

# CONTRACT SPECIFICATIONS

MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT

## BID DOCUMENTS

ASPHALTING AT VARIOUS DSWM LOCATIONS -  
NORTHEAST TRANSFER STATION

CONTRACT No. CICC 7360 PLAN

RPQ No. 18610-25

CONTRACTING OFFICER: GIBSY NUNEZ DAVILA  
EMAIL: GIBSY.NUNEZDAVILA@MIAMIDADE.GOV  
PHONE NO.: (305) 514-6024

JUNE 5, 2025



RPQ No. 18610-25

# INSTRUCTIONS TO BIDDERS

1. Only Bidders that attend the mandatory scheduled pre-bid/site visit meeting are eligible to submit a bid for the solicitation.
2. Please ensure all pertinent personnel, including subcontractors, are in attendance on the scheduled due date and time of the mandatory pre-bid/site visit meeting. A second scheduled date is not guaranteed.
3. **VENDOR REGISTRATION:** Vendors seeking to do business with Miami-Dade County must register in INFORMS. Please click on this direct link <https://supplier.miamidade.gov> – Instructions on the following page.
4. Must be pre-qualified in the Miscellaneous Construction Contracts (MCC) program at the time of the award. Please contact the Small Business Development Certification Unit (SBD) at [sbdcert@miamidade.gov](mailto:sbdcert@miamidade.gov) or call 305-375-3111.
5. The unit price column in the bid form must be filled out with a dollar amount per line item unless the requested total bid amount is for a lump sum. Failure to follow this instruction may cause your bid to be non-responsive.
6. Bids shall be submitted sealed with all necessary affidavits and supporting documentation attached. Bids shall be mailed or delivered. No email bids shall be accepted.
7. In the case of a numerical or mathematical discrepancy in the bidder's submittal, the Grand Total Bid Amount, as listed in RPQ Bid Form - Attachment 5A, shall govern as the actual bid price. That number shall constitute the bidder's binding offer, notwithstanding contrary information elsewhere in the submittal.
8. Method of Award: The method of award will be the lowest responsive and responsible bidder. The prospective lowest bidder will be determined by calculating: Base Bid Total (sum of Lines 1 through 45), plus (+) Contingency Allowance (10% of Base Bid Total), plus (+) Dedicated Allowance (for repairs of pavement/drainage system) = Grand Total Bid Amount.
9. This solicitation is subject to a User Access Program (UAP) fee in the amount of two percent (2%).

# MIAMI-DADE COUNTY VENDOR REGISTRATION

THANK YOU FOR YOUR INTEREST IN DOING BUSINESS WITH THE COUNTY

Please complete our easy to access online vendor registration at: <https://supplier.miamidade.gov>

1. Click **User Registration**
2. Click **Register Now**

## PART 1:

**Complete the following General Business Information:**

1. Welcome
2. Identifying Information
3. Addresses (include a Bill to Address)
4. Contacts
5. Categorization
6. Submit

*Once completed, an email will be sent to you with login information. Log in and complete Part 2 of the registration.*

## PART 2:

**Requirements for PART 2 of the registration, complete Affidavits Tab and Additional Information Tab.**

1. Click **My Bidder Profile**
2. Click **Affidavits Tab**
  - a. In the Affidavit 1 section, click the “owners” tab and enter all owners above 5% (if no owners above 5%, type “N/A”).
  - b. If another company owns this company, enter that information in the “Other Corps” field in the Affidavit 1 section.
  - c. Read and complete Affidavit 2-13
3. Click **Additional Information tab** (upload the below documents)
  - a. Local business tax receipt if company physical address is in Miami-Dade County
  - b. Certificate of Corporation
  - c. W-9 Form (<https://www.irs.gov/pub/irs-pdf/fw9.pdf>)
  - d. 147c IRS Form with your current business name and EIN number) OR any other preprinted IRS form issued by the IRS identifying your business name and EIN
  - e. Generate the Summary package, get it notarized, then re-upload to the system
4. Click **Submit**

If you have any questions or concerns, please contact the Vendor Outreach & Support Section at **(305) 375-5773**, or email [ISD-VSS@miamidade.gov](mailto:ISD-VSS@miamidade.gov).

To obtain this information in an accessible format, please contact Heidi Johnson-Wright at 305-375-2013.



Daniella Levine Cava, Mayor

**Office of Small Business Development**

111 NW 1 Street, 19<sup>th</sup> Floor  
Miami, Florida 33128  
T 305-375-3111 F 305-375-3160  
miamidade.gov

June 25, 2024

**ATTENTION CONSTRUCTION FIRMS ON COUNTY CONTRACTS AND LEASES FOR CONSTRUCTION ON COUNTY OWNED LAND...**

On May 28, 2024, the Governor signed into law House Bill ("HB") 705. Prior to the adoption of HB 705, section 255.0992 of the Florida Statutes generally prohibited Miami-Dade County (the "County"), from requiring a contractor, subcontractor, or supplier to pay or provide a predetermined amount of wages or benefits to its employees or recruit or hire employees from a designated or restricted source in construction projects paid for with any state-appropriated funds. Additionally, under the same statute, the County could not apply small business measures or limit bidding among Small Business Enterprise-Construction ("SBE-Con") firms for construction projects paid for with any state funds. However, for contracts funded solely with County funds, prior to the adoption of HB 705, section 255.0992 did not limit the application of the County's SBE-Con program, responsible wages, or workforce requirements.

HB 705 revised the definition of the term "public works project" in Section 255.0992, Florida Statutes to **include activities paid for with local County funds, making the various prohibitions found in section 255.0992 applicable to County funded construction contracts.** Thus, in light of the passing of HB 705, effective July 1, 2024, the following prohibitions exist:

- The County's Responsible Wages & Benefits, Community Workforce, Residents First Training and Employment and Employ Miami-Dade Program requirements will not be applied to the County's capital construction projects, including design-build projects, **awarded after July 1, 2024.**
- The County's SBE-Con requirements cannot be applied on any capital construction projects, including design-build projects, **if initial bids or proposals are received on or after July 1, 2024.**

**Small Business Enterprise, Responsible Wages and Benefits, Community Workforce Program, Residents First Training and Employment and Employ Miami-Dade Program requirements applied to construction contracts awarded prior to July 1, 2024 remain in effect and shall continue to be applied throughout the life of the project.** As such, contractors and subcontractors must comply with all program requirements which include but are not limited to the following:

- Primes must enter into contracts with SBEs for scope and value listed on Utilization Plans and promptly pay requisitions within two days of receipt of payment from the County, or as provided in the Code, and meet established SBE contract goals or set-aside measures.
- Primes must report payments to SBEs in the Business Management Workforce System and SBEs must confirm payments reported by primes.
- Primes and subcontractors must continue to pay employees the Responsible Wages in effect at the time work is performed and submit certified payrolls by the 10<sup>th</sup> of each month in LCPtracker.
- Primes and subcontractors must continue to meet established workforce requirements.

Please contact the Office of Small Business Development at 305-375-3111 with any questions regarding compliance with your existing contracts.

c: Miami-Dade County Project Managers

# BID DOCUMENTS - TABLE OF CONTENTS

## PROJECT NAME: ASPHALTING AT VARIOUS DSWM LOCATIONS - NORTHEAST TRANSFER STATION

**RPQ NO: 18610-25**

### **REQUEST FOR PRICE QUOTATION (RPQ)**

### **MINIMUM QUALIFICATIONS AND REQUIREMENTS**

### **FORMS FOR BIDDING (MUST ACCOMPANY BID)**

- RPQ Bid Form - Attachment 5A
- Bid Form
- Surety Bid Bond (*required for all bids over \$200k*) (*5% of Total Bid Price*)
- Confirmation of Addendums (*if applicable*) (*to be completed by Bidder*)
- All Addendum(s) (*if applicable*) (*must be signed by Bidder*)
- Bid Submittal Check List Questionnaire Appendix "D"
- Bidder's List of Business References (*References provided must show experience/ qualifications for similar services requested in this solicitation*)
- Firm's Responsibility Combined Affidavit
- Contracting with Entities of Foreign Countries of Concern Prohibited Affidavit
- Certificate of Assurance (COA) (*for 3.00% SBE-Services Measure*)
- Subcontracting Form

### **CONTRACT FORMS (CONDITION OF AWARD)**

- Surety Performance and Payment Bond (*required for all bids over \$200k*)
- Non Collusion Affidavit
- Kidnapping, Custody Offenses, Human Trafficking and Related Offenses Affidavit
- Contractor's Due Diligence (*to be signed & notarized by Contractor*)(>\$1 million)
- Certificate(s) of Insurance (*to be submitted by Bidder*)

### **ADDITIONAL CONTRACT DOCUMENTS**

- Standard Construction General Contract Conditions
- Special Provisions
- Indemnification and Insurance (*with special requirements*)
- Attachments A through F

### **SPECIFICATIONS**

- Scope of Work
- Project Specifications
- Florida Department of Transportation Standard Specifications / Technical Specifications
- Drawings

**Department of Solid Waste  
Management**

**Dr. Martin Luther King Jr. Office Plaza  
2525 NW 62 Street, Suite 5100  
Miami FL 33147**



**MIAMI-DADE COUNTY, FLORIDA  
REQUEST FOR PRICE QUOTATION (RPQ)**

**Contract No:** MCC 7360 Plan

**RPQ No:** 18610-25

**INVITATION TO BID**

A RPQ has been issued for the work identified below. If you are interested in submitting a bid for this project, please submit your bid via Sealed Envelopes, attention to Department of Solid Waste Management at 2525 NW 62nd St., Miami, FL 33147 no later than 7/16/2025 at 02:00 PM. If you have any questions, contact SYLVIA RODRIGUEZ at 305-514-6024.

This RPQ is issued under the terms and conditions of the Miscellaneous Construction Contracts (MCC) Program MCC 7360 Plan.

**RPQ DETAILED BREAKDOWN**

Bid Due Date:	7/16/2025	Time Due:	02:00 PM	Submitted Via:	Sealed Envelopes		
Estimated Value:	\$984,869	(excluding Contingencies and Dedicated Allowances)					
Project Name:	Asphalting at Various DSWM Locations - Northeast Transfer Station						
Project Location:	18701 NE 6th Avenue, Miami, FL 33179						
License Requirements:	Primary:	General Building Contractor; Building Contractor					
	Sub:	Concrete Work; Underground Utility / Excavation; Pavement Marking; Asphalt Sealing (not roadway pavement)					
Scope of Work:	<p>(Contractor must obtain and submit all permits prior to performing any work). The project, "Asphalting at Various DSWM Locations – Northeast Transfer Station," located at 18701 NE 6th Ave, Miami, FL 33179, consists of furnishing all materials, labor, and equipment necessary for its completion. The scope includes:</p> <ul style="list-style-type: none"><li>• Restoration of the Northeast Transfer Station through milling and resurfacing</li><li>• Replacement/repair of asphalt pavement</li><li>• Upgrading of signage and pavement markings</li><li>• Drainage/inlet adjustments</li><li>• Any additional work specified in the plans</li></ul> <p>General Sequence of Construction Phase 1 – Traffic Separator Reconstruction</p> <ul style="list-style-type: none"><li>• Remove the designated portion of the existing traffic separator as indicated in the plans</li><li>• Reconstruct the proposed traffic separator and maintain it free of loading for 72 hours to allow for concrete curing</li></ul> <p>Phase 2 – Flexible Pavement Reconstruction</p> <ul style="list-style-type: none"><li>• Remove and reconstruct flexible pavements in specified areas</li><li>• Replace speed hump as indicated in the plans</li><li>• Adjust utility valves and manholes as necessary</li><li>• Ensure that areas where pavement reconstruction is incomplete at the end of the construction day are filled with suitable material to avoid disruption of facility operations</li></ul> <p>Phase 3 – Milling, Resurfacing, Overbuild, Pavement Markings &amp; Signage</p> <ul style="list-style-type: none"><li>• Remove and reset existing wheel stops as needed for milling and resurfacing</li><li>• Perform milling, resurfacing, and overbuilding as indicated in the plans</li><li>• Apply painted pavement markings</li></ul> <p>Phase 4 – Thermoplastic Pavement Marking</p> <ul style="list-style-type: none"><li>• Apply thermoplastic pavement markings</li></ul>						
Document Pickup:	Contact:	Gibsy Nunez Davila	Phone No:	305-514-6024	Date:	7/16/2025	
	Location:	Will be sent via E-Mail					
Pre-Bid Meeting::	YES	Mandatory:	YES	Date:	6/18/2025	Time:	10:00 AM
	Location:	18701 NE 6th Avenue, Miami, FL 33179					
Site Meeting:	YES	Mandatory:	YES	Date:	6/18/2025	Time:	10:30 AM
	Location:	18701 NE 6th Avenue, Miami, FL 33179					
Bid shall be submitted to:	Contact:	Department of Solid Waste Management					
	Address:	2525 NW 62nd St., Miami, FL 33147					
	Email:	gibsy.nunezdavila@miamidade.gov			FAX # :	305-514-6024	

Type of Contract:	Multiple Trade		Method of Award:	Lowest Responsible Bidder	
Method of Payment:	Scheduled Monthly Payments		Insurance Required:	YES	
Additional Insurance Required:	YES	If Yes - Minimum Coverage:		\$3,000,000.00	
Performance & Payment Bond Required:	YES	Bid Bond Required:		YES	
Davis Bacon:	NO	Maintenance Wages:	NO	AIPP:	NO
				Amount:	
DBE Participation:	NO	Percentage:	0.00%	DBE Subcontractor Forms Required:	NO
SBE-S Requirements	YES	Percentage:	3.00%		
SBE-Services Commodity Set-Aside	NO	If Yes, Service =			
SBE-G Requirements	NO	Percentage:	0.00%		
SBE-Goods Commodity Set-Aside	NO	If Yes, Goods =			
Liquidated Damages:	YES	\$\$ Per Day:	\$349.20		
For RPQ's less than \$10,000, if no LD rate is specified, the County reserves the right to assess actual damages in lieu of LDs.					
Design Drawing Included:	YES	Shop Drawing Included:	NO	Specifications Included:	YES
Anticipated Start Date:	10/1/2025		Calendar Days for Project Completion:		112
Comments:	<p>Pursuant to Section 2-8.10 of the Code of Miami-Dade County, this Contract is subject to a user access fee under the County's User Access Program (UAP) in the amount of two percent (2%). All construction services provided under this contract are subject to the 2% UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity. From every payment made to the Contractor under this contract (including the payment of retainage), the County will deduct the two percent (2%) UAP fee provided in the ordinance and the Contractor will accept such reduced amount as full compensation for any and all deliverables under the contract. The County shall retain the 2% UAP for use by the County to help defray the cost of its procurement program. Contractor participation in this pay request reduction portion of the UAP is mandatory.</p> <p>Provided, however, UAP shall not be applicable for total contract values, inclusive of contingency and allowance accounts, of less than five hundred thousand dollars (\$500,000.00).</p> <p>1. Submit Request for Information (RFI's) to <a href="mailto:Gibsy.NunezDavila@miamidade.gov">Gibsy.NunezDavila@miamidade.gov</a> and copy <a href="mailto:clerk.board@miamidadeclerk.gov">clerk.board@miamidadeclerk.gov</a> - DEADLINE FOR RECEIPT OF RFI QUESTIONS: Close of Business, 06/27/2025</p> <p>2. This Request for Price Quotation (RPQ) is for a Miscellaneous Construction Contract.</p> <p>3. In the event the lowest responsible and responsive bid amount exceeds the project's cost estimate, Miami Dade County may hold a meeting to request further cost reductions to align the bid amount with the project's cost estimate. However, Miami Dade County will not engage in any type of negotiations or modifications of the original scope, terms or conditions other than the price reduction.</p> <p>4. All terms and conditions of the MCC Program are part of this contract and will be enforced.</p> <p>5. Refer to Article 2.14 below of the MCC Program to further clarify the license requirements:  2.14 LICENSE QUALIFICATIONS OF CONTRACTORS:  A) All Contractors must hold a current valid State of Florida Certified General Contractor License, as required by the Florida Building Code, for the types of Work covered by the Contract at the time of RPQ submission and maintain the same throughout the duration of the project. The certificate(s) is to be issued by: The State of Florida Construction Industry Licensing Board, pursuant to the provisions of Section 489.115 of the Florida Statute and registered with the Miami-Dade County Building Department or, The Dade County Construction Trades Qualifying Board, pursuant to the provisions of Section 10-3(a) of the County Code. Holders of Miami-Dade County Certificates of Competency must also hold Certificates of Registration issued by the State of Florida Construction Licensing Board, pursuant to the provisions of Section 489.115 or Section 489.117 of the Florida Statutes.</p> <p>B) Proof of such Certificate(s) must be submitted at the time of initial response and maintained current throughout the contract period. The County may request proof of continued certification at any time during the contract period. Failure to provide such proof within five (5) working days from notification by the County shall result in the removal from the contract and the rejection of any current or future RPQ bid submissions.</p>				

C) Subsequent to the commencement of the Contract, the County may require specific qualifications based on a Project's scope of work. Such requirements will be included within the RPQ.

6. PRIME CONTRACTOR MUST BE ABLE TO PULL MASTER PERMIT.

7. Per Florida Statue 255.078, retainage will be held for construction project greater than \$200,000.00

8. Unless specified in the bid form, all applicable permit fees must be paid by selected Contractor.

9. Inspector General fees are applicable to this project.

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RPQ No: 18610-25 has 3% SBE – Services goal in the following commodities/services:

- o NIGP 91219: Clearing and Grubbing Services

- o (NIGP 98852) Landscaping services & (NIGP 79050) Sodding Services

## **DISCLOSURE:**

- Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the Contractor or its employees, agents, servants, partners principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by the Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided.

The Contractor shall furnish to **Department of Solid Waste Management, Dr. Martin Luther King Jr. Office Plaza, 2525 NW 62 Street, Suite 5100, Miami FL 33147**, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

- A.** Worker's Compensation Insurance for all employees of the Contractor as required by Florida Statute 440.
  - a. If applicable should include coverage required under the U.S. Longshoremen and Harbor Workers' Act (USL&H) and/or Jones Act for any activities on or about navigable water.
- B.** Commercial General Liability in an amount not less than \$300,000 per occurrence, and \$600,000 in the aggregate. Miami-Dade County must be shown as an additional insured with respect to this coverage.
- C.** Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$300,000 combined single limit per occurrence for bodily injury and property damage.

\*Under no circumstances are Contractors permitted on the Aviation Department, Aircraft Operating Airside (A.O.A) at Miami International Airport without increasing automobile coverage to \$5 million. Only vehicles owned or leased by a company will be authorized. \$1 million limit applies at all other airports.

## **VERIFICATION OF EMPLOYMENT ELIGIBILITY (E-VERIFY):**

By entering the Contract, the Awarded Bidder becomes obligated to comply with the provisions of Section 448.095, Florida Statute, titled "Verification of Employment Eligibility." This includes but is not limited to utilization of the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of all newly hired employees by the Awarded Bidder effective, January 1, 2021, and requiring all Subcontractors to provide an affidavit attesting that the Subcontractor does not employ, contract with, or subcontract with, an unauthorized alien. Failure to comply may lead to termination of this Awarded Bidder, or if a Subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than twenty (20) calendar days after the date of termination. If this Contract is terminated for a violation of the statute by the Awarded Bidder, the Awarded Bidder may not be awarded a public contract for a period of one year after the date of termination, and the Awarded Bidder may be liable for any additional costs incurred by the County resulting from the termination of the Contract. Public and private employers must enroll in the E-Verify System (<http://www.uscis.gov/e-verify>) and retain the I-9 Forms for inspection.

## **MINIMUM QUALIFICATIONS AND REQUIREMENTS**

**Prime Contractor and or Subcontractor is highly preferred to have the following:**

- A minimum of five (5) years of successful contract experience with similar projects related to asphalt repairs in facilities of similar scope, size, materials, and environmental exposures.
- The experience of key senior personnel with other firms may count toward the experience requirement, if acceptable to the Department.
- In the event a firm is established by executives, supervisors, and other senior field staff (key employees) that have met the experience requirements with a prior firm, the Department reserves the right to qualify the firm based on the Department's sole determination and evaluation of the knowledge and prior experience of these key employees employed by the new firm.

**Prime Contractor must provide with their bid the following information:**

- Provide complete description of capability and history of the Contractor.
- Proof of experience documentation must accompany bid submittal. In lieu of the references from the Firm or Firm's Subcontractor, the County will consider the references from Firms's key personnel in accordance with Resolution No. 1122-21. The County must be able to ascertain from Firm provided references, to its satisfaction, at the County's sole discretion, that Firm holds sufficient experience and capacity in providing asphalt-related services.



## RPQ BID FORM-ATTACHMENT 5A

**Project Name: ASPHALTING AT VARIOUS DSWM LOCATIONS – NORTHEAST TRANSFER STATION**

**RPQ No. 18610-25**

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**GRAND TOTAL BID AMOUNT: \$** \_\_\_\_\_

(Cost to Perform the work must be stated here. State 'No Bid' if not submitting a bid price)

THE GRAND TOTAL BID AMOUNT LISTED ABOVE SHALL BE INCLUSIVE OF BASE BID TOTAL PLUS, 10% CONTINGENCY ALLOWANCE FOR UNFORESEEN CHANGES, PLUS DEDICATED ALLOWANCE FOR REPAIRS OF PAVEMENT/DRAINAGE SYSTEM.

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THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF THE BIDDER TO BE BOUND BY THE TERMS OF ITS OFFER. FAILURE TO COMPLETE AND SIGN THIS SOLICITATION WHERE INDICATED ABOVE BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE BID NON-RESPONSIVE. THE COUNTY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY RESPONSE THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER TO THE TERMS OF ITS OFFER.

**Print/Type**

**Bidder's Name:** \_\_\_\_\_

**Bidder's Authorized Representative's Name:** \_\_\_\_\_

**Company Address:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Note:** Quotes must be submitted on this form. All submittal envelopes must state RPQ Number, date and time due and the Bidder's Name. Use of any other form for submission of the price quotation shall result in the rejection of the price quotation. Late bids will not be opened. The low bidder will be notified, in the Recommendation of Award, of the requirements to submit current copies of insurance certificates in accordance with the Contract Documents. By signature, the Contractor agrees to be bound by the terms set forth in the *MCC 7360 Plan*.

In accordance with Miami-Dade County Implementing Order 3-9, Accounts Receivable Adjustments, if money is owed by the Contractor to the County, whether under this Contract or for any other purpose, the County reserves the right to retain such amount from payment due by County to the Contractor under this Contract. Such retained amount shall be applied to the amount owed by the Contractor to the County. The Contractor shall have no further claim to such retained amounts which shall be deemed full accord and satisfaction of the amount due by the County to the Contractor for the applicable payment due herein.

**Attachment 5A**

**ASPHALTING AT VARIOUS DSWM LOCATIONS – NORTHEAST TRANSFER STATION**  
**RPQ No. 18610-25**

**BID FORM**

**TO BE COMPLETED BY BIDDER AT BID SUBMISSION (A UNIT PRICE MUST BE ENTERED PER LINE)**

	DESCRIPTION	UOM	EST. QTY	UNIT PRICE	TOTAL PRICE
1	MOBILIZATION	LS	1	\$	\$
2	MAINTENANCE OF TRAFFIC	LS	1	\$	\$
3	INLET PROTECTION SYSTEM	EA	46	\$	\$
4	MOWING	AC	6.08	\$	\$
5	CLEARING & GRUBBING	LS	1	\$	\$
6	TREE PROTECTION BARRIER	LF	2,392	\$	\$
7	REMOVAL OF EXISTING CONCRETE	SY	105	\$	\$
8	REGULAR EXCAVATION	CY	570	\$	\$
9	EMBANKMENT	CY	25.2	\$	\$
10	TYPE B STABILIZATION	SY	1,711	\$	\$
11	OPTIONAL BASE, BASE GROUP 8	SY	1,711	\$	\$
12	MILLING EXISTING ASPHALT PAVEMENT 1" AVERAGE DEPTH	SY	26,845	\$	\$
13	SUPERPAVE ASPHALTIC CONCRETE TRAFFIC C	TN	1,902.4	\$	\$
14	MANHOLE ADJUST	EA	3	\$	\$
15	MANHOLE ADJUST, UTILITIES	EA	1	\$	\$
16	VALVE BOXES ADJUST	EA	1	\$	\$
17	DRAINAGE STRUCTURES, MISCELLANEOUS ADJUST	EA	5	\$	\$
18	REPLACE GRATE	EA	3	\$	\$
19	BOLLARDS	EA	4	\$	\$
20	TRAFFIC SEPARATOR CONCRETE, TYPE I, 4' WIDE	LF	272	\$	\$
21	CONCRETE CURB, TYPE D	LF	87	\$	\$
22	BUMPER GUARDS, CONCRETE BUMPER GUARDS, CONCRETE (REGULAR)	EA	166	\$	\$
23	BUMPER GUARDS, CONCRETE BUMPER GUARDS, CONCRETE (LARGE)	EA	45	\$	\$
24	PERFORMANCE TURF, SOD	SY	318	\$	\$
25	SPEED HUMPS	EA	1	\$	\$
26	SINGLE COLUMN GROUND SIGN ASSEMBLY, FURNISH & INSTALL GROUND MOUNT, LESS THAN 12 SF	EA	30	\$	\$
27	SINGLE COLUMN GROUND SIGN ASSEMBLY, RELOCATE	EA	1	\$	\$
28	SINGLE COLUMN GROUND SIGN ASSEMBLY, REMOVE	EA	31	\$	\$
29	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA	1	\$	\$
30	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, 21-30 SF	EA	1	\$	\$
31	SIGN PANEL, REMOVE, 21-30 SF	EA	1	\$	\$
32	RAISED PAVEMENT MARKER, TYPE B	EA	103	\$	\$
33	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1	\$	\$

34	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	452	\$	\$
35	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	119	\$	\$
36	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE / 6-10 GAP EXTENSION, 6"	GM	0.041	\$	\$
37	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	10	\$	\$
38	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	49	\$	\$
39	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	334	\$	\$
40	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDELINE / 6-10 DOTTED EXTENSION LINE, 6"	GM	0.009	\$	\$
41	THERMOPLASTIC, STANDARD, BLUE, SOLID, 6"	LF	199	\$	\$
42	THERMOPLASTIC, STANDARD – OTHER SURFACES, WHITE, SOLID, 6"	GM	1.199	\$	\$
43	THERMOPLASTIC, STANDARD – OTHER SURFACES, WHITE, SOLID, 8"	GM	0.169	\$	\$
44	THERMOPLASTIC, STANDARD – OTHER SURFACES, YELLOW, SOLID, 6"	GM	1.024	\$	\$
45	THERMOPLASTIC, STANDARD – OTHER SURFACES, YELLOW, SKIP, 6"	GM	0.076	\$	\$
<b>BASE BID TOTAL</b>					<b>\$</b>

DESCRIPTION	TOTAL
<b>ALLOWANCE ACCOUNT FOR UNFORESEEN CHANGES, 10 % OF BASE BID TOTAL</b>	<b>\$</b>

(A *Contingency Allowance* has been established for the purpose of funding portions of the work which are unforeseeable at the time of contract award. It is understood that any unspent amount of the allowance account is to remain with the County.)

DESCRIPTION	TOTAL
<b>DEDICATED ALLOWANCE</b>	<b>\$ 30,000.00</b>

(A *Dedicated Allowance Account* has been established for the exclusive use of the Department of Solid Waste Management for the purpose of repairs of pavement/drainage system. It is understood that any unspent portion of the allowance account is to remain with the County.)

**GRAND TOTAL BID AMOUNT:**

\$

THE GRAND TOTAL BID AMOUNT LISTED ABOVE SHALL BE INCLUSIVE OF BASE BID TOTAL PLUS, 10% CONTINGENCY ALLOWANCE FOR UNFORESEEN CHANGES, PLUS DEDICATED ALLOWANCE FOR REPAIRS OF PAVEMENT/DRAINAGE SYSTEM.

**GRAND TOTAL BID AMOUNT for THE SUM OF:**

\_\_\_\_\_  
(PRINT DOLLAR AMOUNT) Dollars and/ \_\_\_\_\_ Cents.

**\*\* YOU ARE REQUIRED TO TRANSFER THE GRAND TOTAL BID AMOUNT TO FORM ATTACHMENT 5A \*\***

THE BIDDER UNDERSTANDS AND AGREES THAT THE ABOVE GRAND TOTAL BID AMOUNT IS INCLUSIVE OF ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS.

Pursuant to Miami-Dade County Ordinance 94-34, any individual, corporation, partnership, joint venture or other legal entity having an officer, director, or executive who has been convicted of a felony during the past ten (10) years shall disclose this information prior to entering into a contract with or receiving funding from the County.

☐ Place a check mark here only if bidder has such conviction to disclose to comply with this requirement.

Please List: \_\_\_\_\_

---

**WAIVER OF CONFIDENTIALITY AND TRADE SECRET TREATMENT OF BID:**

The Bidder acknowledges and agrees that the submittal of the Bid is governed by Florida's Government in the Sunshine Laws and Public Records Laws as set forth in Florida Statutes Section 286.011 and Florida Statutes Chapter 119. As such, all material submitted as part of, or in support of, the bid will be available for public inspection after opening of bids and may be considered by the County in public. **By submitting a Bid pursuant to this Solicitation, Bidder agrees that all such materials may be considered to be public records. The Bidder shall not submit any information in response to this Solicitation which the Bidder considers to be a trade secret, proprietary or confidential.** In the event that the Bid contains a claim that all or a portion of the Bid submitted contains confidential, proprietary or trade secret information, the Bidder, by signing below, knowingly and expressly waives all claims made that the Bid, or any part thereof no matter how indicated, is confidential, proprietary or a trade secret and authorizes the County to release such information to the public for any reason.

