LEE COUNTY

DESIGN CRITERIA PACKAGE NO. 2
Building & Site
SR82 RMPF

April 28, 2025

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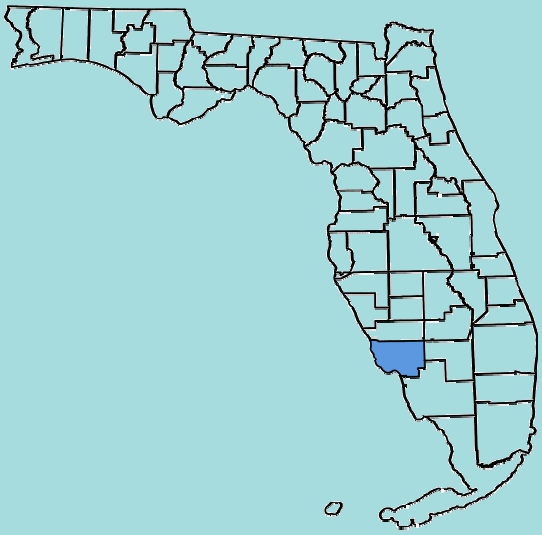
Table of Contents

Lee County
Southwest Florida



Design Criteria Package No. 2 – Building & Site
SR82 RMPF

100% Report - Draft

Contract No. 9737

April 28, 2025

RRT Design & Construction

JOHNSON ENGINEERING

Appendices

Glossary

Terms presented in **bold face** are defined herein.

The firm responsible for all site and building Work, referred to as the **Building Design-Build Firm**, shall be responsible for preparing the architectural and engineering design package for the RMPF building and facilities; the building design, fabrication, delivery, installation, construction, utility service installation, testing, training of County staff, and associated warranties (as applicable); and, all the site work, and coordinating with the Equipment Design-Build Firm. The Project is the design, engineering, construction, and acceptance of the entire facility inclusive of all work by the Equipment Design-Build Firm and the Building Design-Build Firm. The Building Design-Build Firm shall also be responsible for obtaining all required permits for its Work through the Lee County Building and Permitting Services. The Building Design-Build Firm shall fully comply with the DCP No. 2 Contract Documents, and all other work referenced in this report.

The firm responsible for the recycling equipment**,** referred to as the **Equipment Design-Build Firm,** shall provide Lee County with a state-of-the-practice single stream recyclables processing system (**Equipment System**) that will ensure cost-effective recycling services for Lee County's communities, with high reliability, low operating costs, high material recovery rates and highly marketable commodities. The Equipment Design-Build Firm shall design, manufacture, ship, install, field wire, tie-in to on-site utility service, and infrastructure connections, start-up, train, commission, and test the Equipment System. The Equipment System to be provided by the Equipment Design-Build Firm shall fully comply with the DCP No. 1 Contract Documents. The Equipment Design-Build Firm shall also be responsible for any related building permits related to its Work through the Lee County Building and Permitting Services.

The **Equipment System** shall be capable of processing Lee County's residential single stream recyclable material at a minimum average rate of not less than 50 TPH and direct-baling Commercial OCC material at a minimum rate of 25 TPH, while simultaneously meeting all other Performance Requirements and the requirements identified in the Contract Documents and DCP No. 1 Technical Specifications.

Critical Documents are those documents listed in Section 5.2 *Permitting* and Section 6 *Civil and Site Design*, that are critical to the design and construction of the Facility and site, which cannot be changed or modified without written approval by the County, or the County's Representative.

1 Executive Summary

Lee County is developing a new 50 ton-per-hour (TPH) single-stream Recovered Material Processing Facility (RMPF), hereinafter referred to as the "Project." The new RMPF is located east of Colonial Boulevard and south of SR-82 in Fort Myers, FL. The goal of the Project is to provide the County with a facility equipped with a processing system that will ensure cost-effective recycling services for the residents of the County, with high reliability, low operating costs, minimal rebuild/refurbish production loss, and high material recovery rates for marketable commodities. The County plans to procure three (3) contracts: 1) Equipment Design-Build Work, 2) Building Design-Build Work, and 3) Operations Services. RRT Design & Construction is serving as the County's Representative throughout this Project. This solicitation is for the Building Design-Build Work.

The criteria provided below summarizes certain key priorities. Provision of this summary does not relieve the selected proposer of meeting all requirements in the Technical Specifications and Contract Documents. The successful proposer will perform the following work:

- Design, permit, fabricate, deliver, install, construct the Building Design-Build Work consistent with the Contract Documents in coordination with the Equipment Design-Build Firm;
- Prepare the architectural and engineering design services for the RMPF, building, and ancillary facilities;
- Obtain all required permits through the Lee County Building and Permitting Services;
- Install and test all utility services;
- Train County staff in the proper operation and maintenance of all site and building systems provided; and,
- Provide all warranties as applicable.

In general, the facility shall be optimized by following the best engineering and industry practices for the operations and maintenance of the modern RMPF and meet the requirements of all Technical Specifications and Contract Documents.

This Design Criteria Package No. 2 ("DCP No. 2") has been developed to present the basis of design for the proposed facility. The DCP has been prepared to provide each proposer information on the Project, and sets forth the controlling design parameters, describes the facilities, permitting requirements, general design and performance requirements, site and building requirements, fire protection design criteria, electrical design criteria, building mechanical systems, building plumbing systems, construction, and Project considerations. For any items presented and attached herein that may conflict, the Conceptual Plans, Permit Findings, Facility and Equipment Sizing Memo, Geotechnical Reports, Water Connection Letters, and the ESA Reports (provided herein as appendices and/or transmitted previously in DCP No. 1) shall control and have precedence.

2 Introduction

2.1 Background

Lee County Solid Waste Department (Lee County, the County) is developing a new single-stream Recovered Materials Processing Facility (RMPF). The County has purchased a 50-acre property to develop the RMPF. The property is located south of Colonial Boulevard and West of SR-82 in Fort Myers, FL. The purchase of the property and the design and development of an access road for the property are under separate contracts.

The development of the RMPF will be a Design-Build construction approach. The RMPF development is anticipated to include site construction, internal access roads, inbound and outbound truck scales, a scalehouse building, the RMPF building with tipping area, process equipment area, bale storage area, Equipment System, loading docks, employee facilities, administration area, education center, utilities, fencing, fire protection systems, stormwater management facilities, and other RMPF-specific building, site, and equipment considerations as described throughout this DCP. Conceptual Drawings developed for the RMPF can be found in Appendix A.

The RMPF procurement for construction is broken into two different packages. The specified Design Criteria Package (DCP), referred to as DCP No. 1, is the procurement for the design, supply, installation, start-up, acceptance testing, and commissioning of the Equipment System, and is **not** part of this procurement. The second DCP, referred to as DCP No. 2, is for the design, supply, installation, and commissioning of the site work, on-site utilities, truck scales, and building, and is the purpose of this procurement.

2.2 Procurement Approach for DCP No. 1 Equipment System

The work of the selected **Equipment Design-Build Firm** is to provide the Owner with a state-of-the-practice single stream recyclables processing system (henceforth referred to as the **Equipment System**) that will ensure cost-effective recycling services for Lee County's communities, with high reliability, low operating costs, high material recovery rates and highly marketable commodities. The **Equipment Design-Build Firm** is responsible to design, manufacture, deliver, install, field wire, start-up, train, and test the Equipment System in compliance with the Contract Documents.

2.3 Procurement Approach for DCP No. 2 General Construction: Site and Buildings

The **Building Design-Build Firm** shall be responsible for providing the Owner with the Site and Building for the Project. The Building Design-Build Firm shall be responsible for obtaining all required building and fire permits, and prepare the architectural, structural, mechanical, and engineering design package for the RMPF site, building and facilities; the building design, fabrication, delivery, installation, construction, utility service installation, as further defined herein, and for all performance-based specifications in DCP No. 2 and Contract Documents. For Site construction, the procurement and the contract documents will be based on detailed design drawings and specifications for the required work.

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3 Description of Facilities

The Project will include design, permitting, and construction of the following elements. Reference Drawings are provided in Appendix A.

3.1 Administration Building (Area 1)

The Administration and Employee Area shall be located in a two (2) story structure, first level is referred to as Area 1B, and the second level is referred to as Area 1A.

3.1.1 Second Floor Administration Building (Area 1A)

The second floor of the Administration Building, Area 1A, as presented in Appendix A, is dedicated to use by Lee County employees, and a state-of-the-art Education Center to provide visitors an opportunity to learn about Lee County's recycling programs, recyclable materials, and the RMPF. The spaces will be finished as part of construction, but the County will furnish the Offices, Conference Room, and Education Center when it is turned over by the Building Design-Build Firm.

Doors

1. Interior Personnel Doors: All interior personnel doors shall be 3 ft x 7 ft, steel type with full frame welded (FFW) 18-guage metal frames and hinges. The County's standardized key system shall be used, and all hardware shall be polished chrome and meet the ADA requirements.

2. Interior Closet Doors: All closet doors shall be a steel type sized for the application and constructed with 18-gauge full frame welded (FFW) metal frames. The County's standardized key system shall be used, and all hardware shall be polished chrome and meet the ADA requirements.

Widows

1. Double glazed Low -E insulated panels in aluminum frames

Interior Construction and Finish

1. Office, Conference Room, and Corridor Walls: Unless specified elsewhere all interior office, conference room, and corridor walls will be constructed with light gauge metal framing covered with painted ½" inch thick gypsum board.
2. Breakroom Cabinetry and Hardware
    a. The breakroom cabinetry will be constructed of a premium grade laminate clad wood veneer and constructed according to ANSI /AWI O400 standards.
    b. Provided with an industrial solid surface countertop, and matching shelf(s) for microwave.
    c. No Particle board, or MDF will be allowed in the construction of the cabinetry.
    d. All cabinetry hardware will be polished chrome.
3. Ceiling: All Interior Administrative Areas are to be provided with acoustic tile ceilings at 9ft finished height, as per reference drawings in Appendix A, unless noted otherwise.
4. Plumbing Fixtures and Hot Water
    a. Plumbing Fixtures

- All ADA restroom sinks are to be commercial grade, ADA compliant, and white porcelain.
- All ADA restroom toilets to be wall hang type, commercial grade, ADA compliant, and white porcelain.
- All other sinks and toilets are to be commercial grade, white porcelain.
- All faucets and lavatory fixtures are to be polished chrome, low-flow, and motion sensing on/off, or flush.
- Breakroom and break area sinks will be stainless steel with polished chrome faucets.

a. Hot Water

- All Lavatory and breakroom sinks will be provided with an instant on, point of use, electric hot water heater capable of producing 120° water instantaneously.

