.
 - c. Approved stepped-down mock-ups for all painting systems showing all components of the surface preparation and paint system application before start of work. Check all dry film thicknesses; demonstrate methods of surface preparation, and methods of application, and obtain Owner's approval of colors and sheen to be used in the work.

B. Coordination:

1. Notify other contractors in advance of the surface preparation and painting work included in this Section to provide them sufficient time for installation, removal,

demolition and coordination of interrelated items that are included in their contracts and that must be installed, removed or demolished in coordination with the painting work.

2. Coordinate painting of areas that will become inaccessible once equipment, laboratory furniture, lockers and similar fixed items have been installed.
3. Coordinate primers with finish paint materials to provide primers that are compatible with finish paint materials. Review other Sections and other contracts where primed surfaces are provided, to ensure compatibility of total painting system for each surface. Contractor is responsible for coordinating compatibility of all shop primed and field painted items in other Sections and in general contract and other contracts.
4. Furnish information to the County on characteristics of finish materials proposed for use and ensure compatibility with prime coats used. Provide barrier coats over incompatible primers or remove and repaint as required. Notify Owner in writing of anticipated problems using specified painting systems with surfaces primed by others. Reprime equipment primed in factory and other factory-primed items that are damaged or scratched.

C. Related Sections:

Section 5.00, Caulking and Sealants.

D. Work Not Included: The following work is not included as painting work, or are included under other Sections or in other contracts:

Existing structures, equipment, and other existing surfaces and items unless otherwise shown or specified.

E. Color Selection:

1. A maximum of (2) different colors will be selected by Owner.
2. Owner reserves the right to select non-standard colors for paint systems specified within ability of paint manufacturer to produce such non-standard colors. Provide such colors at no additional expense to Owner.

8.02 REFERENCES

A. Referenced Standards: Standards referenced in this Section are:

1. ASTM D16, Terminology for Paint, Related Coatings, Materials and Applications.
2. ASTM D2200, Pictorial Surface Preparation Standards for Painting Steel Surfaces.

3. ASTM D4417, Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel.
4. ASTM D4541, Test Methods for Pull-Off Strength of Coatings Using Portable Adhesion-Testers.
5. ASTM E329, Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
6. Green Seal, Inc. Paint, (GS-11).
7. Ozone Transport Commission, (OTC), OTC Model Rule for Architectural and Industrial Maintenance Coatings.
8. SSPC PA 2, Measurement of Dry Coating Thickness with Magnetic Gages.
9. SSPC SP 3, Power Tool Cleaning.
10. SSPC SP 6, Commercial Blast Cleaning.
11. SSPC SP 11, Power Tool Cleaning To Bare Metal.
12. SSPC VIS 1, Visual Standard for Abrasive Blast Cleaned Steel.
13. SSPC VIS 2, Method of Evaluating Degree of Rusting/Painted Steel Surfaces.
14. SSPC Volume 2, Systems and Specifications.
15. U.S. Green Building Council, "LEED Reference Guide," Version 2.2, Credit 4.2.

8.03 **DEFINITIONS**

- A. Standard coating terms defined in ASTM D16 apply to this Section, including:
 1. Paint: Pretreatment and all painting system materials, such as primer, emulsion, enamel, organic/inorganic polymer coating, stain sealer and filler, and other applied materials whether used as prime, filler, intermediate, or finish coats.
 2. Exposed: All items not covered with cement plaster, concrete, or fireproofing. Items covered with these materials shall be provided with specified primer only, except where specified as a surface not to be painted. Exposed-to-view surfaces include areas visible after permanent or built-in fixtures, convactor covers, ceiling tile, covers for finned tube radiation, grilles, and similar covering products are in areas scheduled to be painted.
 3. LEED Compliant: As defined by the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED), means interior field-applied coatings that

shall have a maximum volatile organic compound (VOC) and chemical content as listed in Green Seal, Inc. Paints (GS-11).

4. Low VOC: All interior and exterior field-applied coatings that have maximum VOC content as listed in OTC Model Rule for Architectural and Industrial Maintenance Coatings.
5. OTC: Ozone Transport Commission, which recommends standard VOC content levels in several Northeastern and Mid-Atlantic states.

8.04 QUALITY ASSURANCE

A. Applicator Qualifications:

1. Engage a single applicator that regularly performs installation of paint materials, with documented skill and successful experience in installing types of products required and that agrees to employ only trained, skilled tradesmen who have successful experience in installing types of products specified.
2. Submit name and qualifications to the County along with following information for at least three successful, completed projects:
 - a. Names and telephone numbers of owner and design professional responsible for project.
 - b. Approximate contract cost of paint products.
 - c. Amount of area painted.
3. Submit to the County proof of acceptability of applicator by manufacturer.

B. Source Quality Control:

1. Obtain materials from manufacturers that will provide services of a qualified manufacturer's representative at Site at commencement of painting work, to advise on products, mock-ups, installation, and finishing techniques and, at completion of work, to advise the County on acceptability of completed work and during the course of the work as may be requested by the County.
2. Certify long-term compatibility of all coatings with surfaces.
3. Do not submit products that decrease number of coats, surface preparation, or generic type and formulation of coatings specified. Products exceeding VOC limits and chemical content specified will not be approved.
4. Owner may review manufacturers' recommendations concerning methods of installation and number of coats of paint for each painting system. Contractor shall prepare construction costs based on painting systems, number of coats, coverage's and installation methods specified.

5. Submit "or equal" products, when proposed, with direct comparison to products specified, including information on durability, adhesion, color and gloss retention, percent solids, VOC's grams per liter, and recoatability after curing.
6. Color Pigments: Provide pure, non-fading, applicable types to suit surfaces and services to be painted. Comply with:

Lead and Chromate: Lead and chromate content shall not exceed amount permitted by authorities having jurisdiction.
7. Obtain each product from one manufacturer. Multiple manufacturing sources for the same system component are unacceptable.
8. Certify product shelf life history for each product source for materials manufactured by the same manufacturer, but purchased and stored at different locations or obtained from different sources.
9. Constantly store materials to be used for painting work between 60 degrees F and 90 degrees F, and per paint manufacturer's written recommendations, for not more than six months. Certify to the County that painting materials have been manufactured within six months of installation and have not, nor will be, subjected to freezing temperatures.

C. Regulatory Requirements:

1. Comply with VOC content limits of OTC Model Rule for Architectural and Industrial Maintenance Coatings:
 - a. Industrial Maintenance Coatings: 340 grams per liter.
 - b. Interior and Exterior Non-Flat Coatings: 250 grams per liter.
2. Comply with the following:
 - a. 29 CFR 1910.144, Safety Color Code for Marking Physical Hazards.
 - b. 40 CFR, Subpart D-2001, National Volatile Organic Compound Emission Standards for Architectural Coatings.
 - c. Resource Conservation and Recovery Act of 1976 (RCRA).
 - d. SW-846, Toxic Characteristic Leaching Procedure (TCLP).
3. Comply with authorities having jurisdiction for proper disposal of spent abrasive and debris.

D. Stepped-down Mock-ups:

1. Demonstrate installation of specified painting systems on actual wall surfaces and building components at locations selected by the County.

2. The County may approve or disapprove each component of each painting system on an individual component basis.
3. Painting work that does not meet standard approved on sample areas shall be removed and replaced.

E. Pre-painting Conference:

1. Prior to installing painting systems, arrange a meeting at site with painting applicator and its foreman, paint manufacturer's technical representative, installers of other work in and around painting that must follow painting work, County and other representatives directly concerned with performance of painting. Review foreseeable methods and procedures relating to painting work including:
 - a. Review project requirements including bid specifications, approved shop drawings, requests for information submitted by Contractor to the County and other pertinent documents.
 - b. Review required samples and submittals, both completed and to be completed.
 - c. Review status of surfaces including drying, surface preparations, and similar considerations.
 - d. Review availability of materials, tradesmen, equipment, and facilities required for progress, to avoid delays, and to protect work from damage.
 - f. Review weather and forecasted weather conditions, and procedures for coping with unfavorable conditions. Supplemental heating sources required to for working in low-temperature conditions, shall be operating and acceptable to paint applicator and the County.
 - g. Review methods for complying with regulations of authorities having jurisdiction at site, such as compliance with environmental protection, health, safety, fire, and similar regulations.
 - h. Review laws and procedures covering removal and disposal of blast debris and dispose of properly.
2. Reconvene meeting at earliest opportunity if additional information must be developed to conclude the required topics of the meeting.

8.05 SUBMITTALS

A. Action Submittals: Submit the following:

1. Product Data:

- a. Copies of manufacturer's technical information and test performance data, including paint analysis, VOC and chemical component content in comparison to maximum allowed by the bid specifications, and application instructions for each product proposed for use.
- b. Submit proof of acceptability of proposed application techniques by paint manufacturer selected.
- c. Copies of Contractor's proposed protection procedures in each area of the Work explaining methods of protecting adjacent surfaces from splatter, for confining application procedures in a manner that allows other work adjacent to surface preparation and painting work to proceed safely and without interruption, and for maintaining acceptable application, curing, and environmental conditions during and after painting systems application.
- d. List each material and cross-reference to the specific painting system and application, including a list of site-specific surfaces to which painting system will be applied. Identify by manufacturer's catalog number and general classification. State number of gallons of each product being purchased for delivery to Site and square foot area calculated to be covered by each painting system specified based on theoretical loss of 20 percent. Where actual area to be covered by paint system exceeds area submitted to the County for that system, proof of additional material purchase shall be provided to the County. Calculated coverage shall be as specified for each component of each painting system specified. This requirement does not take precedence over Contractor's responsibility to provide dry film thickness required for each component of each painting system.
- e. Identify maximum exposure times allowable for each paint system component before next coat of paint can be applied. Submit proposed methods for preparing surfaces for subsequent coats if maximum exposure times are exceeded.
- f. Information on curing times and environmental conditions that affect curing time of each paint system component and proposed methods for accommodating variations in curing time. Identify this information for each painting system in the work.
- g. Specification for spray equipment with cross-reference to paint manufacturer's recommended equipment requirements.

B. Informational Submittals: Submit the following:

1. Certificates:

- a. Certificate from paint manufacturer stating that materials meet or exceed bid specifications requirements.
- b. Evidence of shelf life history for all products verifying compliance with the requirements of the Bid specifications.
- c. Contractor shall provide statement verifying that all painting systems are compatible with surfaces specified. All painting systems components shall be reviewed by an authorized technical representative of paint manufacturer for use as a compatible system. Verify that all painting systems are acceptable for exposures specified and that paint manufacturer is in agreement that selected systems are proper, compatible, and are not in conflict with paint manufacturer's recommended specifications. Show by copy of transmittal form that a copy of letter has been transmitted to paint applicator.

2. Test Reports:

- a. Adhesion testing plan and procedures.
- b. Results of adhesion testing on existing surfaces containing paints or other coatings to be topcoated with paint systems specified. Prior to adhesion testing, submit a testing plan establishing methods, procedures and number of tests in each area where existing coatings are to remain and become substrate for painting work. Based on results of adhesion testing, recommend methods, procedures, and painting system modifications, if necessary, for proceeding with work.
- c. Proposed methods for testing, handling, and disposal of waste generated during work.
- d. Results of tests of film thickness, holidays, and imperfections.

3. Special Procedure Submittals:

- a. Proposed protection procedures for each area of work, explaining methods of protecting adjacent surfaces from splatter, for confining application procedures in a manner that allows other work adjacent to surface preparation and painting work to proceed safely and without interruption.
- b. Site-specific health and safety plan.

- c. Procedures for maintaining acceptable application, curing and environmental conditions during and after painting systems application.
- d. Procedures for providing adequate lighting, ventilation, and personal protection equipment relative to painting work.