**Acknowledgment of Waiver:**

**Bidder's Authorized Representative's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Print/Type Name:** \_\_\_\_\_ **Print/Type Title:** \_\_\_\_\_

---

It is hereby certified and affirmed that the bidder shall accept any awards made as a result of this solicitation. If awarded a purchases order or contract as a result of this solicitation, the Bidder further agrees that all work shall be performed as specified in the Contract Documents, and that prices quoted shall remain fixed and firm for the term of the contract.

**Print/Type**

**Bidder's Name:** \_\_\_\_\_ **F.E.I.N. No.:** \_\_\_\_\_

**Address:** \_\_\_\_\_ **City:** \_\_\_\_\_ **State:** \_\_\_\_\_

**Bidder's Authorized Representative's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Name:** \_\_\_\_\_ **Print/Type Title:** \_\_\_\_\_

**Email:** \_\_\_\_\_ **Phone:** \_\_\_\_\_

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF THE BIDDER TO BE BOUND BY THE TERMS OF ITS OFFER. FAILURE TO COMPLETE AND SIGN THIS SOLICITATION WHERE INDICATED ABOVE BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE BID NON-RESPONSIVE. THE COUNTY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY RESPONSE THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER TO THE TERMS OF ITS OFFER.

## SURETY BID BOND

By this Bond, we \_\_\_\_\_, as Principal, whose principal business address is \_\_\_\_\_, as respondent to the contract offering due \_\_\_\_\_, 20\_\_\_\_, For Miami-Dade County construction of Department of Solid Waste Management's Asphaltting at Various DSWM Locations – Northeast Transfer Station, Contract No. MCC 7360, RPQ No. 18610-25, (herein after referred to as "Contract") the terms of which Contract are incorporated by reference in its entirety into this Bond and \_\_\_\_\_, a corporation, whose principal business address is \_\_\_\_\_ as Surety, are bound to Miami-Dade County (hereinafter referred to as "County") in the sum of \_\_\_\_\_ (5% of the Total Bid Price in U.S. dollars) \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that Principal:

1. Whose submittal is found to be responsive to the solicitation, offered by a responsible contractor, is the lowest such responsive and responsible bid and is found to be in the best interest of the County shall be recommended for award by the County Manager; and
2. This Notice of Contract Award will be given to the successful respondent by a registered or certified letter to the address stated in the submittal package by the prospective Contractor; and
3. Upon receipt of Notice of Contract Award, the respondent to whom a Contract is awarded will be required to execute, in four (4) counterparts, each of which shall be deemed an original, including but not limited to, the prescribed Contract Document and if applicable, Performance and Payment Bonds within ten (10) calendar days from the date of notice to him that the Contract document is ready for execution. The required Insurance Certificates and Policies, as stated in the General Covenants and Conditions, shall also be delivered within this ten (10) day period.

The Respondent further agrees that, in the event he withdraws his bid, after proper notification of intent to Contract from the County, within ninety (90) days after the date of the submittal package opening, or fails to comply with all requirements to contract with Miami-Dade County or in the event he fails to comply with the Contract Documents or in the event he fails to enter into a written Contract with Miami-Dade-County, Florida, in accordance with the submittal package as accepted and provide required Bond(s) with good and sufficient surety and provide the necessary Insurance Certificates, as may be required, all within ten (10) days after the prescribed forms are presented to him for signature, the check or Bid Bond accompanying his submittal package , and the monies payable thereon, shall become the property of and be retained and used by Miami-Dade-County as liquidated damages, and not as a penalty; otherwise, the certified check or Bid Bond shall be returned by Miami-Dade-County to the undersigned.

By executing this instrument Surety agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the County. Notice to the Surety of extensions is waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

**SURETY BID BOND (Cont'd)**

Any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this Bond.

IN WITNESS WHEREOF, the above bounded parties have caused this Bond to be executed by their appropriate officials as of the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_.

CONTRACTOR

\_\_\_\_\_  
(Contractor Name)

BY:

\_\_\_\_\_  
(President) (Managing Partner or Joint Venturer)

(SEAL)

COUNTERSIGNED BY RESIDENT  
FLORIDA AGENT OF SURETY:

SURETY:

\_\_\_\_\_  
(Copy of Agent's current  
Identification Card as issued by  
State of Florida Insurance Commissioner must be attached) By: \_\_\_\_\_

Attorney-in-Fact

(CORPORATE SEAL)

(Power of Attorney must be attached)



MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT

**Project Name: ASPHALTING AT VARIOUS DSWM LOCATIONS -  
NORTHEAST TRANSFER STATION**

**RPQ No.: 18610-25**

**Confirmation of Addendums**

**To:** Miami-Dade County  
Board of County Commissioners  
Miami, Florida

Bid Opening Date: \_\_\_\_\_

Bid Opening Time: \_\_\_\_\_  
(Local Time)

Gentlemen:

We \_\_\_\_\_ (Bidder's Name) have received, have examined and are familiar with the Contract Documents bearing the referenced title project name, the forms for the Submittal of Bids and

Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____
Addendum No. _____	Dated _____

(Failure to acknowledge receipt of all addenda may cause the bid to be considered not responsive to the invitation, which would require rejection of the bid), and have included the cost of their provisions, in our Bid. We have examined, are familiar with, and do accept the conditions of the Work site and other conditions affecting the Work.

# QUESTIONNAIRE

## Appendix D



**IN ORDER TO PROVIDE INFORMATION NECESSARY IN DETERMINING THE QUALIFICATIONS OF THE PROPOSER, EACH PROSPECTIVE CONTRACTOR IS REQUIRED TO ANSWER THE FOLLOWING:**

#	QUESTION	ANSWER
1	Have you carefully read the Instruction To Prospective Contractors?	<input type="checkbox"/> YES <input type="checkbox"/> NO
2	Have you carefully reviewed the entire Contract Documents as identified within the Instruction To Prospective Contractors?	<input type="checkbox"/> YES <input type="checkbox"/> NO
3	If identified in the Contract Documents, have you carefully inspected the site of the work?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
4	Have you requested, in writing, of the contact person identified in the Advertisement, any clarifications necessary to submit a responsive proposal? Have you received a written response of clarification?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
5	Are you licensed and certified to perform the work for which you are submitting this proposal? License No.: Competency No.: FEIN No.: Qualifier's Name:	<input type="checkbox"/> YES <input type="checkbox"/> NO _____ _____ _____ _____
6	Are you a registered Contractor with the Miami-Dade County, Department of Procurement Management?	<input type="checkbox"/> YES <input type="checkbox"/> NO
7	Have you initialed each page and executed the last page of the Combined Affidavit?	<input type="checkbox"/> YES <input type="checkbox"/> NO
8	Have you completed the Ownership Disclosure Form?	<input type="checkbox"/> YES <input type="checkbox"/> NO
9	Have you made any changes or written any codicils to the Contract Proposal?	<input type="checkbox"/> YES <input type="checkbox"/> NO
10	How many previous Contracts with Miami-Dade County in the past five (5) years?	_____
11	Total dollar value of Contracts with Miami-Dade County in the past five (5) years?	_____
12	How many years has your Company been in business with the same Principals?	_____
13	Is your Bid Bond included with your submitted proposal?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A

# QUESTIONNAIRE

## Appendix D



### WHEN THE CONTRACTOR IS A CORPORATION:

(CORPORATION SEAL)

(Name of Corporation)

ATTEST

By: \_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Signature of Officer)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Official Title)

\_\_\_\_\_

\_\_\_\_\_  
(Address)

(PARTY OF THE SECOND PART)

Attach to each counterpart a certified copy of a resolution of the Board of Directors of the corporation authorizing the officer who signs the Contract, the Performance Bond and Payment Bond to do so in its behalf.

-----

### WHEN THE CONTRACTOR IS A JOINT VENTURE:

\_\_\_\_\_  
(Name of Joint Venture)

By: \_\_\_\_\_  
(Signature of Joint Venture)

\_\_\_\_\_  
(Signature of Joint Venture)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Print or type name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Title)

\_\_\_\_\_

\_\_\_\_\_  
(Address)

NOTE: Complete Joint Venture in accordance with Section 5 of the Instructions to Prospective Contractors.

# QUESTIONNAIRE

## Appendix D



WHEN THE CONTRACTOR IS A SOLE PROPRIETORSHIP  
OR OPERATES UNDER A TRADE NAME:

\_\_\_\_\_  
(Name of firm if applicable) (Address)

By: \_\_\_\_\_  
(Witness signature) (Signature of individual)

By: \_\_\_\_\_  
(Print or type name) (Print or type name)

By: \_\_\_\_\_  
(Witness signature)

By: \_\_\_\_\_  
(Print or type name)

ACKNOWLEDGEMENT:

STATE OF )  
)SS.:  
COUNTY OF )

Before me personally appeared \_\_\_\_\_ to me well  
known and known to me to be the person described in and who executed the foregoing instrument, and  
acknowledged to and before me that \_\_\_\_\_  
executed said instrument for the purposes therein expressed.

WITNESS my hand and official seal, this \_\_\_\_\_ day of \_\_\_\_\_, AD 20\_\_.

Notary Public \_\_\_\_\_

State of \_\_\_\_\_ at large

My Commission expires \_\_\_\_\_.

# QUESTIONNAIRE

## Appendix D



WHEN THE CONTRACTOR IS AN INDIVIDUAL:

By: \_\_\_\_\_  
(Witness signature) (Signature of individual)

By: \_\_\_\_\_  
(Print or type name) (Print or type name)

By: \_\_\_\_\_  
(Witness signature) (Address)

By: \_\_\_\_\_  
(Print or type name)

(PARTY OF THE SECOND PART)

ACKNOWLEDGEMENT:

STATE OF )

)SS.:

COUNTY OF )

Before me personally appeared \_\_\_\_\_ to me  
well known and known to me to be the person described in and who executed the foregoing instrument,  
and acknowledged to and before me that \_\_\_\_\_  
executed said instrument for the purposes therein expressed.

WITNESS my hand and official seal, this \_\_\_\_\_ day of \_\_\_\_\_, AD 20\_\_\_\_.

Notary Public \_\_\_\_\_

State of \_\_\_\_\_ at large

My Commission expires \_\_\_\_\_.

## MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT LIST OF BUSINESS REFERENCES

This list of references is an integral part of the Contractor's Bid and must be completed. All references, information and certifications shall be current and traceable.

NAME OF BIDDER \_\_\_\_\_

List all the projects which your organization has completed, during at least the last five (5) years, and which demonstrate qualifications to perform the work of this Contract.

				CONTRACT INFORMATION OF OWNER / CLIENT AND ENGINEER OR ARCHITECT	
COMPLETION DATE	CONTRACT PRICE	TYPE OF CONSTRUCTION	LOCATION OF WORK	EMAIL ADDRESS / PHONE NUMBER	PHYSICAL ADDRESS / PHONE NUMBER

STATE OF FLORIDA )  
 ) SS:  
COUNTY OF MIAMI-DADE )

Combined Affidavit Initial

### EMPLOYMENT DISCLOSURE

5. The following information and attachments are provided and are in compliance with all items in County Ordinance No. 90-133, amending Section 2.8-1; Subsection (d) (2):

a. Does your firm have a collective bargaining agreement with its employees?  
☐ Yes ☐ No

b. Does your firm provide paid health care benefits for its employees?  
☐ Yes ☐ No

c. Provide a current breakdown (number of persons) of your firm's work force and ownership as to race, national origin and gender:

White:	_____	Males:	_____	Females:	_____
Asian:	_____	Males:	_____	Females:	_____
Black:	_____	Males:	_____	Females:	_____
American					
Indian:	_____	Males:	_____	Females:	_____
Hispanics:	_____	Males:	_____	Females:	_____
Aleut					
(Eskimo):	_____	Males:	_____	Females:	_____
_____:	_____	Males:	_____	Females:	_____

### EMPLOYMENT DRUG FREE WORKPLACE

6. The Respondent provides a drug-free workplace in full compliance with Section 2-8.1.2 of the Code of Miami-Dade County.

### EMPLOYMENT FAMILY LEAVE

7. That in compliance with Ordinance No. 91-142 of the Code of Miami-Dade County, Florida, the following information is provided and is in compliance with all items in the aforementioned Ordinance:

An employee who has worked for the above firm for at least one (1) year shall be entitled to ninety (90) days of family leave during any twenty-four (24) month period, for medical reasons, for the birth or adoption of a child, or for the care of a child, spouse or other close relative who has a serious health condition without risk of termination of employment or employer retaliation.

Combined Affidavit Initial

\_\_\_\_\_

### **ARREARS WITH THE COUNTY**

8. That in compliance with Ordinance No. 95-178 and Section 2-8.1(c) of the Code of Miami-Dade County, the Proposer has paid all delinquent and currently due fees or taxes, including but not limited to real estate and personal property taxes, registered in the name of Proposer and which are collected in the normal course by the Miami-Dade County Tax Collector, and that County issued parking tickets for vehicles registered in the name of the above proposer, and which are collected in the normal course by the Miami-Dade Clerk of the Circuit and County Courts, have been paid.

That in compliance with Ordinance No. 99-162 and Section 2-8.1 of the Code of Miami-Dade County, the Proposer is not in arrears in any payment under contract, promissory note or other loan document with Miami-Dade County, or any of its agencies or instrumentalities, including the Public Health Trust, either directly or indirectly through a firm, corporation, partnership or joint venture in which the individual or entity has a controlling financial interest as that term is defined in Section 2-11.1(b)(8) of the Code of Miami-Dade County.

### **CODE OF BUSINESS ETHICS**

9. I, being duly sworn, hereby state and certify that this firm has adopted a Code of Business Ethics that is fully compliant with the requirements of Section 2-8.1(i) of the Code of Miami-Dade County as amended. I further acknowledge that failure to comply with the adopted Code of Business Ethics shall render any contract with Miami-Dade County voidable, and subject this firm to debarment from County work pursuant to Section 10-38 (h)(2) of the Code of Miami-Dade County as amended. I further acknowledge that failure to submit this affidavit shall render this firm ineligible for contract award.

### **NO CRIMINAL RECORD**

10. The Respondent has not been convicted of a felony during the past ten (10) years, nor does it, as of the date of the bid or proposal submission, have an officer, director or executive who has been convicted of a felony during the past ten (10) years as defined in Section 2-8.6 of the Code of Miami-Dade County.

### **PUBLIC ENTITY CRIME**

11. The respondent has not been convicted of a Public Entity crime as defined in Paragraph 287.133(1)(g) of the Florida Statutes. Violation of any State or Federal law with respect to the transaction of business with any public entity or with an agency or political subdivision of any State.

Combined Affidavit Initial

---

### **DEBARMENT AND SUSPENSION DISCLOSURE**

- 12 . The Respondent, and its officers, principals, stockholders, subcontractors or its affiliates are not debarred or suspended from contracting with Miami-Dade County as regulated by Section 10-38 of the Miami Dade County Code.

### **NON -DISCRIMINATION BASED ON DISABILITY**

- 13 . The Respondent is in compliance with and agrees to continue to comply with and assure any subcontractor, or third party contractor under this project complies with all applicable laws forbidding discrimination based on disability including, but not limited to those provisions pertaining to employment, provision of programs and services, transportation, communications. Access to facility, renovations and new construction as set forth in the Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973, the Federal Transit Act and the Fair Housing Act.

### **FAIR SUBCONTRACTING**

- 14 . Consistent with Section 2-8.8 of the Code of Miami-Dade County, the Respondent has adopted subcontracting policies and procedures which (a) notifies the broadest number of local subcontractors of the opportunity to be awarded a subcontract; (b) invites local subcontractors to submit bids in a practical, expedient way; (c) provides local subcontractors access to information necessary to prepare and formulate a subcontracting bid; (d) allows local subcontractors to meet with appropriate personnel of the Respondent to discuss the Respondent's requirements and (e) awards subcontracts based on full and complete consideration of all submitted proposals and in accordance with the Respondent's stated objectives.

### **I STATE NOTHING FURTHER IN THIS AFFIDAVIT.**

Signature:\_\_\_\_\_

Position/Title:\_\_\_\_\_

Name of Firm:\_\_\_\_\_

The foregoing was sworn and subscribed before me this\_\_\_\_day of \_\_\_\_\_, \_\_\_\_\_by\_\_\_\_\_who is personally known to me or who has produced\_\_\_\_\_as identification who being duly sworn, deposes and says that the above is true to the best of his knowledge, information and belief.

My Commission expires:

\_\_\_\_\_  
NOTARY PUBLIC  
STATE OF FLORIDA

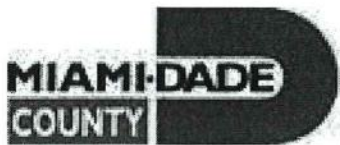
Combined Affidavit Initial  
\_\_\_\_\_



## CONTRACTING WITH ENTITIES OF FOREIGN COUNTRIES OF CONCERN PROHIBITED AFFIDAVIT

The Contracting with Entities of Foreign Countries of Concern Prohibited Affidavit Form ("Form") is required by [Section 287.138, Florida Statutes \("F.S."\)](#), which is deemed as being expressly incorporated into this Form. The Affidavit must be completed by a person authorized to make this attestation on behalf of the Bidder/Proposer for the purpose of submitting a bid, proposal, quote, or other response, or otherwise entering into a contract with the County. The associated bid, proposal, quote, or other response will not be accepted unless and until this completed and executed Affidavit is submitted to the County.

_____ does not meet any of the criteria set forth in Paragraphs 2 (a) – (c)	
Bidder's/Proposer's Legal Company Name	
of <a href="#">Section 287.138, F.S.</a>	
Pursuant to Section 92.525, F.S., under penalties of perjury, I declare that I have read the foregoing statement and that the facts stated in it are true.	
Print Name of Bidder's/Proposer's Authorized Representative:	_____
Title of Bidder's/Proposer's Authorized Representative:	_____
Signature of Bidder's/Proposer's Authorized Representative:	_____
Date:	_____



# Office of Small Business Development

## Project Worksheet

Project/Contract Title: Asphaltting at Various DSWM Locations - Northeast Transfer Station Received Date: 5/28/2025

Project/Contract No: RPQ No. 18610-25 Funding Source: EW009

Department: Solid Waste Management

Estimated Cost of Project/Bid: \$1,083,365.52

Description of Project/Bid: Asphaltting at Various DSWM Locations - Northeast Transfer Station to furnish all materials, labor, and equipment necessary for completion to include the restoration of the Northeast Transfer Station through milling and resurfacing; Replacement/repair of asphalt pavement; Upgrading of signage and pavement markings; Drainage/inlet adjustments and any additional work specified in the plans.

Contract Measures		
Measure Goal	Program SBE - Services	Goal Percent 3.00%
Reasons for Recommendation		
<p><b>SMALL BUSINESS ENTERPRISE – SERVICES (SBE-S).</b></p> <p>SBD reviewed this project pursuant to Implementing Order 3-41 for an SBE-S measure. Project information analyzed included the project's scope of services, estimated project cost, minimum requirements/qualifications and funding source; these indicate a 3.00% SBE S Subcontractor Goal is appropriate in the following recommended commodities: NIGP 91219: Clearing and Grubbing Services, (NIGP 98852) Landscaping, Including Design, Fertilizing, Planting, etc., Not Grounds Maintenance or Tree Trimming Services and (NIGP 79050) Sodding.</p> <p>The commodities/services noted are recommendations based on the project scope and estimated breakdown. Prime firms are free to utilize any other applicable commodities/services that are not license based construction trades found on the project to meet the SBE – Goods &amp; Services Goal.</p> <p>NAICS 236220 Commercial and Institutional Building Construction, NAICS 237130 Power and Communication Line and Related Structures Construction, NAICS 238110 Poured Concrete Foundation and Structure Contractors, NIGP 79050 Sod, Grass, NIGP 98852 Landscaping, Including Design, Fertilizing, Planting, etc., Not Grounds Maintenance or Tree Trimming Services, NIGP 91219 Clearing and Grubbing Services</p>		
Small Business Contract Measure Recommendation		
<u>Subtrade</u>	<u>Category</u>	
Sodding	SBE-Services	
Landscaping, Including Design, Fertilizing, Planting, etc., Not Grounds Maintenance or Tree Trimming Services Clearing and Grubbing Services	SBE-Services	

Living Wages: YES ☐ NO ☒

Highway: YES ☐ NO ☒

Heavy Construction: YES ☐ NO ☒

Responsible Wages: YES ☐ NO ☒

Building: YES ☐ NO ☒

SBD Director

Date

6/3/2025



**SMALL BUSINESS DEVELOPMENT  
CERTIFICATE OF ASSURANCE (COA)**

**SMALL BUSINESS PARTICIPATION ON COUNTY PROJECTS**

**This completed form must be submitted with bid documents by all bidders/proposers on a Miami-Dade County project with Small Business Enterprise ("SBE") program measure(s).**

Project No.: \_\_\_\_\_ Project Title: Asphalting at Various DSWM Locations-Northeast Transfer Station

Name of Bidder/Proposer: \_\_\_\_\_ FEIN \_\_\_\_\_

Address: \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email address: \_\_\_\_\_

**The bidder/proposer is committed to meeting the established measure(s) assigned to this project: \_\_\_\_\_ % SBE-A/E, \_\_\_\_\_ % SBE-Con, \_\_\_ Trade Set-aside SBE-Con, \_\_\_\_\_ % SBE-G, and/or \_\_\_\_\_ % SBE-S.**

*(For Goals, write in the percentage. For Set-aside, put a check mark or x.)*

\_\_\_\_\_  
Print Prime Bidder's Name & Title

\_\_\_\_\_  
Prime Bidder's Signature

\_\_\_\_\_  
Date

**To satisfy the requirements for Step 1 – Bid Submittal and Compliance with Small Business Enterprise Program(s), the following are required:**

1. Acknowledgement of the SBE-Architecture & Engineering, SBE-Construction, SBE-Good and/or SBE-Service (non-construction, architecture or engineering) measure(s) established for this project via this Certificate of Assurance.
2. Agree to engage in the solicitation of approved Miami-Dade County Small Business Enterprise firm(s) to achieve the established measure(s) as indicated in the Project Documents (specifications).
3. Agree to select and submit the names of the certified SBEs to satisfy the measures via Miami-Dade County's Business Management Workforce System ("BMWS") within the specified timeframe, upon email notification from the Small Business Development ("SBD") Division or BMWS.

**To satisfy the requirements for Step 2 – Bid Evaluation and Recommendation for Award, please attest that:**

I understand that my company will be deemed non-compliant and not eligible for award if I fail to (1) submit this form with my bid/proposal documents and/or (2) submit my company's Utilization Plan which shall list all certified Miami-Dade County Small Business Enterprise firms whom will be subcontracted with to satisfy the project's established SBE measure(s) via BMWS, within the specified timeframe, upon email notification from SBD or BMWS. Each SBE subcontractor, subconsultant, and/or sub-vendor will also be required to confirm its contractual relationship via BMWS, within the specified timeframe, for final approval by SBD.

STATE OF FLORIDA

COUNTY OF MIAMI-DADE

BEFORE ME, an officer duly authorized to administer oaths and take acknowledgement, personally appeared \_\_\_\_\_, who being first sworn deposes and affirms that the provided information statements are true and correct to the best of his/her knowledge information and belief.

\_\_\_\_\_  
Signature of Owner

SWORN TO and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Signature of Notary Public-State of Florida

My Commission Expires:

## SUBCONTRACTING FORM

Solicitation/RPQ Number \_\_\_\_\_

Vendor Name \_\_\_\_\_

Federal Employer Identification Number (FEIN) \_\_\_\_\_

Complete "A" or "B":

- A. No subcontractors or direct suppliers will be utilized pursuant to this solicitation.
- B. The below listed subcontractors and/or suppliers will be utilized pursuant to this solicitation:

Business Name and Address of First Tier Subcontractor/ Subconsultant	FEIN	Name of Principal Owner	Scope of Work to be Performed by Subcontractor /Subconsultant	Subcontractor / Subconsultant License (if applicable)
Business Name and Address of First Tier Direct Supplier	FEIN	Name of Principal Owner	Supplies, Materials, and/or Services to be Provided by Supplier	

And

	Below and/or attached is a detailed statement of the firm's policies and procedures for awarding subcontractors/subconsultants:

**(Duplicate this form if additional space is needed to provide the required information)**

When Subcontracting is allowed and subcontractors will be utilized, the Contractor shall comply with Section 2-8.8 of the Code – Fair Subcontracting Practices: (1) Prior to contract award, the Bidder shall provide a detailed statement of its policies and procedures for awarding subcontracts and (2) As a condition of final payment under a contract, the Contractor shall identify subcontractors/subconsultants used in the work, the amount of each subcontract, and the amount paid and to be paid to each subcontractor/subconsultant via the Business Management Workforce System (BMWS) at <http://mdcsbd.gob2g.com>.

Pursuant to Section 2-8.1(f) of the Code – Listing of subcontractors required on certain contracts, for all contracts which involve the expenditure of one hundred thousand dollars (\$100,000) or more, the entity contracting with the County must report to the County the race, gender, and ethnic origin of the owners and employees of its first tier subcontractors/subconsultants and suppliers via the BMWS at <http://mdcsbd.gob2g.com>. The race, gender, and ethnic information must be submitted via BMWS as soon as reasonably available and, in any event, prior to final payment under the Contract. The Contractor shall not change or substitute first tier subcontractors/subconsultants or direct suppliers or the portions of the Contract work to be performed or materials to be supplied from those identified except upon written approval of the County.

*I certify that the information contained in this form is to the best of my knowledge true and accurate.*

\_\_\_\_\_  
Signature of Vendor's Representative

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Title

\_\_\_\_\_  
Date

## SURETY PERFORMANCE AND PAYMENT BOND

By this Bond, We \_\_\_\_\_, as Principal, whose principal business address is \_\_\_\_\_, as Contractor under the contract dated \_\_\_\_\_, 20 \_\_\_\_, between Principal and Miami-Dade County for the construction of the Department of Solid Waste Management's Asphaltting at Various DSWM Locations – Northeast Transfer Station Contract No. MCC 7360, RPQ No. 18610-25 (herein after referred to as "Contract") the terms of which Contract are incorporated by reference in its entirety into this Bond and \_\_\_\_\_, a corporation, whose principal business address is \_\_\_\_\_ as Surety, are bound to Miami-Dade County (hereinafter referred to as "County") in the sum of \_\_\_\_\_ (U.S. dollars) \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs all the work under the Contract, including but not limited to guarantees, warranties and the curing of latent defects, said Contract being made a part of this bond by reference, and in the times and in the manner prescribed in the Contract, including any and all damages for delay; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays County all losses, damages, including damages for delay, expenses, costs and attorney's fees, including appellate proceedings, that County sustains because of a default by Principal under the Contract, including but not limited to a failure to honor all guarantees and warranties or to cure latent defects in its work or materials within 5 years after completion of the work under the Contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the Contract, including all warranties and curing all latent defects within 5 years after completion of the work under the Contract;

then this bond is void; otherwise it remains in full force.

If no specific periods of warranty are stated in the Contract for any particular item or work, material or equipment, the warranty shall be deemed to be a period of one (1) year from the date of final acceptance by the County. This Bond does not limit the County's ability to pursue suits directly with the Principal seeking damages for latent defects in materials or workmanship, such actions being subject to the limitations found in Section 95.11(3)(c), Florida Statutes.

Any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this Bond.

**SURETY PERFORMANCE BOND (Cont'd)**

IN WITNESS WHEREOF, the above-bounded parties have caused this Bond to be executed by their appropriate officials as of the \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

CONTRACTOR

\_\_\_\_\_  
(Contractor Name)

BY:

\_\_\_\_\_  
(President) (Managing Partner or Joint Venturer)

**(SEAL)**

COUNTERSIGNED BY RESIDENT  
FLORIDA AGENT OF SURETY:

SURETY:

\_\_\_\_\_  
(Copy of Agent's current  
Identification Card as issued by  
State of Florida Insurance Commissioner must be attached) By: \_\_\_\_\_

Attorney-in-Fact

**(CORPORATE SEAL)**

**(Power of Attorney must be attached)**



## NON-COLLUSION AFFIDAVIT

(In accordance with [Sections 2-8.1.1](#) and [10-33.02.1](#) of the Code of Miami-Dade County)

I, the undersigned, am over 18 years of age, have personal knowledge of the facts stated in the Non-Collusion Affidavit (*this Affidavit*) and I am an owner, officer, director, principal shareholder and/or otherwise authorized to bind the Bidder/Proposer of this solicitation.

- A. I have reviewed the list of respondents attached to this Affidavit. I state that the Bidder/Proposer of this competitive solicitation (check one):

☐ is **not related** to any of the other respondents submitting a Bid/Proposal in the competitive solicitation.

☐ is **related** to the following respondents who submitted a Bid/Proposal in the competitive solicitation, which are identified and listed below:

- B. I state that the Bidder/Proposer of this competitive solicitation:

1. has prepared this Bid/Proposal independently without consultation, communication, agreement or arrangement with any other Bidder/Proposer or competitor for the purpose of restricting competition;
2. has submitted the Bid/Proposal in its own behalf, and not in the interest or on behalf of any person not therein named;
3. has not, directly or indirectly, induced or solicited any other Bidder/Proposer to put in a sham proposal, or any other person, firm, or corporation to refrain from proposing;
4. has not in any manner sought by collusion to secure an advantage over any other Bidder/Proposer.