5. Lighting Fixtures: All lighting fixtures provided will be LED for energy conservation, mounted within the acoustic ceiling tile, and controlled by motion sensor switches within each area.
6. Flooring: The flooring of the second-floor atrium area will be two (2) tone, polished and sealed concrete. Corridors, lavatories, and all areas throughout are to be vinyl tile, unless noted otherwise. Education / observation room and offices are to be carpet.
7. Wall Base: Resilient Base with typical coved tile base to match tile wall tile at rooms with wall tile.

3.1.2 First Floor Administration Building (Area 1B)

The first floor of the Administration Building, Area 1B, and as depicted conceptually in Appendix A, shall be used by the RMPF Operator and its staff. The spaces will be finished as part of construction in accordance with the conceptual layout, unless otherwise approved. The Operator will furnish the Offices and Conference Room.

Doors

1. Interior Personnel Doors: All interior personnel doors shall be 3 ft x 7 ft, steel type with full frame welded (FFW) 18-guage metal frames and hinges. The County's standardized key system shall be used, and all hardware shall be polished chrome and meet the ADA requirements.
2. Interior Closet Doors: All closet doors shall be a steel type, sized for the application, and constructed with 18-gauge full frame welded (FFW) metal frames.
3. Interior Locker Room, Break Room, and Plant Access Doors: All interior locker room, break room and plant access doors shall be 3 ft X 7 ft hollow metal 16-guage doors, with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
4. Exterior Doors: All exterior doors, excluding the Main Atrium and Breakroom Doors, shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

5. Exterior Breakroom Door: The Exterior Breakroom Door shall be 3 ft x 8 ft aluminum and glass storefront door finished to match adjacent glazed curtain wall frame and glazing finished with the following capabilities.
   a. Timer to control access, with manual override.
   b. The County's standardized key system shall be used.
   c. Provide components for electronic entry system.[1]
6. Exterior Main Atrium Door: The Exterior Main Atrium entry door shall be constructed of one (1) motorized sliding 3 ft x 8 ft aluminum and glass storefront door with a fixed glazed side panel, finished to match adjacent glazed curtain wall frame and glazing finish with the following capabilities.
   a. Timer to control access, with manual override.
   b. The County's standardized key system shall be used.
   c. Provide components for electronic entry system.[1]

Interior Construction and Finish

1. Office, Conference Room, and Corridor Walls: Unless specified elsewhere all interior office, conference room and corridor walls will be constructed with light gauge metal framing covered with painted ½" thick gypsum board as indicated in Appendix A.
2. Breakroom Cabinetry and Hardware
   a. The breakroom cabinetry will be constructed of a premium grade laminate clad wood veneer and constructed according to ANSI /AWI O400 standards.
   b. Provided with an industrial solid surface countertop, and matching shelf(s) for microwave.
   c. No Particle board, or MDF will be allowed in the construction of the cabinetry.
   d. All cabinetry hardware will be polished chrome.
3. Locker Rooms: The locker room walls will be constructed with light gauge metal framing covered with painted water-resistant gypsum board with tile 4ft high ceramic tile wainscot.
4. Showers: The locker room shower walls will be constructed with light gauge metal framing covered with water-resistant gypsum board and tile from floor to ceiling.
5. Ceilings
   a. All Interior Administrative Areas are to be provided with acoustic tile ceilings at 9ft finished height, as per reference drawings in Appendix A unless otherwise noted.
   b. Locker Room Ceilings: The locker room ceilings will be covered with moisture resistant gypsum board, and moisture resistant paint.
6. Plumbing Fixtures and Hot Water
   a. Fixtures
      - All ADA restroom sinks are to be commercial grade, ADA compliant, and white porcelain.
      - All ADA restrooms, and locker room toilets are to be commercial grade, ADA compliant, and white porcelain.
      - All other restroom sinks and toilets are to be commercial grade, white porcelain.
      - All urinals are to be commercial grade, white porcelain, and waterless no flush.

[1] Electronic System hardware must be coordinated with County IT and be integrated with County's system.

- All restroom faucets and lavatory fixtures are to be polished chrome, low flow, and motion sensing on/off, or flush.
- All locker room showerheads, and controls, are to be finished in polished chrome, and low flow.
- All breakroom and break area sinks will be stainless steel with polished chrome faucets.

b. Hot Water
   - All Lavatory and breakroom sinks will pe provided with an instant on, point of use, electric hot water heater capable of producing 120° water instantaneously.
   - The locker rooms showers are to be provided with tankless, instant on hot water heaters capable of maintaining 120° Fahrenheit at 3.0 GPM.

7. Lighting Fixtures: All lighting fixtures provided will be LED for energy conservation, mounted within the acoustic ceiling tile, and controlled by motion sensor switches within each area.
8. Flooring: The flooring of the entire first floor will be two (2) tone polished and sealed concrete, and the bathrooms shall have an epoxy floor coating.
9. Wall Base: Resilient Base with typical coved tile base to match tile wall tile at rooms with wall tile.
10. Locker Room Lockers: The lockers for the men's and women's locker rooms are to be full length metal modular lockers.

3.2 Bale Storage Area and Loadout Areas (Areas 2 & 3)

3.2.1 Bale Storage (Area 2)

The bale storage area provides a 17,800 square foot area for bale storage and material loadout. Concrete push walls located on the eastern side of Areas 2 & 3 are to be 14' high to protect the building structure and wall, so the bales can be stacked four (4) high.

Doors

1. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
2. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.2.2 Bale Loadout (Area 3)

An interior forklift level access approach to loading dock system shall be provided on the Southern side of Area 3, and shall include hydraulic dock levelers, dock locks (truck restraints), bumpers, dock seals, and dock lighting systems. A total of six (6) loading docks, with 10' wide x 10' high motorized rollup doors to close a wall opening of 8'-6" wide by 9'-6" high; the door will be inside mount with the tracks mounted away from the opening. The hydraulic dock leveling systems, bumpers, and dock seals as well as the foundations/stem walls must be designed and provided to accommodate the final grade of the loading ramps, which is currently estimated to be a 2.2% grade over 75 feet and conform with all applicable

permitting. The dock levelers shall be designed to accommodate 10,000 lb. forklifts transporting bales with a combined weight of 2 tons into van trailers at the level of frequency to support the operation.

Doors

1. Motorized Roll-up Doors: All motorized roll-up doors within the Bale Loadout Area (Area 3), as indicated in Appendix A, and further described in Section 8.2.2, shall have pre-finished painted opening jambs and headers. All roll-up doors are to have interior mounted overhead mechanical housing enclosures, and shall be factory primed and painted, with an exterior grade finish per the County approved color scheme.
2. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
3. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.3 Manifest Office (Area 4)

The Manifest Office shall provide a waiting area for the trailer drivers and shall be located within the PEMB Area 5 adjacent to the loading docks in Area 3. The Manifest Office can be constructed on site or be a prefabricated self-contained interior structure manufactured by Porta-king, Porta-Fab, Par-kut International, or equal, and shall include a kitchenette, restroom facilities for drivers and a private office for RMPF Operator personnel. All cabinets shall be of solid wood construction, not MDF. See Reference Drawing in Appendix A.

Doors

1. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
2. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

Interior Finishes

1. The Breakroom Cabinetry and Hardware
   a. The break room cabinetry will be constructed of a premium grade laminate clad wood veneer and constructed according to ANSI/AWI O400 standards.

b. Provided with an industrial solid surface countertop, and matching shelf(s) for a microwave.
c. No particle board, or MDF will be allowed in the construction of the cabinetry.
d. All cabinetry hardware will be polished chrome.

2. Ceiling: All Interior Administrative Areas are to be provided with acoustic tile ceilings.
3. Lighting Fixtures: All lighting fixtures provided will be LED for energy conservation, mounted within the acoustic ceiling tile, and controlled by motion sensor switches within each area.
4. Plumbing Fixtures and Hot Water
   a. Fixtures
      - All ADA restroom sinks are to be commercial grade, ADA compliant and white porcelain.
      - All ADA restroom toilets are to be commercial grade, ADA compliant, and white porcelain.
      - All lavatory fixtures are to be polished chrome, low flow, and motion sensing on/off, or flush.
      - All breakroom and break area sinks will be stainless steel with polished chrome faucets.

   b. Hot Water
      - All Lavatory and breakroom sinks will pe provided with an instant on, point of use, electric hot water heater capable of producing 120° water instantaneously.

5. Flooring: The flooring throughout Area 4 will be commercial grade vinyl.
6. Wall Base: Resilient Base with typical coved tile base to match tile wall tile at rooms with wall tile.

3.4 Material Processing Area (Area 5)

The Material Processing Area shall be approximately 87,000 square feet, and be clear of columns, so the Equipment System can be installed.

Doors

1. Motorized Roll-up Doors: All motorized roll-up doors within the Material Processing Area (Area 5), as indicated in Appendix A, and further described in Section 8.2.2. shall have pre-finished painted opening jambs and headers. All roll-up doors shall have interior mounted overhead mechanical housing enclosures and shall be factory primed and painted with an exterior grade finish per the County approved color scheme.
2. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage, hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish.
3. Interior Plant Access Doors: All interior plant access doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

Electrical Drops

1. The Building Design-Build Firm shall coordinate with the Equipment Design-Build Firm to coordinate and install all electrical drops for all fans, equipment, maintenance, and lighting.

3.5 Parts Storage and Maintenance Area (Area 6)

The Maintenance Area shall be approximately 7,920 square feet, and will be designed for parts storage, grinding and welding activities, and storage of lubricants and miscellaneous facility operating supplies. The configuration will consist of rooms, open areas, fire-proof areas suitable for racking, cages, and accessible for forklift and smaller rolling stock. All furnishings will be by the County or its Operator.

Doors

1. Motorized Roll-up Doors: All motorized roll-up doors within the Parts Storage and Maintenance Area (Area 6), as indicated in Appendix A, and further described in Section 8.2.2. shall have Pre-finished painted opening jambs and headers. All roll-up doors shall have interior mounted overhead mechanical housing enclosures and shall be factory primed and painted with an exterior grade finish per the County approved color scheme.
2. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
3. Exterior Personnel Doors: All exterior doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.6 County Supply Storage Room (Area 7)

The County Supply Storage Room is approximately 1,200 square feet in size and is designed for County owned parts and supplies storage. All furnishings will be by the County.