C. Closeout Submittals: Submit the following.

- 1. Maintenance Manual: Upon completion of the painting work, furnish Owner five copies of detailed maintenance manual including the following information:
 - a. Complete and updated product catalog of paint manufacturer's currently available products including complete technical information on each product. Identify product names and numbers of each product used in the painting work.
 - b. Name, address, e-mail address and telephone number of manufacturer, local distributor, applicator and technical representative.
 - c. Detailed procedures for routine maintenance and cleaning.
 - d. Detailed procedures for light repairs such as dents, scratches and staining.
- 2. Statement of Application: Upon completion of the painting work, submit a statement to the County signed by Contractor and painting applicator stating that work complies with requirements of the bid specifications and that application methods, equipment, and environmental conditions were proper and adequate for conditions of installation and use.

8.06 DELIVERY, STORAGE, AND HANDLING

- A. Product Delivery Requirements: Deliver products to Site in original, new, and unopened packages and containers, accurately and legibly and accurately labeled with the following:
- 1. Container contents, including name and generic description of product.
 - 2. Manufacturer's stock number and date of manufacture.
 - 3. Manufacturer's name.
 - 4. Contents by volume, for major pigment and vehicle constituents.
 - 5. Grams per liter of volatile organic compounds.
 - 6. Thinning instructions, where recommended.
 - 7. Application instructions.

8. Color name and number.

B. Product Storage Requirements:

1. Store acceptable materials at site.
2. Store in an environmentally controlled location as recommended in paint manufacturer's written product information. Keep area clean and accessible. Prevent freezing of products.
3. Store products that are not in actual use in tightly covered containers.
4. Comply with health and fire regulations of authorities having jurisdiction at site.

C. Product Handling Requirements:

1. Handle products in a manner that minimizes the potential for contamination, or incorrect product catalyzation.
2. Do not open containers or mix components until necessary preparatory work has been completed and approved by the County and painting work will start immediately.
3. Maintain containers used in storing, mixing, and applying paint in a clean condition, free of foreign materials and residue.

8.07 SITE CONDITIONS

A. Site Facilities:

1. Supplemental heat sources, as required to maintain both ambient and surface temperatures within range recommended by paint manufacturer for paint system application, are not available at site.
2. Provision of supplemental heat energy sources, power, equipment, and operating, maintenance and temperature monitoring personnel is responsibility of Contractor.
3. Do not use heat sources that emit carbon dioxide or carbon monoxide into areas being painted. Properly locate and vent such heat sources to exterior such that paint systems are unaffected by exhaust.

B. Existing Conditions:

1. Existing surfaces to receive painting work shall be surface-prepared to meet requirements of painting systems specified. Prior to commencing painting work, perform adhesion tests on existing surfaces to be painted. Perform testing per

ASTM D4541 or other method acceptable to the County. Number and location of tests shall be sufficient to determine condition of existing coatings and suitability of existing coatings to remain to provide acceptable substrate for new coatings. Submit testing plan prior to testing and provide the County a copy of adhesion test results.

2. Provide abrasive blasting, scraping, or other abrading or surface film removal, or preparatory techniques accepted by per SSPC SP11 & SSPC VIS 1.
3. Before commencing painting in an area, surfaces to be painted and floors shall be cleaned of dust using commercial vacuum cleaning equipment equipped with high-efficiency particulate air (HEPA) filters and dust containment systems.

C. Environmental Requirements:

1. Apply water-base paints when the temperature of surfaces to be painted and ambient air temperatures are between 55 degrees F and 90 degrees F, unless otherwise permitted by paint manufacturer's published instructions.
2. Surfaces to be painted shall be at least 5 degrees F above dew point temperature and be dry to the touch. Apply paint only when temperature of surfaces to be painted, paint products, and ambient air temperatures are between 65 degrees F and 95 degrees F, unless otherwise permitted by paint manufacturer's published instructions.
3. Apply paint system within shortest possible time consistent with manufacturer's recommended curing instructions for each coat. If chemical, salt, or other contamination contacts paint film between coats, remove contamination per SSPC SP 1 and restore surface before applying paint.
4. Do not apply epoxy paints if ambient temperature is expected to go below 50 degrees F within twelve hours of application. Follow manufacturer's instructions when manufacturer's published recommendations require a higher minimum ambient temperature.
5. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent. Do not apply paint to damp or wet surfaces or when surfaces will reach dew point due to falling or rising temperatures and humidity conditions during course of paint application, unless otherwise permitted by paint manufacturer's published instructions.
6. Do not paint unacceptably hot or cold surfaces until such surfaces can be maintained within temperature and dew point ranges acceptable to paint manufacturer. Arrange for surfaces to be brought within acceptable temperature and dew point ranges as part of painting work.
7. Moisture content of surfaces shall be verified to the County as acceptable prior to commencement of painting using methods recommended by paint manufacturer.

8. Painting may be continued during inclement weather only if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer for application and drying.
9. Provide adequate illumination and ventilation where painting operations are in progress.

D. Protection:

1. Cover or otherwise protect finished work of other trades and surfaces not being painted concurrently, or not to be painted.
2. During surface preparation and painting, facility shall remain in operation. Use procedures that prevent contamination of process or cause or require facility shutdown.
3. Coordinate and schedule surface preparation and painting to avoid exposing personnel to hazards associated with painting work. Provide required personnel safety equipment per requirements of authorities having jurisdiction at site.
4. Submit protection procedures to be employed. Do not begin surface preparation and painting work until protection has been installed by Contractor.
5. When working with flammable materials, provide fire extinguishers and post temporary signs warning against smoking and open flame.

E. Testing:

1. Test at a laboratory residue from sand blasting to determine whether blast residue can be landfilled as required by disposal facility.
2. Perform additional testing of waste materials and existing paint required under Federal, state, or local regulations not specifically addressed in this Section.

8.08 MAINTENANCE

Extra Materials: Furnish, tag, and store an additional one percent by volume of all coatings and colors installed. Provide a minimum of one gallon of each coating and color. Store in unopened containers as specified until turned over to County.

8.09 PRODUCTS

A. Painting System Manufacturers

Products and Manufacturers: Where referenced under painting systems provide products manufactured by the following:

1. Tnemec Company, Inc. (TCI).
2. Sherwin-Williams Company (SWC).
3. PPG (PPG)
4. ICI Paints – Devoe High Performance Coatings (DV).
5. Or County approved equal.

B. Painting Systems

New and Existing Ferrous Metals, Structural Steel without Sprayed Fireproofing, Miscellaneous Ferrous Metals, (Both Exposed and to be Later Covered With Insulation); Non-submerged, Interior:

1. Surface Preparation: Section 8.10, A and B.
2. Shop Primer/Field Primer and Touch-Up:
 - a. Generic Components: Minimum 67 percent volume solids, build, two-component, polyamido-amine epoxy coating; 250 grams per liter VOC, maximum.
 - b. Products and Manufacturers: Provide one of the following: Devran 224HS (DV), Series N69 Hi-Build Epoxoline II (TCI); Amercoat 385 (PPG); Macropoxy 646 fast cure Epoxy (SWC): one coat, 4.0 to 6.0 dry mils.
3. Finish: Semi-Gloss:
 - a. Generic Components: Same as specified above for this system, shop primer/field primer and touch-up.
 - b. Products and Manufacturers: Provide one of the following:
 - 1) Same as specified above for this system, shop primer/field primer and touch-up, unless listed 2) of this part.
 - 2) Series 104 HS Epoxy (TCI): Amerlock 2 (PPG)
 - 3) Surfaces: Two coats, 3.0 to 6.0 dry mils, per coat.

C. Existing galvanized metal roof and wall panels with factory KYNAR 500 finish; Non-Submerged, Exterior:

1. Surface Preparation: Refer to Section 8.10, A, B and C.

2. Coating Systems:

a. ICI Devco High Performance Coatings:

- 1) Primer: Devran 201H, 1-coat.
- 2) Color Coat: Devthane 379 UVA, 2-coats
- 3) Clear Coat: Devthane 379 UVA, 1-coat

b. PPG:

- 1) Primer: Amerlock 2, 1-coat
- 2) Finish: PSX 700, 2-coats

c. Sherwin Williams:

- 1) Primer: Macro Poxy 646, 1-coat
- 2) Finish: HI-Solids Polyurethane, 2-coats

D. Caulking and Sealants

Refer to Section 5.00, Caulking and Sealants.

E. Instruments

Provide to the County one new dry-film thickness gauge for checking film thickness, one holiday detector to detect holidays or holes in the coating, and one set of visual standards to check surface preparation. Calibrate dry film thickness gauge at Site using Bureau of Standards standard shim blocks.

8.10 EXECUTION

A. Inspection

1. Examine areas and conditions under which painting work is to be performed and notify owner in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to the County.
2. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film capable of performing in accordance with claims made in paint manufacturer's product literature for surfaces and conditions encountered.
3. Do not paint over existing paint where there is no assurance that existing paint will provide an acceptable surface for long-term adherence and durability of painting systems specified or where paint manufacturer requires removal of all existing paint to recommend use of specified painting system.

B. Surface Preparation

1. General:

- a. Test for moisture content of surfaces before commencement of painting work. Test for moisture in concrete in compliance with ASTM D4263. Report results to the County before commencing work.
- b. Prepare existing surfaces to be painted as specified for new surfaces. Submit substitute methods of preparing existing surfaces, when proposed, with Shop Drawing submittal. The County's acceptance of substitute surface preparation methods does not relieve Contractor of performance required under the bid specifications. To provide surfaces acceptable for application of painting system specified:
 - 1) Clean and roughen surfaces of existing paint and other decorative or protective toppings on surfaces to remain that are to receive a painting system under this Section.
 - 2) Where existing surfaces to be painted have corrosion, peeling paint, or unacceptably adhering coatings, remove all topcoats, primers, and intermediate coats of paint, and other protective or decorative coatings.
- c. Perform preparation and cleaning procedures as specified herein and in strict accordance with paint manufacturers approved instructions for each surface and atmospheric condition.
- d. Remove as necessary items that must be field-painted where adjacent surfaces cannot be completely protected from splatter or overspray. Following completion of painting of each space or area, the removed items shall be reinstalled by workers skilled in the trades involved.
- e. Clean surfaces to be painted before applying painting system components. Remove oil and grease with clean cloths and cleaning solvents prior to mechanical cleaning.
- f. Prepare surfaces that were improperly shop-painted and abraded or rusted shop-painted surfaces as specified.

2. Ferrous Metals:

Ferrous Metals Except Ductile and Cast Iron:

- a. Comply with paint manufacturer's recommendations for type and size of abrasive to provide a surface profile that meets manufacturer's painting system requirements for type, function, and location of surface. Verify that

paint manufacturer-recommended profiles have been achieved on prepared surfaces. Report profiles to Owner using Test Method C of ASTM D4417.

- b. Clean non-submerged ferrous surfaces including structural steel and miscellaneous metal to be primed, of all oil, grease, dirt, mill scale, and other contamination by commercial blast cleaning complying with SSPC SP 6 at time of paint system application, using SSPC VIS 1 as a standard of comparison.
 - c. Clean non-submerged, ferrous surfaces that have not been shop-coated of all oil, grease, dirt, loose mill scale, and other contamination by commercial blasting complying with SSPC SP 6 at the time of painting system application, using SSPC VIS 1 as a standard of comparison.
 - d. Touch-up shop-applied prime coats that have damaged or have bare areas with primer recommended by paint manufacturer after commercial blasting complying with SSPC SP 6 at the time of painting system application, using SSPC VIS 1 as a standard of comparison, to provide a surface profile of not less than one mil.
 - e. Power tool-clean per SSPC SP 3 to remove welding splatter and slag.
 - f. Remove all rust and contamination on existing ferrous metals to sound surfaces by power tool-cleaning complying with SSPC SP 11 to provide a surface profile of not less than one mil.
3. Galvanized metal, exterior roof & wall panels with a factory KYNAR 500:
Galvanized metal, exterior KYNAR 500 finished panels:
- a. Comply with paint manufacturer's recommendations for type and size of abrasive to provide a surface profile that meets manufacturer's painting system requirements for type, function, and location of surface. Verify that paint manufacturer-recommended profiles have been achieved on prepared surfaces. Report profiles to engineer using Test Method C of ASTM D4417.
 - b. Remove factory coating and contamination on existing metal panels to sound surfaces by power tool-cleaning complying with SSPC SP 11 to provide a surface profile of not less than one mil.