**Note:** Any person or entity that fails to submit this executed Affidavit shall be ineligible for contract award. In accordance with Section 2-8.1.1 of the Code of Miami-Dade County, where two or more related parties, as defined herein, each submit a Bid for any contract, such Bids shall be presumed to be collusive. The foregoing presumption may be rebutted by the presentation of evidence as to the extent of ownership, control and management of such related parties in preparation and submittal of such Bids. **Related parties** shall mean the Bidder/Proposer; the principals, corporate officers, and managers of a Bidder/Proposer; or the spouse, domestic partner, parents, stepparents, siblings, children or stepchildren of a Bidder/Proposer or the principals, corporate officers and managers thereof which have a direct or indirect ownership interest in another Bidder/Proposer for the same contract or in which a parent company or the principals thereof of one Bidder/Proposer have a direct or indirect ownership interest in another Bidder/Proposer for the same contract. Bid/Proposal found to be collusive shall be rejected. Bidder/Proposer who has been found to have engaged in collusion may be considered non-responsible, and may be suspended or debarred, and any contract resulting from collusive bidding may be terminated for default.

**Written Declaration:** Pursuant to §92.525, Florida Statutes, under penalties of perjury, I declare that I have read the foregoing Affidavit and that the facts stated in it are true, accurate, and complete.

Solicitation No.: \_\_\_\_\_ Solicitation Title: \_\_\_\_\_

By: \_\_\_\_\_  
Signature of Affiant

Date: \_\_\_\_\_ 20 \_\_\_\_

\_\_\_\_\_  
Printed Name of Affiant and Title

\_\_\_\_/\_\_\_\_/\_\_\_\_ - \_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_/\_\_\_\_  
Federal Employer Identification Number

\_\_\_\_\_  
Printed Name of Bidder/Proposer

\_\_\_\_\_  
Address of Bidder/Proposer



## NON-COLLUSION AFFIDAVIT

(In accordance with [Sections 2-8.1.1](#) and [10-33.02.1](#) of the Code of Miami-Dade County)

### Exhibit A

Below listed are all other parties (legal entity) bidding/proposing in referenced competitive solicitation

Solicitation No.

Solicitation Title:

**Per section A of the Non-Collusion Affidavit, respondents shall be listed below after bid opening and provided during the clarification period to the apparent lowest bidder for final initials.**

1.	
2.	
3.	TO BE INITIALED AND DATED BY APPARENT LOWEST BIDDER
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Bidder Initials \_\_\_\_\_

Date \_\_\_\_\_



## KIDNAPPING, CUSTODY OFFENSES, HUMAN TRAFFICKING AND RELATED OFFENSES AFFIDAVIT

The Kidnapping, Custody Offenses, Human Trafficking and Related Offenses Affidavit is required by Section [787.06](#), Florida Statutes ("F.S."), as amended by [HB 7063](#), which is deemed as being expressly incorporated into this Form. The Form must be completed by a person authorized to make this attestation on behalf of the Contractor (Nongovernmental Entity) for the purpose of executing, amending, or renewing a Contract with the County (Governmental Entity). The term Governmental Entity has the same meaning as in [Section 287.138\(1\), F.S.](#)

\_\_\_\_\_ does not use coercion for labor or services as defined in Section [787.06, F.S.](#)  
Contractor's Legal Company Name

Pursuant to Section [92.525, F.S.](#), under the penalties of perjury, I declare that I have read the foregoing statement and that the facts stated in it are true.

Print Name of Contractor's Authorized Representative:

Title of Contractor's Authorized Representative:

Signature of Contractor's Authorized Representative:

Date:

# Miami-Dade County

## Contractor Due Diligence Affidavit

Per Miami-Dade County Board of County Commissioners (Board) Resolution No. R-63-14, County Vendors and Contractors shall disclose the following as a condition of award for any contract that exceeds one million dollars (\$1,000,000) or that otherwise must be presented to the Board for approval:

- (1) Provide a list of all lawsuits in the five (5) years prior to bid or proposal submittal that have been filed against the firm, its directors, partners, principals and/or board members based on a breach of contract by the firm; include the case name, number and disposition;
- (2) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has defaulted; include a brief description of the circumstances;
- (3) Provide a list of any instances in the five (5) years prior to bid or proposal submittal where the firm has been debarred or received a formal notice of non-compliance or non-performance, such as a notice to cure or a suspension from participating or bidding for contracts, whether related to Miami-Dade County or not.

All of the above information shall be attached to the executed affidavit and submitted to the Procurement Contracting Officer (PCO)/ AE Selection Coordinator overseeing this solicitation. The Vendor/Contractor attests to providing all of the above information, if applicable, to the PCO.

Contract No. : \_\_\_\_\_ Federal Employer  
Identification Number (FEIN): \_\_\_\_\_

Contract Title: \_\_\_\_\_

\_\_\_\_\_  
Printed Name of Affiant

\_\_\_\_\_  
Printed Title of Affiant

\_\_\_\_\_  
Signature of Affiant

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Date

\_\_\_\_\_  
Address of Firm

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

### Notary Public Information

Notary Public – State of \_\_\_\_\_ County of \_\_\_\_\_

Subscribed and sworn to (or affirmed) before me this \_\_\_\_\_ day of, \_\_\_\_\_ 20

by \_\_\_\_\_ He or she is personally known to me ☐ or has produced identification

Type of Identification produced \_\_\_\_\_

\_\_\_\_\_  
Signature of Notary Public

\_\_\_\_\_  
Serial Number

\_\_\_\_\_  
Print or Stamp of Notary Public

\_\_\_\_\_  
Expiration Date

\_\_\_\_\_  
Notary Public Seal

## **ADDITIONAL CONTRACT DOCUMENTS**

- Standard Construction General Contract Conditions and Attachments A through F
- Special Provisions
- Indemnification and Insurance

**STANDARD CONSTRUCTION**  
**GENERAL CONTRACT CONDITIONS**  
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[NOTE: THIS STANDARD CONSTRUCTION GENERAL CONTRACT CONDITIONS HAVE BEEN PREPARED FOR USE IN ALL CONSTRUCTION (DESIGN-BID-BUILD) CONTRACTS AND OTHERWISE IN ACCORDANCE WITH IMPLEMENTING ORDER 3-57.

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## 1. DEFINITIONS

Addendum/Addenda: A modification or clarification of the Contract Documents distributed to prospective Bidders prior to the opening of Bids.

Administrative Orders/Implementing Orders (AO/IO): a list of Miami-Dade County Administrative Orders and Implementing Orders is available online at:

<http://www.miamidade.gov/ao/home.asp?Process=completelista> Advertisement for Bids: The public notice inviting the submission of Bids for the Work.

Allowance Account (Contingency Account): Account in which a stated maximum dollar amount is included in the Contract for the purpose of funding, at the sole discretion of the Owner, unforeseen and/or changed conditions or extra work arising during the prosecution of the Work or any other changes issued by the Owner. The scope and limitations regarding use of the Allowance Account are contained in the Contract Documents. The performance of any work under this Allowance Account, shall be authorized by a written Work Order issued by the Owner.

Allowance Account(s) (Dedicated): Account(s) in which stated maximum dollar amount(s) are included in the Contract for the purpose of funding specific pre-identified items of work at the sole discretion of the Owner. The scope and limitations regarding use of the Dedicated Allowance Account(s) are contained in the Contract Documents.

Architect/Engineer: Owner or its authorized representatives identified in the Notice-to-Proceed letter, which may include but is not limited to the Owner's Resident Architect/Engineer, the Construction Manager, the Owner's representatives, and the Architect/Engineer of Record. In the event an Architect/Engineer is not employed on the project, or an Architect/Engineer is not otherwise specified in the Notice-to-Proceed, the term shall be read as coterminous with the term "Owner."

Art in Public Places: Miami-Dade County program established in Miami-Dade County Code Section 2-11.15 providing a one and a half percent (1.5%) of each County project's construction and engineering design cost to fund a public art component within the Project. Coordination and installation of the Artist's work is included as part of the scope of the Contractor's services to the extent that it is defined in the Bid Documents. The cost of this program is budgetary, funded by the Department, and shall not be included in the Contractor's bid.

Artist: Person(s) chosen through the Art in Public Places program to design and fabricate or specify an integrated work of art for the Project. The term Artist as may be referred to in the Contract Documents means the Artist and/or their authorized representative.

As-Built Documents: Documents signed and sealed by an appropriately licensed professional and submitted by the Contractor during and/or upon completion of the Contract reflecting actual installed/built conditions and all changes made in the Contract Documents during the construction process and showing the exact dimensions, geometry, location, identification and such other information as required by the Contract Documents and/or Architect/Engineer for all elements of the work completed under the contract (also referred to as "As-Built Drawings" or "As-Builts"). Final payment is conditional upon the receipt of As-Built Documents.

Award: Action taken by the Owner to accept the Bid submitted by the Contractor to perform the Work described in the Contract Documents.

Baseline Construction 7360

: A schedule submitted by the Contractor in accordance with the Contract Documents, reviewed and approved by the Owner that is used by the Contractor to plan the performance of the Work. The Contract Documents may require interim Baseline Construction Schedules be submitted for only a portion of the initial Work to be followed by a Baseline Construction Schedule covering all the Work. The Baseline Construction Schedule shall also be used to quantify delays in accordance with the Contract Documents. While the Baseline Construction Schedule remains unchanged, updates to the Baseline Construction Schedule are prepared and submitted by the Contractor per the Contract Documents. The Baseline Construction Schedule shall only be revised and submitted again for review and approval by the Owner as required by the Contract Documents.

BCC: Board of County Commissioners, the governing board of Miami-Dade County.

Beneficial Occupancy: The point at which the Owner or Architect/Engineer determines that the Work or any portion thereof can be occupied from a regulatory and work function standpoint prior to Substantial Completion of the Work. Beneficial Occupancy will not relieve the Contractor of any of its obligations relative to Substantial Completion, or of its responsibility to fully complete the Work in accordance with the Contract Documents.

Bid: The written offer of a Bidder to perform the Work.

Bid Documents: The Advertisement for Bids, Instructions to Bidders, Bid Form, Bid Security, Construction Contract, all contractual forms, General Conditions, Special Provisions, Technical Specifications and Contract Drawings, together with all Addenda and any other applicable standards, regulations, laws and permits as described within these other documents which may be incorporated by reference.

Bid Item: A specific item of work represented by a line item in the Bid Form.

Bid Form: The form on which Bids are submitted.

Bid Security: (Also known as Bid Bond) The cashier's check, certified check or bid bond, accompanying the Bid and submitted by the prospective bidder, as a guarantee that the prospective bidder will enter into a contract with the Owner for the performance of the Work and furnish acceptable bonds and insurance if the Contract is awarded to him.

Bidder: An individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work.

Certificate of Substantial Completion: Certificate issued to the Contractor by the Owner certifying that Substantial Completion has been achieved.

Certificate of Completion: Certificate issued by the local building official providing proof that a structure or system is complete and, for certain types of permits, is released for use and may be connected to a utility system. This certificate does not grant authority to occupy a building, such as a shell building, prior to the issuance of a Certificate of Occupancy by the local building official.

Certificate of Final Acceptance: Certificate issued to the Contractor by the Owner certifying that Final Acceptance has been achieved in accordance with the definition reflected herein (see Final Acceptance definition).

Certificate of Occupancy: Certificate issued by the local building official after the building official inspects the building or structure and finds no violations of the provisions of applicable codes or other laws that are enforced by the local building department.

Change Notice: A document issued by the Architect/Engineer or Owner to the Contractor specifying a proposed change to the Contract Documents and requesting a price proposal from the Contractor, if applicable, within a specified time period.

Change Order: A written agreement executed by the Owner, the Contractor and the Contractor's Surety, covering modifications to the Contract Documents.

Claim: A Claim should include any request for additional compensation, time, or other relief arising out of or relating to the Contract Documents, including without limitation, requests for equitable adjustments and breach of contract.

Commissioning: A quality-focused process for enhancing the delivery of a project. The process focuses upon verifying and documenting that all of the commissioned systems and assemblies are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements.

Construction Staging Area: Property which may be available for use by the Contractor during the construction period for the purpose of storing products and construction equipment and for the purpose of staging the Work. The construction staging area(s), if applicable, are defined in the Contract Documents.

Construction Contract: The agreement executed by the Contractor and the Owner covering the performance of the Work including the furnishing of labor, superintendence, materials, tools, and equipment as indicated in the Contract Documents. The term "Contract" shall have the same meaning.

Construction Inspection Services: Services performed by the Owner or a consultant to the Owner to verify that the Work is being performed in accordance with the Contract Documents. The use of these services shall not relieve the Design/Builder of their responsibilities under the Contract Documents.

Consultant: See Architect/Engineer.

Contract Documents: Bid Documents, Contract Summary, General Conditions, Special Conditions, Technical Specifications, Change Orders, Payment and Performance Bonds, Work Orders, Approved Schedules, Approved Shop Drawings and Approved Working Drawings.

Contract Drawings: The plans, profiles, cross-sections, elevations, schedules, and details which show locations, character, dimensions, and details of the Work. Contract Drawings are confidential under the Florida Public Records Act and the Contractor is responsible for maintaining confidentiality during and after the progress of the Work.

Contractor: The individual, firm, partnership, or corporation, or combination thereof, private, municipal, or public, including joint ventures, duly licensed under Florida Statutes, which, as an independent Contractor, has entered a Contract with Miami-Dade County, who is referred to throughout the Contract Documents by singular in number and masculine in gender.

Contract Summary: The written agreement between the County and the Contractor for performance of the Work in accordance with the requirements of the Contract Documents and for the payment of the agreed consideration.

Contract Time: The number of days allowed for completion of the Work commencing with the effective date of Notice to Proceed and ending with the date of Substantial Completion or Final Completion, including completion of punch list items, as determined by the Owner or the Owner's designee. The Contract Time will be stipulated in the Contract Documents unless extended by a Change Order or by a Work Order.

County: See Owner.

County Mayor: The Mayor of Miami-Dade County, Florida, or the County Mayor's designee.

Critical Path: Longest sequence of activities in a project's schedule which defines the project completion date and which must be completed on time in order for the project to be completed on schedule.

Delays: May be Excusable or Non-Excusable. Excusable Delays may be Compensable or Non-Compensable, as further defined within the text of these General Conditions.

Days: Unless otherwise designated, days mean calendar days.

Department Director: The Director of the Miami-Dade County Department implementing the work or the Director's designee.

Department Director's Representative: The person or persons designated by the Department Director to act on his behalf in the administration of the contract within the limits of their respective authorization.

Direct Costs: Direct Costs recoverable by the Contractor as a result of changes in the Work shall be limited to the actual additional costs of labor and materials installed as part of the Work and for the reasonable additional cost of rental of any Special Equipment or Machinery. Labor shall be limited to site labor costs, including Employer's Payroll Burden. Specifically excluded from labor are the costs of general foremen and site office personnel. Materials are limited to permanent materials required by the Contract Documents and materials approved by the Architect/Engineer as necessary to install the permanent materials in an efficient and workmanlike manner. For special equipment or machinery not listed in said document, the Contractor shall be paid a rental rate corresponding to the average prevailing rental rate for such equipment or machinery in Miami-Dade County, Florida, subject to approval by the Architect/Engineer. No additional payment shall be made to the Contractor for fuel, lubricants, for wear and tear, transportation, insurance, or depreciation. Any equipment or machinery not designated by the Architect/Engineer as special equipment and machinery shall be considered Overhead.

Extra Work: Work not provided for in the Contract Documents as awarded or as previously modified by Change Order or Work Order but found to be essential to the satisfactory completion of the Contract within its intended scope.

Facility: The structure or items being constructed under the Contract, inclusive of all subsurface work, landscaping work, and other ancillary work. Field Representative/Construction Manager: An authorized representative of the Owner that may provide administrative and construction inspection services during the pre-construction, construction, and closeout phases of the Contract and through which the orders of the Owner shall be given. The Field Representative has no authority to modify or waive any provision of the Contract Documents.

Fast Track: A design/build method where separate and often, intermediate phases of the Project are designed, permitted and constructed earlier in the schedule while the remainder and often, more complex portions of the Project are designed, permitted and constructed later in the schedule. For example, foundation design, permitting and construction earlier while the remainder of the structure takes longer to design, permit and construct. Fast-track construction is subject to the approval of the Owner and the permitting agencies.

Final Acceptance: The formal written acceptance by the Owner of the completed work.

Final Completion: Point in time when the Owner determines that all physical Work has been completed in accordance with the Contract Documents and all deficiencies listed within the Certificate of Substantial Completion and/or Punch List elements have been corrected to the satisfaction of the Owner and Architect/Engineer. Where the contract requires that Contractor provide the Owner with spares or surplus

material, provision of same in accordance with the Contract Documents shall be an additional requirement for Final Completion (See Article 8 Contract Time Paragraph D. Substantial Completion, Final Completion and Final Acceptance).

Force Account: A method of payment measured by actual cost of the labor, materials, and equipment plus the contractual approved mark-up for Indirect Costs, as distinct from other payment methods such as lump sum or unit price, for Extra Work ordered by Change Order and/or Work Order (See Article 10 Changes Paragraph G. Force Account).

Force Majeure: Force Majeure as used herein shall mean Acts of God, strikes, lockouts, any late delivery of the Owner's supplied material and equipment due to transportation delays beyond Department's control, or other industrial disturbances; acts of public enemy, blockades, wars, insurrections, or riots; epidemics, landslides, earthquakes, fire, storms, floods, or washouts; arrests, title disputes, or other litigation; governmental restraints, either Federal or County, civil or military; civil disturbances; explosions; nationwide inability to obtain necessary materials or equipment, supplies, labor, or permits whether due to existing or future rules, regulations, orders, laws, or proclamations, either Federal, State or County, civil or military, or otherwise; and other causes beyond the control of the Department or County, whether or not specifically enumerated herein. Changes in the market price of goods, materials, equipment, labor, or supplies shall not be considered an instance of Force Majeure, and Contractor's bid shall include all risks of market changes the price of such things. COVID-19 or any other catastrophic event shall not be considered a Force Majeure event.

Furnishing: Manufacturing, fabricating, or purchasing and delivering to the site of the Work materials, plant, power, tools, patterns, supplies, appliances, vehicles, and conveyances necessary or required for the completion of Work.

General Conditions: This section of the Contract Documents which specifies, in general, the contractual conditions.

Green Building Practices: Environmentally and socially-conscious practices that emphasize processes and methods of design and construction that reduce exposure to noxious materials, conserve non-renewable energy and scarce materials, minimize life-cycle ecological impact of energy and materials, employ renewable energy or materials that are sustainably harvested, protect and restore local air, water, soils, flora and fauna, and support pedestrians, bicycles, mass transit and other alternatives to fossil-fueled vehicles.

Indirect Costs: Overhead.

Installation, Install or Installing: Completely assembling, erecting, and connecting material, parts, components, supplies and related equipment specified or required for the completion of the Work including the successful passing of all tests so that they are fully functional.

LEED (Leadership in Energy and Environmental Design): An ecology-oriented building certification program run under the auspices of the U.S. Green Building Council (USGBC) which concentrates its efforts on improving performance across five key areas of environmental and human health: energy efficiency, indoor environmental quality, materials selection, sustainable site development, and water savings.

Limit of Work: Boundary within which the Work is to be performed.

Liquidated Damages: The amount that the Contractor accepts, as stipulated in the Contract Documents, which will be deducted from the Contract Sum for each day of delay due to a Non-Excusable Delay. The Liquidated Damages set forth herein are compensation for the County's inability to timely put the project into service, the continued disruption of County functions, for impacts to the County's reputation, and other

indirect damages which the parties agree are difficult to measure. (See Article 8 Contract Time Paragraph F. Liquidated Damages and Liquidated Indirect Costs).

Liquidated Indirect Costs Rate: The amount, stipulated in the Contract Documents, which will be added to the Contract Sum for each day of delay due to a Compensable Delay. The Contractor accepts this sum as full compensation for the Contractor's and all its subcontractors', of any tier, for indirect costs, for each day of Compensable Delays. This amount is agreed to include any costs other than Direct Costs incurred by the Contractor and all its subcontractors of any tier in the performance of this Contract. (See Article 8 Contract Time, Paragraph F. Liquidated Damages and Liquidated Indirect Costs)

Lump Sum Bid Item: A bid item in which quantity is not separately measured for payment in units but rather is based on the amount bid by the Contractor as indicated in the Bid Form and made a part of the Contract. Partial payments of Lump Sum Bid Items will be conditionally made, based upon an approved schedule of values, and will be subject to reconciliation in the event that the work of a Lump Sum Bid Item is not fully completed in accordance with the requirements of the Contract Documents.

Miami-Dade County (MDC): A political subdivision of the State of Florida, the Owner.

Miami-Dade County Code of Ordinances: Central repository for Governing Legislation where Ordinances are codified and kept current with subsequent amendments. The Miami-Dade County Code of Ordinances can be viewed at the following hyperlink:

[https://library.municode.com/fl/miami\\_-\\_dade\\_county/codes/code\\_of\\_ordinances](https://library.municode.com/fl/miami_-_dade_county/codes/code_of_ordinances)

Milestone: A completion date as defined in the Contract Documents.

Notice to Proceed: Written notice from the Owner to the Contractor specifying the date on which the Contractor is to proceed with the Work and on which the Contract Time commences to run.

Notice of Termination: Written notice from the Architect/Engineer or the Owner to the Contractor to permanently stop work under the Contract on the date and to the extent specified in the notice. The Notice of Termination includes Notices of Termination for Convenience, Default and National Emergencies as set forth in the Contract Documents. Upon receipt of such notice, the Contractor shall comply with the termination provisions of this Contract.

Overhead (Indirect Costs): Overhead, also defined as "Indirect Costs," includes any and all costs other than Direct Costs. The term "Overhead" as indicated in this definition shall apply to both Contractors and subcontractors of any tier. Overhead includes, but is not limited to, all profit and costs associated with: project bond premiums, project insurance premiums, costs of supervision, coordination, superintendents, general foremen, consultants, schedulers, cost controllers, accountants, office administrative personnel, time keepers, clerks, secretaries, watch persons, small tools, equipment or machinery, utilities, rent, telephones, facsimile machines, computers, word processors, printers, plotters, computer software, all expendable items, job site and general office expenses, extended jobsite general conditions, interest on monies retained by the Owner, escalated costs of materials and labor, impact cost on unchanged work, inefficiency, decreased productivity, home office expenses or any cost incurred that may be allocated from the headquarters of the Contractor or any of its subcontractors, loss of any anticipated profits, loss of bonding capacity or capability losses, loss of business opportunities, loss of productivity on this or any other Project, loss of interest income on funds not paid, costs to prepare a bid, cost to prepare a quote for a Change in the Work, costs to prepare, negotiate or prosecute claims, costs of legal and accounting work, costs spent to achieve compliance with applicable laws and ordinances, loss of Projects not bid upon, loss of productivity or inefficiencies in the Work from any cause.

Owner: Miami-Dade County, whose governing body is the BCC acting in its proprietary capacity through its duly authorized agents. When these Contract Documents require the action of individual persons, the documents contain specific references to these persons. In particular, the documents shall refer to the BCC when approval of the BCC is specifically required and to the Architect/Engineer when the Architect/Engineer's approval is specifically required.

Payment and Performance Bond: Bond executed by the Contractor and its Surety assuring that the Contractor will, in good faith, perform and guarantee the work in full conformity with the terms of the Contract Documents and will promptly pay all persons supplying the Contractor with labor, materials, or supplies, used directly or indirectly by the Contractor in the prosecution of the Work. This bond shall be a single instrument bond for twice the penal sum (to cover 100 percent of the total maximum contract amount for payment-related issues and 100 percent of the total maximum contract amount for performance-related issues).

Project: See definition for Work.

Punch List: A list issued by the Owner to the Contractor of work elements requiring remedial action or completion by the Contractor before Final Completion is issued to the Contractor.

Resolution: An action taken by a vote of the Miami Dade County Board of County Commissioners setting policy and providing guidance to County Departments. Resolutions issued after 1995 can be viewed at the following hyperlink: <http://www.miamidade.gov/govaction/searchleg.asp>. Earlier Resolution can be obtained through request to the Clerk of the Board Division, Stephen P. Clark Center, 111 NW 1st Street, Suite 17-202 Miami, Florida 33128.

Right-of-Way: A term denoting land and property, and interests therein, owned or acquired by the Owner.

Schedules: All schedules delivered under the Contract including time schedules and schedule of values.

Schedule of Values: A detailed cost breakdown of each lump sum bid item in the bid form, submitted by the Contractor at the beginning of the Work and to be used as a basis to determine monthly progress payments and quantity adjustments within the constraints specified in the Contract Documents.

Shop Drawings: Documents furnished by the Contractor for approval by the Architect/Engineer to illustrate specific portions of the Work. Shop Drawings include drawings, diagrams, illustrations, calculations, schedules, tables, charts, brochures and other data describing design, fabrication and installation of specific portions of the Work. Shop Drawings are understood to be submitted for information purposes only, and the County's receipt of or acceptance of shop drawings shall not be deemed as the County agreeing that the selected materials will meet contract requirements or that the selected means and methods are appropriate; the Contractor shall at all times remain responsible for completion of the work in accordance with the contract documents, notwithstanding any approved shop drawings. .

Site, Project Site, Work Site, Construction Site, Job Site: The location(s) at which the work under this Contract is to be accomplished, as shown in the Contract Documents.

Special Provisions: Section of the Contract which includes specific contractual requirements not covered in the General Conditions that are specific to the Project.

Small Business Enterprise – Architect/Engineer (SBE -A&E) Program: Architect/Engineering firms that are certified with Miami-Dade County Small Business Enterprise program

Small Business Enterprise – Construction (SBE -CON) Program: Construction firms that are certified with Miami-Dade County Small Business Enterprise program

Small Business Enterprise – GOODS (SBE -GOODS) Program: Goods, Manufactures, and Wholesalers firms that are certified with Miami-Dade County Small Business Enterprise program

Small Business Enterprise – SERVICES (SBE -SERVICES) Program: Services firms that are certified with Miami-Dade County Small Business Enterprise program

Special Provisions: Section of the Contract Documents which includes specific contractual requirements not covered in the General Conditions that are specific to the Project.

Subcontractor: Any person or entity, other than the employees of the Contractor, supplying the Contractor with labor, materials, supplies and/or equipment used directly or indirectly by the Contractor in the prosecution of the Work.

Substantial Completion: Substantial Completion of a Project is the date on which the Owner certifies that the construction is sufficiently completed, in accordance with the Contract Documents, as modified by any Change Orders, so that the Owner can occupy the Project for the use for which it was intended. A certificate shall be issued to the Contractor by the Owner upon achievement of Substantial Completion. (See Article 8 Contract Time Paragraph D. Substantial Completion, Final Completion and Final Acceptance)

Surety: The bonding company or companies furnishing the bonds required of a Bidder and of the Contractor.

Technical Specifications: The general term comprising all the written directions, provisions and requirements contained herein, entitled "Technical Specifications," those portions of standard specifications to which reference is specifically made in the Technical Specifications, and any Addenda, Work Orders and Change Orders that may be issued for the Contract, all describing the work required to be performed, including detailed technical requirements as to labor, materials, supplies and equipment and standards to which such work is to be performed as well as any reports specifically issued with the Bid Documents and specifically identified in the Instructions to Bidders which may include geotechnical or other technical reports.

Temporary Construction Easement Line: A boundary which describes additional areas which may be made temporarily available for construction operations.

Time Contingency: The maximum time specifically identified in the Contract Documents by which the Owner may extend the contract time to accomplish the work without a change order. Limitations on the use of the time contingency are set forth in the Contract Documents.

Unit Prices: Unit prices shall include all labor, materials, tools, and equipment; all other direct and indirect costs necessary to complete the item of Work and to coordinate the unit price Work with adjacent work; and shall include all overhead and profit. Contractor shall accept compensation computed in accordance with the unit prices as full compensation for furnishing such Work.

Work: The construction and services required by the Contract Documents, which includes all labor, materials, equipment, and services to be provided by the Contractor to fulfill the Contractor's duties and obligations imposed by the Contract Documents or, if not specifically imposed by the Contract Documents, which can be reasonably assumed as necessary to fulfill the intent of the Contract Documents to provide a complete, fully functional, and satisfactory project.

Work Order: A written order, authorized by the Architect/Engineer or Owner, directing the Contractor to perform work under a specific Allowance Account or directing the Contractor to perform a change in the Work that does not have a monetary impact, including but not limited to, extending the Contract Time or

subject to the payment of Liquidated Indirect Costs if entitlement is established as required by these Contract Documents. No Work Order may increase the Contract Sum.