Doors

1. Motorized Roll-up Doors: All motorized roll-up doors within the Parts Storage and Maintenance Area (Area 7), as indicated in Appendix A, and further described in Section 8.2.2. shall have pre-finished painted opening jambs and headers. All roll-up doors shall have interior mounted overhead mechanical housing enclosures and shall be factory primed and painted with an exterior grade finish per the County approved color scheme.
2. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
3. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, all exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.7 Trash Compactor Area (Area 8)

The Trash Compactor area is approximately 3,300 square feet in size and is a dedicated and enclosed area to house the residue compactors. The Building Design-Build Firm will provide motorized roll-up doors and personnel doors within Area 8, as indicated in Appendix A, and further described in Section 8.2.2.

Doors

1. Motorized Roll-up Doors: All motorized roll-up doors within the Trash Compactor Area (Area 8), as indicated in **Appendix A**, and further described in Section 8.2.2. shall have pre-finished painted opening jambs and headers. All roll-up doors to have interior mounted overhead mechanical housing enclosures and shall be factory primed and painted with an exterior grade finish per the County approved color scheme.
2. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guagedoors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
3. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.8 Glass Loadout Area (Area 9)

The Glass Loadout area is approximately 12,900 square foot building adjacent to the Material Processing Area and is used for loading the dump trailers with the glass recovered from the Equipment System.

Doors

1. Motorized Roll-up Doors: The Building Design-Build Firm will provide two (2) High-Speed motorized roll-up Door on the North and South sides of the Glass Loadout Area (Area 9), as indicated in Appendix A, and further described in Section 8.2.2. shall have Pre-finished painted opening jambs and headers. All roll-up doors to have interior mounted overhead mechanical housing enclosures and provided in a County approved color.
2. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
3. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

Glass Storage Bunkers

There (3) concrete storage bunkers will be provided for storage of post processed glass. The glass storage bunkers will be 26'L X 25'W X16'H and constructed of reinforced cast in place concrete, as noted in Appendix A.

3.9 Tipping Floor (Area 10)

The tipping floor shall be approximately 47,000 square feet, with a minimum of 33,000 square feet for storage of incoming materials. The tipping floor shall have a drive-thru configuration. There shall be two (2) lanes of traffic on the tipping floor, and the tipping floor shall be able to accommodate 48' to 53' transfer trucks and trailers, FEL's, REL's, Roll-Off vehicles and other delivery vehicles as described below. Storage space for as-received single-stream material shall be provided. The tipping area will be designed to include provisions for a direct bale conveyor to receive and bale clean OCC and other materials such as mixed rigid plastics, as well as dedicated storage area for clean unprocessed OCC, mixed rigid plastics, and other commercial tons received by the RMPF. Push walls shall be 20 ft high and shall be located on the eastern, southern, and western sides of the tipping area. An environmental wall shall be provided to separate and seal off the tipping area from the processing areas to avoid dust and debris from entering the processing area, as well as diesel fumes. The clear ceiling height shall be a minimum of 40 ft. Vehicles shall enter the tipping floor using the west side overhead door and exit using the east side overhead door. An overhead door shall be located on the north side as a secondary means of vehicle exit. The north overhead door can also be used by walking floor trailers to back into the tipping floor and unload material. The overhead doors shall be 20 ft wide and 28 ft high. The east and west tipping floor doors shall be fast operating (opens and closes quickly in order to better contain dust and noise inside the building).

The RMPF tipping floor shall be capable of receiving material delivered to the RMPF from the following vehicle types:

- Front End Loaders
- Rear End Loaders
- Side Loaders
- Roll Off Container Trucks
- Compactor Container Trucks
- Walking Floor and Push-Out Transfer Trailers
- Open-Top Trailers
- Walking Floor Trailers

The tipping floor shall be designed for accumulation and stockpiling of material by a front-end loader, shall include space for segregating incoming direct-bale material, shall allow for safe and effective maneuvering of all inbound and outbound vehicles and safe and effective maneuvering of front-end loaders. The tipping floor shall include a minimum of 33,000 square feet dedicated to the storage of incoming material with the remaining 14,000 square feet for truck traffic movement.

Doors

1. Motorized Roll-up Doors: The Building Design-Build Firm will provide two (2) High-Speed motorized roll-up doors on the east and west sides, and one (1) motorized roll-up door on the north side of Area 10, as indicated in Appendix A, and further described in Section 8.2.2. All roll-up doors shall have interior mounted overhead mechanical housing enclosures and shall be factory primed and painted with an exterior grade finish per the County approved color scheme. The high-speed motorized doors will be provided in a County approved color.
2. Exterior Personnel Doors: All exterior personnel doors shall be 3 ft x 7 ft 16-guage hollow metal doors with 16-guage full frame welded (FFW) metal frames, saddles, hinges, weather stripping and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme.

3.10 Scalehouse and Scales (Area 11)

3.10.1 Scalehouse

The scalehouse building will be a prefabricated self-contained building, manufactured by Porta-King, Porta-Fab, Par-kut International, or equal, and shall be provided with utilities and amenities to accommodate two employees. The scalehouse shall be elevated such that a scale attendant inside is at eye level with the truck driver on the scale. The scalehouse shall have an office/break room for County employees to use as necessary, an ADA compliant unisex bathroom, janitor's closet, and IT closet, as noted on the Scale House Conceptual drawing in Appendix A.

The Building Design-Build Firm will provide the following exterior and interior features and finishes.

Exterior Features and Finishes

1. General Features
   a. Exterior color – The scalehouse will be painted with the same color palette as the RMPF buildings.
   b. Canopy – A 2'- 0" X 4' - 6" canopy, at a clear height of approximately 8' – 0" shall be provided over the scale pass through, or transaction windows on each side of the Scale House.
   c. Interior ceiling Height: The interior height of the prefabricated scalehouse shall be 8 Feet.
2. Windows
   a. Transaction Windows – Two (2) 4'- 6"X 4'- 0" Transaction windows will be provided on the Scale house where indicated in Appendix A
   b. Horizontal Sliding windows – Two (2) 4'- 6" x 3'- 4" horizontal sliding windows will be provided on the scalehouse where indicated on Appendix A.
   c. Fixed Windows
      - Restroom Window – The two (2) restroom windows- will be fixed and will be sized 1'- 8" x 3'- 4".
      - South Hall Window – The one (1) window located on the south side of, and in the entrance hall of, the Scale House will be fixed and will be sized 4'- 2" x 3'- 4".

3. Doors
    a. Interior Personnel Doors: All interior personnel doors shall be 3 ft X 7 ft hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware. The County's standardized key system shall be used and meet the ADA requirements.
    b. Closet Doors: All closet doors shall be sized for the application and hollow metal 16-guage doors with 16-gauge full frame welded (FFW) metal frames, 16-gauge door hinges, and polished chrome hardware.
    c. Exterior Scalehouse Door: The exterior scalehouse door shall be 3 ft X 7 ft insulated door, constructed of 16-gauge hollow metal door with full frame welded (FFW) metal frames, 16-gauge door, glass kit, saddles, weather stripping, hinges, and emergency egress hardware. The County's standardized key system shall be used, and all hardware shall be polished chrome, and meet the ADA requirements for the door type, size, and finish. All exterior doors shall be factory primed and painted on site with an exterior grade finish per the County approved color scheme, with the following capabilities.
        - The County's standardized key system shall be used.
        - Provide components for electronic entry system.[2]

Interior Finishes

1. The Breakroom Cabinetry and Hardware
    a. The break room cabinetry will be constructed of a premium grade laminate clad wood veneer and constructed according to ANSI/AWI O400 standards.
    b. Provided with an industrial solid surface countertop, and matching shelf(s) for a microwave.
    c. No particle board, or MDF will be allowed in the construction of the cabinetry.
    d. All cabinetry hardware will be polished chrome.
2. Scale Attendant Workstations and Hardware
    a. The Scale Attendant Workstations will be constructed of a premium grade laminate clad wood veneer and constructed according to ANSI/AWI O400 standards.
    b. Each workstation will be provided with one (1) drawer under the operable section of the Transaction windows, and a minimum of two (2) drawers under the countertop, and located under the inoperable section of the transaction window.
    c. Provided with an industrial countertop.
    d. No particle board, or MDF will be allowed in the construction of the cabinetry.
    e. All cabinetry hardware will be polished chrome.
3. Ceiling: All Interior Administrative Areas are to be provided with acoustic tile ceilings.
4. Lighting Fixtures - All lighting fixtures provided will be LED for energy conservation, mounted within the acoustic ceiling tile, and controlled by motion sensor switches within each area.
5. Plumbing Fixtures and Hot Water
    a. Fixtures

[2] Electronic System hardware must be coordinated with County IT and be integrated with County's system.

- All ADA restroom sinks are to be commercial grade, ADA compliant, and white porcelain.
- All ADA restroom toilets are to be commercial grade, ADA compliant, and white porcelain.
- All lavatory fixtures are to be polished chrome, low flow, and motion sensing on/off, or flush.
- Breakroom sink will be stainless steel with polished chrome faucets.

b. Hot Water

- All Lavatory and breakroom sinks will pe provided with an instant on, point of use, electric hot water heater capable of producing 120° water instantaneously.

6. Lighting Fixtures: All lighting fixtures provided will be LED for energy conservation, mounted within the acoustic ceiling tile, and controlled by motion sensor switches within each area.
7. Flooring: The flooring throughout Area 11 will be commercial grade vinyl tile.
8. Wall Base: Resilient Base with typical coved tile base to match tile wall tile at rooms with wall tile.

3.10.2 Scales

As further described in Section 8.12.3, with additional details, the RMPF shall include two (2) above ground 11 feet wide by 80 feet long, electronic, truck scales, one (1) for inbound vehicles and one (1) for outbound vehicles, two (2) bypass lanes with one (1) for inbound traffic and the other for outbound traffic. It is anticipated that scales shall be identical and each with 100,000-pound gross vehicle weight capacity. Scale equipment software is to be compatible with the County's current software scale program as described in Section 8.12.3.

The scales will be located on site so that all traffic waiting to utilize the scales shall be contained on site and shall not queue on any off-site roadway. A total of five (5) trucks can queue on-site. There is additional capacity with the use of the inbound bypass lane.