C. Protection of Property and Structures

- 1. Protect property and structures adjacent to the work from waste residues resulting from cleaning, surface preparation and paint application.
- 2. Use shrouding, vacuum blasting or other approved methods for cleaning and surface preparation of exterior surfaces.

3. During blast cleaning and surface preparation of interior and exterior surfaces, control discharge of dust and grit, using shrouding, negative-pressure containment/dust collection systems or other means to protect adjacent property and structures and prevent dust/grit from escaping. Similarly control removal and temporary storage of residues to protect adjacent property and structures.
4. For painting of exterior surfaces, use rollers, shrouding or other approved methods as required to protect adjacent property and structures from wind-blown paint residues.
5. Submit proposed procedures for cleaning, surface preparation and paint application describing methods for protecting adjacent property and structures from residues. Do not proceed with cleaning, surface preparation or painting until proposed procedures are approved by the County.
6. Remove roof structure crossbeam support/snow dam for all sandblasting and painting work.

D. Materials Preparation

1. General:
 - a. Mix and prepare paint products in strict accordance with paint manufacturer's product literature.
 - b. Do not mix painting materials produced by different manufacturers, unless otherwise permitted by paint manufacturer's instructions.
 - c. Where thinners are required, they shall be produced by paint system manufacturer unless otherwise permitted by paint manufacturer's product literature and submitted to and accepted by the County with shop drawings.
2. Tinting:
 - a. Where multiple coats of the same material are to be provided, tint each undercoat a lighter shade to facilitate identification of each coat of paint.
 - b. Tint undercoats to match color of finish coat of paint, but provide sufficient difference in shade of undercoats to distinguish each separate coat. Provide a code number to identify material tinted by manufacturer.
3. Mixing:
 - a. For products requiring constant agitation, use methods in compliance with manufacturer's product literature to prevent settling during paint application.

- b. Mix in containers placed in suitably sized non-ferrous or oxide resistant metal pans to protect floors from slashes or spills that could stain the floor or react with subsequent finish floor material.
- c. Mix and apply paint in containers bearing accurate product name of material being mixed or applied.
- d. Stir products before application to produce a mixture of uniform density and as required during the application. Do not stir into the product film that forms on surface; instead, remove film and, if necessary, strain product before using.
- e. Strain products requiring such mixing procedures. After adjusting mixer speed to break up lumps and after components are thoroughly blended, strain through 35 to 50-mesh screen before application.

E. Application

1. General:

- a. Apply paint systems by brush, roller, or airless spray per manufacturer's recommendations and in compliance with Paint Application Specifications No. 1 in SSPC Volume 2, where applicable. Use brushes best suited for type of paint applied. Use rollers of carpet, velvet back, or high pile sheeps wool as recommended by paint manufacturer for product and texture required. Use air spray and airless spray equipment recommended by paint manufacturer for specific painting systems specified. Submit a list of application methods proposed, listing paint systems and location.
- b. Paint dry film thicknesses required are the same regardless of the application method. Do not apply succeeding coats until previous coat has completely dried.
- c. Apply additional coats when undercoats, stains, or other conditions show through final coat of paint, until paint film is uniform finish, color, and appearance, particularly for intense chroma primary colors. Ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners, receive a film thickness equivalent to that of flat surfaces.
- d. Welds shall be stripe-coated with intermediate or finish coat of paint after application of prime coat.

2. Minimum/Maximum Paint Film Thickness:

- a. Apply each product at not less than, nor more than, manufacturer's recommended spreading rate, and provide total dry film thickness as specified.

- b. Apply additional coats of paint if required to obtain specified total dry film thickness.
 - c. Maximum dry film thickness shall not exceed 100 percent of minimum dry film thickness, except where more stringent limitations are recommended by paint manufacturer for a specific product.
3. Scheduling Surface Preparation and Painting:
- a. As soon as practical after preparation, apply first-coat material to surfaces that have been cleaned, pretreated, or otherwise prepared for painting. Apply first-coat material before subsequent surface deterioration due to atmospheric conditions existing at time of surface preparation and painting. Surfaces that have started to rust before first-coat application is complete shall be brought back to required standard by abrasive blasting.
 - b. Allow sufficient time between successive coats to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure and application of another coat of paint does not cause lifting or loss of adhesion to undercoat.
 - c. Scarify primers and other painting system components by brush-blasting if paint has been exposed for lengths of time or under conditions beyond manufacturer's written recommendations for painting systems required, intended use, or method of application proposed for subsequent coats of paint.
 - d. Schedule cleaning and painting so that dust and other contaminants from cleaning process do not fall on wet, newly painted surfaces.
4. Prime Coats: Recoat primed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects caused by insufficient sealing.
5. Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance, and coverage.
6. Brush Application:
- a. Brush out and work all brush coats onto surfaces in an even film. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections are unacceptable. Neatly draw all glass and color break lines.
 - b. Brush-apply primer or first coats, unless otherwise permitted to use mechanical applicators.

7. Mechanical Applicators:
 - a. Use mechanical methods for paint application when permitted by governing ordinances, manufacturer, and approved by Owner.
 - b. Limit roller applications, if approved by Owner, to exterior wall and roof panel finishes for second and third coats. Apply each roller coat to provide the equivalent hiding as brush-applied coats.
 - c. Where spray application is used, apply each coat to provide equivalent hiding of brush-applied coats. Do not double back with spray equipment for purpose of building up film thickness of multiple coats in one pass.
8. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not in compliance with specified requirements as required by Owner.

F. Field Quality Control

1. Owner may invoke the following material testing procedure at any time for a maximum of two times during field painting work:
 - a. A testing laboratory selected by the County shall perform appropriate tests for any or all of the following:
 - 1) Abrasion resistance.
 - 2) Apparent reflectivity.
 - 3) Flexibility.
 - 4) Washability.
 - 5) Absorption.
 - 6) Accelerated weathering.
 - 7) Dry opacity.
 - 8) Accelerated yellowness.
 - 9) Recoating.
 - 10) Skinning.
 - 11) Color retention.
 - 12) Alkali resistance.
 - 13) Quantitative materials analysis.
 - b. If test results show that products being used do not comply with specified requirements, Contractor may be directed to stop painting work and remove non-complying paint, and shall prepare and repaint surfaces coated with rejected paint with material complying with the Bid specifications.

2. Notify Owner after completing each coat of paint. After inspection and checking of film thickness, holidays, and imperfections, and after acceptance by Owner, proceed with succeeding coat.
 - a. Owner will witness all testing and shall be notified of scheduled testing at least twenty-four hours in advance.
 - b. Apply additional coats, if required, to produce specified film thickness and to correct holidays and to completely fill all surface air holes.
3. Record time, location, number of coats, dry film thickness, holidays, and other imperfections and submit testing results to the County.

G. Protection of New Finishes

Provide signs that read, "Wet Paint" as required to protect newly painted finishes. Remove temporary wrappings provided for protection of the work and work of other contractors after completion of painting.

H. Adjusting and Cleaning

1. Correct damages to work of other trades through cleaning, repairing or replacing, and repainting, as acceptable to the County.
2. During progress of work, remove from site all discarded paint materials, rubbish, cans, and rags at end of each workday.
3. Upon completion of painting, clean paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, while avoiding scratching or otherwise damaging finished surfaces.
4. At completion of work of other trades, touch-up and restore damaged or defaced painted surfaces as determined by the County.

I. Schedules

The schedules listed below are a part of this specification section.

Table 09 91 00-C, Painting Schedule.

**TABLE 09 91 00-C
PAINTING SCHEDULE**

| Facility or Surface * | Room No. | Painting System ** | Remarks |
|---|-----------------|---------------------------|--|
| Interior Structural roof joists, deck, and edge slab plates | ---- | A | Color match exist. roof steel |
| Exterior Metal Roof & Wall Panel | ---- | B | Color match & sheen to best match exist. exterior roof & wall panels |

*Refer to drawings for facility locations and for facilities not listed above.

**Refer to 8.09. B of this section.

9.00 METAL ROOF ACCESSORIES

A. Summary

This Section includes the following:

Factory-formed and field-assembled, metal roof accessories.

B. Submittals

1. Product Data: For each type of metal roof accessory indicated.
2. Shop Drawings: Show layouts of metal roof accessories, including plans, elevations, sections, details, and attachments to other work.
3. Coordination Drawings: Drawn to scale and coordinating metal roof accessories installation with penetrations and roof-mounted items.
4. Material certificates.
5. Field quality-control inspection reports.

C. Products

1. Manufacturers

Basis-of-Design Product: Product named establishes the basis of design. Provide either the named product or a comparable product complying with requirements established by specified product.

- a. Butler Manufacturing Company.

2. System Design

- a. All endwall trim and roof transition flashing shall allow the roof panel to move relative to the wall panel and/or the parapet as the roof expands and contracts with temperature change.
- b. Uplift rating: UL 90.

3. Miscellaneous Materials

Fasteners: Self-tapping screws, bolts, nuts, self-locking rivets and bolts, end-welded studs, and other suitable fasteners designed to withstand design loads. Provide exposed fasteners with heads matching color of metal roof panels by means of plastic caps or factory-applied coating.

- a. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws with hex washer head.
- b. Blind Fasteners: High-strength aluminum or stainless-steel rivets.

4. Accessories

- a. Flashing and Trim: Formed from 0.0179-inch-thick, zinc-coated (galvanized) steel sheet or aluminum-zinc alloy-coated steel sheet prepainted with coil coating. Provide flashing and trim 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 roof panels.
- b. Gutters: 6-inch, formed from 0.299-inch-thick, metallic-coated steel sheet. Match profile of gable trim, complete with end pieces, outlet tubes, and other special pieces as required. Fabricate in minimum 96-inch-long sections, sized according to SMACNA's "Architectural Sheet Metal Manual." Furnish gutter supports spaced 16 inches o.c., fabricated from same metal as gutters and 0.125-inch thick. Provide bronze, copper, or aluminum wire ball strainers at outlets. Finish gutters to match metal roof panels.
- c. Downspouts: 6-inch diameter, Formed from 0.0179-inch-thick, metallic-coated steel sheet; in 10-foot-long sections, complete with formed elbows and offsets. Finish downspouts to match metal roof panels.

5. Fabrication

- a. General: Fabricate and finish metal roof accessories at the factory to greatest extent possible, 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. Sheet Metal Accessories: Fabricate flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to the design, dimensions, metal, and other characteristics of item indicated.
- c. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

9.01 EXECUTION

A. General

- 1. Fasteners:
Use aluminum or stainless-steel fasteners for surfaces exposed to the exterior and aluminum or galvanized steel fasteners for surfaces exposed to the interior.
- 2. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating, by applying rubberized-asphalt underlayment to each contact surface, or by other permanent separation as recommended by metal roof panel manufacturer.

Coat back side of aluminum roof panels with bituminous coating where roof panels will contact wood, ferrous metal, or cementitious construction.