END OF ARTICLE

## 2. INTERPRETATION

- A. The intent of the Contract is to include all necessary items for the proper completion of the Work by the Contractor so the Owner may have a fully functioning facility and fully receive the benefits intended under the Contract. The Contractor shall perform, without additional compensation, such incidental, implied, or appurtenant work as necessary to complete the Work and fulfill the design intent, in accordance with the requirements set forth in the Contract Documents, so that it will meet the requirements for which the Project was intended, in a satisfactory and workmanlike manner.
- B. The Contract Documents and all referenced standards cited are essential parts of the Contract requirements. A requirement occurring in one is as binding as though occurring in all. The documents comprising the Contract Documents are complementary and indicate the construction and completion of the Work. Anything mentioned in the Contract Documents and not shown on the Contract Drawings or shown on the Contract Drawings and not mentioned in the Contract Documents, shall be of like effect as if shown or mentioned in both. The more stringent shall apply in the case of a conflict. The Owner's determination of the more stringent standard shall control and be binding on the contractor, without limitation, and the Contractor's compliance with this determination shall not be considered as Extra Work.
- C. Site Inspections and Verification of Governing Dimensions: In executing the contract, the Contractor represents that he has, prior to bid, visited the site, become familiar with the conditions under which the work is to be performed and correlated his personal observations with the requirements of the Contract Documents or that he has chosen not to do so, in the event that a mandatory site visit is not specified in the Contract Documents. The Contractor accepts the responsibility for all errors in construction which could have been avoided by such examination and the opportunity to seek timely clarifications during the bidding process. The Contractor, before commencing work, shall verify all governing dimensions at the site, all conditions under which the work is to occur, including but not limited to site access, lay down and staging areas, the presence of known utilities and utility connections, and shall examine all adjoining work on which his work is in any way dependent for its conformance with the intent of the Contract Documents and no disclaimer of responsibility for defective or non-conforming adjoining work will be considered unless notice of same has been filed by the Contractor, and agreed to in writing by the Owner through the Architect/Engineer before the Contractor begins any part of the Work. No disclaimer for defective or non-conforming adjoining work that was clearly foreseeable to the Contractor during a site visit (mandatory or non-mandatory) will be considered by the Owner. The County does not warrant or guarantee the presence or absence of any particular site conditions, or the accuracy of any as-built information related to existing work in-place on the site. To the extent provided by or in the possession of the County, subsurface reports, soil borings, and as-builts are solely for the Contractors consideration and use, and the County does not represent that such materials accurately reflect the conditions of the Site.
- D. Errors, Inconsistencies and Omissions: The Contractor shall carefully study and compare all drawings, Contract Documents, and other instructions; shall verify all figures on the Contract Drawings before laying out the Work; shall notify the Owner or Architect/Engineer of all errors, inconsistencies, or omissions which he may discover; and obtain specific instructions in writing during the bidding process and prior to submitting his Bid. The Contractor shall not take advantage of any apparent error or omission which may be found in the Contract Drawings or Contract Documents, and the Architect/Engineer shall be entitled to make such corrections therein and interpretations thereof as he may deem necessary for the fulfillment of their intent. The Contractor shall be responsible for all

errors in construction which could have been avoided by such examination and notification, and shall correct, at his own expense, all work improperly priced, scheduled or constructed through failure to notify the Owner or Architect/Engineer and to request specific instructions.

- E. Where "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the Contract Documents unless stated otherwise.
- F. References to Articles or Sections include sub-articles or subsections under the Article referenced.
- G. Referenced Standards: Material and workmanship specified by the number, symbol, or title of a referenced standard shall comply with the latest edition or revision thereof and amendments and supplements thereto in effect on the date of the Invitation to Bid except where otherwise expressly indicated. In case of a conflict between the Contract Documents and the referenced standard, the Contract Documents shall govern.
- H. Order of Precedence of Contract Documents: Unless otherwise provided for in the Special Provisions or required by law, the order of precedence of the Contract Documents will be as follows:
  - 1) Change Orders to the Contract
  - 2) Notice to Proceed
  - 3) Contract
  - 4) Addenda
  - 5) Special Provisions
  - 6) General Conditions
  - 7) Referenced Codes and Standards
  - 8) Technical Specifications
  - 9) Contract Drawings
  - 10) Guarantees
  - 11) Instructions to Bidders
  - 12) Invitation to Bid
  - 13) Other documents
- I. In case of differences between small- and large-scale drawings, the drawings showing greater detail shall govern. The Owner's determination of the more detailed shall control and be binding on the contractor, without limitation, and the Contractor's compliance with this determination shall not be considered as Extra Work. Schedules on drawings shall take precedence over conflicting notations on drawings. In the event of discrepancy between any scaled dimensions on drawings and the figures written thereon, the figures shall govern over the scaled dimensions unless otherwise indicated.
- J. Explanations: Should it appear that the Work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Owner or Architect/Engineer in a timely manner to allow sufficient time for such further written explanations as may be necessary and shall conform to the explanation provided as part of the Contract. The Owner or Architect/Engineer's decision shall be final.

- K. Effect of Headings: The headings and titles to provisions in the Contract Documents are descriptive only and shall be deemed not to modify or affect the rights and duties of parties to this Contract.
- L. No acceptance, order, measurement, payment, or certificate of or by the Architect/Engineer and/or the Owner or its employees or agents shall either stop the Owner from asserting any rights or operate as a waiver of any provision hereof or of any power or right herein reserved to the Owner or of any rights to damages herein provided.
- M. Wherever the terms, "as directed," "ordered," "permitted," "designated," "as approved," "approved equal," "or equal," "acceptable," and other words of similar meaning which authorize an exercise of judgment are used in the Contract Documents, such judgment shall be vested only in the Owner and shall be final.
- N. The Contractor shall make available at the job site one copy of each referenced standard and/or Contract Documents for the Contractor's and the Field Representative's use during the time that work covered by the standards and/or Contract Documents is underway.
- O. The Contract Documents provide for a complete work and may have been prepared in divisions of various crafts, trades, and other categories of work. The Contractor is responsible for the performance of all work under the Contract regardless of any such divisions and shall ensure that all work is performed and completed. The organization of the Contract Documents into divisions, sections and articles and the arrangement of the drawings do not restrict or limit the Contractor into dividing the Work among subcontractors or in establishing the extent of the Work to be performed by any trade.
- P. No deviation from the approved Contract Documents shall be permitted without the prior written approval of the Owner, which approved deviation shall be documented either by Change order, except that deviations with respect to line items may be paid for via Work Order, to the extent funds are available in the Allowance Account or applicable dedicated Allowance Account.
- Q. All Requests for Information by the Contractor shall be submitted to the Architect or Engineer, with a copy to the Owner, shall be in writing, shall specify, to the maximum extent possible, the particular sheet, page, or section for which the Contractor is requesting information, and shall identify with the maximum specificity possible the ambiguity or uncertainty which the Contractor claims exists.

END OF ARTICLE

### **3. ARCHITECT/ENGINEER/FIELD REPRESENTATIVE**

- A. The Architect/Engineer shall respond to questions which may arise as to the quality and acceptability of materials furnished, work performed, and as to the manner of performance and rate of progress of the work in accordance with the time frames prescribed in the Contract Documents. The Architect/Engineer shall decide all questions which may arise as to the interpretation of the Contract Documents relating to the Work, and the fulfillment of the Contract on the part of the Contractor, and those decisions shall be binding on the Contractor.
- B. The Architect/Engineer is not authorized to revoke, alter, or waive any requirement of the Contract.
- C. The Architect/Engineer, Owner and Field Representative shall have free access to the Work and materials at all times to facilitate the performance of his duties.
- D. Subject to concurrence by the Owner, the Architect/Engineer shall have the right to observe and reject any material or work performed which does not meet the requirements of the Contract Documents. When the Architect/Engineer discovers any work in progress or completed that does not meet the requirements of the Contract Documents, the Architect/Engineer shall reject that portion of the Work affected and shall confirm such rejection in writing, as soon as practical, detailing the reasons for the rejection. Work rejected by the Architect/Engineer will not be paid for, nor shall any work associated to remove, remediate, or correct such non-conforming work be considered Extra Work. Any such observation and/or rejection shall not be construed as undertaking supervisory control of the Work or of means and methods employed by the Contractor or his subcontractors and shall not relieve the Contractor of any of his responsibilities or obligations under the Contract. The Contractor shall not request or attempt to require the Architect/Engineer to undertake such supervisory control or to administer, supervise, inspect, assist, or act in any manner so as to relieve the Contractor from such responsibilities or obligations.
- E. The fact that the Architect/Engineer has not made early discovery of materials furnished or work performed which does not meet the requirements of the Contract Documents, shall not bar the Architect/Engineer from subsequently rejecting said materials or work.
- F. If either the Architect/Engineer or the Field Representative requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the Contract Documents. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as Extra Work. Should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at no additional cost to the Owner.
- G. Any work done or materials used which are not in compliance with the Contract Documents may be ordered removed and replaced at the Contractor's expense.
- H. The Owner and other agencies having jurisdiction over the work hereunder shall be afforded free access to the site to perform such inspections and tests as may be required to determine conformance of the Work with the Contract Documents.
- I. Neither the Architect/Engineer nor the Field Representative shall be responsible for any safety obligations imposed on the Contractor by applicable industry standards, licensing requirements, laws, or regulatory requirements.

- J. Inspectors may additionally be employed by the Owner or the Architect/Engineer. Inspectors will be authorized to inspect all work and materials which are to become a part of the completed Project. Inspectors will have no authority to revoke, alter or waive any requirements of the Specifications or to make any changes in the Plans. Each Inspector will be authorized to call the attention of the Contractor to any failure of the work to conform to the Plans or the Specifications and will have authority to suspend the work affected until any question at issue can be referred to and decided by the Engineer. The Inspector will have no authority to delay the Contractor by failure to inspect the work and materials with reasonable promptness.
- K. If authorized in writing by the Owner, the Field Representative and/or Architect/Engineer will administer the Contract and the orders of the Owner are to be given through the Field Representative and/or Architect/Engineer. The Field Representative and/or Architect/Engineer shall make initial determinations as to the amount and quality of the several kinds of work performed and materials furnished which are to be paid for under the Contract, subject to review and approval by the Owner.
- L. The Field Representative may observe the Contractor's work for compliance with the Contract Documents. Such observation shall extend to all, or any part of the work done and to the preparation, fabrication, or manufacture of the material to be used. Owner reserves the right to observe the work via its own employees, Field Representatives, Inspector's, or the Architect/Engineer.
- M. Upon discovery, the Field Representative shall call the Contractor's attention to faulty workmanship or defective materials and shall reject work and materials not conforming to the requirements of the Contract Documents.
- N. When any work in progress or completed does not meet the requirements of the Contract Documents, the Field Representative shall have the authority to order the Contractor to shut down that portion of the work affected until the affected work is corrected to the satisfaction of the Field Representative. The Field Representative shall confirm this order in writing as soon as practicable, detailing the reasons for the shutdown. Work performed in violation of the Field Representative's order to shutdown will not be accepted or paid for.
- O. The Field Representative is not authorized to revoke, alter, or waive any requirements of the Contract. If authorized in writing by the Owner, the Field Representative will negotiate and act on behalf of the Owner to the authorized limits of his authority as specified in the Contract Documents.
- P. Whenever the Contractor intends to build, assemble, or perform any portions of the Work away from the site, the Contractor shall promptly notify the Field Representative of such intentions, including where and when such work is to be performed before such work starts. The Contractor shall also make arrangements for access thereto by the Owner, Field Representative and/or the Architect/Engineer so that the aforementioned portions of the Work may be inspected as needed.
- Q. The fact that the Field Representative has not made early discovery of materials furnished or work performed which does not meet the requirements of the Contract Documents, shall not bar the Field Representative from subsequently rejecting said materials or work and does not relieve the Contractor of his responsibility to meet the requirements of the Contract Documents.
- R. The Field Representative shall not act as a foreman or perform other duties for the Contractor, nor interfere with the management of the work by the Contractor.
- S. The administration, observation of the work, and actions by the Field Representative, as herein provided, shall not be construed as undertaking supervisory control of the construction work or of

means and methods employed by the Contractor or his subcontractors and shall not relieve the Contractor from any of his responsibilities or obligations under the Contract; the Contractor shall not request or attempt to require the Field Representative to undertake such supervisory control or to administer, to supervise, to inspect, to assist, or to act in any manner so as to relieve the Contractor from such responsibilities or obligations.

- T. If authorized in writing by the Owner, the Field Representative shall decide all questions relating to the rights of different prime contractors on the Project or site.
- U. All materials and each part or detail of the work shall be subject to observation by the Field Representative and/or the Architect/Engineer. The Architect/Engineer and the Field Representative shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required.

END OF ARTICLE

#### **4. OWNER**

- A. Unless otherwise specified or excluded elsewhere in the Contract Documents, the records of borings, test excavations and other subsurface investigations, if any, are offered as information only and solely for the convenience of the Contractor. The Owner does not warrant or guarantee either that said records are complete or that the said records will disclose the actual subsurface conditions. The interpretation of the records and the conclusions drawn therefrom as to the actual existing subsurface conditions are the sole responsibility of the Contractor.
- B. Any estimates of quantities of work or materials, based on said borings, test excavations and other subsurface investigations are not warranted by the Owner to indicate the true quantities or distribution of quantities unless the Contractor is expressly directed to rely on such information to prepare and submit his Bid.
- C. If the Contractor is notified by the Owner to correct defective or nonconforming work, and the Contractor fails to promptly proceed with corrective action in a reasonable time, the Owner may, upon written notice, accomplish the redesign, repair, rework, or replacement of nonconforming work by the most expeditious means available and back charge the Contractor for the cost incurred. The cost of back charge work shall include all reasonable costs associated with the corrective action.
- D. The Owner shall separately invoice or deduct from payments, otherwise due to the Contractor, back charges as provided herein. The Owner's right to back charge is in addition to any or all other rights and remedies provided in this Contract, or by law. The performance of back-charge work, on behalf of the Owner, shall not relieve the Contractor of any of its responsibilities under this Contract including but not limited to express or implied warranties, specified standards for quality, contractual liabilities and indemnifications, and the Contract Time.
- E. Miami-Dade County enters into this Contract solely in its proprietary capacity. Nothing in this Contract is intended to bind or otherwise restrict the discretion of Miami-Dade County acting in its regulatory capacity, including but not limited to the regulatory acts of the departments of Regulatory and Economic Resources (RER), Transportation and Public Works (DT&PW), Miami-Dade Fire-Rescue (MDFR) and Mia-Dade Water and Sewer Department (WASD), or their successors.

**END OF ARTICLE**

## 5. CONTRACTOR

- A. If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.
- B. The Contractor shall hold valid current certificate(s) of competency for the type of work to be performed, in accordance with the qualifications requirements as set forth in Chapter 489 of the Florida Statutes and Chapter 10 of the Code of Miami- Dade County.
- C. The Contractor shall maintain within Miami-Dade County, Florida, a duly authorized agent to accept service of legal process on its behalf and shall keep the Owner advised of such agent's name and address, during the duration of the Contract, and for three years after final payment or as long as Contractor has warranty obligations under these Contract Documents, whichever period terminates later. The Contractor shall complete the form titled "Contractor Agent to Accept Service" included in the Contract Documents and submit it to the Architect/Engineer prior to NTP.
- D. The Contractor shall be responsible for the complete performance for all of the work under the Contract, and for the methods, means, and equipment used in performing the Contract and for all materials, tools, apparatus, and property of every description used in connection therewith.
- E. If requested by the Owner, the Contractor will obtain written confirmation from impacted subcontractors agreeing to work within the timeframes specified in the Contractor's schedule as a condition of acceptance.
- F. Contractor's Superintendent: The Contractor shall provide a superintendent at the site at all times who is competent in the type of work being performed to act as the Contractor's agent, and shall give that superintendent the full authority to receive instruction from the Field Representative or Architect/Engineer and to execute the order or directions of the Field Representative or Architect/Engineer, including the prompt supply of all materials, tools, equipment, labor, and incidentals that may be required. The Contractor shall furnish such superintendence regardless of the amount of work that is subcontracted, and the superintendent shall read, speak, write, and understand English. The Contractor shall also maintain at least one other employee on the work site during Project working hours who speaks and understands English. The superintendent shall be responsible for keeping written daily logs of the work on the project.
- G. The competency of the superintendent shall be demonstrated through licensure or certification in contracting, engineering, trade, or experience as applicable to the work being performed. Proof of licensure, certification or qualification of the superintendent must be provided to the Owner at the pre-construction conference and is subject to the approval of the Architect/Engineer or Field Representative after Contractor receipt of said requirements. The Contractor shall replace the Superintendent only with written notice to the County five (5) days in advance of the proposed substitution, and only with a superintendent qualified to perform the work as reasonably determined by the Field Representative.
- H. In the event that the Field Representative or Architect/Engineer determines, through the course of the actual work progress, that the superintendent lacks the knowledge or expertise necessary to execute the work in an efficient and competent manner, in keeping with all current codes and best practices, the Field Representative or Architect/Engineer shall notify the Contractor in writing and the

superintendent shall be replaced by the Contractor with a person acceptable to the Field Representative or Architect/Engineer within five (5) working days.

- I. The Contractor's failure to replace the superintendent in the time allotted shall be cause for the Owner to suspend work with such delays chargeable to the Contractor as Liquidated Damages as specified elsewhere in this contract.
- J. The Contractor shall maintain a daily accounting of his daily manpower, by trade and position, and provide this information to the Field Representative on a weekly basis.
- K. The Contractor shall notify the Owner of any changes of key personnel and all replacement personnel prior to assigning them to the jobsite.

END OF ARTICLE

## 6. SUBCONTRACTORS

- A. The Contractor will be permitted to subcontract portions of the Work to competent subcontractors. Such subcontractors shall hold valid current certificate(s) of competency for the type of work to be performed, in accordance with the qualifications requirements as set forth in the Florida Statutes and the Code of Miami-Dade County. Use of Subcontractors who were not listed on the Subcontracting Form, or equivalent, at the time of award may occur only with the express consent of the Owner.
- B. Nothing contained herein shall create any contractual relationship between the Owner and any level of subcontractor, materialman, or supplier.
- C. All work performed for the Contractor by a subcontractor shall be pursuant to an appropriate agreement between the Contractor and the subcontractor which shall contain provisions that:
  - 1) Preserve and protect the rights of the Owner and any of its authorized representatives under the Contract, including but not limited to, the Architect/Engineer and Field Representative, with respect to the Work to be performed under the subcontract so that the subcontracting thereof will not prejudice such rights;
  - 2) Require that such Work be performed in accordance with the requirements of the Contract Documents including the Contractor's accepted schedule;
  - 3) Require submission to the Contractor of applications for payment under each subcontract to which the Contractor is a part, in reasonable time to enable the Contractor to apply for payment in accordance with any and all payment provisions of the Contract Documents;
  - 4) Require that all claims for additional costs, extensions of time, damages for delays or otherwise with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any subcontractor or Sub-subcontractor or Supplier where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like claims by the Contractor upon the Owner;
  - 5) Require specific consent to all relevant provisions of the Contract Documents; and
  - 6) Incorporate all flow-down clauses specifically called for in the Contract, as directed.
- D. Contractor Participation: The Contractor shall perform not less than 10 percent of the Work, not inclusive of materials purchased, with his own organization. If the Contractor is a joint venture, the requirement shall be satisfied by any one, or a combination of any of the joint venture partners. Where a percentage of a Bid Item is subcontracted, the dollar value of that percentage subcontracted will be based on the estimated cost of such Bid Item, determined from information submitted by the Contractor, subject to approval by the Owner. If, during the progress of the Work, the Contractor requests a reduction in such participation percentage, and the Owner determines that, due to the special nature of the conditions of the Work at the time, it would be to the Owner's advantage, the percentage of the Work required to be performed by the Contractor may be reduced, provided written approval of such reduction is obtained by the Contractor from the Owner. The Contractor shall not proceed with any such reductions until his request is approved in writing by the Owner or his authorized designee. Under no circumstances shall less than 10 percent of the Work be performed with the Contractor's own forces.

E. Work Performed by Equipment-Rental Agreement:

- 1) The amount of work performed under equipment rental agreements shall not be considered subcontractor work. However, for work to be performed by equipment-rental agreement, the Contractor shall notify the Architect/Engineer in writing of such intention before using the rented equipment and shall indicate whether the equipment is being rented on an operated or non-operated basis. The Contractor's written notice shall contain a listing and description of the equipment and a description of the particular work to be performed with such equipment. As an exception to the above requirements for a written notice to the Architect/Engineer, such notice will not be required for equipment to be rented (without operators) from an equipment dealer or from a firm whose principal business is the renting or leasing of equipment.
- 2) The operators of rented equipment, whether rented on an operated or a non-operated basis, will be subject to wage rate requirements applicable to the Project. If equipment is being rented without operators, the Contractor shall be required to carry the operators on his own payroll. When equipment is rented on an operated basis, the Contractor, when required by the Contract or requested by the Architect/Engineer, shall submit payrolls from the lessor with the names of the operators shown thereon.

F. No work is to be performed at the Work site until the Contractor is in compliance with the Insurance Specifications, has furnished satisfactory evidence of required insurance to the Owner and obtained all required permits.

G. Approval of Subcontractor:

- 1) Prior to entering into any subcontract for Work to be performed on the Project, the Contractor shall secure the approval of the Owner regarding the prospective subcontractor's qualifications and employment data. The Owner will review the submittal from each subcontractor and will furnish written notification to the Contractor concerning approval of the award of the subcontract. If the Owner objects to the proposed award or fails to respond to the Contractor within five (5) business days of the complete submittal of the required information, the Contractor may furnish written notice of another subcontractor for consideration. The Owner may, at its discretion, waive or reduce subcontractor information submittal requirements as it deems appropriate.
- 2) In accordance with Miami-Dade County Code Sections 2-8.1 and 10-33.01, the Contractor shall not, without written consent of the Owner, either replace any subcontractor or permit any such subcontract to be assigned or transferred, or allow that portion of the Work to be performed by anyone other than the approved subcontractor, except he may perform the work himself with qualified personnel upon written notice to the Owner in accordance with applicable law.

END OF ARTICLE

## 7. PROSECUTION OF THE WORK

### A. Workmanship and Unauthorized Work

- 1) Work under this Contract shall be performed in a skillful and workmanlike manner. Unless otherwise indicated in the Contract Documents, the Contractor shall be solely responsible for means and methods and for the coordination of all trades through completion of the Work and without damage to the existing or newly installed components and surfaces. The Architect/Engineer or Field Representative may, in writing, require the Contractor to remove from the work any employee the Architect/Engineer or Field Representative determines incompetent, careless, or otherwise objectionable. Such request shall be at no cost to the Owner.
- 2) Unauthorized Work: Work performed beyond the lines and grades shown on the Contract Drawings and approved Shop Drawings or established by the Owner, and Extra Work done without a Work Order or Change Order, will be unauthorized work and the Contractor will receive no compensation therefor. If required by the Owner, unauthorized work shall be remedied, removed, or replaced by the Contractor at the Contractor's expense. Upon failure of the Contractor to remedy, remove or replace unauthorized work, the Owner may at its discretion, remedy, remove or replace the unauthorized work and the Contractor shall bear the responsibility for any and all costs and for delays resulting from such work.
- 3) The entire work and each part thereof, unless otherwise specified in the Contract Documents, shall be placed at the location, elevation, grade and gradient specified, and in proper alignment and adjustment. The Contractor shall provide all frames, forms, falsework, shoring, guides, anchors, and temporary structures required to ensure these results.
- 4) No deviation from the approved Plans/Specifications shall be permitted unless (1) the Contractor has submitted an RFI requesting the deviation, and (2) the Contractor has prior written approval of the Architect/Engineer and/or Owner. Written approval shall be by Work Order or Change Order, shall be documented to the extent required by, and shall otherwise comply with the requirements of, the Contract Documents.
- 5) The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the Contract Documents. All workers shall have sufficient skill and experience to properly perform the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.
- 6) All proposed equipment shall be of sufficient size and in such mechanical condition as to meet requirements of the work, producing a satisfactory quality of work. Equipment used on any portion of the work shall be such that no damage to previously completed work, adjacent property, or existing facilities will result from its use.
- 7) When the Contract Documents expressly specify the use of certain methods and equipment, such methods and equipment shall be used unless other methods are authorized in writing by the Architect/Engineer by Work Order or Change Order. If the Contractor desires to use a method or type of equipment other than specified in the Contract, he may request permission from the Architect/Engineer to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval

is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with Contract requirements. If, after trial use of the substituted methods or equipment, the Architect/Engineer determines that the work produced does not meet Contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality or take such other corrective action as the Architect/Engineer may direct at no additional cost to the Owner. No change will be made to the Contract price or the Contract Time as a result of authorizing a change in methods or equipment under this article.

- 8) The Contractor shall give constant attention to the work to facilitate the progress thereof such that the work will be completed during the contract time and shall cooperate with the Architect/Engineer and its Field Representatives and with other Contractors in every way possible.
- 9) The Contractor warrants to the Owner that all materials and equipment furnished under this Contract will be new unless otherwise expressly allowed in the Plans and Specifications, or otherwise expressly approved in writing by the Owner and that the work will be of good quality, free from faults and defects in materials and workmanship for a period of one year from the date of Substantial Completion, unless otherwise required under this Contract. Work not conforming to these standards may be considered defective. If required by the Architect/Engineer, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.
- 10) Contractors working in the Public Rights-of-Way shall be cognizant of and comply with Miami-Dade County Code Section 2-103.1 relating to restoration after construction of utilities or works in the public right of way; and Miami-Dade County Code Sections 21-221 through 228 relating to excavation and protection of underground utilities and requiring various Contractor activities; The Contractor shall make every effort to minimize construction impact to business in the area of the Project and as appropriate, the Department will recover any costs caused the County by Contract delays or other business impacting activities attributable to the Contractor. To this end the Contractor shall conduct its construction activities in a manner that will minimize these detrimental effects.
- 11) The Contractor shall at all times ensure that the work site is maintained in a clean and orderly fashion. As soon as the work in any one locality is completed, the accumulated rubbish or surplus materials thereat shall be promptly removed. The Contractor shall also restore all public and private property in a manner acceptable to the Engineer, to a condition equal to or better than pre-construction conditions. This shall apply to public and private property which has been displaced or damaged during the prosecution of the work, and the Contractor shall leave the site and vicinity unobstructed and in a neat and presentable condition. In the event of delay exceeding two days after written notice is given to the Contractor by the Engineer to remove such rubbish or materials, or to restore displaced or damaged property, the Engineer may employ such labor and equipment as he may deem necessary for the purpose, and the cost of such work, together with the cost of supervision, shall be charged to the Contractor and shall be deducted from any money due the Contractor on the monthly or final estimate. No Contract shall be considered as having been completed until all rubbish and surplus materials have been removed and disposed of properly.
- 12) The Architect/Engineer shall furnish the Contractor with horizontal and vertical controls which shall be utilized as specified elsewhere herein to layout the work. The Florida Registered Land Surveyor hired by the Contractor shall verify all controls provided by the Engineer of Record and it shall be the responsibility of the Contractor to preserve same.

- a. The Contractor shall retain the services of a Florida Registered Land Surveyor who, shall furnish and set stakes, establishing line and grade and shall solely be responsible for the layout of the work as well as the recording of all as-built dimensions and elevations. The Contractor shall furnish all additional stakes, templates, and other materials for marking and maintaining survey points and lines given and shall be responsible for their preservation. Should any of the horizontal and vertical control points furnished by the Engineer of Record be destroyed or disturbed, they shall be reset by the Contractor's Florida Registered Land Surveyor, at the Contractor's expense. All control points previously furnished by the Engineer of Record shall be verified by the Contractor's surveyor.
  - b. For pipeline Projects the Engineer of Record shall furnish the Contractor with horizontal and vertical control every 1,320 feet which shall be utilized as specified elsewhere herein to layout the work. If a pipeline Project is less than 1,320 feet, the Engineer of Record will provide the Contractor with two horizontal and vertical control points. At on-plant-site Projects, the Engineer of Record
  - c. shall furnish the Contractor with three horizontal and vertical controls.
  - d. No direct payment shall be made for the cost to the Contractor of any of the work occasioned by delay in giving lines and grades, or making other necessary measurements, or by inspection.
- 13) Chapter 446 of the Florida Statutes, as amended, which is by reference incorporated herein, provides labor standards for ratios of apprentices or trainees to journeymen on State, County, or municipal contracts. It shall be the responsibility of the Contractor, prior to the opening of bids, to inform themselves of the provisions of Chapter 446, Florida Statutes, as amended, which are, or may become, applicable to the Contract, and he shall abide by these provisions at no cost to the County. The Contractor is advised to direct all inquiries concerning Chapter 446, Florida Statutes, as amended to the Florida State Apprenticeship Advisory Council.

**B. Material**

- 1) Unless otherwise indicated in the Contract Documents, equipment, material, and products incorporated in the Work covered by this Contract shall be new and of the grade specified for the purpose intended. Unless otherwise specifically indicated, reference to equipment, material, product, or patented process by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at his option and, subject to the approval of the Architect/Engineer, use any equipment, material, article, or process which is equivalent to that named, subject to the requirements of these Contract Documents or propose a substitute equipment, material, article, or process as indicated below. The Contractor shall at all times comply with Green Building or LEED standards, as established in the Contract Documents; unless otherwise specified, LEED Silver standards shall be the minimum standards acceptable to the County. Proposed alternative equipment, material, products, or patented processes shall be considered equivalent if the Architect/Engineer determines that the proposed alternative is functionally equal to and/or sufficiently similar to that specified in the Contract Documents. The Architect/Engineer and/or the Owner may consider the Department's current maintenance history, requirements for spare parts, training of personnel and conformity to existing systems when reviewing alternatives.