There shall be one (1) Scalehouse for the RMPF to service all vehicles requiring the use of truck scales. The scale house shall be a pre-engineered, pre-fabricated structure fully air-conditioned with a restroom. The scale house shall be elevated such that the scale attendant is at a height that allows for direct paper transfer with the truck drivers such that the scale attendant is "eye-to-eye" with the driver. Each truck scale shall be offset from the other to allow the transaction window on each side to be in a direct line of sight and align with the driver's windows. All necessary communication equipment and data systems shall be provided. The Scalehouse shall be capable of printing bills of lading.

3.10.3 Scale Signaling Systems, Traffic Controls, and Communications

The Building Design-Build Firm shall provide the signaling systems and traffic controls for the scalehouse and scales. The signaling systems and traffic controls will include individual red over green traffic control signal light fixtures mounted at the scalehouse (in order to control traffic on the scales) and adjacent to the entrance of each scale (in order to control traffic entering the scale). Signage directing traffic to the scales and on-site shall be provided.

Communication equipment and data systems shall be in accordance with Lee County requirements and located within the scalehouse including:

- Hardware and software for the scale system.
- RS232 and ethernet control interface between weight indicators and scale management systems.
- High speed data and cable wiring.
- Certified scale software system capable of being integrated into the County's Waste Works, version 2.1.5.8 software.
- Remote, alpha-numeric character display weigh indicators shall be mounted alongside the scalehouse in a location which makes the readout visible from any vehicle sitting on the scale weigh bridge in the inbound and outbound directions.
- Intercom equipment shall be provided for the scale facility to enable the scale operator to make announcements and give direction to an isolated general area.
- Scale operator workstations will be provided in the Scale Attendant Work Area, under each of the Transaction windows. The workstations will be set at a minimum height of 36", so the Scale Attendants can communicate with the truck drivers at the same level.
- Ticket printers for production of scale receipts and reports.
- Phones.

4 General Design Considerations

4.1 Signs and Branding

Building Design-Build Firm shall provide the county sign on the building above the entrance and the Sign at the entrance to the facility. County will provide detailed requirements prior to design phase. All other signs will be the responsibility of the County.

4.2 Green Design Features

Bicycle racks for up to ten (10) employees per shift are to be supplied and installed by the Building Design-Build Firm. Green energy features, such as EV charging stations, solar panels, or wind turbines are not required. Green energy design standards such as LEED or WELL are also not required.

5 General Site/Civil Design Criteria

5.1 Codes and Standards

The Building Design-Build Firm will use the latest edition of the Miami-Dade County Building code for the structure, which is above and beyond the requirements of the Florida Building Code for Lee County. The Building Design-Build Firm is responsible for completing its own code search, providing and using the applicable building code data on the drawings and in the construction of the RMPF, and site. A list of relevant codes, standards, rules, and regulations are listed below and may or may not be completely exhaustive or applicable:

- Lee County Utilities Standard Details, General Notes AND Testing Requirements Updated, Latest Version.
- City of Fort Myers Design Standards, November 12, 2024.
- Florida Power & Light Electric Service Standards, ROW Consent Standards, November 2012.
- Recommended Standards for Water Works ("10 States Standards"), 2012.
- Recommended Standards for Wastewater Facilities ("10 States Standards"), 2014.
- South Florida Water Management District Rules, Latest Edition; Florida Administrative Code, Chapter 40E.
- Chapter 62-604 Florida Administrative Code, Florida Department of Environmental Protection Wastewater Regulations, February 16, 2012.
- The Lee Plan as Amended through May 2024, as Lee County's Comprehensive Plan, Latest Version.
- Lee County Land Development Code, Latest Version.
- Florida Department of Transportation, FY 2023-2024 Standards Plans for Road and Bridge Construction, and applicable Interim Revisions.
- Florida Department of Transportation, Standard Specifications for Road and Bridge Construction FY 2025-26, and applicable Interim Revisions.
- Florida Department of Transportation Design Manual, January 2025.
- Manual of Uniform Minimum Standards for Design, Construction and Maintenance ("Florida Greenbook"), 2018 Florida Greenbook, Effective July 20, 2021.
- Manual of Uniform Traffic Control Devices for Streets and Highways, 11th Edition, December 2023.
- Florida Building Code, Eighth Edition, 2023.
- Chapter 62-555 Florida Administrative Code, Florida Department of Environmental Protection Water Supply Regulations.

5.2 Permitting

Permits or applications for permits on behalf of the County will need to be obtained from various agencies by the Building Design-Build Firm, unless otherwise noted, to allow construction of the RMPF within the time frame specified in the Contract Documents. All permits are the responsibility of the Building Design-Build Firm, unless otherwise noted within the Contract Documents. Refer to Appendix B, Permit Findings Memo, dated July 25, 2024, which summarizes the State permitting requirements as they relate to Solid Waste and Air Emissions for the RMPF.

The site-specific permits already applied for, or obtained, are included in Appendix C and include:

- C-1 U.S. Army Corps of Engineers (USACE) Section 404 Permit – The USACE 404 permit has been applied for and awaiting permit or request for additional information as of April 16, 2025.
- C-2 South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP) – The SFWMD ERP has been applied for and responding to the first request for additional information as of April 16, 2025
- C-3 South Florida Water Management District (SFWMD) Water Use Permit (WUP) for Irrigation – The SFEMD WUP has been applied for and has been received.

Other Required Permits

- Lee County Development Order Permit – A Lee County Development Order Permit will be required for this project, and as of this report, the application is in process and will be submitted in May 2025.
- Florida Department of Environmental (FDEP) Specific Permit to Construct Public Water Supply (PWS) Components – A FDEP PWS Permit will be required for this project, and as of this report, the application is in process and will be submitted in June 2025.
- Florida Department of Environmental (FDEP) Constructing a Domestic Wastewater Collection/Transmission System Permit – A FDEP Constructing a Domestic Wastewater Collection/Transmission System Permit will be required for this project, and as of this report, the application is in process and will be submitted in May 2025.

5.3 Field Surveys

A boundary survey was created in January 2023 by Johnson Engineering. Bearings and coordinates are based on the State of Florida Plane Coordinate System of North American Datum 1983 (NAD 83) w/2011 adjustment, Zone West. Elevations are based on the North American Vertical Datum 1988 (NAVD 88) and on a National Geodetic Survey (NGS) Benchmark A 532 (AJ7552), with an established elevation of 23.04 feet (NAVD88). This survey is provided as Appendix D.

A topographic survey of the property boundary was completed by Johnson Engineering Inc. in January 2024. The Topographic survey was based off the benchmark CP#503 stamped LB642 with an established elevation of 22.00-FT (NAVD88), CP#504 stamped LB642 with an established elevation of 24.20-FT (NAVD88), CP#513 stamped LB642 with an established elevation of 21.05-FT (NAVD88), CP#521 with an established elevation of 23.92-FT (NAVD88). This survey is provided as Appendix E.

5.4 Geotechnical Investigation

A geotechnical investigation of the site was completed. Earthwork and foundation requirements will take into account the geotechnical recommendations included in the geotechnical report. Additional geotechnical investigations should be performed to supplement the information. This report is provided as Appendix F.

5.5 Environmental Site Assessment Reports

Environmental Site Assessment (ESA) Phase I and Phase II Reports are attached in Appendices G and H, respectively.

5.6 Roadways

5.6.1 Site Access Roadways

The ingress / egress roadway extension will provide access to the site and will be divided into two separate driveways for mixed vehicular use. All designs of driveways and roadways that connect to the off-site roadway shall meet the Florida Department of Transportation and/or Lee County design criteria.

In the major driveways and other areas where large vehicular traffic flow occurs regularly, a design cross section that conforms to, at a minimum, to Lee County's design criteria of a Minor Arterial (LDC Sec. 10-285) with a preference for the first lift of asphalt to be 2" followed by 1.5" for a total of 3.5" of asphalt. The same pavement section will be used for any shoulders.

5.6.2 Internal Site Roadways

The internal site roadways and tractor trailer/bus parking will have a design cross section that conforms to, at a minimum, to Lee County's design criteria of a Minor Arterial (LDC Sec. 10-285) with a preference for the first lift of asphalt to be 2" followed by 1.5" for a total of 3.5" of asphalt. The same pavement section will be used for any shoulders.

Loading dock landings, and other areas where heavy vehicles are expected, will be designed using 6" - 8" reinforced concrete with 12" stabilized subgrade (Min. LBR = 40).

The commuter parking lot and spaces shall have a typical section that includes the following:

- FDOT S.P. 9.5 Asphaltic Concrete
- 8" Lime rock Base (Min. LBR = 100)
- 12" Stabilized Subgrade (Min. LBR = 40)

5.6.3 Parking

All designs of parking areas shall meet the Florida Department of Transportation and/or Lee County design criteria. Parking requirements for the development have been calculated based on the number of employees per shift and similar facilities. An administrative deviation to not provide parking islands will be applied for by the County, however, may not be obtained. All on-site driveways and parking areas must conform to Lee County design criteria.

5.6.4 Site Clearing

The site earthwork proposed is to be within the limits of the proposed developed area (±33.73 acres). The remaining ±16.27 acres will remain undeveloped and uncleared. The existing trees in the undeveloped area will remain unimpacted so they may be included in the landscaping tree requirement as well as serve as a buffer to the adjacent development to the west with the exception of exotic and/or non-native vegetation. All non-native vegetation will be removed from the site by the Building Design-Build Firm, in

accordance with Lee County requirements. The respective/ required vegetation removal permits will be obtained prior to any clearing or grubbing activities.

5.6.5 Earthmoving

The proposed development area is to be filled to meet the required finished floor elevation and minimum roadway design as calculated in the stormwater permitting. The site is only to be filled in the areas within the Project limits; not the entire boundary.

5.6.6 Site Improvements

The site has previously been utilized as agricultural land and mulch processing prior to the current undeveloped state of the parcel. The site will have a proposed stormwater management system designed in accordance with the design criteria set forth by the South Florida Water Management District (SFWMD) to provide stormwater treatment, attenuation, and flood protection. The site will provide a reduction in nutrient runoff to the outfall location and provide more water quality treatment than currently provided.

5.6.7 Wetlands

All wetlands located within the Project limits will be permitted through the U.S. Army Corps of Engineers as well as the South Florida Water Management District prior to any proposed impacts. The County will be responsible for obtaining these permit authorizations, but the Building Design-Build Firm must adhere to the permit conditions.