- 3. Joint Sealers: Install gaskets, joint fillers, and sealants where indicated and where required for weatherproof performance of metal roof panel assemblies.

Prepare joints and apply sealants to comply with requirements in Section 5.00, Caulking and Sealants.

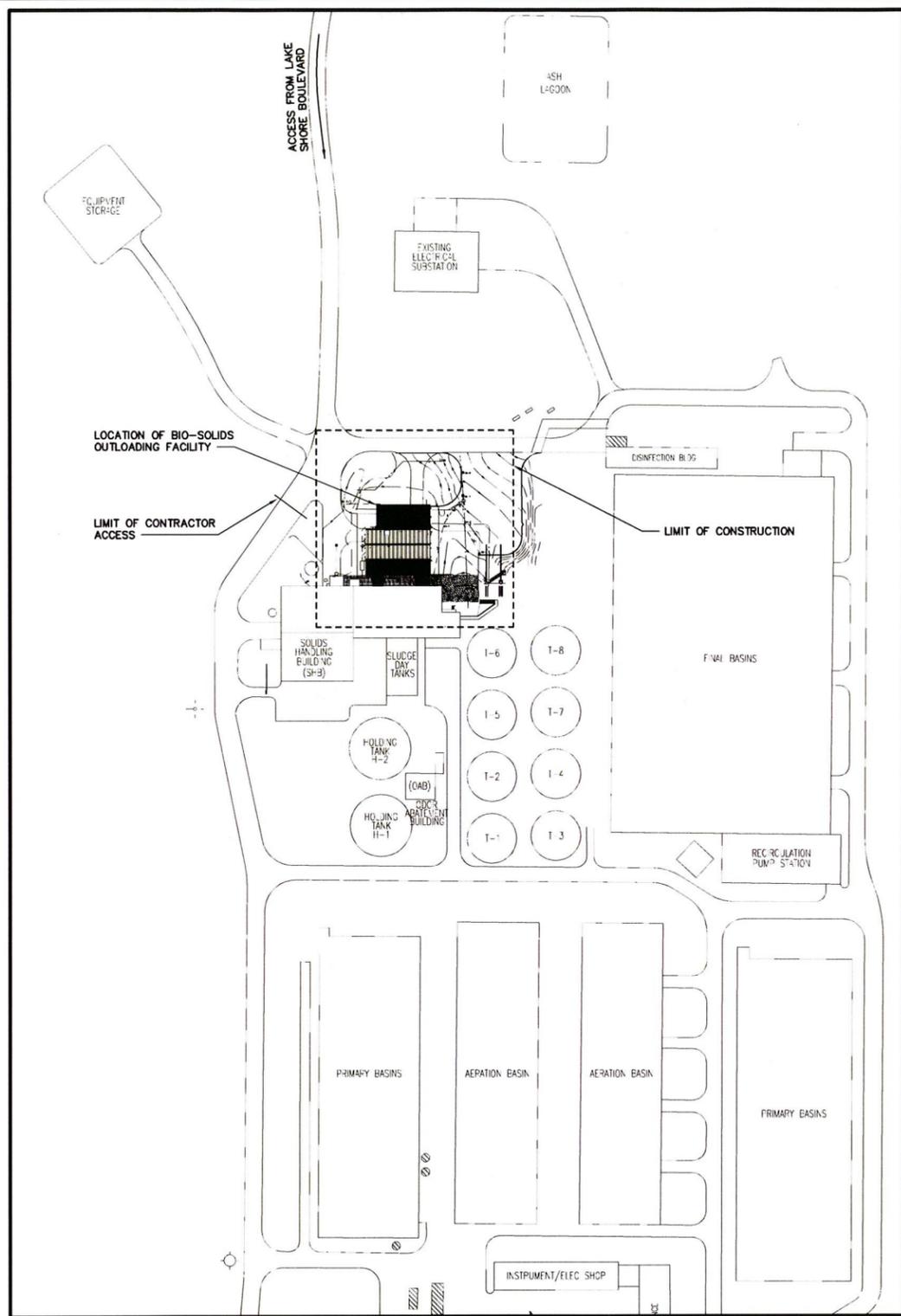
B. Accessory Installation

General: Install accessories with positive anchorage to building and weather tight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.

1. Install components required for a complete metal roof panel assembly including trim, copings, ridge closures, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items
2. 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.
3. Provide elbows at base of downspouts to direct water away from building.
4. Tie downspouts to underground drainage system indicated.

C. Cleaning and Protection

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



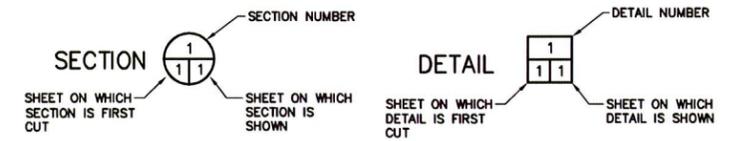
PLAN
SCALE: 1"=100'

GENERAL

G-1 LOCATION PLAN AND INDEX OF DRAWING

ARCHITECTURAL

A-1 ROOF PLAN
A-2 NORTH ELEVATION
A-3 SECTIONS
A-4 DETAILS



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DWN GTS
CND MEM

MONROE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
MONROE COUNTY, NEW YORK

FRANK E. VAN LARE WWTf
BIO-SOLIDS OUTLOAD FACILITY MODIFICATIONS

LOCATION PLAN AND INDEX OF DRAWINGS
SCALE AS NOTED

DATE APRIL 2011

G SHEET 1 OF 1
CAD REF. NO. 02346001
DIRECTORY 0234162

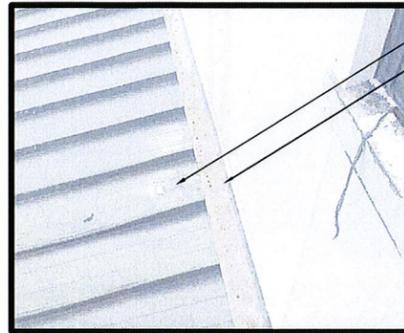
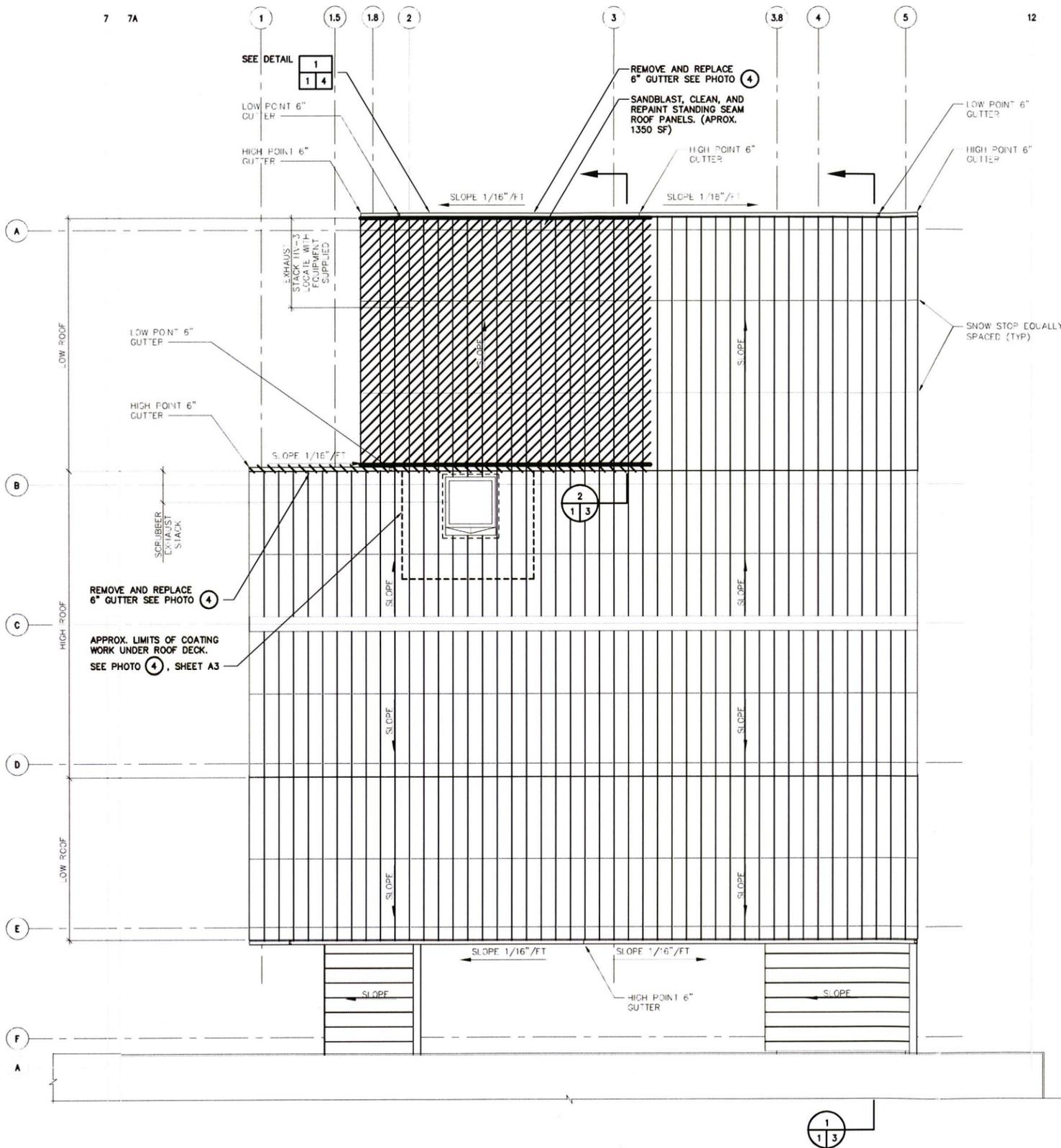


PHOTO ①

REPAIR DENTS AS REQUIRED
 REPLACE FLASHING
 SANDBLAST, CLEAN, AND REPAIR STANDING SEAM ROOF PANELS. REPAIR AS REQUIRED



PHOTO ②

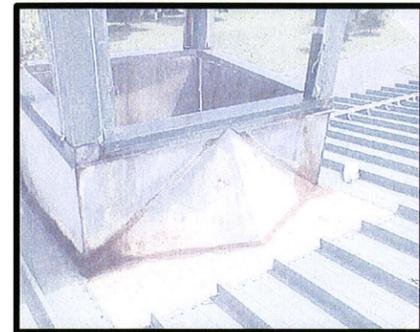


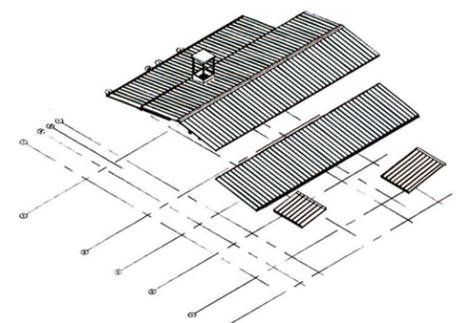
PHOTO ③

REPLACE 6" GUTTER AND DOWNSPOUT
 CLEAN AND REPAINT METAL SIDING (TYP.)