- 2) The Architect/Engineer shall be the sole judge of the quality, suitability and cost of the proposed alternative equipment, material, article, or process. A proposed alternative shall be considered equivalent and/or functionally equal to that specified in the Contract Documents if, in the exercise of reasonable judgment, the Architect/Engineer determines that the proposed alternative is at least equal in materials of construction, quality, durability, appearance, strength and design characteristics, will reliably perform at least equally well the function and achieve the results imposed by the Design Professional's Basis of Design and has a proven record of performance and availability, and the procurement and installation of same will not impact project costs or schedule.
- 3) If the Architect/Engineer determines that a proposed alternative does not qualify as equivalent or functionally equal, the alternative may be proposed for consideration as a substitute subject to the Contractor submitting sufficient information as provided below to allow the Architect/Engineer to determine that the proposed alternative is essentially equivalent to or better than the specified item and is an acceptable substitute for that said specified item.
- 4) The burden and cost of proving the quality, suitability and cost of an alternative shall be borne by the Contractor. All information required by the Architect/Engineer in judging an alternative shall be supplied by the Contractor at the Contractor's expense. The Architect/Engineer's costs in evaluating a proposed alternative, irrespective of its acceptance, will be reimbursed by the Contractor to the Owner. In the case of approved alternatives, the Contractor shall also reimburse the Owner for the Architect/Engineer's costs to revise the Contract Documents.
- 5) The Contractor certifies that, if approved and incorporated into the Work, there will be no increase in cost to the Owner or in Contract Time and the proposed alternative shall conform substantially to the detailed requirements of the item specified in the Contract Documents.
  - a. Where use of an alternative material involves redesign of or changes to other parts of the Work, the cost and the time required to affect such redesign or change will be considered in evaluating the suitability of the alternative material. All costs pertaining to redesign and changes in other parts of the Work, including remedial work to completed work, shall be at the Contractor's expense,
  - b. No action relating to the approval of alternative materials will be taken until the request for approval of the alternative materials is made in writing by the Contractor accompanied by complete data as to the quality, suitability and cost of the materials proposed. Such request shall be made at least 60 days before the early start date of the activity. Any delays in receiving approval shall be the responsibility of the Contractor.
  - c. The Architect/Engineer will examine and review the proposed alternative with the Owner and return it, within twenty-one (21) calendar days from the date of its receipt at the Architect/Engineer's office, to the Contractor noted with the final decision. If the final decision approves either an equal or a substitution, the approval must also contain the Owner's written approval. When requested by the Architect/Engineer, the Contractor shall resubmit such Shop Drawings, descriptive data and samples as may be required. Contractor is solely responsible for submitting alternatives in a timely fashion so as not to impact project schedule; in the event that Owner's or Architect/Engineer's review of an alternative delays the project, or redesign of the

project required to accommodate the alternative delays the project, such delay shall be considered non-compensable delay.

- d. Where classification, rating, or other certification by a body such as, but not limited to, Underwriters' Laboratories Inc. (UL), National Electrical Manufacturer's Association (NEMA), or American Railway Engineering Association (AREA) is a part of the specification for any material, proposals for use of alternative materials shall be accompanied by reports from the listed body, or equivalent independent testing laboratory, indicating compliance with Contract Documents requirements. Testing required proving equality of the material proposed shall be at the Contractors expense.
- e. Approval of an alternative material will be only for the characteristics and use named in such approval, and shall not change or modify any Contract requirement, or establish approval for the material to be used on any other Project for the Owner.

6) Source of Supply and Quality of Materials: The Contractor shall furnish all materials and products required to complete the Work except those designated to be furnished by the Owner.

- a. Notwithstanding prior inspection and approval by the Architect/Engineer, only materials conforming to the requirements of the Contract Documents shall be incorporated in the Work.
- b. The materials shall be manufactured, handled, and incorporated so as to ensure completed work in accordance with the Contract Documents.

7) Defective Materials: Contractor-furnished materials not conforming to the requirements of the Contract Documents will be rejected, whether in place or not. Rejected material shall be removed immediately from the Work site. No rejected material, the defects of which have been subsequently corrected, shall be used in the Work. The Owner may cause the removal and replacement of rejected material and the cost thereof will be deducted from any monies due or to become due to the Contractor.

8) Handling of Materials: Materials shall be transported, handled, and stored by the Contractor in a manner which will ensure the preservation of their quality, appearance, and fitness for the Work. Materials shall be stored in a manner to facilitate inspection.

9) The Owner will have no responsibility to the Contractor concerning local material sources.

- a. The Contractor shall make all necessary arrangements with the owners of material sources. The Contractor shall pay all costs in connection with making such arrangements, exploring, developing and using material sources, whether or not indicated, except such costs as the Owner expressly agrees in writing to assume.

10) Disposal of Material Outside the Work Site: Unless otherwise specified in the Contract Documents, the Contractor shall make his own arrangements for properly disposing of waste and excess materials outside the Work Site and he shall pay all costs, therefore. Contractor shall comply with all local, state, and federal requirements when disposing of waste and excess materials.

- a. Prior to disposing of material outside the Work Site, the Contractor shall obtain written permission from the owner on whose property the disposal is to be made. The Contractor shall file with the Architect/Engineer said permit, or a certified copy thereof, together with a

written release from the property owner absolving the Owner from any and all responsibility in connection with the disposal of material on said property.

- 11) Property Rights in Materials: The Contractor shall have no property right in materials after they have been attached or affixed to the Work or the soil, or after payment has been made by the Owner to the Contractor for materials delivered to the site of the Work, or stored subject to or under the control of the Owner, as provided in these Contract Documents. However, the Contractor shall be responsible for the security of the material on-site until Final Acceptance by the Owner.

C. Methods of Sampling and Testing

- 1) Sampling and testing of all materials shall be as set forth in the Contract Documents. Except for quality control testing and any other testing that may be the direct responsibility of the Contractor as set forth in the Contract Documents, the testing of samples and materials will be made at the expense of the Owner by the project testing laboratory. The Contractor shall furnish the required samples without charge. Any and all fees for non-conforming materials or work shall be solely borne by the Contractor. The Contractor shall give sufficient notification to the Field Representative of the placing of orders for or receipt of materials to permit testing.
- 2) The Field Representative may inspect, at its source, any specified material or assembly to be used in the Work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the Work and to obtain samples required for its acceptance of the material or assembly. Should the Field Representative conduct plant inspections, the following shall exist:
  - a. The Field Representative shall have the cooperation and assistance of the Contractor and the producer with whom he has contracted for materials.
  - b. The Field Representative shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of materials being furnished.
  - c. If required by the Field Representative, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.
- 3) It is understood and agreed that the Owner shall have the right to retest any material which has been tested and approved at the source of supply after it has been delivered to the site. The Field Representative shall have the right to reject only material which, when retested, does not meet the requirements of the Contract Documents. In such an event, the cost of re-testing shall be borne by the Contractor if it results in a rejected material.
- 4) All inspections and testing of materials, assemblies and equipment will be performed in Miami-Dade County. If the Contractor's material or manufacturing sources are such that inspections or tests cannot be made in Miami-Dade County, all traveling and lodging expenses in connections with such inspections and testing shall be borne by the Contractor.

D. Meetings

- 1) A pre-construction conference will be held prior to the issuance of the Notice to Proceed to discuss the work to be performed under this contract. The Contractor and its major subcontractors shall

be required to attend this meeting. The Contractor will be advised of the time, date, and location of the meeting.

- 2) The Contractor shall attend weekly construction coordination meetings at a time and place to be designated by the Architect/Engineer. These meetings are intended to determine job progress, identify job problems, assist in solving and preventing job problems, and promote coordination with all entities involved in the Contract and with other Contractors. The Contractor shall cause subcontractors and suppliers to attend as he deems advisable, or as requested by the Architect/Engineer. Unless otherwise provided for in these Contract Documents, the Contractor shall be responsible for generating and distributing meeting minutes for all such meetings. Notwithstanding, the Owner may generate and disseminate supplemental meeting minutes, as may be necessary in the owner's discretion.

E. Permits and Compliance with Laws

- 1) Unless otherwise provided for in these Contract Documents, the Contractor shall be responsible for obtaining necessary licenses and permits and for complying with applicable Federal, State, County and Municipal laws and latest codes and regulations in connection with the prosecution of the Work. (For payment of permit(s), see Special Provisions). No time extensions will be allowed for delays in obtaining the required permits unless revisions directly caused by the Owner, or its agents are required to the Contract Drawings due to changes in codes, regulations, and applicable contract standards during the contract term. See Special Provisions for additional permit requirements.
- 2) The Owner will not pay or reimburse the Contractor for any penalties relating to his permits or fees as a result of the Contractor's failure to timely obtain all his permits, inspections, and approvals.
- 3) The Contractor shall observe and comply with all applicable Federal, State, County and other laws, codes, ordinances, rules, and regulations of the Federal, State and County governments, all authorities having jurisdiction, and any and all programs developed in compliance therewith, in any manner affecting the conduct of the Work.
- 4) Dewatering of excavations shall be performed in accordance with the applicable provisions of the County's Department of Regulatory and Economic Resources (RER), Florida Department of Environmental Protection (DEP), U.S. Environmental Protection Agency (EPA) and the South Florida Water Management District (SFWMD) Dewatering Permits and/or any and all authorities having jurisdiction and any other requirements specified in the Contract Documents. The means and methods of dewatering shall be determined by the Contractor who shall bear the full cost of same as part of the contract price.
- 5) All construction activities shall be subject to the pollution prevention requirements established under the National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act regulating storm water discharge from construction sites.
- 6) Upon completion of all of the work contemplated under the Contract Documents, the Contractor shall obtain and deliver to the Field Representative such Certificate(s) of Occupancy or Certificate(s) of Completion as required by the Florida Building Code and/or authority having jurisdiction.

- 7) The Contractor shall be subject to and comply with all the provisions of Miami-Dade County Code Section 2-8.4.1, which provides that, whenever any individual or corporation or other entity attempts to meet its contractual obligations with the County through fraud, misrepresentation or material misstatement, the County shall, whenever practicable, terminate the Contract. The Contractor is further directed to Section 10-38 of the Miami-Dade County Code, which provides for the debarment of County contractors.
- 8) The use of explosives will not be permitted under this Contract, except that powder and/or explosive fasteners may be allowed with the prior written consent of the Owner.

F. Coordination and Access

- 1) Other Contracts: The Owner may undertake or award other contracts for additional work, and the Contractor shall fully cooperate and coordinate with other Contractors and the Owner and carefully fit his own work to such additional work. The Contractor shall not perform any act which will interfere with the performance of work by any other contractor or by the Owner. The Contractor shall be responsible for obtaining all necessary scheduling details from other Contractors and these requests must be provided, in writing, to the Owner. The Owner, or, if authorized in writing by the Owner, the Architect/Engineer shall have the authority to resolve conflicts related to coordination between Contractors.
- 2) In the event of interference between the work of the Contractor and other contractors working concurrently at the Site, the Field Representative will instruct the Contractor as to which work has priority in performance and such instructions shall be binding upon the Contractor.
- 3) Utility companies, railroads, municipal agencies, and County tenants/lessees having facilities within the limits of the Work shall always have access to their facilities for operations, inspection, and repair.
- 4) Lands to be furnished by the County for construction operations, roads, or for other purposes, will be specifically shown on the drawings or provided for in the Specifications. Should the Contractor find it necessary to use any additional land for the construction operations or for other purposes during the construction of the work, they shall provide for the use and restoration of such lands at their own expense.
- 5) Rights-of-way for work to be done under the Contract will be provided by the County. Nothing herein contained, however, and nothing marked on the drawings, shall be interpreted as giving the Contractor exclusive occupancy of the territory provided. When two or more contracts are being executed at one time on the same or adjacent land in such a manner that work on one contract may interfere with that on another, the Owner, or, if directed in writing by the Owner, the Architect/Engineer will decide which Contractor shall cease work, and which shall continue, or whether the work of both contracts shall progress at the same time, and in what manner. When the territory of one contract is a necessary or convenient means of access for the execution of another contract, the Engineer may grant to the Contractor so desiring such privilege of access to the territory as the Engineer shall deem to be appropriate, and no such decision shall be made the basis of any claim for delay or damage, except as provided in Article 8 herein.

G. Rights in Land and Improvements

The Contractor shall make no arrangements with any person to permit occupancy or use of any land, structure or building within the Work Site for any purpose whatsoever, either with or without

compensation, in conflict with any agreement between the Owner and any property owner, former property owner or tenant of such land, structure or building. The Contractor shall not occupy County-owned property outside the Work Site without obtaining prior written approval from the County.

H. Interference With Existing Utilities

- 1) Attention of the Contractor is specifically directed to the need for careful control of all aspects of his work to prevent damage to cables, ducts, water mains, sewers, fire mains, telephone cables, fuel lines, radar cables, and any other existing overhead or underground utilities and structures.
- 2) Before commencing work in any given area, the Contractor shall contact utility companies to identify any potential conflicts. Further, the Contractor shall also carefully review the plans, survey, and search the site for utility locations, and determine possible utility conflicts. All known above and underground utilities, including, but not limited to, electrical, telephone, communications, lighting cables, fuel lines, sewer, drainage and water pipes, and other existing structures are shown on the Plans for reference purposes only, but no guarantee is expressed or implied that the information is accurate. It shall be the sole responsibility of the Contractor to ascertain and/or verify the location of any and all such utilities or structures using magnetic and electronic detectors and by hand excavation or other appropriate measures before performing any work that could result in damage to such existing utilities or structures. The Contractor shall make a thorough search of the particular location for underground utilities or structures whether or not shown on the drawings before excavation work is commenced in any particular location. To this end the Contractor shall provide and maintain throughout the term of the Contract, electronic and magnetic detecting devices capable of locating underground or other non-observable utilities or structures. The Contractor shall, after locating primary and critical existing utilities, mark their location with indelible material or other means satisfactory to the Field Representative and maintain above ground physical identification during the work.
- 3) In the event of damage to, or accidental disruption of utilities or other facilities as a result of the Contractor's operations, the Contractor shall take immediate steps to repair or replace all damage and to restore all services. Further, the Contractor shall engage any additional outside services which may be necessary to prosecute repairs on a continuous "around the clock" basis until services are restored. The Contractor shall also provide and operate any supplemental temporary services to maintain uninterrupted use of the facilities. All costs involved in making repairs and restoring disrupted service resulting from the Contractor's work shall be borne by the Contractor and the Contractor shall be fully responsible for any and all claims resulting from the damage.

I. Protection of Existing Facilities, Vegetation, Structures, Utilities, and Improvements

- 1) The Contractor shall preserve and protect existing vegetation such as trees, shrubs, and grass on or adjacent to the work site which are not indicated to be removed and which do not unreasonably interfere with the construction work and he shall replace in kind the vegetation, shrubs, and grass damaged by him at his own expense.
- 2) The Contractor shall protect from damage all utilities, foundations, walls, or other parts of adjacent, abutting or overhead buildings, railroads, bridges, structures, surface and subsurface structures at or near the site of the Work and shall repair or restore any damage to such facilities, except utilities, resulting from failure to comply with the requirements of this Contract or the failure to exercise reasonable care in the performance of the Work. If, after receipt of notification

from the Architect/Engineer, the Contractor fails to or refuses to repair any such damage promptly, the Owner may have the necessary Work performed and charge the cost thereof to the Contractor.

- 3) At points where the Contractor's operations are adjacent to utility facilities, damage to which might result in expense, loss, disruption of service or other undue inconvenience to the public or to the owners, Work shall not be commenced until all arrangements necessary for the protection thereof have been made by the Contractor. The Contractor shall be solely and directly responsible to the owners and operators of such utilities for any damage, injury, expense, loss, inconvenience, or delay, caused by the Contractor's operations.
  - a. Where public utilities or their appurtenances interfere with permanent construction, unless otherwise specified, work involved in permanently relocating or otherwise altering such public utilities and their appurtenances will not be a part of this Contract but will be done by utility owners at no cost to the Contractor. If the Contractor wishes to have utilities temporarily relocated, he shall make necessary arrangements with utility owners and reimburse them at his own expense for cost of the Work. The Contractor shall keep the Architect/Engineer advised of temporary relocation arrangements.
  - b. The Contractor shall not repair or attempt to repair utility damage but shall immediately contact the utility owner. The Contractor shall obtain the name, address, and telephone number of each utility company that the work will affect and the person in such utility company to contact. He shall submit to the Architect/Engineer said names, addresses and telephone numbers.
- 4) The Contractor shall comply with the latest version of the Florida Building Code, Florida Fire Prevention Code or the Code under which the Contract Documents were approved, whichever is applicable at the time the Work is performed.
- 5) In order to safeguard the owners and tenants of abutting property and at the same time prevent unjust or fraudulent claims against the Contractor the Government, State, the Owner, and the Architect/Engineer in respect thereto, the Contractor shall cause a detailed examination of abutting property to be made before construction is begun. The owner or tenant of each parcel or structure or his or their duly authorized representative will be invited to be present during the examination by a notice in writing delivered by the Contractor to a person in charge of the premises or structure, or by the mailing of the notice to the owner at the premises. The Architect/Engineer will attend while the Contractor makes the detailed examination. A complete record including photographs of the existing conditions of each parcel or structure shall be made in triplicate, signed by the Contractor, Owner, and the Architect/Engineer and one copy will be delivered to the Owner, one to the Architect/Engineer and one will be retained by the Contractor. At such time as the Architect/Engineer may direct, or upon the filling of the verified statement by the owner, tenant, lessee, operator, or occupant of the building structure, and in any event, upon the completion of any work that in the opinion on the Architect/Engineer might affect the abutting property, the Contractor will make another detailed examination of such abutting property. A complete record of the then existing conditions of said property will be made in triplicate, signed by the Contractor and one copy will be delivered to the Owner, one to the Architect/Engineer and one will be retained by the Contractor. In any action, which may be brought by any owner, tenant, lessee, operator, or occupant of abutting property to recover under the provisions of this article or any paragraph hereof, the

record of the existing conditions of each parcel will be prima facie evidence of the conditions thereof at the time of the making of the examination.

- 6) The Contractor shall maintain access to fire hydrants and fire alarm boxes throughout the prosecution of the Work. Hydrants, alarm boxes and standpipe connections shall be kept clear and visible at all times unless approved otherwise. If visibility cannot be maintained, the Contractor shall provide clearly visible signs showing the location of the fire hydrant, fire alarm box or standpipe connection. The Contractor shall promptly notify the authority having jurisdiction of any impairment to any fire systems.

J. Damage to the Work and Responsibility for Materials

- 1) The Contractor shall be responsible for materials delivered and work performed until completion and Final Acceptance of the entire construction thereof, except those materials and work which may have been accepted under the applicable sections of this article and shall take all necessary steps to protect the Work, from all causes, at his expense.
- 2) The Contractor shall bear the risk of injury, loss or damage to any and all parts of the Work for whatever cause, whether arising from the execution or from the non-execution of the Work, except as provided for in this article. The Contractor shall rebuild, repair or restore work and materials which have been damaged or destroyed from any cause before Completion and Acceptance of the Work and shall bear the expense thereof. The Contractor shall provide security including, but not limited to, security guards, temporary drainage systems and erection of temporary structures and temporary fencing as necessary to protect the Work and materials from damage.
- 3) The Contractor shall be responsible for materials not delivered to the site for which any progress payment has been made to the same extent as if the materials were so delivered.
- 4) The Contractor's responsibility for material shall be the same for Owner-furnished material, upon receipt of said material from the Owner, under this Contract as for Contractor-furnished material.
- 5) Relief from Maintenance and Responsibility: The Contractor may request, in writing, from the Owner, that the Owner relieve the Contractor of the duty of maintaining and protecting certain portions of the Work, as described in this paragraph, which have been completed in all respects in accordance with the requirements of the Contract. Such action by the Owner will relieve the Contractor of responsibility for injury or damage to said completed portions of the Work resulting from use by the Owner or the public for any cause, but not from injury or damage resulting from the Contractor's own operations or negligence. Portions of the Work for which the Contractor may be relieved of the duty of maintenance and protection, as provided in this paragraph, include the following:
  - A. Early possession by the Owner of any portion of the Work, in accordance with the Contract Documents.
  - B. This Paragraph 5 does not relieve the Contractor of responsibility for repairing or replacing defective work or materials in accordance with the Contract requirements
- 6) If it is specifically stated in the Specifications that the Department will furnish materials or equipment to the Contractor for incorporation into the work for which this Contract pertains, the County shall not be liable for any: expenses, losses, damages, claims or demands including but not limited to, all direct costs of Contractor such as labor, material, job

overhead, and profit markup but also includes any costs for modifications or changes in sequence of work to be performed, delays, rescheduling, disruptions, extended direct overhead or general overhead, acceleration, material or other escalation which includes wages, and other impact cost, or inflationary factors, arising out of any late delivery of such materials or equipment caused by any force Majeure. Compliance with delivery schedules by the Department shall be excused when delays are caused by force Majeure, and, if the delay causes the Contractor to exceed the Contract time stipulated for the final completion of the Project, a non-compensable time extension in the Contract time. An extension in this Contract time will be allowed equal to the length of the delay.

K. Emergencies

- 1) In an emergency affecting the safety of life, the work, or adjacent property, the Contractor shall notify the Owner, the Field Representative, or the Architect/Engineer as early as possible that an emergency exists. In the meantime, without special instruction as to the manner of dealing with the emergency, the Contractor shall act at his own discretion to prevent such threatened loss or injury. As emergency work proceeds, the Owner, the Field Representative, or the Architect/Engineer may issue instructions, which the Contractor shall follow. Contractor shall present any claims for compensation for emergency work under this section as claims for Extra Work; however, the Contract shall not be entitled to claim Extra Work for if the Contractor did not cause or contribute to the occurrence of the emergency via its actions or omissions.
- 2) For purposes of this article, an emergency is defined as an act or event that has occurred or may imminently occur and which is not caused by actions or inactions of the Contractor, which, if no immediate action is taken may affect the safety of life, the work, or adjacent property. This article does not apply to steps taken by the Contractor to protect the work, adjacent structures, utilities, existing vegetation, etc. under other sections of the Contract Documents. Furthermore, this article does not apply to preparations the Contractor may make prior to storms or hurricanes or other acts of God.

L. Accident Prevention

- 1) Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - a. All persons on the Site or who may be affected by the Work;
  - b. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and other property at the Site or adjacent thereto, including trees, shrubs lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- 2) Contractor shall comply with all applicable laws and regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss and shall erect and maintain all necessary safeguards for such safety and protection.

- 3) Upon notification from the Owner or its representative(s), the Contractor shall promptly correct any deficiencies affecting the safety and wellbeing of the construction workers and the public that have been identified by the notice.
- 4) Should a situation of imminent danger be identified, work in the affected area must be suspended immediately until the condition has been corrected. Imminent danger is defined as the exposure or vulnerability to harm or risk that is impending or about to occur as defined by the Field Representative or the Architect/Engineer. The Contractor will not be entitled to future claims alleging impacts caused by the Owner stoppage of the Work due to safety reasons.
- 5) When the Contract involves work on a plant, pump station or other site or restricted area, the Contractor shall comply with the Owner's Process Safety Management Plan, or other safety management plan or Operation Directives as may be promulgated by Owner prior to the commencement of the work and shall instruct their personnel as required by that plan.

M. Warranty of Work

- 1) Except where longer periods of warranty are indicated for certain items, the Contractor warrants the Work under the Contract to be free from faulty materials and workmanship for a period of not less than one (1) year from the date of Substantial Completion. This one-year period shall be covered by the Surety Performance Bond as specified in this Contract, except that in the case of defects or failure in a part of the work which the Owner takes possession of prior to Substantial Completion, such a period shall commence on the date the Owner takes possession. Upon receiving notification from the Owner or any public body, to whom the ownership of the Work has been transferred or who has agreed to maintain the Work, the Contractor shall immediately remedy, repair, or replace, without cost to the Owner or other notifying party and to the entire satisfaction of the notifying party, defects, damages, or imperfections due to faulty materials or workmanship appearing in said Work within said period of not less than one year. Remedial work shall carry the same warranty as the original work starting with the date of acceptance of the replacement or repair. Payment to the Contractor will not relieve him of any obligation under the Contract. Notwithstanding, the correction of latent defects shall not be considered as warranty work.
- 2) The Contractor, at no additional expense to the Owner, shall also remedy damage to equipment, the site, or the buildings or the contents thereof, which is the result of any failure or defect in the Work, and restore any Work damaged in fulfilling the requirements of the Contract. Should the Contractor fail to remedy any such failure or defect within ten (10) days after receipt of notice thereof, the Owner will have the right to replace, repair, or otherwise remedy such failure or defect and deduct all costs from the Contractor's pay request or Payment and Performance Bond if final payment has been made.
- 3) The Contractor will correct all latent defects discovered within ten (10) years after Substantial Completion provided that the Owner shall notify the Contractor of each latent defect within the time specified by law and shall provide the Contractor with an opportunity to conduct test as contemplated in Chapter 558, Fla. Stat. The Contractor, without prejudice to the terms of the Contract, shall be liable to the Owner for all damages sustained by the Owner resulting from latent defects, fraud, or such gross mistakes as may amount to fraud, discovered after the stated guarantee and warranty periods have expired. If the Contractor fails to act within ten (10) days, the Owner reserves the right to have the work performed by others at the expense of the Contractor, and the Contractor agrees to pay the Owner the actual cost associated with

procurement, implementation, and management thereof upon demand. The Owner shall also be entitled to reasonable attorney's fees, necessarily incurred upon the Contractor's refusal to pay the above costs.

- 4) Subcontractors', manufacturers' and suppliers' warranties and guaranties, expressed or implied, with respect to any part of the Work and any material used therein shall be deemed obtained and shall be enforced by the Contractor for the benefit of the Owner provided that, if directed by the Owner, the Contractor requires such subcontractors, manufacturers, and suppliers to execute such warranties and guaranties, in writing, directly to the Owner.
- 5) The rights and remedies of the Owner provided in this article are in addition to and do not limit any rights and remedies afforded by the Contract or by law.
- 6) Nothing in the above intends or implies that this warranty shall apply to work that has been abused or neglected by the Owner, its agents or other public body, utility or railroad to which ownership has been transferred.

END OF ARTICLE

## **8. CONTRACT TIME**

### **A. Notice to Proceed**

- 1) The Contract shall be effective 10 days after notice is provided to the Contractor of contract award (“the effective date”) The Contractor shall, immediately after the effective date of the contract: deliver the specified bonds and certificates of insurance to the Owner, if same were not delivered prior to the effective date; apply for all necessary permits; provide a schedule and a schedule of values in accordance with the requirements herein. Contract time shall not begin on the effective date, but instead shall begin upon issuance of a Notice to Proceed. Contractor shall use continuous diligent good faith efforts to provide bonds, insurance, schedules, schedule of values, and to cause the issuance of permits. The failure of Contractor to utilize such continuous diligent good faith efforts shall render the Contractor in default of this Agreement. Alternatively, if the Contractor is unable to obtain all necessary permits within 30 days, through no fault of the Contractor, the Owner has the option, but not the obligation, to terminate the Contract, without fault to the Contractor or the Owner, effective immediately upon written notice by the Owner or give the Contractor additional time to obtain the permits.
- 2) Upon receipt of all required bonds and insurance, issuance of all required permits, and approval by the Owner of the Schedule and the Schedule of values, the Owner may issue a Notice to Proceed. Except as specifically authorized in writing by the Owner, the Contractor is not authorized to perform work (other than obtaining permits) under the Contract until the effective date of the Notice to Proceed, upon which the Contractor shall commence work and shall diligently prosecute the Work to completion within the time limits specified. The Contract time commences on the start date shown on the Notice to Proceed. The Notice to Proceed shall be effective as of the day it is issued by Owner.
- 3) Any Work Performed by the Contractor (other than obtaining permits) prior to Notice-To-Proceed shall be at the Contractor’s own risk and shall not be considered as the basis for any claim.

### **B. Schedules**

- 1) The Contractor shall provide, maintain, and submit monthly updated schedules in strict accordance with the Contract Documents. The Contractor shall at all times maintain an electronic schedule in the critical path methodology (“CPM”) format or in a format as designated in the technical specifications (e.g., Microsoft Project, Primavera, etc). The Special Provisions and Division 01 of the Technical Specifications may contain further specific requirements for the form, content and date of submission of the baseline schedule and all schedule updates. The County shall approve this schedule prior to issuance of Notice to Proceed. The approved schedule shall be the Baseline Construction Schedule.
- 2) The Contractor shall prosecute the Work in accordance with the approved Baseline Construction Schedule or most recently approved revision to the baseline schedule. In the event that progress along the critical path is delayed, the Contractor shall revise his planning to include additional forces, equipment, shifts or hours as necessary to meet the time or times of completion specified in this Contract at no additional cost to the Owner, unless the Contractor has demonstrated it is entitled a compensable time extension pursuant to the terms of this Contract. In addition, the Contractor shall revise his schedule to reflect these recovery actions

and submit it to the Owner for review and acceptance it being understood that such acceptance will be as to the format and composition of the schedule and not the Contractor's means and methods. Additional costs resulting therefrom will be borne by the Contractor. Delayed progress is defined as:

- a. A delay in the start or finish of any activity on the critical path of the approved baseline schedule or most recently approved revision to the baseline such that the last activity in the critical path occurs after the contract time; or
  - b. A delay in the start or finish of any non-critical activity which consumes more than the available float shown on the approved baseline schedule or most recently approved revision to the baseline, thereby making the activity critical and late; or
  - c. A projected completion date shown on a schedule update which is later than the contractual completion date; or
  - d. Any combination of the above.
- 3) Failure of the Contractor to comply with the requirements under this provision will be grounds for determination that the Contractor is not prosecuting the Work with such diligence as will ensure completion within the Contract Time. Upon such determination, the Owner may terminate the Contractor's right to proceed with the Work, or any separate part thereof, in accordance with the Contract Documents. If in the Contractor's estimation, the cause(s) of delay are beyond the Contractor's control, the Contractor shall adhere to the sections of the Contract Documents related to extensions of time, claims and others as appropriate.
- 4) The Contractor shall be responsible for scheduling and coordinating the work of all crafts and trades, subcontractors, and suppliers, required to perform the Work and to complete the Work within the prescribed time. Any inefficiency or loss of productivity in the labor, materials, or special equipment of the Contractor or its subcontractors of any tier, from any cause, shall be the responsibility of the Contractor. No reimbursement of these or any other costs can be requested by or granted to the Contractor or any of its subcontractors of any tier for inefficiency or loss of productivity in labor, materials, or special equipment, except as specified in the paragraph in this article dealing with Liquidated Indirect Costs, for delays in the performance and completion of the Work directly caused by the Owner or its authorized representatives. Other than the exception described above, additional costs may only be paid to the Contractor as a result of additional Work added to the Contract scope of work.