Mitigation of the permitted wetland impacts will be the responsibility of the County.

5.6.8 Irrigation

The Building Design-Build Firm shall provide the irrigation system. The irrigation system will be supplied by a proposed sandstone aquifer well to be located on-site. The Building Design-Build Firm will supply this system to irrigate all sod and landscaping. The irrigation system and well will be located northwest of the building.

5.6.9 Utilities

5.6.9.1 Potable Water

The City of Fort Myers will be the provider of potable water to the Project site. Lee County Solid Waste will install a 12” watermain from SR82 to the Project site boundary. A backflow preventer and meter will be installed for domestic water supply within the site and as required for the Project.

The Building Design-Build Firm shall install a 12” watermain loop through the site that will remain private and be maintained by Lee County Solid Waste. Due to the repeated loading of heavy vehicles throughout the facility, the watermain loop shall be constructed of Ductile Iron Pipe (D.I.P.) located under asphalt / paved areas. All watermains designed shall be permitted and designed in accordance with Florida Department of Environmental Protection standards by the County.

5.6.9.2 Sanitary Sewer

The City of Fort Myers will be the provider of the sanitary sewer service for the Project site. There will be a new 4” force main that will be installed to the Project site boundary from SR82. The force main will need

to be extended and installed by the Building Design-Build Firm, to connect to the onsite wastewater pump station.

The on-site gravity sewer has been conceptually designed to contain a 6" PVC SDR 26 gravity sewer line to serve the scalehouse discharging into a proposed 4' diameter private lift Station at the northeast corner of the building. The sanitary sewer will then be pumped through a force main connected to the force main at the property line. The lift station shall be designed and installed by the Building Design-Build Firm using South Florida Lift Stations, Inc. (www.southflls.com) and shall be a duplex pump station.

5.6.10 Fire Protection

On-site fire protection will be provided by fire hydrants spaced in accordance with the Lee County design standards. The City of Fort Myers will be the provider of potable water to the Project site. The County will install a 12" watermain from SR82 to the Project site boundary. A backflow preventer and meter will be installed for fire protection of the building(s) by the Building Design-Build Firm.

5.6.11 Gas

Gas service is not required for this Project.

5.6.12 Electric

Florida Power and Light (FPL) is the electrical service provider for the site. The Design-Build Firm will require close coordination with FPL. All electrical improvements need to be constructed to provide power to the site.

6 Civil and Site Design

The civil/site construction plans are located in Appendix C. These plans represent the most current design for the Project and may or may not incorporate all of the requirements associated with permits referenced in Section 5.2 Permitting.

The civil/site construction plans include the following aspects:

- Existing Topography
- Drainage
- Paving and Grading
- Water and Wastewater Utilities
- Pavement Striping
- Landscaping

The County and/or County's Representative may change the civil/site construction plans to account for minor modifications based on the final design of the building. Specifically, minor adjustments will be necessary due to modifications required through the design process to coordinate building gutter and downspouts with the master stormwater drainage system. No changes can be made that would be out of compliance with permits obtained, or applied for, as noted in Section 5.2 Permitting. No changes can be

made to the plans without County or County's consultant approval. The Building Design-Build Firm is responsible for any changes made that require modification to an obtained or applied for permit

7 General Architectural Design Criteria

7.1 Architectural Requirements

The MRF will consist of a scalehouse, main processing building, and an administration office building. See Table 7-1 for the conceptual Building Area Sizing. Relative sizing may change as needed from one space to another as the design progresses to best accommodate the County's needs, or suggestions by the Building Design-Build Firm will require approval by the County. The primary goal of the architectural design will be to achieve a functionally efficient and versatile structure which is aesthetically pleasing, economical, and minimize the impact on the residential neighbors.

Table 7-1: Building Area Sizing

Building Component	Approximate Dimensions (Ft)	Approximate Area (Sq Ft)
Administration Building (Area 1)	50' x 80'	8,000[3]
Bale Storage and Loadout (Areas 2 & 3)	80' x 308'	25,000
Manifest Office(Area 4)	12'- 6"x 30'	378
Processing Floor[4] (Area 5)	283' x 308'	87,000
Maintenance, County and Trash Compactor Areas (Areas 6, 7 & 8)	210' x 60'	12,600
Glass Loadout[2] (Area 9)	72' x 180'	13,000
Tip Floor (Area 10)	283' x 165'	47,000
Scalehouse (Area 11)	12'- 6"x 32'- 4"	408

The proposed facility shall conform to normal architectural design for industrial operation and shall be compatible in finish and appearance for a 30-year anticipated design life. Building design and material selection shall reflect consideration of such factors as normal physical abuse, corrosion, heating, insulation, cooling, ventilation requirements, and environmentally sensitive conditions. The design shall consider the maintenance and cost effectiveness of the material selected. The building will be sprinklered and have a supplemental fire suppression system. To avoid additional fire protection requirements, it is intended the underside of the roof decks shall not exceed 45 feet in height.

All materials and colors shall be subject to the review and acceptance by the County and County's Engineer. The Building Design-Build Firm shall present all proposed materials to the County.

[3] The Administration Building (Area 1) is two (2) floors, each totaling 4,000 square feet.
[4] Glass bunkers will be located within this area, on the shared West wall between the Glass Loadout and Processing Floor. Final size and design will be completed once the DCP No. 1 contract is signed.

8 General Structural Design Criteria

8.1 Codes and Standards

The Building Design-Build Firm will use the latest edition of the Florida Building code and the American Society of Civil Engineers, Minimum Design Loads for Buildings and Other Structures, ASCE 7. The Building Design-Build Firm is responsible for completing its own code search, providing and using the applicable building code data on the drawings and in the construction of the RMPF, and site.

8.2 Construction Considerations

8.2.1 General

The structural design of the Project will provide the necessary systems to support all proposed functional loads. The design will include all structural elements, slabs, beams, columns, bearing partitions, retaining walls, and foundation systems. Processing areas will be designed to accommodate mechanical, electrical, fire protection, and material handling equipment and elevated access platforms.

Building components and finishes shall be selected for durability and low maintenance, and suitable for this industrial environment

- The building structures and finishes for each area shall be designed to last a minimum of 30 years.
- The County's standardized key system shall be used on all passage doors, and provisions for future fob/digital key card system shall be provided.
- All door hardware shall meet the ADA requirement.
- All Exterior doors are to be provided with emergency egress hardware.

8.2.2 RMPF Building Construction

The Building Design-Build Firm shall provide a Pre-Engineered Metal Building (PEMB) building type for each area of the facility, excluding the Administration Building (Area 1), and those areas identified in Section 3. The Building Construction for each area shall include the following criteria:

Delegated Design

A qualified Florida Professional Engineer shall provide a comprehensive engineering analysis and detailed drawings and specifications for a complete Project in line with all applicable building codes; dead and live loads, collateral loads, seismic loads, and wind loads.

Building Assembly Parameters

1. Single span rigid frame in each area.
2. Exposure: C.
3. Risk Category II.
4. Primary Framing: Rigid frame of rafter beams and columns and wind bracing.
5. Secondary Framing: Purlins, grits, portal frames.
6. Wall System: Preformed metal panels with "Galvalume," or equal, coating, with sub-girt framing/anchorage assembly, and accessory components.

7. Wall and roofing insulation for the PEMB, unless required for warrantee purposes, and in areas where the insulation can be damaged, a metal wall panel shall cover it.
8. Roof System: preformed standing seam metal panels oriented parallel to slope with sub-girt framing/anchorage assembly, insulation, and liner system with thermal blocks and accessory components.
9. Roof Insulation: Acoustic Batt foam insulation to be used on underside of the roof in each area.

East Building Facade

The east side of the Tipping Floor (Area 10), Bale Storage (Area 2), and Bale Loadout (Area 3) will be provided with a 4' 7" simulated stone veneer, as noted on the Conceptual East Elevation in Appendix A.

Performance Requirements

1. Structural Performance: Provide metal building systems capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
2. Design Loads
   a. Design Roof Live Load: 20 psf. non-reducible.
   b. Collateral Load: 10 psf.
   c. Snow Load: 0 psf.
   d. Rain Load: 5 psf.
   e. Roof Deflection Limits:
      - Roof members non-supporting ceiling live load L/180
      - Metal Roofing L/60 total load
      - Secondary roof framing members supporting metal roofing L/180 total load
      - Secondary wall framing supporting metal siding L/120
      - Basic Wind Speed: 153 mph (ultimate)
3. Engineer metal building systems according to procedures in MBMA's "Metal Building Systems Manual."
4. The roof curb system for HVAC equipment shall be compatible with the PEMB metal roof panels. Details are to be provided on how the contractor plans to flash the curb to the roof panels, and the opening sizes as depicted on the PEMB erection set will be framed / flashed in accordance with the selected ventilation units.
5. Seismic Design Category: A
   a. Design secondary-framing system to accommodate deflection of primary framing and construction tolerances and maintain clearances at openings. There will be a 4-inch seismic separation between the administration building and the processing plant PEMB.
   b. Drift Limits: Engineer building structure to withstand design loads with lateral drift limits no greater a maximum of 1/200 of the building height.
6. Thermal Movements: Provide metal panel systems that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
7. Design Temperature Change (Range): 63°C (120°F) ambient and 95°C (180°F) for material surfaces.

8. Thermal Performance: Provide insulated metal panel assemblies in accordance with the latest International Energy Conservation Code (IECC).
9. Installed Thermal Resistance of Wall System: R-value of 13 minimum or code required value.
10. Installed Thermal Resistance of Roof System: R-value of 21 minimum or code required value.
11. Water Penetration for Metal Roof Panels: No water penetration when tested according to ASTM E 1646 at test-pressure difference of 2.86 lbf./sq. ft.
12. Water Penetration for Metal Wall Panels: No water penetration when tested according to ASTM E 331 at a wind-load design pressure of not less than 2.86 lbf./sq. ft.
13. Wind-Uplift Resistance: Provide metal roof panel assemblies that comply with UL Class 90 rating for wind uplift classification.
14. End wall framing
15. All supports required for doors and openings.
16. Eave Heights: As per attached architectural drawings in Appendix A.
17. Loadout Bay Spacing: As per attached architectural drawings in Appendix A.
18. Vehicle Door Openings:
    a. Loadout Area Door Openings (Area 4) – Six (6) exterior openings are required to accommodate 8 ft wide x 9 ft high doors are to be provided.
    b. Material Processing, Parts Storage and Maintenance, and Waste Compactor Door Openings (Areas 5, 6, and 8) – Three (3) exterior, and one (1) interior opening are required to accommodate 20 ft wide x 20 ft high doors are to be provided.
    c. County Storage Area Door Openings (Area 7) – One (1) exterior, and (1) interior openings are required to accommodate 10 ft wide x 10 ft high doors are to be provided.
    d. Glass Loadout Door Openings (Area 9) – Openings to accommodate two (2) 20 ft wide x 26 ft high doors are to be provided.
    e. Tip Floor Door Openings (Area 10) – Three (3) openings to accommodate 20 ft wide x 28 ft high doors are to be provided.
19. Windows and Translucent Panels
    a. Windows: Hi Impact, low-E double glazed insulated units in aluminum frames.
    b. Translucent Panels: Hi impact polycarbonate panels in aluminum frames.
    c. Primary members to have factory finish paint.
    d. Painted gutters and leaders tied into storm water system.