PHOTO ④

REPLACE 6" GUTTER AND DOWNSPOUT



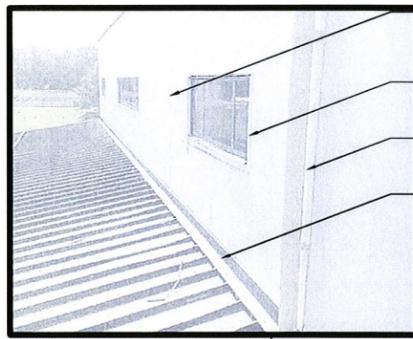
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MONROE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
 MONROE COUNTY, NEW YORK
FRANK E. VAN LARE WWTF
BIO-SOLIDS OUTLOAD FACILITY MODIFICATIONS

ROOF PLAN
 SCALE: 1/8"=1'-0"

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 MALCOLM PIRNIE, INC.
 DATE: APRIL 2011
 SHEET 1 OF 4
 CAD REF. NO. 0234A001
 DIRECTORY 0234182



- CLEAN AND REPAINT METAL SIDING
- REPLACE WINDOW AND FLASHING
- REMOVE AND REPLACE 6" DOWNSPOUT
- REPLACE FLASHING

PHOTO 1

FLAT METAL WALL PANEL

REMOVE AND REPLACE 6" ALUMINUM GUTTER (APPROX. 68 FT.)

FLUTED METAL WALL PANEL

RECONNECT EXISTING 6" DOWNSPOUT

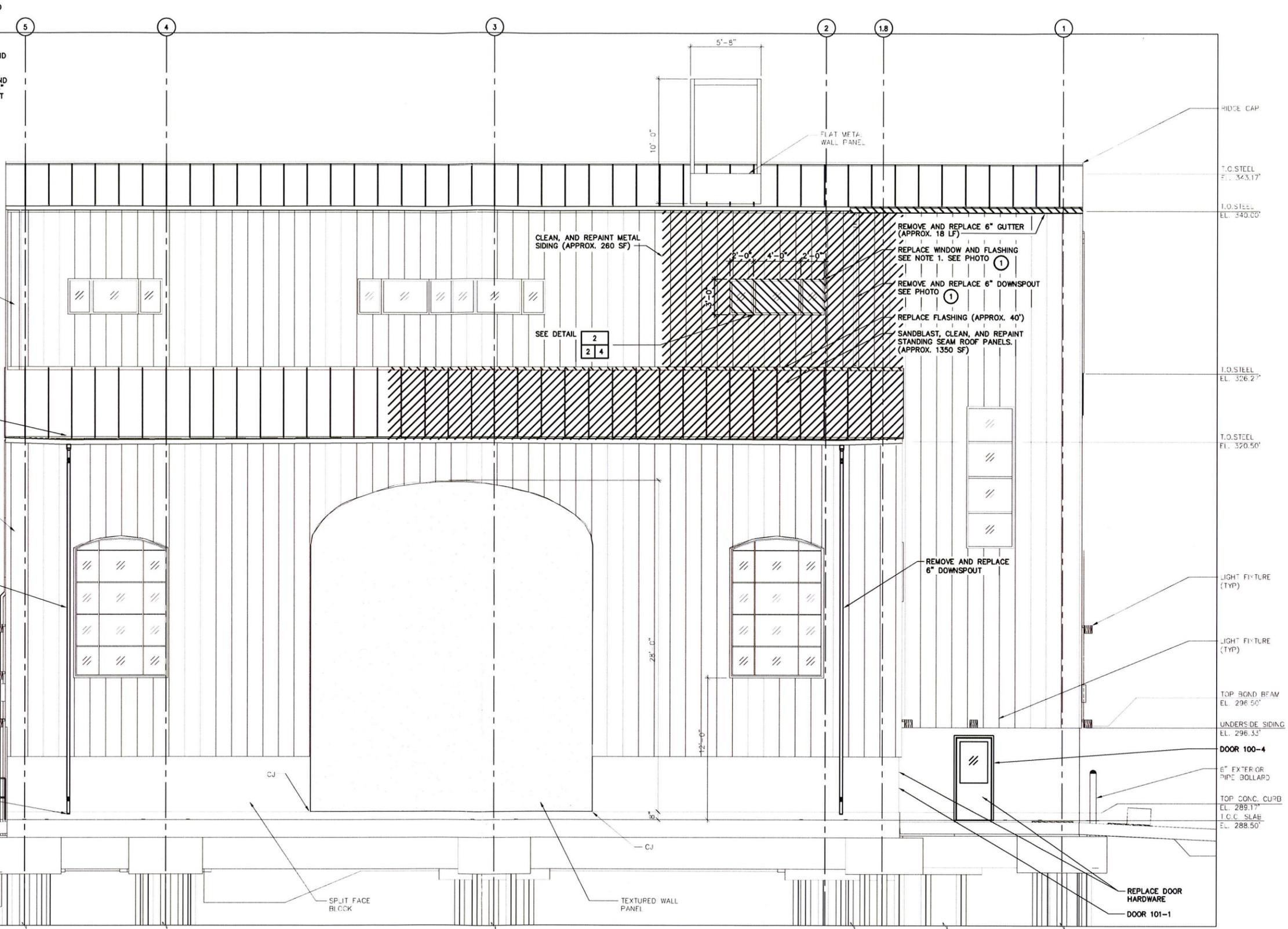
LIGHT FIXTURE (TYP)

UNDERSIDE SIDING EL. 293.17'

CONNECT DOWN SPOUT TO UNDERCAY (TYP)

I.O.C. SLAB EL. 288.50'

T.O.C. APRON FL. 288.00'



NOTE:
1. FIXED ALUMINUM WINDOW WITH 1" INSULATED GLAZING.

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CRD. MEM

MONROE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
MONROE COUNTY, NEW YORK

FRANK E. VAN LARE WWTF
BIO-SOLIDS OUTLOAD FACILITY MODIFICATIONS

NORTH ELEVATION

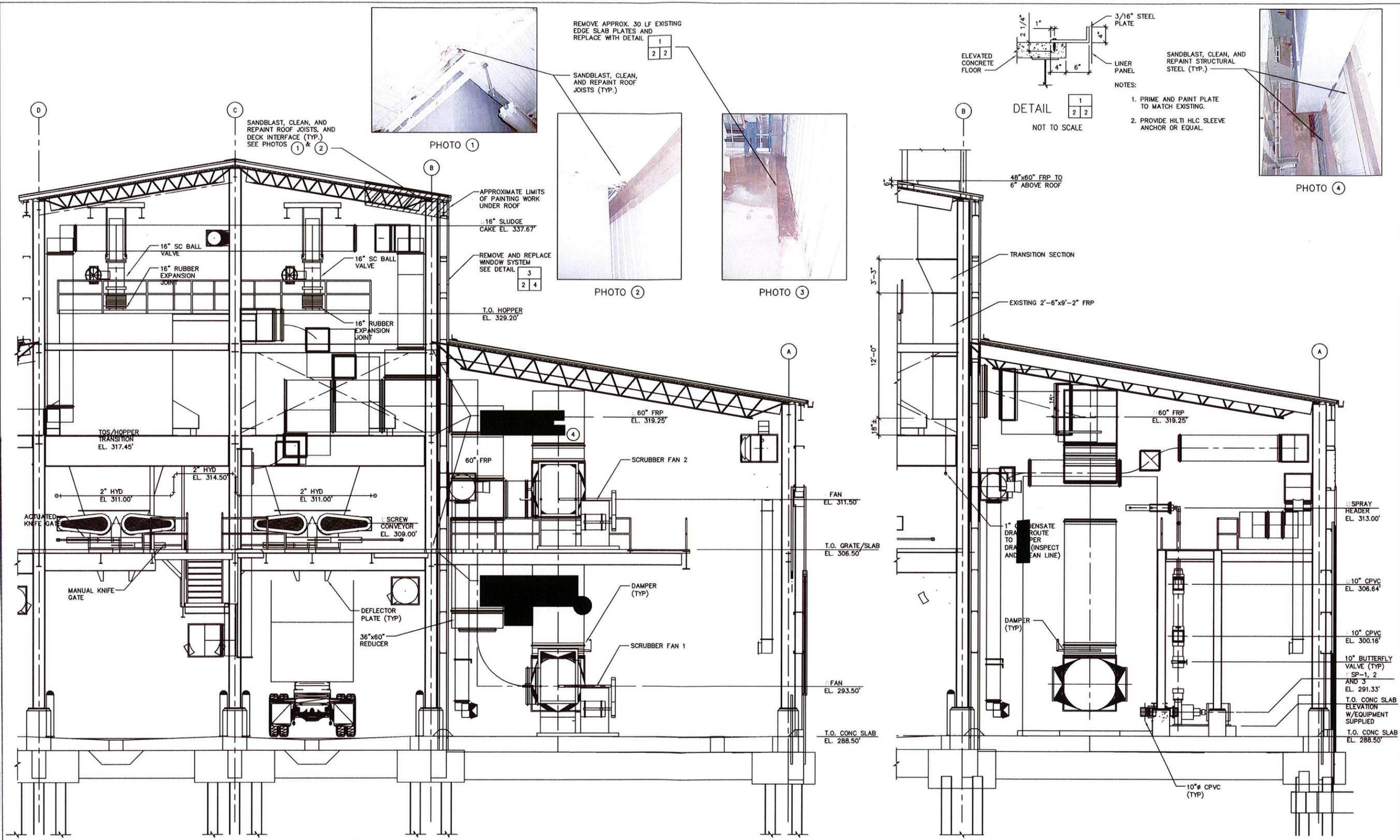
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DATE: APRIL 2011

A SHEET 2 OF 4
CAD REF. NO. 0234A002
DIRECTORY 0234182

7/26/2011 Time: 13:52 Layout: Layout1



SECTION 1
SCALE: 1/4"=1'-0"

SECTION 2
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MONROE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
 MONROE COUNTY, NEW YORK

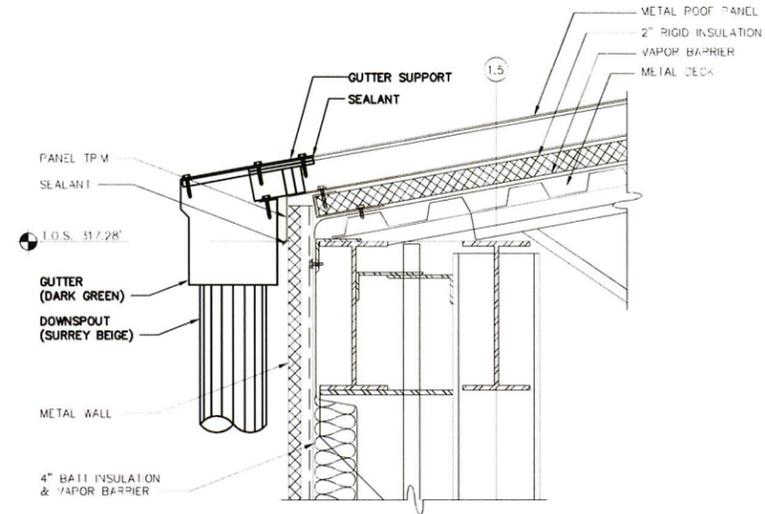
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 BIO-SOLIDS OUTLOAD FACILITY MODIFICATIONS

SECTION 2

SCALE: AS NOTED

DATE MARCH 2011

A SHEET 3 OF 4
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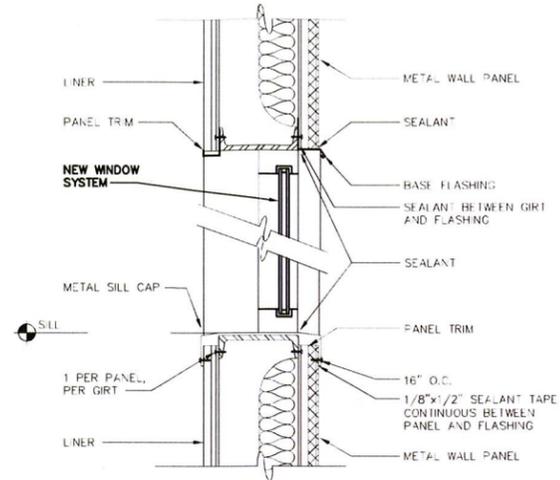
NOTES:

- #14x1 H HAB 304 STAINLESS STEEL WITH NEOPRENE WASHER PAINTED DARK GREEN.