C. Extensions of Time and Classification of Types of Delays

- 1) Once a delay has been identified and it has been established through a Time Impact Analysis that a delay affects the Project's end date or contractually mandated milestone date, the delay must be classified to determine responsibility and to compute damages, if any. Before the Contractor can submit a request for time extension, claim or any request for additional compensation involving or related to time, the Contractor must classify the delay(s) in accordance with the following classifications. These delay classifications shall be used by the Owner and the Contractor in resolving any time-related disputes. Delays fall into three basic categories: non-excusable, excusable, and compensable.
  - a. Non-excusable delays are those delays to the critical path which were foreseeable at the time of contract award or delays caused by the Contractor due to the Contractor's

fault or negligence or his/her own inefficiencies or problems, due to his/her inability to coordinate subcontractors and/or other flaws in his/her planning. In these types of delays, the Contractor is not entitled to extra time or compensation and the Owner may be allowed to assess Liquidated Damages or actual damages, depending on the contract provisions.

- b. Excusable delays are those delays to the critical path beyond the Contractor's control and without the active interference of the Owner, such as extreme weather, force majeure, strikes, and delays caused by third parties (i.e. not the Contractor or the Owner). Contractors are granted a time extension but no additional compensation for the extended time of performance for excusable delays.
- c. Compensable delays are delays to the critical path caused by active interference or participation of the Owner or Owner's consultant. Examples of compensable delays are failure of the Owner to provide right-of-way, introducing late design changes, late review of shop drawings by the Owner or his Architect/Engineer and failure of the Owner to coordinate the work of various prime Contractors. In the case of a compensable delay, the compensation for the extended period of performance shall be the Liquidated Indirect Costs as specified in the Contract Documents. Where a delay is caused by Extra Work, the direct costs of the Extra Work shall be paid for in accordance with Section 9 herein.
- d. Concurrent delays involve two or more delays to the critical path occurring at the same time (irrespective of whether each delay would if analyzed alone, be compensable or non-compensable), either of which had it occurred alone, would have affected the end date of the Project.
- e. The compensability of concurrent delays depends on the types of delays involved. The following shall determine the effects of concurrent delays on time extensions and compensable costs:
  - i. EXCUSABLE DELAY CONCURRENT WITH A NON-EXCUSABLE DELAY. For excusable delays concurrent with non-excusable delays, the Contractor is entitled to a time extension only. For example, it rains the day footings are to be excavated (excusable delay) but the excavation equipment was down for repairs (non-excusable delays).
  - ii. NON-EXCUSABLE DELAY CONCURRENT WITH A COMPENSABLE DELAY. For non-excusable delays concurrent with compensable delays, the Contractor is entitled to a time extension only. For example, if the Owner introduces a design change for a beam but the Contractor has failed to submit the shop drawings for said beam in a timely manner. This would be an example of a non-excusable delay (late shop drawings) concurrent with a compensable delay (Owner introducing design change).
  - iii. EXCUSABLE DELAY CONCURRENT WITH A COMPENSABLE DELAY. For excusable delays concurrent with compensable delays, the Contractor is entitled to a time extension only. For example, the Owner does not provide the necessary right-of-way to begin construction (compensable delay) but the Contractor's forces are on strike (excusable delay).

- 2) Time Extensions: The Contractor may be granted an extension of time and will not be assessed Liquidated Damages for any portion of the delay in completion of the Work, arising from acts of God, acts of the public enemy, fires, floods, epidemics, quarantine restrictions, freight embargoes, strikes, labor disputes, or weather more severe than the norm, provided that the aforesaid causes were not foreseeable and did not result from the fault or negligence of the Contractor, and provided further that the Contractor has taken reasonable precautions to prevent further delays owing to such causes, and has given to the Architect/Engineer immediate verbal notification, with written confirmation within 48 hours, of the start of the delay of: (1) the cause or causes of delay, (2) the schedule activities impacted by the delay, (3) a rough order of magnitude estimate of the duration of the delay, and (4) potential measures to recover the schedule. Within thirty (30) days after the end of the delay, the Contractor shall furnish the Architect/Engineer with detailed information concerning the circumstances of the delay, the actual number of days actually delayed, the appropriate Contract Document references, and the measures taken to prevent or minimize the delay; notwithstanding, where monthly schedule updates are required prior to the end of the delay, that monthly updated schedule shall reflect all delay experienced through the date of the submittal. All requests for extension of time shall be submitted in accordance with the Contract Documents. Failure to submit such information will be sufficient cause for denying the delay claims, irrespective of the Contractors entitlement to a time extension or liquidated damages. The Owner will ascertain the facts and the extent of the delay, and its findings thereon will be final and conclusive subject to the dispute provisions in the Contract Documents. The extensions of time granted for these reasons shall be considered excusable and shall not be the basis for any additional compensation.
- a. Weather more severe than the norm shall apply only as it affects particular portions of the Work and operations of the Contractor, as determined by the Architect/Engineer. Weather more severe than the norm is defined as any situation exceeding the mean data as recorded by The National Climatic Data Center, Asheville, North Carolina, and published by the National Oceanic and Atmospheric Administration (this data is taken from the table of normal, means, and extremes in the latest version of the "Local Climatological Data, Annual Summary with Comparative Data, Miami, Florida"). For the calculation of delays due to rain, precipitation of 0.01 inches or more a day occurring during normal work hours shall be considered to be a rainy day, if the rain actually prevented the Contractor from performing work. The effects of weather less severe than the norm may be taken into account in granting time extensions at the Owner's sole discretion.
  - b. An extension of time will not be granted for a delay to the critical path caused by a shortage of materials, except Owner-furnished materials, unless the Contractor furnishes to the Architect/Engineer documentary proof that he has diligently made every effort to obtain such materials from every known source within reasonable reach of the Work. The Contractor shall also submit proof, in the form of a CPM network analysis data, that the inability to obtain such materials when originally planned, did in fact cause a delay in final completion of the Work which could not be compensated for by revising the sequence of his operations. Only the physical shortage of material will be considered under these provisions as a

cause for extension of time. No consideration will be given to any claim that material could not be obtained at a reasonable, practical, or economical cost, unless it is shown to the satisfaction of the Architect/Engineer that such material could have been obtained only at exorbitant prices, entirely inconsistent with current rates taking into account the quantities involved and the usual practices in obtaining such quantities.

- 3) Delays Caused by the Owner: If the Contractor's performance of the Work along the critical path is delayed by any condition or action directly caused by the Owner, and which was not foreseeable by the Contractor at the time the Contract was entered into, the Contractor shall, provide notification in accordance with the Contract Documents, of any such delay and of the anticipated results thereof. The Contractor shall cooperate with the Owner and use its best efforts to minimize the impact on the schedule of any such delay. In instances where the Owner causes a delay which is responsible for extending the Contract beyond the completion date, the Contractor may claim Liquidated Indirect Costs as specified in the paragraph in this article dealing with Liquidated Indirect Costs. These delays shall be considered compensable, except for the period in which these delays may be concurrent with Contractor-caused delays. If a delay on the part of the Owner is concurrent, that is, if it occurs at the same time as a Contractor-caused delay, the Owner-caused delay shall be considered an excusable delay for the portion of the Owner-caused delay which is concurrent with the Contractor-caused delay.
- 4) Delays Beyond Contractor's Control Not Caused by the Owner: If Contractor's performance of the Work along the critical path is delayed by any conditions beyond the control and without the fault or negligence of Contractor and not caused by the Owner, and if the Owner determines that the delay was beyond the control and without the fault or negligence of the Contractor and not foreseeable by the Contractor at the time this Contract was entered into, the Owner will determine the duration of the delay based on the documentation provided by Contractor, and may extend the time of performance of this Contract provided; however, that Contractor shall cooperate with the Owner and use its best efforts to minimize the impact on the schedule of any such delay. These delays shall be considered excusable, and the Contractor shall not be entitled to, and hereby expressly waives recovery of, any damages suffered by reason of the delays contemplated by this paragraph and extension of time shall constitute Contractor's sole remedy for such delays.
- 5) In addition to the delays in the Work specified in this section, delays in the Work directly caused by an act or omission by an owner of an adjoining property, or by tenants or permittees on County property, will not be considered an Owner-controlled delay. An owner of an adjoining property is a person, firm, corporation, partnership, or other organization who either owns or occupies, or both, structures, or parcels or both, immediately adjacent to the Work Site. Extension of time for those delays will be considered excusable and shall be treated as specified in this article, provided that:
  - a. The Contractor has, in accordance with this article, given to the Architect/Engineer immediate verbal justification, with written confirmation within 48 hours of the delay; and
  - b. The Contractor establishes, to the satisfaction of the Architect/Engineer, that:
    - i. The delay was caused directly by an act or omission by the owner of the adjoining property; and

- ii. The Contractor has taken reasonable precautions and has made substantial effort to minimize the delay.
- 6) A Change Order will be furnished to the Contractor within a reasonable period of time, after approval of a request for extension of time, specifying the number of days allowed, if any, and the new dates for completion of the Work or specified portions of the Work. All requests for time extension shall be in accordance with the Contract Documents. With the exception of time extensions covered under the time contingency allowance in the contract, pursuant to Section 9-3 of the Code of Miami-Dade County. All change orders shall be in full accord with the Contract Documents. The Board of County Commissioners shall not be bound by the recommendation of County Staff with respect to time extensions, and may accept, reject, or modify change orders in its sole discretion.
- 7) Additional requirements for the submittal of time extension requests may be included in the Technical Specifications,

**D. Substantial Completion, Final Completion and Final Acceptance**

- 1) The following items must be satisfied before Substantial Completion, as defined in the Contract Documents, will be approved:
  - a. All Work must be completed to the satisfaction of the appropriate permitting agencies having jurisdiction over the Work. The Contractor must furnish the Owner with a “Temporary Certificate of Occupancy” or a “Certificate of Completion,” as applicable, from the permitting agency unless circumstances arise outside the contract scope that prohibits such certificates from being issued (i.e. utility connections).
  - b. All operational systems which may include but not be limited to electrical systems, security systems, irrigation systems and fire systems, must be completed in accordance with the Contract Documents, tested and approved.
  - c. All plumbing, heating, ventilation, and air conditioning systems must be completed, tested, and approved. Whenever the scope of work includes a facility or building, an HVAC test and balance report must be submitted and approved as a condition precedent to Substantial Completion.
  - d. The punch list may not be so extensive or of a nature that the Contractor’s completion will significantly interfere with the Owner’s beneficial use of the facility.
- 2) When the Contractor believes that all the Work or designated portion thereof required by the contract is substantially completed, the Contractor shall submit to the Field Representative and the Architect/Engineer a request for Substantial Completion inspection. The Contractor, the Field Representative, the Architect/Engineer, sub-consultants, and the Owner shall meet at the Project site for the purpose of making a combined inspection of the Work. During this inspection, any item of work remaining to be done or Work to be corrected shall be noted on a Punch List. If the Field Representative and/or the Architect/Engineer and the Owner indicate on this inspection report that the Work is substantially complete, a Certificate of Substantial Completion will be issued to the Contractor. The Certificate of Substantial Completion shall establish the date of Substantial Completion and shall have attached the Punch List reflecting any items to be completed or corrected, but which do not prevent beneficial use and occupancy, and shall state the date by which the Punch List is to be completed. The completion time for

the Punch List shall not be greater than 60 days from the date of issuance of the Certificate of Substantial Completion.

- 3) If any of the conditions listed in this article are not met and the Work has not been completed, or the Owner determines that the final Punch List cannot be completed within sixty (60) days, a Certificate of Substantial Completion shall not be issued. The Contractor shall continue work, reducing the number of items on the Punch List that were not met. Additional inspections shall be scheduled as necessary until Substantial Completion is declared. However, costs incurred by the Owner for any inspections beyond a second inspection will be charged back to the Contractor.
- 4) In the event the Contractor fails to achieve Substantial Completion within the period specified in the Contract for completion, the Contractor shall be liable for Liquidated Damages and the Owner has, as its option, the right to, after 10 calendar day-notice to the Contractor, to remove such work from the Contract, in which case the value of the work, as measured by the Owners' cost to have such work performed by others, shall be deducted from Contractor's final payment, whether or not the Owner causes such work to be performed. In the event that the Owner chooses to remove such work, there shall not be any further non-excusable delays charged to the Contractor beyond the 10 days following notice to the Contractor. However, the Contractor shall not be relieved of any non-excusable delays incurred through the date of termination. The Punch List and the Contract shall remain open until all the Work is complete and accepted. The current retainage will be used to offset any Liquidated Damages and any back charges, after which, any surplus retainage will be released to the Contractor. If the retainage is insufficient to cover the Liquidated Damages and any back charge, the Owner will bill the Contractor for the balance and the Contractor shall promptly remit to the Owner an amount equal to the billing.
- 5) Final Completion: When the Owner or Architect/Engineer considers all Work indicated on the Punch List to be complete, the Contractor shall submit written certification that:
  - a. Work has been inspected for the compliance with the Contract Documents.
  - b. Work has been completed in accordance with the Contract Documents, and that deficiencies listed within the Certificate of Substantial Completion and its attachments have been corrected.
  - c. Work is completed and ready for Final Inspection.
- 6) Should the Owner and/or Architect/Engineer inspection find that Work is incomplete, he will promptly notify the Contractor in writing listing all observed deficiencies. The Contractor shall be responsible for all Direct and Indirect Costs to the County resulting from the Contractor's failure to complete the Punch List items within the time allowed for completion.
- 7) The Contractor shall remedy deficiencies and send a second certification. Another inspection will be made that shall constitute the final inspection. Provided that work has been satisfactorily completed, the Architect/Engineer will notify the Contractor in writing of Final Acceptance as of the date of this final inspection.
- 8) Prior to Final Acceptance, the Contractor shall deliver to the Field Representative complete As-Built drawings, all approved Shop Drawings, maintenance manuals, pamphlets, charts, parts lists and specified spare parts, operating instructions and other necessary documents required

for all installed materials, equipment, or machinery, all applicable warranties and guarantees, and the appropriate Certificate of Occupancy.

- 9) Upon notification of Final Acceptance to the Contractor, the Architect/Engineer will request and consider closeout submittals from the Contractor including but not limited to the final Contractor's Affidavit and Release of All Claims.
- 10) The Contractor, without prejudice to the terms of the Contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.
- 11) Re-Inspection Fees: Should the status of completion of the Work require re-inspection of the Work by the Owner and the Architect/Engineer due to failure of the Work to comply with the Contractor's representations regarding the completion of the Work, the Owner will deduct from the final payment to the Contractor, fees and costs associated with re-inspection services in addition to scheduled Liquidated Damages.

E. Use and Possession

The Owner shall have the right to occupy, take possession of or use any completed or partially completed portions of the Work. Such possession or use will not be deemed an acceptance of work not completed in accordance with the Contract. While the Owner is in such possession, the Contractor, notwithstanding the provisions of the Contract Documents, will be relieved of the responsibility for loss or damage to those portions of the Work occupied by Owner, excepting those resulting from the Contractor's fault or negligence or breach of warranty. The Contractor shall be responsible for maintenance of all equipment in these areas until these responsibilities are turned over to the County in writing. If such prior possession or use by the Owner delays the progress of the Work or causes additional expense to the Contractor, a Contract change in the Contract price, or the time of completion will be made, and the Contract will be modified in writing accordingly.

F. Liquidated Damages and Liquidated Indirect Costs

- 1) The parties to the Contract agree that time, in the completion of the Work, is of the essence. The Owner and the Contractor recognize and agree that the precise amount of actual damages for delay in the performance and completion of the Work is impossible to determine as of the date of execution of the Contract and that proof of the precise amount will be difficult. Therefore, the Contractor shall be assessed Liquidated Damages on a daily basis for each Day that individual milestones, both interim and cumulative as specified in the Contract Documents, are not timely achieved or that Contract Time is exceeded due to a non-excusable delay. These Liquidated Damages shall be assessed, not as a penalty, but as compensation to the Owner for expenses which are difficult to quantify with any certainty and which were incurred by the Owner due to the delay. The amount of Liquidated Damages assessed shall be an amount, as stipulated in the Contract Documents, per day for each calendar day that individual milestones as specified in the Contract are not timely achieved or that the Project is delayed due to a non-excusable delay.
- 2) The Owner and the Contractor recognize and agree that the precise amount of the Contractor's Indirect Costs for delay in the performance and completion of the Work is impossible to determine as of the date of execution of the Contract, and that proof of the precise amount will be difficult. Therefore, Liquidated Indirect Costs recoverable by the Contractor, shall be assessed on a daily basis for each Day the Contract Time is delayed due to compensable delay.

These Liquidated Indirect Costs shall be paid to the Contractor in full satisfaction of all costs and damages caused by compensable excusable delays, except for Direct Costs. There shall be no Liquidated Indirect Costs payable for time directly related to Extra Work for which a Change Order has been issued.

- 3) The amount of Liquidated Indirect Costs recoverable shall be an amount, as stipulated in the Contract Documents per day for each day the Contract is delayed due to compensable excusable delay. Unless otherwise specified in the Contract, for lump sum contracts, the daily amount of Liquidated Indirect Costs will be calculated by dividing the total amount in the Contractor's approved Schedule of Values for General Requirements by the Contract duration (in days) after deducting any general conditions costs directly paid by the Owner during the execution of the Project. The amount of the Liquidated Indirect Costs calculated in accordance with this formula shall be stated in the Notice-to-Proceed. For unit price contracts, the daily amount of Liquidated Indirect Costs will be calculated as defined in the formula below:

$$\frac{(\text{Amount of Bid} \times 8\%) \text{ less any General Requirements items paid independently/individually}}{\text{Original Contract Duration (In Days)}}$$

- 4) In the event the Contractor fails to perform any other covenant or condition (other than time-related) of this Contract relating to the Work, the Contractor shall become liable to the Owner for any actual damages which the Owner may sustain as a result of such failure on the part of the Contractor. The Owner reserves the right to retain these amounts from monies due the Contractor.
- 5) Nothing in this article shall be construed as limiting the right of the Owner to terminate the Contract and/or to require the Surety to complete said Project and/or to claim damages for the failure of the Contractor to abide by each and every one of the terms of this Contract as set forth and provided for in the Contract Documents.
- 6) Consequential Damages: This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination. Nothing contained in this Section shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents. Notwithstanding anything whatsoever contained in this Agreement to the contrary, the Parties expressly agree that no Party to this Agreement shall be liable to any other Party or Parties to this Agreement for any special, consequential, or exemplary damages of any kind whatsoever, whether arising in contract, warranty, tort (including but not limited to negligence), strict liability, or otherwise, including without limitation losses of use, profits, business reputation and financing.

END OF ARTICLE

## **9. PROGRESS PAYMENTS**

### **A. Payments**

- 1) The Contractor shall receive and accept compensation provided for in the Contract as full payment for furnishing all materials, for performing all work under the Contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the prosecution thereof.
- 2) The Owner will make progress payments monthly as the work proceeds. Prior to issuance of the Notice to Proceed, unless the Special Provisions provide for the payment to be determined by using a cost-loaded CPM, the Contractor shall, furnish a Schedule of Values for review and approval by the Owner consisting of a detailed cost breakdown of each lump sum bid item in the Bid Form in such detail as the Architect/Engineer shall request, showing the amount included therein for each principal category of the work, to provide the basis for determining the amount of progress payments. Unit price bid items shall be paid for in accordance with the Bid Form. The Schedule of Values shall clearly indicate the amount to be paid by the Contractor to each individual subcontractor. Notice to Proceed shall not be issued, and the Contractor cannot submit monthly invoices, without an approved Schedule of Values.
- 3) In making such progress payments, a maximum of 5 percent of the estimated amount shall be retained from each progress payment made to the Contractor until 50 percent Completion of the work has been established. 50 percent completion is defined as the point in time when at least 50 percent of the Work under contract has been physically and satisfactorily completed in accordance with the intent of the Contract Documents as determined by the Architect/Engineer. At this point, the retainage amount withheld from each subsequent progress payment may be reduced, at the discretion of the Owner, provided the Owner finds that satisfactory progress is being made. Also, whenever the Work is Substantially Complete, the Owner, if it considers the amount retained to be in excess of the amount adequate for its protection, may release to the Contractor all or a portion of such excess amount.
- 4) Material and work covered by progress payments shall become the sole property of the Owner. This provision shall not be construed as relieving the Contractor from the sole responsibility for material and work upon which payments have been made, the restoration of damaged work or as waiving the right of the Owner to require the fulfillment of the terms of the Contract.
- 5) Progress payments will be made in accordance with the Miami-Dade County Code, Florida Statute, s. 218.70 Florida Prompt Payment Act, and Florida Statute, s. 218.735.
  - a. The Contractor's attention is directed to Florida Statute, s. 218.735, revising provisions regarding timely payment, revising deadlines for the payment of contractors, subcontractors, sub-subcontractors, materialmen and suppliers. The contractor shall remit payment due to subcontractors within 10 days after the contractors' receipt of payment. The subcontractor shall remit payment due to sub-subcontractors and suppliers within seven (7) days after the subcontractors' receipt of payment. Dispute resolution is provided within the Statute.
  - b. The Contractor's attention is further directed to Miami Dade County Code Section 10-33.02, Section 2-8.1.4 , Section 2-8.1.1.1.1 and Section 2-8.1.1.1.2 , providing for prompt payments of fourteen (14) days upon receipt of an approved invoice are made

to prime contractor certified as Miami Dade County certified small businesses or prime contracts with Miami Dade County certified small businesses are participating as subcontractors by County agencies and the Public Health Trust; creating dispute resolution procedures for payment of County and Public Health Trust obligations; and requiring the prime Contractor to issue prompt payments within two (2) days upon receipt of payment from the owner, and have the same dispute resolution procedures as the County, for all small business subcontractors. Failure of the Contractor to issue prompt payment to small businesses, or to adhere to its dispute resolution procedures, may be cause for suspension, termination, and debarment, in accordance with the terms of the County contract or Public Health Trust contract and debarment procedures of the County.

- 6) No progress payments will knowingly be made for work not in accordance with this Contract, but payment of a requisition shall not constitute acceptance of non-conforming work or otherwise constitute a waiver of any of the Owner's rights under the Contract
- 7) Applications for progress payments shall be in the format as prescribed by the Owner. These applications shall be supported by evidence, which is required by this article. Each application for payment shall clearly indicate the amount to be paid to the Contractor as well as the amount to be paid to each of the Contractor's subcontractors and suppliers, based on work installed and approved at the time of the application. The Contractor shall certify, pursuant to the Miami-Dade County False Claims Ordinance, that the work for which payment is requested has been done and that the materials listed are stored where indicated. Those items on the progress payment application that, in accordance with the applicable sections of the Contract Documents, compensate for Force Account Work, for materials not yet incorporated in the work, or for work under change orders negotiated on a cost-reimbursable basis will, under procedures of the Owner, be subject to the Owner's audit review of the Contractor's records supporting the payment application. Audits will be performed so as not to interfere with timely processing of applications for payment. If audit indicates the Contractor has been overpaid under a previous payment application, that overpayment will be credited against current progress payment applications. For a period of five years from Final Acceptance of the Contract, the Contractor shall maintain and make available for audit inspection and copying by the Owner, State and the Government and their authorized representatives, all records subject to audit review.
- 8) The Owner, at its discretion, may authorize payment for materials not yet incorporated into the Work, whether or not delivered to the Work Site. The value of materials on hand but not incorporated into the Work will be determined by the Field Representative, based on actual invoice costs to the Contractor, and such value will be included in a monthly application for payment only if the materials have been properly stored on the Site, provided that such materials meet the requirements of the Contract Documents, and are delivered to acceptable locations on Site or in bonded warehouses that are acceptable to the Owner; materials paid for in this manner shall be kept segregated from other materials purchased by Contractor and shall not be used for other projects undertaken by Contractor. Such delivered costs of stored or stockpiled materials may be included in the next application for payment after the following conditions are met:
  - a. The material has been stored and stockpiled in a manner acceptable to the Field Representative at or on the Work site or in a secure storage facility within Miami-Dade County or other location as approved by the Architect/Engineer. If such

materials are stored outside Miami-Dade County, the Contractor shall accept responsibility for and pay all personal and property taxes that may be levied against the Owner by any state or subdivision thereof on account of such storage of such material. The Owner will permit the Contractor, at his own expense, to contest the validity of any such tax levied against the Owner and in the event of any judgment or decree of a court against the Owner, the Contractor agrees to pay same.

- b. The Contractor has furnished the Field Representative with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the Field Representative with satisfactory evidence that the materials and transportation costs have been paid including but not limited to certified bills of sale for such materials and insurance certificates or other instruments, in writing, and in a form as required by the Owner. The Architect/Engineer may allow only such portion of the amount represented by these bills as, in his opinion, is consistent with the reasonable cost of such materials.
- d. The Contractor has furnished the Owner legal title (free of debts, claims, liens, mortgages, taxes, or encumbrances of any kind) to the material so stored and stockpiled and subject only to the Owner's payment for the materials as reflected in the application for payment. All such materials so accepted shall become the property of the Owner. The Contractor at his own expense shall mark such material as the property of the Owner and shall take such other steps, if any, the Owner may require or regard as necessary to vest title in the Owner to such material.
- e. The Contractor has furnished the Owner evidence that the material so stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work. The cost of the material included in an application for payment which may subsequently become lost, damaged, or unsatisfactory shall be deducted from succeeding applications for payment irrespective of the cause and whether or not due to the negligence, carelessness or fault of the Owner.
- f. It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of its responsibility for furnishing and placing such materials in accordance with the requirements of the Contract Documents and does not waive Owner's right to reject defective material when it is delivered to the Site until such material is delivered to the Site and satisfactorily incorporated into the work.
- g. In no case will the amount in an application for payment for material on hand exceed the Contract price for such material, the Contract price for the Contract item in which the material is intended to be used or the value for such material established in the approved Schedule of Values. Payment for material furnished and delivered as indicated above will be based on 100 percent of the cost to the Contractor and retention will be withheld as specified in the Contract Documents. In any event, partial payments for materials on hand will not exceed 70 percent of the item's Bid Price, including taxes and shipping, or the agreed amount within the Schedule of Values.

- h. No partial payment will be made for stored or stockpiled living or perishable plant materials.
  - i. The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this Article.
  - j. Materials may be subject to being purchased by the Owner directly under the County's "Direct Material Purchase Program" and installed by the Contractor, as applicable, in accordance with the Special Provisions.
- 9) Payment of the Contract lump sum price for General Requirements, if applicable, will be made in the following manner:
  - a. The General Requirements Lump Sum amount, including cost for bonds and insurance, shall be paid in proportion to the total percent of completion. The Owner will consider requests for payment for bonds and insurance under the General Requirements after receipt of certified invoices from the Contractor showing that the Contractor has paid them.
  - b. The Owner reserves its right to withhold payment for General Requirements, in whole or in part, at the Owner's sole discretion, in accordance with Paragraph 11 below.
- 10) If any claim is filed against the project for labor, materials, supplies or equipment which the Owner has determined to have been incorporated on the site and the Contractor has not paid for, the Owner will have the right to retain from payments otherwise due the Contractor, in addition to other amounts properly withheld under this article or under other provisions of the Contract, an amount equal to such amounts claimed.
- 11) In addition to the provisions of this article and other relevant sections of the Contract Documents, payment may also be withheld proportionately for the following reasons:
  - a. Reasonable doubt that the Work can be completed for the unpaid balance of the Contract Sum,
  - b. Reasonable indication that the Work will not be completed within the Contract Time,
  - c. Damage to another Contractor,
  - d. Unsatisfactory prosecution of the Work by the Contractor,
  - e. Failure of the Contractor, or his subcontractors, to pay wage rates, when applicable as required by the Contract.
  - f. In the event the Surety on the Performance and Payment Bond provided by the Contractor becomes insolvent, or is placed in the hands of a receiver, or has its right to do business in the State of Florida suspended or revoked as provided by law. In this case, payment will continue when the Contractor provides a good and sufficient Bond(s) as required by the Contract Documents, in lieu of the Bond(s) so executed by such Surety.
  - g. If any work or material is discovered which, in the opinion of either the Architect/Engineer or the Field Representative, is defective, or should a reasonable

doubt arise on the part of either the Architect/Engineer or the Field Representative as to the integrity of any part of the work completed previous to the final acceptance and payment. In this case, there will be deducted from the first application for payment subsequent to the discovery of such work, an amount equal in value to the defective or questioned work, and this work will not be included in any subsequent applications for payment until the defects have been remedied or the causes for doubt removed.