8.2.3 Administration Building (Area 1) Assembly Parameters

A Type II building construction consisting of steel walls, concrete floors, structural framework, light gauge metal framing and a membrane roof system is the preferred building type for the administration building of the facility.

The administration building will have two floors, the 1st floor (Area 1B) will be utilized by the RMPF Operator, and the 2nd floor (Area 1A) will be utilized by the County and provide an area for system Observation and Educational purposes.

The Administration Building Construction shall include the following criteria:

- Office live load: 80 psf., including partition allowance.

- Corridors Live Load: 80 psf.
- Stairs Live Load: 100 psf.
- Second Floor Deflection Limits: Floor members live load L/360, total load L/420.
- Thermal Performance: Provide insulation and glazing in accordance with the latest International Energy Conservation Code (IECC).

8.3 Foundations

Foundations are to be concrete conventional spread footings. Foundations shall be designed utilizing 2,000 psf. bearing capacity on subgrade prepared & filled as required per the Geotechnical report in Appendix F.

8.4 Deflections

Deflections shall be limited in accordance with the Building Code and material code requirements.

8.5 Material Construction

When selecting and specifying material, economics, speed of construction, serviceability, and sequencing by various trades, and County material requirements shall be considered.

8.6 Concrete

Concrete provided shall include materials, strengths, and proportioning applicable to the intended use of the concrete. Table 8-1 provides minimum strength requirements for structural concrete slab surfaces.

Table 8-1: Concrete Slab Strength Requirements

	Strength (PSI)	Notes
Scalehouse (Area 12)	4,000	5-inch minimum slab on grade reinforced with welded wire fabric (WWF).
Tipping (Area 10)	6,000	Design for AASHTO HS20 Loading. Minimum 10 inches, double reinforced, hard aggregate resistant to wear from proposed operations, wear indicators/wear bars. Ample depth of concrete to wear bars. Hard aggregate to be imported, as required.
Processing (Area 5)	4,000	8-inch minimum slab on grade reinforced with rebar in each direction.
County Storage (Area 7)	4,000	8-inch minimum slab on grade reinforced with rebar in each direction. Slab to be evaluated with consideration of rack post loads.
Bale Storage and Loadout (Areas 2 & 3)	4,000	8-inch minimum slab on grade reinforced with rebar in each direction. Area 3 Loadout area at dock doors to have an Osha compliant max. 10% pitched forklift ramp, sloped up to the 950 sq ft flat dock level area in front of the loading dock doors.

	Strength (PSI)	Notes
Manifest Office (Area 4)	4,000	8-inch minimum slab on grade reinforced with welded wire fabric (WWF).
Parts Storage and Maintenance (Area 6)	4,000	8-inch minimum slab on grade reinforced with rebar in each direction. Slab to be evaluated with consideration of rack post loads.
Glass Loadout (Area 9)	6,000	Design for AASHTO HS20 Loading. Minimum 10 inches, double reinforced, hard aggregate, wear indicators/wear bars. Ample depth of concrete to wear bars. Hard aggregate to be imported.
Administration Building (Area 1A)	4,000	2nd floor structure shall utilize a 5" total thickness slab on 2" composite metal deck providing a minimum of 1 hour fire separation.
Administration Building (Area 1B)	4,000	1st Floor: 5-inch minimum slab on grade reinforced with welded wire fabric (WWF).

Substitution of a higher-class concrete in lieu of a lower-class concrete may be allowed. The substituted higher-class concrete must meet or exceed the requirements of the lower-class concrete, and both classes must contain the same types of mix ingredients.

Concrete Foundations

- Concrete foundations shall be reinforced cast-in-place 3,000 psi concrete.
- Foundations shall bear on competent soils and the bearing capacity as well as any design requirements shall be as recommended by the licensed Florida geotechnical engineer.
- Foundations shall be designed for all loads including put not limited to the pre-engineered metal building, collateral loads, dead loads, and live loads as per all applicable codes.

Concrete Aprons

- Overhead Doors – 15 ft. deep aprons will be provided across the width for each roll-up door throughout the facility.
- Trash Compactor Area (Area 8) - 40 ft. deep aprons with metal skid plates anchored to the concrete slab under the compactors will be provided.
- Bale Loadout Area (Area 3) 50 ft aprons will be provided for the six (6) loading docks located in Area 3.

Concrete Pits

- Concrete pits shall be reinforced cast-in-place 3,000 psi concrete.
- Concrete Pit depths throughout the entire RMPF Building must be waterproof and shall not exceed a maximum depth of five (5) feet below the finished floor elevation. Water stops are required. Slope floor to a single sump located in the corner located alongside the inclining portion of the infeed conveyor(s).

Concrete Pushwalls

- Concrete pushwalls shall be reinforced cast-in-place 4,000 psi concrete and shall be designed to withstand each of the three cases (material stacked against the wall, loader's force on impact and loader's force during lighting)
- Exposed vertical pushwall edges that have steel angles embedded in the concrete
- The space between the top of the pushwall and first horizontal girt shall be closed off with a cover plate. Vertical seems to be welded. Anchorage to the concrete shall be designed to not be impacted by loader nor have any gaps that would permit material to get "caught." The intent of the cover plate to prevent any material from accumulating behind (on the backside) of the pushwalls
- In no case will any pilasters or projections be permitted on the face of the pushwall containing the recycling materials. Columns will either need to bear on the wall with pilasters on the outside face, or the columns will need to be located behind (on the backside) of the pushwalls.

8.7 Steel

Steel design shall be performed in accordance with the requirements of the American Institute of Steel Construction (AISC) ANSI/AISC-360 "Specification for Structural Steel Buildings."

The PEMB manufacturer must be a member in good standing with the Metal Building Manufacturer's Association (MBMA). The manufacturer must be an IAS/ICC fabricator. The manufacturing plant/facility must have complete and current approval of its internal quality control plan per requirements of the IAS Accreditation Criteria AC 472 "Inspection Programs for Manufacturer of Metal Building Systems."

All primary steel shall be primed and painted. All secondary steel will be galvanized.

8.8 Bollards

Bollards shall be 8" O.D. Schedule 40 pipe bollard, painted safety yellow, filled with concrete with a 3/4" domed crown, and encased in minimum 24" diameter concrete, 8 ft long with 5 ft above the concrete slab or apron42" deep below finished grade or finished floor. with 1ft of concrete below the pipe bottom bearing on a 6" (3/4") of compacted crushed stone base.

Bollards shall be located at each entry and exit side of passage, and roll-up, door jambs where vehicle traffic is present, and to protect/ isolate mechanical equipment from vehicle traffic. Center of bollards shall align with the center of the door jambs.

8.9 Masonry

CMU design may be by the working stress method or strength design method in accordance with ACI 530/ASCE 5/TMS 402 "Building Code Requirements for Masonry Structures" and the Building Code. Special inspection requirements will be consistent with the Building Code.

8.10 Aluminum

Aluminum design shall be down in accordance with Aluminum Association's "Aluminum Design Manual." Proper considerations should be given to weld capacity and the required strength reductions in proximity to welds.

8.11 Stainless Steel

Stainless steel design for thin sections shall follow the requirements of ANSI/ASCE-8, "Specification for the Design of Cold-Formed stainless Steel Structural Members."

8.12 RMPF Specific Systems, Equipment and Specialty Design Criteria

8.12.1 Administration Building (Area 1) Elevator

The Administration Building (Area 1) of the RMPF will have a Commercial Double-Sided passenger elevator.

The Elevator will be compliant with all applicable codes, fully integrated with fire system and emergency communication. The cab will be fully ADA compliant with handrails, LED lighting and anti-sliding floor tiles.

The County will select the cab interior wall style and finishes.

The cab door will open on the east side of the first floor and on both the east and west sides on the second floor.

8.12.2 Air Compressor

The RMPF will be supplied with an air compressor for use in equipment, and facility maintenance. The compressor will be located in Area 6, Parts Storage and Maintenance area, and will be piped throughout the facility for use by the County's Operator.

8.12.3 Scales and Scale System

As previously stated, the RMPF will have two (2) Rice Lakes above ground Survivor OTR truck scale located adjacent to the Scalehouse. Each scale will be offset three feet (3'0") from each side of the Scale house, and the Building Design-Build Firm is to provide a raised sidewalk to match the elevation of scales, so drivers can safely access the passthrough windows. Each scale shall be 80 ft long x 11 ft wide and shall be a 100-ton capacity, concrete deck, above ground NTPE certified truck scale and the design/installation shall conform to all requirements for NTPE certification . Each scale shall consist of the following:

A. Steel deck with access manhole, or centered, removable plates
B. Low profile design scale frame
C. Highly durable load cell measuring devices
D. Concrete approach pads and ramps with associated bollards and curbs
E. Railings on the outside edge of each scale
F. Integrated traffic control lights, and arms
G. NTPE certified digital weight indicators
H. Galvanized steel curb guardrails
I. Grounding system

Hardware and software systems shall include a computer interface between scale indicators and Management Information System (MIS) to enable the logging of each inbound and outbound vehicle weight transaction.

8.12.4 Radiation Detection System

Radiation detection systems shall be provided and mounted at the inbound and outbound truck scales. The purpose of the radiation detection systems will be to detect levels of radioactive material included in inbound deliveries, in order to provide security for the site. The Building Design-Build Firm is responsible for designing and installing the Radiation Detection System in accordance with applicable State and Local regulations.