TYPICAL GUTTER AND
DOWNSPOUT SYSTEM DETAIL

| |
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| 1 4 |

SCALE: 1 1/2"=1'-0"



DETAIL

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| 2 |
| 2 4 |

SCALE: 1 1/2"=1'-0"

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DWN - SH
CVD - MEM

MONROE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
MONROE COUNTY, NEW YORK
FRANK E. VAN LARE WWTF
BIO-SOLIDS OUTLOAD FACILITY MODIFICATIONS

DETAILS

SCALE: AS NOTED

DATE APRIL 2011
A SHEET 4 OF 4
CAD REF. NO. 0234A004
DIRECTORY 0234162

INSURANCE REQUIREMENTS
INDEMNIFICATION

The Contractor shall procure and maintain at his own expense until final completion of the work covered by the Contract, insurance for liability for damages imposed by law of the kinds and in the amounts hereinafter provided, issued by insurance companies authorized to do business in the State of New York, covering all operations under the Contract whether performed by the Contractor or by his subcontractors. Monroe County must be named as Additional Insured on the General Liability and Motor Vehicle policies. The ACORD form shall name Monroe County as additional insured and certificate holder. **The General Liability and Motor Vehicle policies shall also include separate endorsement(s) naming Monroe County as an Additional Insured.**

Within ten (10) days after notice of award, the Contractor shall furnish to the County a certificate or certificates of insurance in a form satisfactory to the Monroe County Attorney (a sample form is attached to these specifications) showing that he has complied with all insurance requirements set forth herein, which certificate or certificates shall provide that the policies shall not be changed or canceled until thirty (30) days written notice has been given to the County. Except for Workers' Compensation Insurance, no insurance required herein shall contain any exclusion of municipal operations performed in connection with the Contract resulting from this bid solicitation. The kinds and amounts of insurance are as follows:

A. **WORKERS' COMPENSATION AND DISABILITY INSURANCE:** A policy covering the operations of the Contractor in accordance with the provisions of Chapter 41 of the Laws of 1914, as amended, known as the Workers' Compensation Law, covering all operations under Contract, whether performed by him or by his subcontractors. The Contract shall be void and of no effect unless the person or corporation making or executing same shall secure compensation coverage for the benefits of, and keep insured during the life of said Contract, such employees in compliance with the provisions of the Worker's Compensation Law known as the Disability Benefits Law (Chapter 600 of the Laws of 1949) and amendments hereto.

B. **LIABILITY AND PROPERTY DAMAGE INSURANCE:**

(1) CONTRACTOR'S GENERAL LIABILITY INSURANCE issued to the Contractor and covering the liability for damages imposed by law upon the Contractor with respect to all work performed by him under the within Contract. All of the following coverages shall be included:

Comprehensive Form
Premises-Operations
Products/Completed Operations
Contractual Insurance covering the Hold Harmless Provision
Broad Form Property Damage
Independent Contractors
Personal injury

(2) Unless otherwise specifically required by special specifications, each policy shall have limits of not less than the following:

| BODILY INJURY LIABILITY | PROPERTY DAMAGE LIABILITY | AGGREGATE |
|-------------------------|---------------------------|-------------|
| Each Occurrence | Each Occurrence | |
| \$1,000,000 | \$1,000,000 | \$3,000,000 |

C. **MOTOR VEHICLE INSURANCE** issued to the Contractor and covering public liability and property damage on the Contractor's vehicles in the amount of:

| BODILY INJURY LIABILITY | PROPERTY DAMAGE LIABILITY |
|-------------------------|---------------------------|
| Each Occurrence | Each Accident |
| \$1,000,000 | \$1,000,000 |

A sample insurance certificate is included with these specifications. All categories and amounts of insurance required for this bid project have been checked off on the sample. These are the minimum requirements that the Contractor must supply. Failure to supply a satisfactory certificate within ten (10) days after receipt of Notice of Award may result in the cancellation of the award.

Rev. 5/23/2012

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

| |
|---|
| <p>Name of Person or Organization:</p> |
|---|

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. Section II – Who Is An Insured is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

B. With respect to the insurance afforded to these additional insureds, the following exclusion is added:

2. Exclusions

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

-POLICY NUMBER:

COMMERCIAL AUTO
CA 20 48 02 99

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED INSURED

This endorsement modifies insurance provided under the following:

- BUSINESS AUTO COVERAGE FORM
- GARAGE COVERAGE FORM
- MOTOR CARRIER COVERAGE FORM
- TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies person(s) or organization(s) who are "insureds" under the Who Is An Insured Provision of the Coverage Form. This endorsement does not alter coverage provided in the Coverage Form.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

| | |
|------------------------|--|
| Endorsement Effective: | Countersigned By: (Authorized Representative) |
| Named Insured: | |

SCHEDULE

| |
|--|
| <p>Name of Person(s) or Organization(s):</p> <p>As required by contract or agreement</p> <p>If required by contract, this coverage shall be primary and any insurance maintained by the additional insured will apply on an excess basis; however, in no event will this additional insured coverage extend beyond the terms and conditions of the written contract.</p> |
|--|

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to the endorsement.)

Each person or organization shown in the Schedule is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in Section II of the Coverage Form.

NOTICE OF JOB VACANCIES

- a) The contractor recognizes the continuing commitment on the part of Monroe County to assist those receiving temporary assistance to become employed in jobs for which they are qualified and the County's need to know when jobs become available in the community.
- b) The contractor agrees to notify the County when the contractor has or is about to have a job opening for a full time position within Monroe County or any contiguous county. Such notice shall be given as soon as practicable after the contractor has knowledge that a job opening will occur. The notice shall contain information that will facilitate the identification and referral of appropriate candidates in a form and as required by the Employment Coordinator. This would include at least a description of conditions for employment, including the job title and information concerning wages, hours per work week, location and qualifications (education and experience).
- c) Notice shall be given in writing to:
Employment Coordinator
Monroe County Department of Human and Health Services
Rm 535
691 St. Paul St.
Rochester, NY 14605
Telephone: (585) 753-6322
Fax: (585) 753-6308
- d) The contractor recognizes that this is an opportunity to make a good faith effort to work with Monroe County for the benefit of the community. Nothing contained in this provision, however, shall be interpreted as an obligation on the part of the contractor to employ any individual who may be referred by or through the County for job openings as a result of the above notice. Any decisions made by the contractor to hire any individual referred by or through the County shall be voluntary and based solely upon the contractor's job requirements and the individual's qualifications for the job, as determined by the contractor.
- e) If the contractor is a local municipality within Monroe County, said municipality shall be subject to the above subparagraphs, except that said municipalities shall not be required to give notice where the position is subject to a published civil service list.

COMPLIANCE WITH FEDERAL SINGLE AUDIT ACT

In the event the Contractor is a recipient through this contract, directly or indirectly of any funds of or from the United States Government, Contractor agrees to comply fully with the terms and requirements of Federal Single Audit Act [Title 31 United States Code, Chapter 75], as amended from time to time. The Contractor shall comply with all requirements stated in Federal Office of Management and Budget Circulars A-102, A-110 and A-133 and such other circulars, interpretations, opinions, rules or regulations that may be issued in connection with the Federal Single Audit Act.

If on a cumulative basis the Contractor expends Five Hundred Thousand and no/100 Dollars (\$500,000.00) or more in federal funds in any fiscal year, it shall cause to have a single audit conducted, the Data Collection Form (defined in Federal Office of Management and Budget Circular A-133) shall be submitted to the County; however, if there are findings or questioned costs related to the program that is federally funded by the County, the Contractor shall submit the complete reporting package (defined in Federal Office of Management and Budget Circular A-133) to the County.

If on a cumulative basis the Contractor expends less than Five Hundred Thousand and no/100 Dollars (\$500,000.00) in federal funds in any fiscal year, it shall retain all documents relating to the federal programs for three (3) years after the close of the Contractor's fiscal year in which any payment was received from such federal programs.

All required documents must be submitted within nine (9) months of the close of the Contractor's fiscal year end to:

Monroe County Internal Audit Unit
304 County Office Building
39 West Main Street
Rochester, New York 14614

The Contractor shall, upon request of the County, provide the County such documentation, records, information and data and response to such inquiries as the County may deem necessary or appropriate and shall fully cooperate with internal and/or independent auditors designated by the County and permit such auditors to have access to, examine and copy all records, documents, reports and financial statements as the County deems necessary to assure or monitor payments to the Contractor under this contract.

The County's right of inspection and audit pursuant to this contract shall survive the payment of monies due to Contractor and shall remain in full force and effect for a period of three (3) years after the close of the Contractor's fiscal year in which any funds or payment was received from the County under this contract.

Retain For Your Records
DO NOT RETURN WITH YOUR BID

**General
Specifications
County
Of
Monroe**

DEPARTMENT OF FINANCE
Division of Purchasing and Central Services

Dawn C. Staub
Purchasing Manager

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FOREWORD

This booklet contains the General Specifications of the County of Monroe Division of Purchasing and Central Services and supersedes any previous issue. The terms and conditions set forth apply to all contracts awarded by the County of Monroe Division of Purchasing and Central Services.

DEFINITIONS

POLITICAL SUBDIVISIONS: All County departments, institutions, agencies, political subdivisions (town, city, village public school districts) and others authorized by law to make purchases through the County Purchasing Division.

BID: An offer to furnish a described commodity at a stated price in accordance with the proposal and specification.

BIDDER: Any person, firm or corporation submitting a proposal to the County.

COMMODITIES: Materials, supplies, equipment and non-professional services.

CONTRACTOR: Any bidder to whom a contract award is made by the Purchasing Manager or Legislature.

CONTROLLER: Controller of the County of Monroe.

COUNTY: County of Monroe.

GROUP: A classification of commodities.

LATE BID: A bid received in the office of the Purchasing Division, whether in person or by mail, after the time and date established in the bid specifications for the bid opening.

PURCHASING MANAGER: Manager of the Purchasing Division for the County of Monroe.

NOTICE OF CONTRACT AWARD: The notification to all participants that a contract has been made between the County and the successful bidder.

PROPOSAL: The form which, when issued by the Purchasing Division, constitutes an invitation to bid on the commodity described therein and which, when completed by the bidder, constitutes his/her bid to the County to furnish such commodity.

PURCHASE ORDER: The official form to be used by Monroe County when placing an order for material, equipment or supplies with a contractor or vendor.

SPECIFICATION: Description of a commodity and the conditions for its purchase.