- 12) Failure to comply with the insurance requirements listed in the Contract Documents may result in the Owner's withholding or delaying payment to the Contractor.
- 13) In accordance with Miami-Dade County Implementing Order 3-9, Accounts Receivable Adjustments, if money is owed by the Contractor to the County, whether under this Contract or for any other purpose, the County reserves the right to retain such amount from payment due by County to the Contractor under this Contract. Such retained amount shall be applied to the amount owed by the Contractor to the County. The Contractor shall have no further claim to such retained amounts which shall be deemed full accord and satisfaction of the amount due by the County to the Contractor for the applicable payment due herein.

**B. Taxes**

- 1) Except as may be otherwise provided for in the Contract Documents, the price or prices bid for the Work shall include full compensation for all federal, state, local and foreign taxes, fees and duties that the Contractor is or may be required to pay and the Contractor shall be responsible for the payment thereof during the prosecution of the work.
- 2) The Contractor's attention is directed to the fact that materials and supplies necessary for the completion of this Contract are subject to the Florida Sales and Use Tax, in accordance with Section 212.08, Florida Statutes, as amended. The Contractor shall not collect taxes upon making delivery to the Owner.
- 3) The Owner, at its sole discretion, upon request of the Contractor and where appropriate, may furnish to the Contractor appropriate evidence to establish exemption from any taxes, fees or duties which may be applicable to the agreement and from which the Owner is exempt.

**C. Tax Exempt Owner Purchase Materials**

The owner may incorporate specifications for tax exempt owner purchase in all covered contracts. A tax-exempt owner purchase is one made directly by the County which is intended to be tax exempt in accordance with Section 212.08(6) of the Florida Statutes and Rule 12A-1.094 of the Florida Administrative Code, as the same may be amended. A covered contract is a contract for the construction, improvement or rehabilitation of property which is estimated to exceed ten million dollars (\$10,000,000.00) in cost.

The contractor must include Florida State Sales Tax and other applicable taxes in his bid for materials, supplies, and equipment. The owner, being exempt from sales tax, reserves the right to make direct purchases of various construction equipment, materials or supplies included in the Contractor's bid and/or contract, substantially in accordance with the contract.

**OWNER DIRECT PURCHASE PROCEDURES**

- A) Contractor shall provide Owner's Representative a list of all intended suppliers, vendors, and materialmen for consideration as Owner Direct Purchased materials. This list shall be submitted at the same time as the preliminary schedule of values and the Project schedule. The Contractor shall submit a description of the materials to be supplied, estimated quantities and prices.
- B) Upon request from Owner, and in a timely manner, Contractor shall submit the attached Purchase Order Requisition Form to the Owner's Representative, to specifically identify the materials which Owner has, at its sole option, elected to purchase directly. On the Purchase Order Requisition Form, the Contractor will provide the Owner the required quantities of material at the price established in the vendor's quote to the Contractor, less any sales tax associated with such price.
- C) Such Purchase Order Requisition Forms are to be submitted to Owner's designated representative no less than two (2) weeks prior to the need for ordering such Owner Direct Purchased Materials, in order to provide sufficient time for Owner review and approval and to assure that such Directly Purchased Materials may be directly purchased by Owner and delivered to the Project site so as to avoid any delay to the Project.
- D) After receipt of the Purchase Order Requisition Form, Owner shall prepare its Purchase Order for equipment, materials or supplies which the Owner chooses to purchase directly. Promptly, within two (2) business days of receipt of each Purchase Order, the Contractor shall verify the terms and conditions of the Purchase Order prior to its issuance to supplier and in a manner to assure proper and timely delivery of items. After such verification by the Contractor, The Owner shall issue the Purchase Order to the supplier or vendor. The Purchase Order shall require that the supplier provide the required shipping and handling insurance. The Purchase Order shall also require the delivery of the Owner Direct Purchased Materials on the delivery dated provided by the Contractor in the Purchase Order Requisition Form and shall indicate F.O.B. jobsite. The Owner's Purchase Order shall also provide that the supplier shall invoice the Owner directly for the items purchased and not the Contractor. Owner shall immediately provide Contractor with copies of such invoices it receives. The Owner's Purchase Orders shall contain or be accompanied by the Owner's exemption certificate and must include the Owner's name, address, and exemption number with issue and expiration date shown. The Owner shall issue each supplier or vendor a Certificate of Entitlement on the Certificate of Entitlement Form attached hereto with each Purchase Order.
- E) All shop drawings and submittals shall be made by the Contractor in accordance with the Project Specifications.
- F) Contractor shall be fully responsible for all matters relating to the receipt of materials in accordance with these Procedures, including, but not limited to, verifying correct

quantities, verifying documentation of orders in a timely manner, coordinating purchases, providing and obtaining all warranties and guarantees in favor of and for the benefit of the Owner required by the Contract Documents, inspection and acceptance of the goods at the time of delivery. At the time of, and subsequent to, the delivery of such materials, the Owner shall be liable for all loss or damage to equipment and materials purchased pursuant to the Purchase Order. The Contractor shall coordinate delivery schedules, sequence of delivery, loading orientation, and other arrangements normally required by the Contractor for the particular materials furnished. The Contractor shall provide all services required for the unloading, handling and storage of materials through installation. The Contractor agrees to indemnify and hold harmless the Owner from any and all claims of whatever nature resulting from non-payment of goods to suppliers arising from the actions or directions of Contractor. Notwithstanding the foregoing, the Owner shall be responsible for payment off the invoices issued by the supplier or vendor pursuant to the procedures in Paragraph G below.

- G) As Owner Direct Purchased Materials are delivered to the jobsite, the Contractor and the Owner's Representative, shall visually inspect all shipments from the suppliers, and approve the vendor's invoice issued to the Owner for material delivered. The Contractor shall assure that each delivery of Owner Direct Purchased Material is accompanied by documentation adequate to identify the Purchase Order against which the purchase is made. This documentation may consist of a delivery ticket and an invoice from the supplier delivered to the Owner (and provided to Contractor) conforming to the Purchase Order, together with such additional information as the Owner or Contractor may require. The Contractor shall verify in writing to the Owner's Representative that the Materials were received in order for the Owner to agree to approve the invoice for payment of the invoice issued. The Owner shall have the right to assign Owner personnel to verify and audit the accuracy of all Direct Purchase documents.
- H) The Contractor shall insure that Owner Direct Purchase materials conform to the Specifications, and determine prior to incorporation into the Work if such materials are patently defective, and whether such materials are identical to the materials ordered and match the description on the bill of lading. If the Contractor discovers defective or nonconformity's in the Owner Direct Purchased Material upon such visual inspection, the Contractor shall not utilize such nonconforming or defective materials in the Work and instead shall promptly notify the Vendor of the defective or non-conforming condition in order to pursue repair or replacement of those materials without any undue delay or interruption to the Project. Additionally the Contractor shall notify the Owner of such occurrence. If the Contractor fails to perform such inspection and otherwise incorporates Owner Direct Purchased materials, the condition of which it either knew or should have known by performance of an inspection, Contractor shall be responsible for all damages to Owner resulting from Contractor's incorporation of such materials into the Project, including liquidated or delay damages. In the event that materials furnished are found to be defective or nonconforming, the Contractor shall promptly take action to remedy the defect or nonconformance so as not to delay the work.
- I) The Contractor shall be responsible for obtaining and managing all warranties and guarantees in favor of and for the benefit of the Owner for all materials and products as

required by the Contract Documents. All repairs, maintenance or damage repair calls shall be forwarded to the Contractor for resolution with the appropriate supplier or vendor.

- J) The transfer of possession of Owner Direct Purchased Materials from the Owner to the Contractor shall constitute a bailment for mutual benefit of the Owner and the Contractor. The Owner shall be considered the bailor and the Contractor the bailee of the Owner Direct Purchased materials. Owner Direct Purchased Materials shall be considered returned to the Owner for purposes of its bailment at such time as they are incorporated into the Project or consumed in the process of completing the Project. Bailee shall have the duty to safeguard, store and protect all Owner Direct Purchased Materials.
- K) The Contractor shall maintain insurance in favor of and for the benefit of the Owner pursuant to the requirements set forth in the Owner and Contractor Agreement which shall be sufficient to protect against any loss of or damage to Owner Direct Purchased equipment, materials or supplies. Such insurance shall cover the value of any Owner Direct Purchased Materials not yet incorporated into the Project from the time the Owner first takes title which shall be at the time of delivery and acceptance of the materials by the Contractor as provided in Paragraph F above.
- L) On a monthly basis, Contractor shall be required to review invoices submitted by all suppliers of Owner Direct Purchased Materials delivered to the Project site during that month and either concur or object to the Owner's issuance of payment to the supplier, based upon Contractor's records of materials delivered to the site and any defects in such materials.
- M) In order to arrange for the prompt payment to the supplier, the Contractor shall provide to the Owner, a list indicating the acceptance of the goods or materials in accordance with the established monthly Payment Request Schedule. The list shall include a copy of the applicable Purchase Order, invoices, delivery tickets, written acceptance of the delivered items, and such other documentation as may be reasonably required by the Owner. Upon receipt and verification of the appropriate documentation, the Owner shall prepare a payment to the supplier based upon the receipt of data provided. This payment will be released, delivered and remitted directly to the supplier by the Owner. The Contractor agrees to assist the Owner to immediately obtain partial or final release of lien waivers as appropriate.
- N) Salvage materials shall be the property of the Owner and stored or removed from the site by the Contractor at the Owner's discretion.
- O) From the time of delivery and acceptance, the Owner shall have and retain title to any and all Owner Direct Purchased materials.

- P) Upon completion of the project, the Contractor shall execute and deliver to the Owner, one or more deductive Change Orders, referencing the full value of all Owner Direct Purchased materials purchased directly, plus all sales tax savings associated with such materials in Contractor's bid to Owner's Representative.

D. Payments to Subcontractors and Suppliers

- 1) The Contractor shall pay all subcontractors for and on account of work performed by such subcontractors in accordance with the terms of their respective subcontracts and in accordance with Miami-Dade County Code Section 10-33.02 and Florida Statute s. 218.735.
- 2) Before the Contractor can receive any payment, except the first payment, for monies due him as a result of a percentage of the work completed, he must provide the Architect/Engineer with duly executed release of claim from all subcontractors and suppliers who have performed any work or supplied any material on the project as of the date, stating that said subcontractors or suppliers have been paid their proportionate share of all previous payments. In the event such affidavits cannot be furnished, the Contractor may, at the Owner's sole discretion after the Contractor demonstrates justifiable reasons, submit an executed Consent of Surety to Requisition using the form provided in the Contract Documents identifying the subcontractors and the amounts for which the Statement of Satisfaction cannot be furnished.
- 3) The Contractor's failure to provide a Consent of Surety to Requisition Payment will result in the amount in dispute being withheld until (1) the Statement of Satisfaction is furnished, or (2) Consent of Surety to Requisition Payment is furnished. The subcontractor(s) shall submit with each monthly invoice the Certified Payroll forms for all employees on the job in accordance with applicable Provisions. Failure to provide this information will cause the Architect/Engineer to return the invoice to the Contractor until such time as the Contractor properly submits the information.

E. Contract Prices - Bid Form

Payment for the various Bid Items listed in the Bid Form shall constitute full compensation for furnishing plant, labor, equipment, appliances, and materials and for performing operations required to complete the Work in conformity with the Contract Documents. All costs for work shown or indicated by the Contract Documents, although not specifically provided for by a Bid Item in the Bid Form, shall be included in the most appropriate Bid Item price for the items listed. Except for the relief provided by the applicable section of the Contract Documents governing Differing Site Conditions, the Contractor will not be entitled to additional compensation for providing an activity or material necessary for the completion of the Work in accordance with the Contract even though the activity or material is not included in a specific Bid Item or indicated in the Contract Documents.

F. Final Payment

- 1) After the Work has been accepted by the Owner, subject to the provisions of the Contract Documents, a final payment will be made as follows:
  - a. Prior to Final Acceptance of the Work, the Contractor shall prepare and submit a proposed final application for payment to the Architect/Engineer showing the proposed total amount due the Contractor, segregated as to Bid Item quantities, force

account work, and other bases for payments; deductions made or to be made for prior payment; amounts to be retained; any claims the Contractor intends to file at that time or a statement that no claims will be filed; and any unsettled claims, stating amounts. Prior applications and payments shall be subject to correction in the proposed final application for payment. Claims filed with the final application for payment must be otherwise timely under these General Conditions.

- b. The Owner will review the Contractor's proposed final application for payment and necessary changes, or corrections will be forwarded to the Contractor. Within 10 days thereafter, the Contractor shall submit a final application for payment incorporating changes or corrections made by the Architect/Engineer together with additional claims resulting therefrom. Upon approval by the Owner, the corrected proposed final application for payment will become the approved final application for payment.
  - c. If the Contractor files no claims with the final application for payment and no claims remain unsettled within 30 days after final inspection of the Work by the Architect/Engineer and the Owner, and agreements are reached on all questions regarding the final application for payment, the Owner, in exchange for an executed release of all claims and properly executed close-out documents specified in Paragraph 3 below, will pay the entire sum found due on the approved final application for payment.
  - d. Upon final determination of any and all claims, the Owner, in exchange for properly executed close-out documents specified in Paragraph 3 below, will pay the entire sum found due on the approved final application for payment, including the amount, if any, allowed on claims.
  - e. The release from the Contractor will be from any claims arising from the Work under the Contract. If the Contractor's claim to amounts payable under the Contract has been authorized by the Owner for assignment pursuant to the relevant sections of the Contract Documents, a release may be required from the assignee.
  - f. Final payment will be made within 30 days after approval of the final notice and resolution of Contractor's claims, or 30 days after Final Acceptance of the Work by the Owner, whichever is later. If a final application for payment has not been approved within 30 days after final inspection of the Work, the Owner shall make payment of sums not in dispute without prejudice to the rights of either the Owner or the Contractor in connection with any disputed items.
  - g. Prior to payment of a claim settlement, the claim may be audited by the Owner and may be subject to approval by the funding agencies.
  - h. Final payment made in accordance with this article will be conclusive and binding against both parties to the Contract on all questions relating to the amount of work done and the compensation paid.
- 2) With the final application for payment, the Contractor shall return and submit final releases of claim from himself, from each subcontractor of record and from other subcontractors or material suppliers who may have notified the Owner that they were furnishing labor or materials for this project. These releases from subcontractors and suppliers shall be final, originals, notarized

and executed on the form provided by the Owner and included in the Contract Documents, all in accordance with all applicable Florida Statutes. In addition, the Contractor shall execute and return to the Owner all the enclosed close-out documents. In the event that all of the above releases cannot be furnished, the Contractor may, at the Owner's sole discretion after the Contractor demonstrates justifiable reasons, submit a Consent of Surety to Final Payment in a form acceptable to the Owner, recognizing lack of such releases of claim. Furthermore, the Contractor and the Surety shall agree in writing, in a form acceptable to the Owner, to indemnify, defend and hold harmless the Owner from any claims of subcontractors and suppliers who refuse to execute final releases.

3) The making of final payment shall constitute a waiver of all claims by the Owner except those arising from:

- a. Faulty or defective Work appearing after Final Completion;
- b. Failure of the Work to comply with the requirements of the Contract Documents, discovered after Final Completion;
- c. The performance of audits to seek reimbursement of any overpayments discovered as a result of an audit as provided in the Contract Documents;
- d. The enforcement of those provisions of the Contract Documents which specifically provide that they survive the completion of the Work;
- e. The enforcement of the terms of the Payment and Performance Bonds against the Surety;
- f. Terms of all warranties/guarantees required by the Contract Documents.

4) The acceptance of final payment shall constitute a waiver of all claims by the Contractor.

5) Escalation of Bid Items

- Q) A dedicated allowance account has been established in this contract for escalation of contractor Unit Prices. The funds in the dedicated allowance account may not be used for any purpose other than escalation of Unit Prices as provided for below. Funds in the dedicated allowance account are the property of the Owner, and any unused funds at the end of the Contract shall remain property of the Owner. The Contractor expressly agrees that it is solely responsible for all cost escalations which exceed the value of the dedicated allowance account. Payment shall be made in a lump sum, based on escalation occurring in the preceding 365 days, as outlined below.
- R) The Contractor shall be entitled to escalation of its Unit Prices 365 days after award of the contract, and every 365 days thereafter.
- S) The Contractor shall utilize the most recent statistical data available as published by the Bureau of Labor Statistics.
- T) The formula for the alteration of the Unit Prices shall be the percentage change for the previous 12 months with a not-to-exceed percentage change of five percent (5%) for each bid item. Should the Bureau of Labor Statistics make a major CPI revision, such as a change to the applicable CPI base period, it remains that the Unit Prices shall be altered utilizing the percentage change of the most recent 12 months as published within the

changed CPI. The percentage change in Unit Prices shall be computed similar to the following example:

CPI for the most recent month ..... 135.8  
Less CPI for the month 12 months previous ..... 129.9  
Equals the index point change ..... 5.9  
Divided by previous period CPI.. ..... 129.9  
Equals ..... 0.0454  
The result is multiplied by 100 ..... 0.0454 x 100  
Which equals the percentage change multiplier ..... 4.54

The percentage multiplier shall be rounded to two decimal places using the 5/4 rounding method, e.g., if the 3rd digit to the right of the decimal is a 5 through 9, then the 2nd digit to the right of the decimal is rounded up one value; or if the 3rd digit to the right of the decimal is 0 through 4, then the 2nd digit to the right of the decimal remains as is.

- E) Following each escalation period, the Contractor shall submit a request for escalation during the prior 365 days. The Owner shall, upon receipt of a proper request submitted in accordance with the provisions of these General Conditions, issue a work order for a lump sum amount representing the cost of escalation for all Unit Price items accepted and paid by the Owner during the preceding 365 days (Unit Price work accepted and paid multiplied times the percentage change multiplier). The Contractor shall at all times throughout the contract submit monthly invoices based on the Unit Prices contained in the bid, and shall not submit monthly invoices based on escalated pricing. Escalation Unit Prices shall only be paid retroactively and in a lump sum. Where the Dedicated Allowance Account is insufficient to pay for Escalated Unit Prices, the Owner shall pay the Contractor to the remaining value in the Dedicated Allowance Account and Owner shall have no further liability for escalated costs.

**In the event that base contract work is not broken out into Unit Prices (i.e., for projects which were bid on a lump sum basis) escalation shall apply to the costs of such project as broken out in the approved Schedule of Values as if such costs were Unit Prices.**

END OF ARTICLE

## 10. CHANGES

### A. Changes

**NOTE: "OVERHEAD" AS USED IN THIS SECTION IS DEFINED IN SECTION 1 DEFINITIONS - PAGE 8**

- 1) The Owner reserves the right to, at any time, without notice to the sureties and without invalidating the Contract, by written notice or order designated as a Change Notice or Change Order, make any change in the Work within the general scope of the Contract including but not limited to changes:
  - a. In the Contract Documents;
  - b. In the method or manner of performance of the Work;
  - c. In Owner-furnished facilities, equipment, materials, services, or site or;
  - d. Directing acceleration in performance of the Work.

The Owner may authorize, via Allowance Account Work Order, Extra Work which does not change any provision of the General Covenants and Conditions or the Contract Documents, if the value of such work is less than the value remaining in the applicable Allowance Account and/or Time Contingency Account.

- 2) In the event the Owner exercises its right to change, delete or add work under the Contract, such work will be ordered and paid for as provided for in the Contract Documents.
- 3) Changes in the work may be initiated by the issuance of a Change Notice by the Architect/Engineer. The Contractor shall submit a proposal to the Architect/Engineer and the Owner for their review, in accordance with the Contract Documents, within five days after receipt of a Change Notice. The Contractor shall maintain this proposal, for acceptance by the Owner, for a minimum of 90 calendar days after submittal. The cost or credit to the Owner for any change in the work shall be determined in accordance with the provisions of the Contract Documents. The Contractor shall not be compensated for effort expended in preparing and submitting price quotes.
- 4) In the event the Contractor fails to provide the full cost and time estimate for the change work or refuses to execute a full accord Change Order, the Owner will, at its sole discretion, 1) determine the total cost and time impacts of the change and compensate the Contractor and/or extend the Contract Time, if applicable, through a unilateral Change Order signed only by the Owner; or 2) direct the Contractor to proceed with the Work under the Force Account provisions of this article. Failure of the Contractor to submit his total and final estimated cost and time impact within the time period specified on the Change Notice form shall constitute a waiver by the Contractor to claim additional costs or time beyond that which has been determined by the Owner. Any disputes arising out of an Owner determination shall be resolved in accordance with the dispute provisions in the Contract Documents. Pending the Owner's final decision, the Contractor shall proceed diligently with the performance of the Work under the Contract.
- 5) Changes in the work covered by Unit Prices, as stated in the Contract Documents shall be all inclusive. These prices will include all Direct and Indirect Costs and means and methods of

execution. To be compensable, units must be measured daily by the Contractor and approved in writing by the Owner or his authorized representative.

- 6) The following mark-ups on Extra Work shall apply to all changes in the Work performed under this article:
  - a. For Extra Work performed by the Contractor's own forces, the Contractor agrees that proposed cost to perform said Extra Work will in no event include a rate for total overhead in excess of 20 percent of the actual costs of the Extra Work.
  - b. For Extra Work performed by a subcontractor's forces, the Contractor agrees that the overhead, for each sub-contractors, sub-subcontractors, and suppliers, shall not exceed 15% of the total of all sub-contractor's actual direct costs of the Extra Work. The Contractor may then add five percent (5%) times the subcontractor's or sub-tier subcontractor's actual Direct Cost as direct compensation for the Contractor's Overhead and all other costs associated with the subcontractors Extra Work at all tiers.
- 7) Increases to the Contract Amount shall be authorized by a Change Order executed by the Contractor, the Contractor's Surety and the Owner and approved by the Board of County Commissioners; where the Board of County Commissioners has delegated via Ordinance authority to County Staff to execute change orders, such change orders are subject to ratification by the Board of County Commissioners as described in such ordinance. BCC. Decreases to the Contract amount shall be by Change Order or Work Order as determined by the Owner and shall also be subject to BCC approval when the decrease results from a reduction in the scope of the work.
- 8) A cost of bonds for Change Orders that impact the Contract price shall be established by the Contractor's actual reimbursement costs, as approved by the Owner, based on the original Contract Amount and the original amount reimbursed to the Contractor for bonds at the commencement of the Work. This cost of bonds shall be added to all credit amounts allowed by the Owner. For Change Orders paid under the Allowance Account, no additional bond cost will be allowed unless the Allowance Account is not included in the original Contract Amount. In this case, additional bond costs for these Change Orders will be considered.
- 9) Any claim for payment of Extra Work that is not covered by a Change Order or Work Order will be rejected by the Owner.

**B. Allowance Accounts**

- 1) Certain portions of work which may be required to be performed by the Contractor under this Contract are either unforeseeable or have not yet been designed, and the value of such work, if any, is included in the Contract as a specific line item(s) entitled "Allowance Account(s)."
  - a. The Allowance Account (Contingency) can be used to reimburse the Contractor for 1) furnishing all labor, materials, equipment and services necessary for modifications or Extra Work required to complete the Project because of unforeseeable conditions and; 2) for performing construction changes required to resolve: Owner directed changes in the work, unforeseen conditions (if compensation for same is otherwise allowed under the contract), revised regulatory requirements, work required by any Authority Having Jurisdiction (if not required

due to errors or omissions of the Contractor), and for making final adjustment to estimated quantities shown on the Schedule of Values or amounts bid in the Bid Form to conform to actual quantities installed.

- b. Other Allowance Account(s) (Dedicated) may be used as specified in the Contract Documents to fund specific items of work at the sole discretion of the Owner. These dedicated allowance accounts shall be used only for the purposes approved pursuant to a written Work Order issued by the Owner or his authorized representative.
- 2) At such time as work is to be performed under the Allowance Account(s), if any, the work shall be incorporated into the Schedule and the Schedule of Values and shall in all respects be integrated into the construction as a part of the Contract as awarded.
- 3) The Work Order for the required work will be issued by the Owner or Architect/Engineer upon receipt from the Contractor of a satisfactory proposal for performance of the work, and the acceptance thereof by the Architect/Engineer and the Owner. If the Contractor and the Owner are unable to agree upon an amount of compensation or; if the nature of the work is such that a Unit Price or Lump Sum price is not economically practical or if the change work is deemed essential to the Project and actual conditions require work to be swiftly conducted to avoid or minimize delays, the Work Order may be issued to perform the work on a Force Account basis. In the event that an equitable adjustment for the said change work cannot be arrived at, either by mutual agreement or under the dispute provisions of the Contract Documents, the compensation hereunder will be the total compensation for this work.
- 4) No Work Orders shall be issued against an Allowance Account if such Work Orders in the aggregate exceed the authorized amount of that Allowance Account, provided however that such excess may be authorized by appropriate Change Order.
- 5) The unexpended amounts under the allowance accounts shall remain with the Owner and the Contractor shall have no claim to the same.

C. Deletion or Addition of Work

- 1) In the event the Owner exercises its right to delete any portion(s) of the work contemplated herein, such deletion will be ordered, and the Contract Total Amount and Time may be adjusted as provided for in these Contract Documents by Change Order or by Work Order, as appropriate. The Contractor shall be reimbursed for any actual reasonable expenses incurred prior to the notice of deletion of work as a result of preparing to perform the work deleted. In the event of a dispute between Owner and Contractor as to the adjustment to the amount of time, the dispute shall be handled in accordance with these General Conditions.
- 2) Deleted Work - Lump Sum Bid Item(s): The Contractor shall credit the Owner for the reasonable value of the deleted work determined from the approved Schedule of Values, subject to approval by the Architect/Engineer. If the reasonable value of the deleted work cannot be readily ascertained from the Schedule of Values submitted in accordance with these General Conditions, or if requested by the Architect/Engineer, the Contractor shall supply all data required by the Architect/Engineer, including the actual agreements executed by the Contractor with the subcontractors and suppliers affected by the deleted work, to substantiate the amount of the credit to be given the Owner. The Contractor shall also submit for the Owner's approval a revised schedule of values reflecting the work remaining under the Contract following the deletion.

- 3) No payment(s) shall be made to the Contractor by the Owner for loss of anticipated profit(s) from any deleted work.
- 4) In the event the Owner exercises its right to add to any portion of the work contemplated herein, such addition will be ordered, and the Contract Total Amount and Contract Time will be adjusted as provided for in these Contract Documents, by Change Order or by Work Order as appropriate. In the event of a dispute between Owner and Contractor as to the adjustment to the Amount or the Time, the dispute shall be handled in accordance with the Contract Documents.

D. Increased or Decreased Quantities (Unit Prices)

- 1) This section applies to Owner-initiated additions or deletions from the Work and to the unit prices contained within this contract and controls payments or credits for variations between estimated and actual quantities required to complete the Work, even though the additions or deletions may be distinct or separate structures or activities and regardless of the fact that the addition or deletion is a result of field adjustments, site conditions, a design change, or any other cause. Increases or decreases will be determined by comparing the actual quantity required to the Architect/Engineer's estimated quantity in the Bid Form.
- 2) If the actual quantity of Bid Item varies from the Architect/Engineer's quantity estimate by 25 percent or less, payment for the Bid Item will be made at the Contract unit price. If the actual quantity varies from the Bid quantity by more than 25 percent, the compensation payable to the Contractor will be the subject of review by the Contractor and the Architect/Engineer and a Contract adjustment will be made by means of a Change Order in accordance with the Contract Documents to credit the Owner with any reduction in unit prices or to compensate the Contractor for any increase in unit price resulting from variations between estimated and actual quantities. The unit price to be re-negotiated shall be only for that quantity above 125 percent or below 75 percent of the original bid quantities.
- 3) The Contractor shall submit to the Architect/Engineer all data required to substantiate the amount of compensation requested, therefore. In no event shall the Contractor be entitled to compensation greater than the aggregate amount of all the Unit Prices times the original bid quantities of Work reflected in the Bid Form.
- 4) No compensation will be made in any case for loss of anticipatory profits, loss of bonding capacity or consequential damages.

E. Extra Work

- 1) Except as otherwise expressly provided above, all additional work ordered, work changed or work deleted shall be authorized by Work Order(s) or Change Order(s). All changed or added work so authorized shall be performed by the Contractor at the time and in the manner specified. The Change Order shall include, as a minimum:
  - a. Scope of work to be added, deleted, or modified;
  - b. Cost of work to be added, deleted, or modified;
  - c. The Contract time extension or reduction in contract time in the case of deleted work required to perform the work to be added, deleted, or modified;
  - d. Full release of claims associated with the Contract through the date of the change order, or, if the Owner and Contractor cannot agree on entitlement to a claim, a

reservation of the specific claims at issue; such reservation must, to be effective: identify each specific claim reserved, the scope of the work, the maximum cost of the work associated with the claim, and the maximum number of days of Contract time requested.