9 General Fire Protection Design Criteria

9.1 Codes and Standards

The latest edition of the Florida building code, County codes, and local fire department having jurisdiction should be used.

9.2 General

9.2.1 Sprinkler System

A wet-type system shall be provided by the Building Design-Build Firm for the office, viewing, processing areas and platforms. All code-required fire alarm wiring, equipment, devices, standpipes, hose reels, extinguishers, and FDC, shall be provided and meet applicable code and local authority having jurisdiction. The Equipment Design-Build Firm shall coordinate with Building Design-Build Firm for all sprinkler piping and heads located above and below equipment and platforms.

9.2.2 Supplemental Fire Suppression System

The Building Design-Build Firm will be responsible for procuring a FireRover™ type system for supplemental, independent fire monitoring and protection in Areas 5 & 10. The system will be located outdoors as a containerized unit, located on a concrete pad of size as required by the vendor of the system. The system will include remote monitoring and thermal and visual monitoring, thermal coverage for the drum feeder, and monitoring and spray coverage for the tipping floor. Power and data connections to be provided as required by Deluge system for certain equipment such as the drum feeder and screens for example, with the Fire Rover System as a standard, are further described in Appendix I.

9.3 Fire Sprinkler Design

The Building Design-Build Firm shall be responsible for designing a complete sprinkler system and size the sprinkler system in accordance with the requirements of NFPA 13, local codes, and the fire department having jurisdiction. A complete set of drawings and hydraulic calculations shall be submitted.

The tipping, processing and bale storage areas are to be designed as Extra Hazard Group 2 Occupancy. The Building Design-Build Firm will be responsible for confirming expected flow rate for design is 0.3 gallons per minute per square foot over the identified areas, as confirmed with the fire protection engineer.

The RMPF will have a minimum of four (4) zones and include an overhead sprinkler system with several layers of additional coverage below all conveyors and obstructions 48” wide and larger in the processing area.

The administration area piping and head distribution shall be designed to Light Hazard requirements.

The Building Design-Build Firm shall be responsible for performing the providing the following fire system components.

- Pump Stations
- Sprinkler System
- Hose Stations
- Fire Alarm
- Smoke/Fire Detection
- Fire Extinguishers
- Under Platform/Equipment Sprinklers

Upon completion of the fire system, the Building Design-Build Firm with be responsible for completing the system flow tests and required reports.

9.4 Fire Alarm Design

Fire alarm control panels shall be addressable type. Smoke detectors, heat detectors, alarm indicating devices, and manual pull stations at each egress door to be installed per code requirements. An allowance shall be provided to locate and install additional devices after the Equipment System equipment is installed. Connections to the sprinkler system shall be provided.

Main fire alarm panel shall be labeled such that the fire department can understand locations without having been to the building. A full set of as-built drawings and documents shall be stored at the panel location, in the front vestibule of Area 1B

10 Plumbing Design Criteria

10.1 General

The Building Design-Firm is responsible for supplying all potable water and sanitary piping and fixtures; under-slab floor drains and piping; platform floor drains and piping; hose bibs; water heaters; and roof drains.

Potable water will be supplied from a service tap to the City of Fort Myers Water system. Refer to the City of Fort Myers Water Connection Letter attached in Appendix J. The water service shall be installed in a loop around the exterior of the building. The service shall be equipped with a reduced pressure backflow preventer at every branch connection entering into the MRF building. A non-potable water connection will be supplied from the same water main and shall be provided with a double check valve. The non-potable water connection will be distributed to the MRF for fire protection.

Sanitary sewer, including floor wash-down discharge, will be connected to the on-site lift station found on the site drawings in Appendix C. A connection to the City of Fort Myers force main will be provided under a different contract as noted in Appendix J. The Building Design-Build Firm shall provide a grit and grease trap per code for the wash-down water from the tipping floor and glass load-out area.

Battery-operated automatic plumbing fixtures are acceptable for use.

All water (potable and non-potable), and sanitary sewer line design will be based on the maximum flow requirements for the respective system.

10.2 Plumbing Design – Specific to Areas by Use

Separate valves and clean outs shall be provided throughout the facility for all lavatory and breakroom fixtures for ease of maintenance and clog clearing.

10.2.1 Administration Building (Area 1)

- Hose bibbs shall be installed in multiple locations on the exterior of the Administration Building for exterior maintenance needs.
- Floor drains shall be provided in lavatories, janitor closets, and Men's and Women's locker rooms located on the 1st floor of the Administration Building Area 1B.

10.2.2 Bale Storage and Loadout (Areas 2 & 3)

- Hose bibbs shall be installed in multiple locations within the building and exterior of the Bale Storage and Loadout Areas for interior and exterior maintenance needs.

10.2.3 Material Processing Area (Area 5)

- Emergency eyewash stations shall be provided. The eyewash shall be a self-contained type of unit and not require water connections. This will be coordinated with the DCP No. 1 Equipment Design Firm.
- Hose bibbs shall be installed in multiple locations within the building and exterior of the Material Processing Area for interior and exterior maintenance needs.
- A floor depression around the perimeter of the baler primarily used for containers baling shall be provided to direct the liquid to a sump pit. The sump pit used to capture liquids shall be provided adjacently to each baler used for baling containers in the Material Process Area. The sump pits shall be regularly monitored and when required to be emptied, shall be pumped out into storage toters (approximately 500-gallon capacities) by the Operator.
- A trench drain used to capture liquids shall be provided at the base of the overhead roll-up door located along the west wall. The trench drain shall be regularly monitored and when required to be emptied, shall be pumped into storage toters (approximately 500-gallon capacities) by the Operator.

10.2.4 Parts Storage and Maintenance and County Storage Areas (Areas 6 & 7)

- Trench drains shall be provided at all overhead and personal door locations. A floor drain shall be provided in the vehicle maintenance and repair area. An oil-water separator shall be provided as required by code.
- Provide utility sinks in each area for general cleanup, vehicle maintenance and repair. A point of use of water heater shall be provided.

- Hose bibbs shall be installed in multiple locations within the building and exterior of the Parts Storage and Maintenance and County Storage Areas for interior and exterior maintenance needs.
- A trench drain used to capture liquids shall be provided at the base of the overhead roll-up door located along the south wall. The trench drain shall be regularly monitored and when required to be emptied, shall be pumped into storage toters (approximately 500-gallon capacities) by the Operator.

10.2.5 Trash Compactor Area (Area 8)

- Hose bibbs shall be installed in multiple locations on the exterior of the Trash Compactor Area for exterior maintenance needs.
- Trench drains used to capture liquids shall be provided at the base of the two (2) overhead roll-up doors located along the south wall. The trench drains shall be regularly monitored and when required to be emptied, shall be pumped out into storage toters (approximately 500-gallon capacities) by the Operator.

10.2.6 Glass Loadout Area (Area 9)

- Hose bibbs shall be installed in multiple locations within the building and exterior of the Glass Loadout Area for interior and exterior maintenance needs.
- Trench Drains used to capture liquids shall be provided at the base of each of the two (2) overhead Glass Loadout Area roll-up doors. The trench drains shall be regularly monitored and when required to be emptied, shall be pumped out into storage toters (approximately 500-gallon capacities) by the Operator.

10.2.7 Tipping Floor Area (Area10)

- Trench drains shall be provided at all overhead and personal door locations. An oil-water separator shall be provided as required by code.
- Hose bibbs shall be installed in multiple locations within the building and exterior of the tipping floor area for interior and exterior maintenance needs.
- Trench drains used to capture liquids shall be provided at the base of each of the three (3) overhead tipping floor doors. The trench drains shall be regularly monitored and when required to be emptied, shall be pumped out into storage toters (approximately 500-gallon capacities) by the Operator.

11 Mechanical Design Criteria

11.1 Codes and Standards

The latest edition of the Florida building code and County codes should be used.

11.2 General

The mechanical design of the MRF will provide all necessary heating, ventilation, and air conditioning (HVAC) for the Administration Building, Manifest office, and Processing areas. The mechanical design shall

be compatible with the architectural design and fully coordinated with the structural, plumbing, electrical, and fire protection designs. The design includes all fans, ductwork, vents, heating, and cooling.

All HVAC systems shall be provided with stand-alone controllers. A building management system (BMS) is not required.

11.3 Mechanical Design

11.3.1 Administration Building (Area 1)

- Climate Control Systems shall be provided for both floors of the Administration Building offices, conference and education rooms, breakrooms, and locker rooms.
- Exhaust shall be provided for the bathrooms, showers, and janitor's closet.
- The Utility room shall be provided with ventilation and exhaust.
- The IT closet shall be provided with a dedicated cooling system. Sizing the system shall be coordinated with the County during the design process.

11.3.2 Bale Storage and Loading Dock (Areas 2 & 3)

- The Bale Storage and loading dock Areas will be provided with general exhaust fans. Roof mounted fans to be used if accessible by a boom lift. Accessibility to be proven to the County.
- Louvers will provide makeup air. Louvers can be electrically actuated at wall mounted control stations for access for maintenance and repair. Accessibility to be proven to the County. If inaccessible, fixed open louvers shall be used.

11.3.3 Manifest Office (Area 4)

- The Manifest Office shall be climate controlled. Condensate for the system shall drain to exterior or mop sink located in the janitors' closet.
- Exhaust shall be provided for the bathrooms and janitor's closet.

11.3.4 Material Processing Area (Area 5)

- High volume, low speed (HVLS) fans shall be provided to circulate air in the processing area. Air circulation shall not disturb materials on the conveyors. Fans shall be placed above all sorting platforms and sorting stations. The locations shall be coordinated with DCP No. 1 Equipment Design Build Firm.
- The processing area shall be provided with general exhaust fans by the Building Design-Build Firm with not less than four (4) air changes per hour. Roof mounted fans to be used if accessible by a boom lift. Accessibility to service the fan shall be proven to the County. If the fan would be inaccessible, a wall mounted fan shall be used.
- Louvers shall provide makeup air; the louvers can be electrically actuated at wall mounted control stations for access for maintenance and repair. Accessibility to service the louvers shall be proven to the County. If inaccessible, fixed open louvers shall be used.

11.3.5 County Area (Area 7)

- The County Area will be provided with general exhaust fans. Roof mounted fans to be used and accessible by a boom lift. Accessibility to be proven to the County. If the fan would be inaccessible, a wall mounted fan shall be used.
- Louvers will provide makeup air. Louvers can be electrically actuated at wall mounted control stations for access for maintenance and repair. Accessibility to be proven to the County. If inaccessible, fixed open louvers shall be used.