PROPOSALS AND BIDS

1. The date and time of bid opening will be given on the proposal.
2. All bids are to be submitted on forms provided by the Purchasing Division.
3. All bids must be submitted in a sealed envelope clearly marked with bid number, title, opening date and time. Bids must not be attached to or enclosed in packages containing bid samples.
4. All information required by the proposal and specifications must be supplied by the bidder.
5. Each bid offered shall be construed in accordance with the specifications and proposal. The bidder must explain all deviations, exceptions and qualifications in detail in the bid.
6. Prices and information required by the proposal, except the signature of bidder, shall be typewritten or printed in ink for legibility. Bids written in pencil may be rejected. The Purchasing Manager may interpret or reject illegible or vague bids and the decision shall be final. All signatures must be in ink. Facsimile, printed or typewritten signatures are not acceptable and the bid may be rejected.
7. No alteration, erasure or addition of the specifications or the proposal shall be made.
8. In all specifications or proposals, the words "or equal" are understood to appear after each commodity giving manufacturer's name or catalog reference or on any patented commodity. If bidding on commodities other than those specified, bidder must in every instance give the trade designation of the commodity, manufacturer's name and detailed specification of commodity he/she proposes to furnish. Otherwise, bid will be construed as submitted on the identical commodity described in the specifications.
9. Used, damaged or obsolete items are not acceptable unless specifically requested and if offered or delivered, shall be rejected and the contract may be cancelled.
10. When bids are requested on a number of commodities as a group, a bidder desiring to bid "no charge" on a commodity in the grouping must so indicate. Otherwise, such bid will be considered as incomplete and may be rejected. Any bidder failing to bid on minimum number of items specified in the bid package may have his/her bid declared incomplete or unresponsive and the Purchasing Manager has the discretion to reject the bid.
11. The bidder must insert the price per unit specified and the price extension for each item in the bid if required. In the event of a discrepancy between the unit price and the extension, the unit price will govern. Prices must be extended in decimals, not fractions.
12. Prices must be net, including transportation and delivery charges fully prepaid by contractor to the destination(s) indicated in the proposal, subject only to the cash discount. If the award is to be on any other basis, transportation charges must be prepaid by the contractor and added to the invoice as a separate item.
13. Bidders are cautioned to verify their bids before submission, as bids and amendments to bids or requests for withdrawal of bids received by the Purchasing Manager after the time specified for the bid opening may not be considered.
14. All bids will be opened and tabulated publicly at the time and place set forth in the proposal.
15. A late bid will be rejected and cannot be considered in awarding a contract.

SAMPLES

16. The Purchasing Manager reserves the right to request a representative sample of the commodity at any time. The sample shall be furnished within the timeframe specified in the bid package.
17. If in the judgment of the Purchasing Manager, the sample is not in accordance with the requirements stated in the specifications and the proposal, the County may reject the bid; or if an award has been made, cancel the contract at the expense of the contractor.
18. When samples are required, failure to submit them in accordance with instructions may be sufficient cause for rejecting a bid or canceling an award.

19. When an accepted sample exceeds the minimum specifications, all commodities delivered will be of same quality and identity as the sample.
20. Samples must be submitted free of charge and be accompanied by the bidder's name and address, a statement indicating how and where the sample is to be returned to the bidder and descriptive literature regarding the commodity. Samples will be returned at the bidder's expense and risk.
21. All samples are subject to tests in the manner and place designated by the Purchasing Manager. Samples consumed or made useless by testing cannot be returned to the bidder and the County will not be responsible for any costs as a result of such testing.
22. Where the sample has not been impaired by testing and the bidder has failed to indicate the place and mode of return of the sample, it becomes the property of the County at the conclusion of the contract period.
23. Samples may be held by the County during the entire term of the contract for comparison with deliveries.
24. A Proposal may indicate that the commodity to be purchased must be equal to a sample on display in a designated place. Failure on the part of the bidder to examine such sample shall NOT entitle him to any relief from the conditions imposed in the proposal, specification and related documents. If feasible, standard samples will be submitted to the bidder for his/her examination prior to the bid opening date.
25. Cash discounts will no be considered as a basis for award in any contract.

AWARDS

26. The Purchasing Manager reserves the right before making an award, to investigate whether or not the items, qualifications or facilities offered by the bidder meet the requirements set forth in the proposal and specifications and is ample and sufficient to insure the proper performance of the contract, in the event of award. The bidder must be prepared, if requested by the Purchasing Manager, to present evidence of experience, ability and financial standing, as well as a statement as to plant, machinery and capacity of the manufacturer for the production and distribution of the commodity on which he/she is bidding. If in the opinion of the Purchasing Manager, it is found that the conditions of the proposal and specifications are not complied with or that items proposed to be furnished do not meet the requirements or specifications called for or that the qualifications, financial standing, facilities or capacities are not satisfactory, the Purchasing Manager may reject such a bid. The Purchasing Manager, in no way, is required or obligated to conduct such investigation prior to awarding the contract. It is further understood that if such investigations are made, it in no way relieves the contractor from fulfilling all requirements and conditions of the contract.
27. Contracts shall be awarded to the lowest responsive and responsible bidder. Responsibility is determined by taking into consideration the reliability of the bidder, the qualities of the articles proposed to be supplied and their conformity with the specifications, the purposes for which required and the terms of delivery and any historical performance record of the bidder that may be maintained by the County.
28. A bidder may be disqualified from receiving awards if such bidder or anyone in his/her employ, has previously failed to perform satisfactorily in connection with public bidding or contracts.
29. The Purchasing Manager reserves the right to evaluate and/or reject all bids in whole or in part and to waive technicalities, irregularities and omissions, if in her judgment; the best interests of the County will be served.
30. The Purchasing Manager reserves the right to make awards within forty-five (45) days after the date of the bid opening, during which period bids shall not be withdrawn.
31. If two or more bidders submit identical bids as to price, the decision of the Purchasing Manager to award a contract to one or more of such identical bidders shall be final.

CONTRACTS

32. All contracts awarded by the Purchasing Manager shall be executory only to the extent that funds are available to each Agency or Department for the purchase of the commodity.
33. All bids shall be received with the understanding that the acceptance thereof, in writing, by the Purchasing Manager or governing body, shall constitute a contract between the bidder and the County. The mailing of either a notice of contract award identified by number or of a purchase order to the address on the bid shall be sufficient notice of such acceptance.

34. Unless otherwise specified, the quantities listed in the proposal are subject to change to conform to Agency or Department requirements.
35. The County reserves the right to order up to 10% more or 10% less than the quantities called for in the contract. This paragraph shall not apply to estimated quantity contracts. Over runs and under runs shall not exceed 10%.
36. Unless terminated or cancelled by the Purchasing Manager pursuant to the authority vested in her, contracts will remain in force for the period specified.
37. All purchase orders must be in writing and must bear the appropriate contract number and the approval of the Purchasing Manager.
38. No commodities are to be shipped or delivered until after receipt of an official purchase order from the County, unless otherwise authorized in writing by the Purchasing Manager.
39. The contractor shall not assign, transfer, convey, sublet or otherwise dispose of the contract or his/her right, title or interest therein or his/her power to execute such contract to any other person, company or corporation without the prior consent, in writing, of the Purchasing Manager. (Approval by the Purchasing Manager is not required for the assignment of monies due for contract deliveries. Such assignments should be filed directly with the Purchasing Manager.)
40. No alteration or variation of the terms of the contract shall be valid or binding upon the County unless requested in writing and approved in writing by the Purchasing Manager.
41. Contractor shall employ no one in relation to the work contemplated by the contract who shall be permitted or required to work more than eight (8) hours in any one calendar day or more than five (5) days in any one week except in cases of extraordinary emergency caused by war, acts of public enemies, strikes, fire, flood or danger to life or property and the wages to be paid to employees for a legal day's work shall not be less than the prevailing New York State wage rates for a day's work in the same trade or occupation in the locality where the contract work is executed.
42. Pursuant to the provision of Section 220-A of the New York State Labor Law, as amended, the Contractor (and his/her Sub-Contractors) will be obligated to pay all workers in the covered classes the applicable prevailing wage rates and supplements. The minimum hourly wage rate to be paid the various classes of labor performing work under this contract shall be in accordance with schedules which have been established or may hereafter be established or increased, by the New York State Department of Labor during the contract term.

DELIVERY

43. Delivery must be made as ordered and in accordance with the terms of the contract. Unless otherwise specified, delivery shall be made within thirty (30) days of receipt of purchase orders by the contractor. The decision of the Purchasing Manager as to reasonable compliance with delivery terms shall be final. Burden of proof of delay in receipt of purchase order shall rest with contractor.
44. Any extension of time of delivery must be requested in writing by the contractor and approved in writing by the Purchasing Manager.
45. The Departments will not schedule any deliveries for Saturdays, Sundays or legal holidays, except commodities required for daily consumption or where the delivery is an emergency, a replacement or is overdue, in which events the convenience of the County will govern.
46. Commodities shall be securely and properly packed for shipment, storage and stocking in new shipping containers and according to accepted commercial practice, without extra charge for packing cases, baling or sacks. The container shall remain the property of the County unless otherwise specifically agreed to in the contract.
47. Point of Destination: All deliveries shall be unloaded at the storeroom door of the ordering Agency or department unless otherwise stated in the proposal or specification.
48. Commodities purchased at a price, f.o.b. shipping point plus transportation charge, are understood to be purchased on an f.o.b. point of destination basis. Title shall not pass until commodities have been received and accepted by the Agency or Department.

49. When commodities are rejected with notice of such rejection having been provided to the bidder, they must be removed by the contractor from the premises of the Department or Agency within five (5) days from notification. Rejected items left longer than five (5) days will be regarded as abandoned and the County shall have the right to dispose of them as its own property.

DEPOSITS

50. Unless otherwise expressly indicated, specification deposits are returned only to those prospective contractors who actually submit proposals to the County of Monroe and have returned their specifications unmarked and in good condition within 30 days of the bid award.
51. Unless otherwise expressly indicated, bid deposits are considered an earnest of good faith and are retained by the County only until a contract has been awarded; at which time they are returned to all bidders who submitted proposals. Failure, on the part of a contractor, to execute a contract, may result in forfeiture of his/her bid deposit.

PAYMENTS

52. Payments will be made by the Controller after presentation of a completed voucher to the ordering Department or Agency.
53. In any case where a question of non-performance of a contract arises, payment may be withheld in whole or in part at the discretion of the Purchasing Manager. Should the amount withheld be finally paid, a cash discount originally offered may be taken by the County as if no delay in payment had occurred.
54. Any claim against a contractor may be deducted by the County from any money due him in the same or other transactions. If no deduction is made in such fashion the contractor shall pay the County the amount of such claim on demand. Submission of a voucher and payment thereof by the County shall not preclude the Purchasing Manager from demanding a price adjustment in any case where the commodity delivered is later found to deviate from the specification and proposal. Any delivery made which does not meet the requirements of the specifications and proposal may be rejected or accepted on an adjusted price basis as determined by the Purchasing Manager.
55. Tax Provisions: Purchases made by the County of Monroe are not subject to State or Local sales taxes or Federal Excise taxes. To satisfy the requirements of the New York State Sales Tax, either the purchase order issued by an agency or institution of New York State for supplies or equipment or the voucher forwarded to authorize payment for such supplies and equipment will be sufficient evidence that the sale by a contractor or vendor was made to the County of Monroe, an exempt organization under section 1116 (a) (I) of the Tax Law. Exemption certificates for Federal Excise taxes will be furnished upon request by the Purchasing Division. No person, firm or corporation is, however, exempt from paying the New York State Truck Mileage and Unemployment Insurance or the Federal Social Security Taxes. This exemption does not apply to materials not incorporated into the work of a Public Works Contract.

GUARANTEES BY CONTRACTOR

56. Contractor hereby guarantees:
- (a) To save the County, its agents and employees, harmless from any liability imposed upon the County arising from the negligence, either active or passive, of the contractor, as well as for the use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance furnished or used in the performance of the contract of which the contractor is not the patentee, assignee or licensee.
 - (b) To pay for all permits, New York licenses and fees and gives all notices and complies with all laws, ordinances, rules and regulations.
 - (c) That the equipment offered is standard new equipment, latest model of regular stock product with all parts regularly used with the type of equipment offered; also, that no attachment or part has been substituted or applied contrary to manufacturer's recommendations and standard practice. Every unit delivered must be guaranteed against faulty material and workmanship for a period of one year unless otherwise specified.
57. Waiver of Immunity Clause:

103-a. Ground for cancellation of contract by municipal corporations and fire districts.

A clause shall be inserted in all specifications or contracts made or awarded by a municipal corporation or any public department, agency or official thereof on or after the first day of July, nineteen hundred fifty-nine or by a fire district or any agency or official thereof on or after the first day of September, nineteen hundred sixty, for work or services performed or to be performed or goods sold or to be sold, to provide that upon the refusal of a person, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with any public department, agency or official of the state or of any political subdivision thereof or of a public authority, to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract.

- (a) such person and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with municipal corporation or fire district or any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal and to provide also that
- (b) any and all contracts made with any municipal corporation or any public department, agency or official thereof on or after the first day of July, nineteen hundred fifty-nine or with any fire district or any agency or official thereof on or after the first day of September, nineteen hundred sixty, by such person and by any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer may be cancelled or terminated by the municipal corporation or fire district without incurring any penalty or damages on account of such cancellation or termination but any monies owing by the municipal corporation or fire district for goods delivered or work done prior to the cancellation or termination shall be paid.

The provisions of this section as in force and effect prior to the first day of September, nineteen hundred sixty, shall apply to specifications or contracts made or awarded by a municipal corporation on or after the first day of July, nineteen hundred fifty-nine but prior to the first day of September, nineteen hundred sixty.

103-b. Disqualification to contract with municipal corporations and fire districts.

Any person who, when called before a grand jury, head of a state department, temporary state commission or other state agency, the organized crime task force in the department of law, head of a city department or other city agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning any transaction or contract had with the state, any political subdivision thereof, a public authority or with a public department, agency or official of the state or of any political subdivision thereof or of a public authority, refuses to sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant question concerning such transaction or contract and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any municipal corporation or fire district or with any public department, agency or official thereof, for goods, work or services, for a period of five years after such refusal or until a disqualification shall be removed pursuant to the provisions of section one hundred three-c of this article.

It shall be the duty of the officer conducting the investigation before the grand jury, the head of a state department, the chairman of the temporary state commission or other state agency, the organized crime task force in the department of law, the head of a city department or other city agency before which the person so refusing is known to be a member, partner, officer or Purchasing Manager, to the commissioner of transportation of the state of New York and the appropriate departments, agencies and officials of the state, political subdivisions thereof or public authorities with whom the person so refusing and any firm, partnership or corporation of which he is a member, partner, Purchasing Manager or officer, is known to have a contract. However, when such refusal occurs before a body other than a grand jury, notice of refusal shall not be sent for a period of ten days after such refusal occurs. Prior to the expiration of this ten day period, any person, firm, partnership or corporation which has become liable to the cancellation or termination of a contract or disqualification to contract on account of such refusal may commence a special proceeding at a special term of the supreme court, held within the judicial district in which the refusal occurred, for an order determining whether the

questions in response to which the refusal occurred were relevant and material to the inquiry. Upon the commencement of such proceeding, the sending of such notice of refusal to answer shall be subject to order of the court in which the proceeding was brought in a manner and on such terms as the court may deem just. If a proceeding is not brought within ten days, notice of refusal shall thereupon be sent as provided herein.

103-d. Statement of non-collusion in bids and proposals to political subdivision of the state.

(FN1) Every bid or proposal hereafter made to a political subdivision of the state or any public department, agency or official thereof where competitive bidding is required by statute, rule, regulation or local law, for work or services performed or to be performed or goods sold or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury: Non-collusive bidding certification.

(a) "By submission of this bid, each bidder and each person signing on behalf of any bidder certifies and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of knowledge and belief:

(1) The prices in this bid have been arrived at independently without collusion, consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in his/her bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly to any other bidder or to any competitor and;

(3) No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

(b) A bid shall not be considered for award nor shall any award be made where (a) (1) (2) and (3) above have not been complied with; provided however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore. Where (a) (1) (2) and (3) above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of the purchasing unit of the political subdivision, public department, agency or official thereof to which the bid is made or his/her designee, determines that such disclosure was not made for the purpose of restricting competition.

The fact that a bidder (a) has published price lists, rates or tariffs covering items being procured, (b) has informed prospective customers of proposed or pending publication of new or revised price lists for such items or;

(c) Has sold the same items to other customers at the same prices being bid, does not constitute, without more, a disclosure within the meaning of subparagraph one (a).

Any bid hereafter made to any political subdivision of the state or any public department, agency or official thereof by a corporate bidder for work or services performed or to be performed or goods sold or to be sold, where competitive bidding is required by statute, rule, regulation or local law and where such bid contains the certification referred to in subdivision one of this section, shall be deemed to have been authorized by the board of Purchasing Managers of the bidder and such authorization shall be deemed to include the signing and submission of the bid and the inclusion therein of the certificate as to non-collusion as the act and deed of the corporation.

58. Anti-discrimination Clause: During the performance of this contract, the contractor agrees as follows:

(a) The contractor will not discriminate against any employee because of race, creed, color, sex or national origin and will take affirmative action to insure that they are afforded equal employment opportunities without discrimination because of race, creed, color, sex or national origin. Such action shall be taken with reference but not be limited to: recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff or termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the job training.

(b) The contractor will send to each labor union or representative of workers with which he has or is bound by a collective bargaining or other agreement or understanding, a notice, to be provided by the New

York State Division for Human Rights, advising such labor union or representative of the contractor's agreement under clauses (a) through (g) hereinafter called "non-discrimination clauses"). If the contractor was directed to do so by the contracting agency as part of the bid or negotiation of this contract, the contractor shall request such labor union or representative to furnish him with a written statement that such labor union or representative will not discriminate because of race, creed, color, sex or national origin and that such labor union or representative either will affirmatively cooperate, within the limits of its legal and contractual authority, in the implementation of the policy and provisions of these non-discrimination clauses or that it consents and agrees that recruitment, employment and the terms and conditions of employment under this contract shall be in accordance with the purposes and provisions of these non-discrimination clauses. If such labor union or representative fails or refuses to comply with such a request that it furnish such a statement, the contractor shall promptly notify the New York State Division of Human Rights of such failure or refusal.

- (c) The contractor will post and keep posted in conspicuous places, available to employees and applicants for employment, notices to be provided by the New York State Division of Human Rights setting forth the substance of the provisions of clauses (a) and (b) and such provisions of the State's laws against discrimination as the New York State Division of Human Rights shall determine.
- (d) The contractor will state, in all solicitations or advertisements for employees placed by or on behalf of the contractor, that all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, sex or national origin.
- (e) The contractor will comply with the provisions of the Human Rights Law of the State of New York as set forth in section 290-301 of the Executive Law of New York, will furnish all information and reports deemed necessary by the State Division for Human Rights under these non-discrimination clauses and such sections of the Executive Law and will permit access to his/her books, records and accounts by the State Division for Human Rights, the Attorney General and the Industrial Commissioner for purposes of investigation to ascertain compliance with these non-discrimination clauses and such sections of the Executive Law and applicable Federal Civil Rights Laws.
- (f) This contract may be forthwith cancelled, terminated or suspended, in whole or in part by the contracting agency upon the basis of a finding made by the New York State Division for Human Rights that the contractor has not complied with these non-discrimination clauses and the contractor may be declared ineligible for future contracts made by or on behalf of the State or a public authority or agency of the State, until he/she satisfies the New York State Division for Human Rights that he/she has established and is carrying out a program in conformity with the provisions of these non-discrimination clauses. Such finding shall be made by the New York State Division for Human Rights after conciliation efforts by the Commission have failed to achieve compliance with these non-discrimination clauses and after a verified complaint has been filed with the Division, notice thereof has been given to the contractor and an opportunity has been afforded him/her to be heard publicly before three members of the Division. Such sanctions may be imposed and remedies invoked independently of or in addition to sanctions and remedies otherwise provided by law.
- (g) The contractor will include the provisions of clauses (a) through (f) in every subcontract or purchase order in such a manner that such provisions will be binding upon each subcontractor or vendor as to operations to be performed within the State of New York. The contractor will take such action in enforcing such provisions of such subcontract or purchase order as the contracting agency may direct; including sanctions or remedies for non-compliance. If the contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor shall promptly so notify the Attorney General, requesting him to intervene and protect the interests of the State of New York.

59. Workmen's Compensation: Contractor will secure workman's compensation and keep insured during the life of the contract for the benefit of such employees as are required to be insured by the provisions of Chapter 41 of the laws of 1914, as amended, known as the Workmen's Compensation Law and also provisions of Article 9 of the Workmen's Compensation Law known as the Disability Benefits Law. The contract shall be void and of no effect unless the contractor complies with these provisions.

CANCELLATION OF CONTRACT

60. Upon failure of the contractor to deliver within the time specified or failure to make prompt replacement of rejected commodities when so requested, the Purchasing Manager may purchase from other sources to replace the commodity rejected or not delivered. On all such purchases, the contractor agrees to reimburse the County promptly for costs associated with purchasing from other sources. Should the cost be less than the contract price, the contractor shall have no claim to the difference. Such purchases may be deducted from contract quantity by the Purchasing Manager.
61. A contract may be cancelled at the contractor's expense upon nonperformance of contract.

DRAWINGS

62. Rough and/or shop drawings shall be furnished as deemed necessary and required by the specification. Such drawings shall be consistent with the contract documents and shall be considered as forming part of the specification and the contract to which they relate.
63. All lettering on the drawings shall be considered a part of the drawings.
64. Approval by the Purchasing Manager of shop drawings of details for any commodity will not relieve the contractor from responsibility for furnishing same of proper dimension, size, quantity and quality to efficiently perform the work and carry out the requirements and intent of the layout or descriptive drawings forming part of the proposal and specifications. Such approval shall not relieve the contractor from responsibility for errors of any sort in the shop drawings. If the shop drawings deviate or are intended to deviate from the layout or descriptive drawings on specifications, the contractor shall so advise the Purchasing Manager in writing at the time the shop drawings are submitted, stating the difference in value between the contract requirements and that denoted by said shop drawings.
65. Rough and/or shop drawings will be examined by the Purchasing Manager and if necessary, will be returned to the contractor for correction. After the corrections have been made, the contractor shall resubmit to the Purchasing Manager as many copies as required for final approval.
66. All drawings and copies thereof shall become the property of the County.

CONTRACTS INVOLVING INSTALLATION

67. Contractor shall clean up and remove all debris and rubbish resulting from his/her work from time to time as required or directed. Upon completion of the work the premises shall be left in a neat unobstructed condition, the buildings broom clean and everything in satisfactory repair and order.
68. Equipment, supplies and materials shall be stored at the site only upon the approval of the using Agency and at the contractor's risk. In general, such on-site storage should be avoided to prevent possible damage or loss of the material.
69. Work shall be performed so as to cause the least inconvenience to the County and with proper consideration for the rights of other contractors or workmen. The contractor shall keep in touch with the entire operation and install his/her equipment promptly.
70. Installation shall also include the furnishings of any rigging necessary to move equipment into the buildings; also the removal and resetting of any removable windows used for moving equipment into building.
71. Bidders shall acquaint themselves with conditions to be found at the site and shall assume all responsibility for placing and installing the equipment in the locations required.
72. All materials used in installation shall be of the highest quality and shall be free from all defects which would mar the appearance of the equipment or render it structurally unsound.
73. Contractor shall furnish adequate protection from damage for all work and shall repair damages of any kind for which he/she or his/her workmen are responsible.

SAVINGS CLAUSE

74. The contractor shall not be responsible for any losses resulting from his/her failure to perform properly, if such failure was due to causes beyond his/her control and without his/her fault or negligence, including but not restricted to acts of God, wars, acts of public enemies, strikes, fires and floods, provided that the contractor shall within ten (10) days from the beginning of any such delay, notify the Purchasing Manager, in writing, of the cause of such delay.

75. The terms, conditions and requirements set forth in these General Specifications shall be binding upon bidders and contractors submitting bids or furnishing materials in connection with proposals received or contracts awarded by the County pursuant to rules and regulations promulgated by the Purchasing Manager of the Monroe County Division of Purchasing and Central Services.