11.3.6 Glass Loadout Area (Area 9)

- The Glass Loadout Area will be provided with general exhaust fans. Roof mounted fans to be used and accessible by a boom lift. Accessibility to be proven to the County. If the fan would be inaccessible, a wall mounted fan shall be used.
- Louvers will provide makeup air. Louvers can be electrically actuated at wall mounted control stations for access for maintenance and repair. Accessibility to be proven to the County. If inaccessible, fixed open louvers shall be used.

11.3.7 Tipping Floor Area (Area 10)

- The tipping area will be provided with general exhaust fans with a minimum of six (6) air changes per hour. Roof mounted fans to be used if accessible by a boom lift. Accessibility to be proven to the County. If the fan would be inaccessible, a wall mounted fan shall be used.
- Louvers will provide makeup air. Louvers can be electrically actuated at wall mounted control stations for access for maintenance and repair. Accessibility to be proven to the County. If inaccessible, fixed open louvers shall be used.

11.3.8 Scale and Scalehouse (Area 11)

- System to provide climate control to workers in the Scalehouse. Condensate for the system shall drain to exterior or mop sink located in the janitors' closet.
- Exhaust shall be provided for the bathrooms and janitor's closet.

12 Electrical Design Criteria

12.1 Codes and Standards

The latest edition of the Florida building code, County, NEC codes should be used.

12.2 General

The electrical design of the administrative and processing areas will provide the necessary electrical system for the operation of the buildings and electrical site utilities and be compatible with other disciplines. The design shall include power supply to the buildings, as well as distribution through the building and site lighting. It shall include conduit systems for communication and interfacing of other systems.

12.3 Electrical Design

Florida Power and Light (FPL) is the electrical service provider for the site. The property is located to the west of an existing 300' wide easement, which will be utilized to access FPL's 23KV line to provide the power for the facility.

The electrical design shall include the following items:

A. One new power service will be design and built with backup generator and automatic Transfer Switch for the facility.

B. Electrical Service to the building shall be approximately 5,000KVA. The County shall sole-source purchase the main Transformer equipment from FPL under a separate contract.

C. Generator shall include a base diesel fuel tank, weather enclosure, and noise reduction measures. The preferred location of the generator is on the east side of the building. The generator shall be sized to provide power to lighting and life safety devices.

D. Provision of full set of plans, specifications, and calculations for review and approval by the County before the start of construction.

E. All equipment must be UL listed and labeled, or UL recognized. If UL listing is not available for specific equipment or material, then it must be listed by an organization acceptable to the authority having jurisdiction per NEC Article 100.

F. All exterior pad mounted equipment requires a concrete pad and wall mounted equipment, a sturdy rack or suitable wall for mounting.

G. A simple lighting control panel shall be provided with a time clock for setting lights on/off controls and selecting zones.

H. All motor starters and controls for exhaust fans are to be located in or near the electric room.

I. All outdoor lighting will be LED and be on photometric timers.

J. All equipment and circuits must be labeled per current practices of the trade.

K. Testing of all grounding systems by a third party utilizing the *Fall of potential* method as described by ANSI/IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of an Earth System (ANSI/IEEE Standard 81). Maximum resistance for Tel/Data/Communication system is 5 ohms and 25 ohms for Power Systems.

L. Processing Equipment Area

   a. All lighting shall be LED type. Overhead High-Bay Lighting shall be provided throughout the entire RMPF Building Areas 2, 3, 5, 6, 7, 8, 9 and 10.
   b. An allowance in the scope of work for DCP NO. 2 shall be made for additional overhead fixtures, task lighting, and under platform lighting. A review of all lighting shall be conducted upon completion of the Equipment System installation. After the review, the County shall

provide direction on additional fixture installation. This will be coordinated with Equipment Design-Build Firm.

c. Task lighting shall be provided for all sorting stations by the Building Design-Build Firm Contractor. The Equipment Design-Build Firm shall coordinate the locations with the Building Design-Build Firm for installation. An allowance for additional task lighting shall be provided. Lighting locations shall be reviewed after the Equipment System installation is complete and a determination made if additional lighting is required.
d. Dedicated receptacles shall be provided at sort stations by the Building Design-Build Firm to allow for the use of circulation fans.
e. All power, communication, and control wiring shall be in conduits and cable tray. Equipment Design-Build Firm shall coordinate all power drop locations to be provided by Building Design-Build Firm.
f. Lightning protection shall be provided. All platforms shall be grounded.

M. CCTV and Access Control Network

a. The Building Design-Build Firm shall be responsible for the design and construction of the raceway system (conduit with pull string) for the network connection from the proposed building/facility to the administration area as coordinated with the County.
b. The Building Design-Build Firm shall be responsible for the design and construction of the interior raceway system with pull strings for the administrative, scale and processing areas with pull strings for all the CCTB and access control equipment, including but not limited to, all cameras, card readers, and door and window contracts as coordinated with the County.
c. Wiring terminations/connections and testing will be the responsibility of the Building Design-Build Firm.

N. Telephone/Data/Communication System Network

a. The Building Design-Firm will be responsible for the development coordination, design and construction of all communication, and internet infrastructure to the RMPF building.
b. The Building Design-Build Firm shall be responsible for the design and construction of the raceway system (conduit with pull string) for network connection from the Scalehouse to administration building as coordinated with the County.
c. The Building Design-Build Firm shall be responsible for the design and construction of the interior raceway system with pull strings for the administration, scale, and processing areas. With pull strings for all the proposed network equipment, including but not limited to, the racks, backboards, cable trays, sleeves, pathways, grounding, outlets with cover plates, and labeling as coordinated with the County.
d. Wiring, terminations/connections, and testing will be the responsibility of Building Design-Build Firm.

13 Electronic Safety and Security

13.1 General

The latest edition of the Florida building code and County codes should be used.

13.2 Security and Electronic Safety Design

The Building Design-Build Firm shall provide 6' black chain link perimeter fencing around the site, with both vehicle and personnel gates with the following capabilities.

13.2.1 Vehicular and Personnel Gates

All vehicular gates will be motorized rolling gates and include the following control characteristics.

- Timer, and remote controlled with intercom,
- Provisions for electronic access for employee use[5]

All personnel gates will be capable of being remote controlled with intercom and provided with key card access for employee use.

13.2.2 Facility Security System [6]

The Building Design-Build Firm will provide a security system, including all conduit, wiring, hardware, software, and cameras located throughout the site building interior and exterior, scalehouse and shall include the following requirements:

- The system shall be compatible with the County's existing system.
- The system shall be capable of remote monitoring.

The Building Design-Build Firm shall be responsible for the design and construction of the security system (conduit with pull string) and all equipment locations shall be coordinated with the County.

14 Building Design-Build Submittals

The Building Design-Build Firm will be responsible for providing all documents, drawings, information, permits etc., required to perform the work specified herein, and in accordance with the Building Design-Build Firm Specifications in Appendix K.

15 Construction

15.1 Project Management

The Building Design-Build Firm shall schedule a weekly meeting throughout the progress of work, prepare a meeting agenda for the County and the County's Representative to review and give input, distribute with written notice of each meeting, preside at meetings, records minutes to include significant proceedings and decisions, and reproduce and distribute copies of minutes to participants and parties within 5 days after each meeting. The County, the County's Representative, and the Building Design-Build Firm shall attend meetings. The Building Design-Build Firm's sub-consultants, or subcontractors, and the Equipment Design-Build Firm's designated representative shall attend meetings as needed.

[5] Electronic System hardware must be coordinated with County IT and be integrated with the County's system.
[6] Facility Security System hardware and software must be coordinated with County IT and integrated with the County's systems.

15.2 Progress Schedule Submittal

The Building Design-Build Firm shall prepare and submit design procurement and construction progress schedule in accordance with the Building Design-Build Firm Specifications in Appendix K utilizing the latest version of Primavera (P-6), or Primavera Cloud. The schedule will include tasks and milestones submitted by the Equipment Design-Build Firm. The schedules will be submitted in both native file and .pdf file format.

The Schedule will be reviewed, and approved, by the County, and County's Representative is to include the following minimum requirements.

- Milestones
    - Notice to Proceed
    - Start of construction
    - Substantial Completion
    - Final completion
- Design, procurement and permitting activities
    - Detailed design activities for each design submittal
    - Detailed Procurement activities.
        - Preparation of key submittals for materials and equipment.
        - Engineers (EOR) review and approval of key submittals.
        - Material and equipment fabrication lead times.
        - Material and equipment deliveries for Contractor, Owner and third parties.
    - Detailed permitting activities
- Construction activities
    - Detailed construction activities.
        - Civil construction activities
        - Utility (Water, Sewer, Electrical) construction activities
        - RMPF Facility Building construction activities
        - Equipment delivery, and installation activities
        - Construction Testing and Inspections hold points
        - Substantial Completion
        - Start-up of equipment
        - Testing of equipment and systems.
        - Training.

15.3 Quality Control

The Building Design-Build Firm shall schedule quality control and coordination meetings on regular basis and as necessary to review test and inspection reports, and other matters relating to quality control of work and work of the other Design-Build Firms, and subcontractors. Attendees shall include the Building Design-Build Firms designated quality control representative, representatives from other Design-Build Firms, and selected subcontractors and suppliers, the County and or the County's Representative.

15.4 Temporary Facilities and Controls

Temporary Facilities and Controls shall be provided in accordance with the Building Design-Build Firm Specifications in Appendix K.

16 Risks and Risk Management

As with any project of this size and scope, there are inherent risks to the County and the Building Design-Build Firm both during the construction period and the eventual operation of the processing system.

16.1 Risks During the Construction Period

The presence of multiple contractors involved in this Project requires effective communication, management, and Project planning. Risks associated with a lack of sufficient management communication and planning include, but are not limited to the following:

Construction Safety Risks: As with any Project, there are inherent risks of injury and damage to the personnel and equipment on-site. All parties working on the Project shall be required to comply with all Lee County, OSHA and other state, local and federal health and safety laws and regulations.

Construction Sequencing Risks: All parties on-site must adhere to the construction sequencing plan. Aspects of the work of each party are dependent on the accurate and on-time delivery of other Project elements. This includes clearly identifying the work area for each party to mitigate the risk of interference which would lead to delays and change orders.