The Work Order shall include, at a minimum:

- a. Scope of work to be added, deleted, or modified;
  - b. Cost of work to be added, deleted, or modified;
  - c. The Contract time extension required to perform the work to be added, deleted, or modified;
  - d. Full release of claims associated with the work order work, or a reservation of claims identified as to each claim reserved, the scope of the work, the maximum cost of the work, and the maximum number of days of Contract time requested, shall be specified.
- 2) If Work is ordered, changed, or deleted which is not covered by Unit Prices, then, the Owner and the Contractor shall negotiate an equitable adjustment to the Contract Price for the Direct Costs for the performance of such work in accordance with this article. Indirect Costs for Work ordered, changed, or deleted may be reimbursed for Excusable and Compensable Delay as defined in these Contract Documents.
- a. In order to reimburse the Contractor for additional Direct Costs, either by Work Order, Change Order or any other means, the Contractor must have additional work added to the Contract Scope of Work. The additional cost of idle or inefficient labor, from any cause, or the additional cost of labor made idle or inefficient from any cause will not be considered a reimbursable additional Direct Cost. Special equipment or machinery, which is made idle or inefficient by the Work ordered, changed, or deleted, may be reimbursable if approved by the Architect/Engineer as an unavoidable cost to the Contractor, caused by the Owner.
  - b. Costs of special equipment or machinery, not already mobilized on the site, approved by the Architect/Engineer, shall be calculated using the current issue of the Associated Equipment Distributors (AED) Manual plus any required mobilization. The selection of which of the AED rates (daily, weekly, monthly) to be used to calculate these costs shall be as follows:
    - i. Between one (1) day and seven (7) days, use the daily rate.
    - ii. Between seven (7) days and 30 days, use the weekly rate.
    - iii. Greater than 30 days, use the monthly rate.
  - c. For less than one (1) day hourly rates, use the daily rate divided by eight (8).
  - d. For overtime hourly rates use the daily rate divided by eight (8), the weekly rate divided by 40, or the monthly rate divided by 176 as appropriate.
  - e. Costs for Special Equipment and Machinery already mobilized on the site, shall not exceed the monthly rate stated in the AED Manual, divided by 176, per hour that the

Special Equipment and Machinery is in use on the work plus any required re-mobilization.

- f. The cost calculation shall not combine rates within the range of a time extension. It shall use decimals of the time extension rate that the extension falls under. For example, the cost calculation for a piece of Special Equipment with an approved delay of 45 days shall be one and one-half (1.5) months times the monthly rate, not one (1) month at the monthly rate, plus two (2) weeks at the weekly rate, plus one (1) day at the daily rate.
- g. Rental for special equipment and machinery, not already mobilized to the site, shall be an amount equal to the appropriate daily, weekly, or monthly rental rate for such equipment, in accordance with the current issue of Associated Equipment Distributors' (AED) "Compilation of Nationally Averaged Rental Rates and Model Specifications for Construction Equipment" (notwithstanding the caveats contained therein that such rental rates are not for use by government agencies) for each and every rental period (in weeks, days, or months as applicable) that the special equipment or machinery is in use on the work plus any required mobilization. Payment for special equipment and machinery already mobilized to the site shall not exceed the monthly rate stated in the AED standards divided by 176 to establish a per hour rate that the special equipment and machinery is in use on the Work, plus any required re-mobilization.
- h. For indirect costs, the Contractor shall be allowed a percentage mark-up as set forth in paragraph (6) above...

F. Differing Site Conditions

- 1) The Contractor shall immediately, upon discovery and before such conditions are further disturbed, notify the Architect/Engineer in writing of: 1) subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents, or 2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.
- 2) The Architect/Engineer will promptly investigate the conditions, and if such conditions materially differ from those warranted by the County, and if same cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under the Contract, a Contract change may be made, and the Contract modified in writing in accordance with the Contract Documents.
- 3) No claim of the Contractor under this article will be allowed unless the Contractor has given the notice required in the Contract Documents.
- 4) No claim by the Contractor for a Contract change hereunder will be allowed if asserted after final payment under this Contract.
- 5) If the Owner is not given written notice prior to the conditions being disturbed, the Contractor will be deemed to have waived his right to assert a claim for additional time and compensation arising out of such changed conditions.

G. Force Account

- 1) If the Owner and the Contractor cannot reach agreement on an equitable adjustment to the Contract Price for any work as prescribed above, then the Extra Work will be performed on a Force Account basis as directed by the Architect/Engineer and paid for subject to the maximum markups specified in this Contract for changes in the work.
- 2) In the event Extra Work is performed on a Force Account basis, then the Contractor and the subcontractor(s), as appropriate, shall maintain itemized daily records of costs, quantities, labor and the use of authorized Special Equipment or Machinery. Copies of such records, maintained as follows, shall be furnished to the Architect/Engineer daily for approval, subject to audit.
  - a. Comparison of Record: The Contractor, including its subcontractor(s) of any tier performing the work, and the Architect/Engineer shall compare records of the cost of force account work at the end of each day. Agreement shall be indicated by signature of the Contractor, the subcontractor performing the work, and the Architect/Engineer or their duly authorized representatives.
  - b. Statement: No payment will be made for work performed on a force account basis until the Contractor has furnished the Architect/Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:
    - i. Name, classification, date, daily hours, total hours, rate and extension for each laborer, tradesman, and foreman.
    - ii. Designation, dates, daily hours, total hours, rental rate, and extension of each unit of special machinery and equipment.
    - iii. Quantities of materials, prices, and extensions.
    - iv. Transportation of materials.

The statements shall be accompanied and supported by a receipted invoice of all materials used and transportation charges. However, if materials used on the force account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractor shall furnish an affidavit certifying that such materials were taken from its stock, that the quantity claimed was actually used, and that the price and transportation claimed represent the actual cost to the Contractor.

- c. Authorization of Special Equipment and Machinery: No compensation for special equipment or machinery shall be made without written authorization from the Architect/Engineer. The Architect/Engineer shall review and evaluate any special equipment or machinery proposed by the Contractor for use on a force account basis. As part of its evaluation, the Architect/Engineer shall determine whether any of the special equipment or machinery being proposed by the Contractor will be concurrently used on the Project, including approved changes, or on other force account work on the Project. If the Architect/Engineer determines that such a concurrent use of special equipment or machinery is being proposed by the Contractor, prior to the authorization of such special equipment or machinery, the Architect/Engineer and thereto Contractor shall establish a straight-line prorated billing mechanism based on the actual percentage of time that the equipment or

machinery is required to be used on the force account work(s). Special equipment or machinery which is approved for use by the Architect/Engineer shall be reviewed and accounted for on a daily basis as provided in the Comparison of Record and Statement paragraphs of this section of the Contract.

- d. Inefficiency in the Prosecution of the Work: If in the Owner's or Architect/Engineer's opinion, the Contractor or any of its subcontractors, in performing Force Account Work, is not making efficient use of labor, materials or equipment or is proceeding in a manner which makes Force Account Work unnecessarily more expensive to the Owner, the Owner or Architect/Engineer may, in whole or part, direct the Contractor in the deployment of labor, material and equipment. By way of illustration, inefficiency may arise in the following ways, including but not limited to: 1) the timing of the Work, 2) the use of unnecessary labor or equipment, 3) the use of a higher percentage of journeymen than in non-force account Work, 4) the failure to procure materials at lowest price, or 5) using materials of quality higher than necessary.

#### H. Contractor Proposals - General

The Contractor may at any time submit to the Architect/Engineer for review proposed modifications to the Work, including but not limited to, changes in the Contract Time and/or Contract Amount, supported by a cost/price proposal. Upon acceptance of the proposed modifications by the Owner, a Work Order or Change Order will be issued. Denial of a proposed modification will neither provide the Contractor with any basis for claim for damages nor release the Contractor from contractual responsibilities. A Contract change in the form of a Contract price reduction will be made if the change results in a reduction of the cost of performance and the Contractor will not be entitled to share in said savings unless the proposal is made in accordance with Paragraph I of this article. Except as provided in Paragraph I below, the Contractor will not be compensated for any direct, incidental or collateral benefits or savings the Owner receives as a result of the proposal.

#### I. Value Engineering Change Proposals

The Contractor may submit to the Architect/Engineer one or more cost reduction proposals for changing the Contract requirements. The proposals shall be based upon a sound study made by the Contractor indicating that the proposal:

- 1) Will result in a net reduction in the total Contract amount;
- 2) Will not impair any essential function or characteristic of the Work such as safety, service life, reliability, economy of operation, ease of maintenance and necessary standardized features;
- 3) Will not require an unacceptable extension of the Contract completion time; and
- 4) Will require a change in the Contract Documents and such change is not already under consideration by the Owner.
  - a. The Owner may accept in whole or in part any proposal submitted pursuant to the previous paragraph on Value Engineering Change Proposals by issuing a Change Order which will identify the proposal on which it is based. The Change Order will provide for a Contract change in the Contract price and will revise any other affected provisions of the Contract

Documents. The equitable adjustment in the Contract price will be established by determining the net savings resulting from the accepted change. The net savings resulting from the change will be shared between the Contractor and the Owner on the basis of 50 percent for the Contractor and 50 percent for the Owner and will be limited to one Value Engineering Change Proposal per Change Order. Net savings will be determined by deducting from the proposal's estimated gross savings 1) the Contractor's costs of developing and implementing the proposal (including any amount attributable to a subcontractor) and 2) the estimated amount of increased costs to the Owner resulting from the change, such as evaluation, implementation, inspection, related items, and Owner -furnished material. Estimated gross savings will include Contractor's labor, material, equipment, overhead, profit and bond. The Contract price will be reduced by the sum of the Owner's costs and share of the net savings. For the purposes of this article, the applicable provisions of the Contract Documents shall be used to determine the equitable adjustment to the Contract price.

- b. The Owner will not be liable for delay in acting upon, or for failure to act upon, any proposal submitted pursuant to of this article. The decision of the Owner as to the acceptance or rejection of any such proposal under the Contract will be final. The submission of a proposal by the Contractor will not in itself affect the rights or obligations of either party under the Contract.
- c. The Contractor shall have the right to withdraw part or all of any proposal he may make under Paragraph 2 of this article at any time prior to acceptance by the Owner. Such withdrawal shall be made in writing to the Architect/Engineer. Each such proposal shall remain valid for a period of 60 days from the date submitted. If the Contractor wishes to withdraw the proposal prior to the expiration of the 60-day period, they will be liable for the cost incurred by the Owner in reviewing the proposal.
- d. The Contractor shall specifically identify any proposals under Paragraph 2 of this article with the heading "Value Engineering Change Proposal," or the proposal will be considered as made under Paragraph 1 of this article.

2) The Contractor, in connection with each proposal for a Contract Change Notice under this article, shall furnish the following information:

- a. A description of the difference between the existing Contract requirement and the proposed change, and the comparative advantages and disadvantages of each, justification when a function or characteristic of an item is being altered, and the effect of the change on the performance of the end item;
- b. An analysis and itemization of the requirements of the Contract which must be changed if the Value Engineering Change Proposal is accepted and a recommendation as to how to make each such change (e.g., a suggested specification revision);

- c. A separate detailed cost estimate for both the existing Contract requirement and the proposed change to provide an estimate of the reduction in costs, if any, that will result from acceptance of the Value Engineering Change Proposal taking into account the costs of development and implementation by the Contractor;
  - d. A prediction of any effects the proposed change would have on collateral costs to the Owner such as government-furnished property costs, costs of related items, and costs of maintenance and operation;
  - e. A statement of the time by which a Contract modification accepting the Value Engineering Change Proposal must be issued so as to obtain the maximum cost reduction, noting any effect on the Contract completion time or delivery schedule; and
  - f. Identification of any previous submission of the Value Engineering Change Proposal to the Owner, including the dates submitted, the numbers of the contracts involved, and the previous actions by the Owner.
- 3) The Contractor waives any and all claims relating to any delay that may arise out of a Value Engineering Change Proposal.

END OF ARTICLE

## **11. CLAIMS AND DISPUTES**

### **A. Notice of Claims**

- 1) The Contractor will not be entitled to additional time or compensation otherwise payable for any act or failure to act by the Owner, the happening of any event or occurrence, or any other cause, unless he shall have given the Architect/Engineer a written notice of claim therefore as specified in this article.
- 2) The Contractor shall provide immediate verbal notification with written confirmation within 48 hours of any potential claims and of the anticipated time and/or cost impacts resulting thereof. The written notice of claim shall set forth the reasons for which the Contractor believes additional compensation and/or time will or may be due, the nature of the costs involved and the approximate amount of the potential claim.
- 3) It is the intention of this article, that differences between the parties arising under and by virtue of the Contract shall be brought to the attention of the Architect/Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken.
- 4) The notice requirements of this article are in addition to those required in other articles of these Contract Documents.
- 5) The Contractor shall segregate all costs associated with each individual claim including but not limited to labor, equipment, material, subcontractor and supplier costs, and all other costs related to the claim. In the event that the Contractor has multiple claims, the Contractor will segregate each claim individually including the respective costs associated with each claim. Failure to segregate claims and their respective costs will be grounds for the Owner's rejection of the claim. No "total cost claims" shall be allowed under this Contract.
- 6) The Contractor must maintain a cost accounting system as a condition for making a claim against the Owner. The cost accounting system must segregate the costs of the work under the Contract (non-claims-related) from claims-related and other Contractor costs through the use of a job cost ledger and be otherwise in compliance with general accounting principles.
- 7) If the Owner decides to pay all or part of a claim for which notice was not timely made, the Owner does not waive the right to enforce the notice requirements in connection with any other claim.
- 8) Inasmuch as the notice of claim requirements of this article are intended to enable the Architect/Engineer to investigate while facts are fresh and to take action to minimize or avoid a claim which might be filed thereafter, the Contractor's failure to make the required notice on time is likely to disadvantage the Owner. Therefore, a claim that does not comply with the notice requirements above shall not be considered unless the Contractor submits with his claim proof showing that the Owner has not been prejudiced by the Contractor's failure to so comply and, in the event the Owner has been prejudiced by the Contractor's failure to submit a timely notice of claim, the Owner will reduce any equitable adjustment claimed by the Contractor to reflect the damage.

**B. Claim Submittals**

- 1) Claims or requests for equitable adjustments filed by the Contractor shall be filed in full accordance with this article no later than 30 calendar days after the act giving rise to the claim and in sufficient detail to enable the Owner to ascertain the basis and amount of said claims. In the case of continuing or on-going claim events, the Contractor shall be allowed to periodically amend his claim to more accurately reflect the impact of said claim, until the end of the claim event. No claims for additional compensation, time extension or for any other relief under the Contract shall be recognized, processed, or treated in any manner unless the same is presented in accordance with this Article. Failure to present and process any claim in accordance with this Article shall be conclusively deemed a waiver, abandonment, or relinquishment of any such claim, it being expressly understood and agreed that the timely presentation of claims, in sufficient detail to allow proper investigation and prompt resolution thereof, is essential to the administration of this Contract.
- 2) The Owner will review and evaluate the Contractor's claims. It will be the responsibility of the Contractor to furnish, when requested by the Architect/Engineer, such further information and details as may be required to determine the facts or contentions involved in his claims. The cost of claims preparation or Change Order negotiations shall not be reimbursable under this Contract.
- 3) Any work performed by the Contractor prior to Notice-to-Proceed (NTP) shall not be the basis for a claim from the Contractor of any kind.
- 4) Each claim must be certified by the Contractor as required by the Miami-Dade Code, False Claims Act (see Code Section 21-255, et seq.), and accompanied by all materials required by Miami-Dade County Code Section 21-257. A "certified claim" shall be made under oath by a person duly authorized by the claimant, and shall contain a statement that:
  - a. The claim is made in good faith;
  - b. The claim's supporting data is accurate and complete to the best of the person's knowledge and belief;
  - c. The amount of the claim accurately reflects the amount that the claimant believes is due from the Owner; and
  - d. The certifying person is duly authorized by the claimant to certify the claim.
- 5) In order to substantiate time-related claims (delays, disruptions, impacts, etc.), the Contractor shall, if applicable and as determined by the Owner, submit, in triplicate, the following information (schedule information shall be provided in electronic format with all logic visible):
  - a. Copy of Contractor's notice of claim in accordance with this article. Failure to submit the notice is sufficient grounds to deny the claim.
  - b. The approved, as-planned Schedule in accordance with the applicable section of the Contract Documents and computer storage media, if applicable.
  - c. The as-built Schedule reflecting changes to the approved schedule up to the time of the impact in question and computer storage media if applicable.
  - d. The basis for the duration of the start and finish dates of each impact activity and the reason for choosing the successor and predecessor events affected in the schedule

shall be explained. Also, the basis for the duration of any lead/lags inserted into the schedule and the duration in related activity duration shall be explained.

- e. A marked-up as-built Schedule indicating the causes responsible for changes between the as-planned and as-built schedule and establishing the required cause and effect relationships.
- f. After indicating specific time related changes on the as-built schedule, the documentation must be segregated into separate packages with each package documenting a specific duration change identified previously. This documentation package shall include Change Orders, Change Notices, Work Orders, written directions, meeting minutes, etc., related to the change in duration.
- g. The Contractor assumes all risk for the following items, none of which shall be the subject of any claim and none of which shall be compensated for except as they may have been included in the compensation described under Liquidated Indirect Costs: 1) home office expenses or any Direct Costs incurred allocated from the headquarters of the Contractor; 2) loss of anticipated profits on this or any other project, 3) loss of bonding capacity or capability; 4) losses due to other projects not bid upon; 5) loss of business opportunities; 6) loss of productivity on this or any other project; 7) loss of interest income on funds not paid; 8) costs to prepare, negotiate or prosecute claims and 9) costs spent to achieve compliance with applicable laws and ordinances (excepting only sales taxes paid shall be reimbursable expense subject to the provisions of the Contract Documents).
- h. All non-time-related claim items for additional compensation for Direct Costs shall be properly documented and supported with copies of invoices, time sheets, rental agreements, crew sheets and the like.
- i. Cost information shall be submitted in sufficient detail to allow for review. The basis for the budgeted or actual costs shall include man-hours by trade, labor rates, material, and equipment costs etc. These costs shall be broken down by pay item and Construction Specification Institute (CSI) Division.
- j. The documentation for budgeted cost shall, as a minimum, include:
  - i. Copies of all the Contractor's bid documents, bid quotes, faxed quotes, emailed quotes etc.
  - ii. Copies of all executed subcontracts.
  - iii. Other related budget documents as requested by the Architect/Engineer.
- k. The documentation for actual cost shall, as a minimum, include:
  - i. Time Sheets.
  - ii. Materials invoices
  - iii. Equipment invoices
  - iv. Subcontractors' payments
  - v. Other related documents as required by the Architect/Engineer.

1. The Contractor shall make all his books, employees, work sites and records available to the Owner or its representatives for inspection and audit.
- 6) No payment shall be made to the Contractor by the Owner for loss of anticipated profit(s) from any deleted work. Contractor shall not be entitled to any compensation for loss of efficiency, loss of productivity, disruption, loss of opportunity, or other similar indirect costs except via entitlement to Liquidated Indirect Damages as provided for herein. As indicated above, the Architect/Engineer and the Field Representative shall be allowed full and complete access to all personnel, documents, work sites or other information reasonably necessary to investigate any claim. Within 60 days after a claim has been received, the claim shall either be rejected with an explanation as to why it was rejected or acknowledged. Once the claim is acknowledged, the parties shall attempt to negotiate a satisfactory settlement of the claim, which settlement shall be included in a subsequent Work Order or Change Order. If the parties fail to reach an agreement on a recognized claim, the Owner shall pay to the Contractor the amount of money it deems reasonable, less any appropriate retention, to compensate the Contractor for the recognized claim.
- 7) Failure of the Contractor to make a specific reservation of rights in the form provided for above regarding any such disputed amounts in the body of the Change Order which contains the payment shall be construed as a waiver, abandonment, or relinquishment of all claims for additional monies resulting from the claims embodied in said Change Order. However, once the Contractor has properly reserved rights to any claim, no further reservations of rights shall be required, and the Contractor shall not be required to repeat the reservation in any subsequent change order. Prior reservation of rights may however be further limited or waived by express reference, in subsequent change orders. Notwithstanding the aforementioned, at the time of final payment under the Contract, the Contractor shall specify all claims which have been denied and all claims for which rights have been reserved in accordance with this section. Failure to so specify any particular claim shall be constructed as a waiver, abandonment, or relinquishment of such claim.

C. Disputes

- 1) The following provisions shall govern disputes under this Contract unless the Special Provisions to this Contract contain the requirement for the use of an alternate dispute resolution method. For example, for large projects of great complexity, a Dispute Review Board (DRB) may be employed by the Owner to settle disputes in lieu of the Department Director or Office of the Mayor (OOM) designee as specified below. In this case, the DRB alternative shall be specified by the individual department in the Special Provisions and, if utilized, shall supersede this dispute provision.
  - a. In the event the Contractor and Owner are unable to resolve their differences concerning any determination made by the Architect/Engineer or Owner on any dispute or claim arising under or relating to the Contract (referred to in this Section as a "Dispute"), either the Contractor or Owner may initiate a dispute in accordance with the procedure set forth in this article. Exhaustion of these procedures shall be a precondition to any lawsuit permitted hereunder.
  - b. For contracts with a value of \$5 million or less, all Disputes under this Contract shall be decided by the Department Director or his designee. For contracts valued at more than \$5 million, Disputes shall be decided by a designee appointed by the OOM.

Decisions rendered by the Department Director or OOM designee shall not be binding but shall be admissible in a court of competent jurisdiction.

- c. As soon as practicable, the Department Director or OOM designee shall adopt a schedule for the Contractor and Owner to file written submissions stating their respective positions and the basis, therefore. The written submissions shall include copies of all documents and sworn statements in affidavit form from all witnesses relied on by each party in support of its position. Within 20 working days of the date on which such written submissions are filed, the Department Director or OOM designee shall afford each party an opportunity to present a maximum of one hour of argument. The Department Director or OOM designee may decide the Dispute on the basis of the affidavits and other written submissions if, in his opinion, there is no issue of material fact, and the party is entitled to a favorable resolution pursuant to the terms of this Contract. As part of such decision, the Department Director or OOM designee shall determine the timeliness and sufficiency of each notice of claim and claim at issue as provided in this article. The Department Director or OOM designee shall have the authority to rule on questions of law, including disputes over contract interpretation, and to resolve claims, or portions of claims, via summary judgment where there are no disputed issues of material fact. Furthermore, the Department Director or OOM designee is authorized by both parties to strike elements of claims seeking relief or damages not available under the contract (such as, but not limited to, claims for lost profits, off-site overhead, loss of efficiency or productivity claims or claim's preparation costs) by summary disposition.
- d. In the event that the Department Director or OOM designee determines that the affidavits or other written submissions present issues of material fact, he shall allow the presentation of evidence in the form of lay or expert testimony directed solely to the issues which he may specifically identify to require factual resolution. The testimonial portion of the process shall not exceed one day in duration per side, including opening statements and closing arguments, if allowed by the Department Director or OOM designee at his reasonable discretion.
- e. No formal discovery shall be allowed in connection with any proceeding under this article. Notwithstanding the foregoing, both parties agree that all of the audit, document inspection, information and documentation requirements set forth elsewhere in this contract shall remain in force and effect throughout the proceeding. The Department Director or OOM designee shall not schedule the hearing until both parties have made all their respective records available for inspection and reproduction and the parties have been afforded reasonable time to analyze the records. The continued failure of a party to comply with the document inspection, examination, or submission requirements set forth in this contract shall constitute a waiver of that party's claims and/or defenses, as applicable. Hearsay evidence shall be admissible but shall not form the sole basis for any finding of fact. Failure of any party to participate on a timely basis, to cooperate in the proceedings, or to furnish evidence in support or defense of a claim all of which shall be a criterion in determining the sufficiency and validity of a claim.
- f. The Department Director or OOM designee shall issue a written decision within 15 working days after conclusion of any testimonial proceeding and, if no testimonial

proceeding is conducted, within 45 days of the filing of the last written submission. This written decision shall set forth the reasons for the disposition of the claim and a breakdown of any specific issues or subcontractor claims. As indicated previously, the decision of the Department Director or OOM designee is not binding on the parties but will be admissible in a court of competent jurisdiction.

- g. If either party wishes to protest the decision of the Department Director or OOM designee, such party may commence an action in a court of competent jurisdiction, within the periods prescribed by law, it being understood that the review of the court shall be limited to the question of whether or not the Department Director or OOM designee's determination was arbitrary and capricious, unsupported by any competent evidence, or so grossly erroneous to evidence bad faith.
- h. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract and in accordance with the Architect/Engineer's interpretation. Any presentation or request by the Contractor under this article will be subject to the same requirements for Submittal of Claims in this article.

#### D. Terminations

##### 1) Termination for Convenience

- a. The Owner may at its option and discretion terminate the Contract, in whole or, from time to time in part, at any time without any default on the part of the Contractor by issuing a written Notice of Termination to the Contractor and its Surety, specifying the extent to which performance of work under the Contract is terminated and the date upon which such termination becomes effective, at least 10 days prior to the effective date of such termination.
- b. In the event of Termination for Convenience, the Owner shall pay the Contractor for all labor performed, all materials and equipment furnished by the Contractor and its subcontractors, materialmen and suppliers and manufacturers of equipment less all partial payments made on account prior to the date of cancellation as determined by the Field Representative and approved by the Architect/Engineer. The Contractor will be paid for:
  - i. The value of all work completed under the Contract, based upon the approved Schedule of Values and/or Unit Prices,
  - ii. The value of all materials and equipment delivered to but not incorporated into the work and properly stored on the site,
  - iii. The value of all bonafide irrevocable orders for materials and equipment not delivered to the construction site as of the date of cancellation. Such materials and equipment must be delivered to the Owner to a site or location designated by the Department prior to release of payment for such materials and equipment.
  - iv. The values calculated under i., ii., and iii. above shall be as determined by the Field Representative and approved by the Architect/Engineer.

- c. In the event of termination under this article, the Contractor shall not be entitled to any anticipated profits for any work not performed due to such termination.
- d. In the event of termination under this article, the Owner does not waive or void any credits otherwise due the Owner at the time of termination, including Liquidated Damages, and back charges for defective or deficient work.
- e. Upon termination as indicated above, the Field Representative shall prepare a certificate for Final Payment to the Contractor.

2) Termination for Default of Contractor

- a. The Contract may be terminated in whole or, from time to time in part, by the Owner for failure of the Contractor to comply with any requirements of the Contract Documents including but not limited to:
  - i. Failure to perform the work or failure to provide sufficient workers, equipment, or materials to assure completion of work in accordance with the terms of the Contract, and the approved Schedule, or
  - ii. Failure to provide the Schedule for the Project by the date due, or
  - iii. Failure to provide adequate shop drawings by the dates indicated in the approved Schedule for the Project, or
  - iv. Failure to replace the superintendent in the time allotted, if required, or
  - v. Performing the work unsuitably or neglecting or refusing to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, after written directions from the Field Representative, or
  - vi. Violating the terms of the Contract or performing work in bad faith, or
  - vii. Discontinuing the prosecution of the work, or
  - viii. Failure to resume work which has been discontinued within a reasonable time after notice to do so, or
  - ix. Abandonment of the Contract, or
  - x. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or failure to maintain a qualifier, or
  - xi. Allowing any final judgment to stand against him unsatisfied for a period of ten (10) days, or
  - xii. Making an assignment for the benefit of creditors, or
  - xiii. For any other cause whatsoever, fails to carry out the work in an acceptable manner or to comply with any other Contract requirement.
- b. Before the Contract is terminated, the Contractor and its Surety will be notified in writing by the Architect/Engineer or the Field Representative of the conditions which make termination of the Contract imminent (Notice to Cure). The Contract may be terminated by the Owner ten (10) days after said notice has been given to the Contractor and its Surety unless a satisfactory effort acceptable to the Owner has been made by the Contractor or its Surety to correct the conditions. If the Contractor

fails to satisfactorily correct the conditions giving rise to the termination, the Owner may declare the Contract breached and send a written Notice of Termination to the Contractor and its Surety.

- c. The Owner reserves the right, in lieu of termination as set forth in this article, to withhold any payments of money which may be due or become due to the Contractor until the said default(s) have been remedied. In the event of Termination for Default, the Owner also reserves the right, in cases where the damages calculated by the Owner are expected to exceed the amount the Owner anticipated recovering from the Surety, to withhold amounts for work already performed.
- d. In the event the Owner exercises its right to terminate the Contract for default of the Contractor as set forth herein, the Owner shall have the option of finishing the work, through any means available to the Owner, or having the Surety complete the Contract in accordance with its terms and conditions. In case that the Owner decides to have the Surety take over the remaining performance of the Work, the time or delay between Notice of Default and start of work by the Surety is a non-excusable delay. If the Surety fails to act promptly, but no longer than thirty (30) calendar days after the Owner notifies the Surety of the Owner's decision to have the Surety complete the work, or after such takeover fails to prosecute the Work in an expeditious manner, the Owner may exercise any of its other options including completing the Work by whatever means and method it deems advisable. No claims for loss of anticipated profits or for any other reason in connection with the termination of the Contract shall be considered.
- e. Payments for the various Bid Items listed in the Bid Form will constitute full compensation for all expenses incurred in consequence of discontinuance of all or any portion of the Work except as provided in this section of the Contract Documents. In no event will compensation be made for anticipatory profits or consequential damages as a result of a discontinuance of all or any portion of the Work.
- f. The Contractor shall immediately upon receipt communicate any Notice of Termination for Default issued by the Owner to the affected subcontractors and suppliers at any tier.
- g. If, after Notice of Termination of the Contractor's right to proceed under the provisions of this article, it is determined for any reason that the Contractor was not in default under the provisions of this article, or that the Contractor was entitled to an extension of time under the Contract Documents, the rights and obligations of the parties shall be the same as if the Notice of Termination had been issued pursuant to the section of this article dealing with Termination for Convenience.

### 3) Termination for National Emergencies

- a. The Owner shall terminate the Contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction Contract as a direct result of an Executive Order of the President of the United States with respect to the prosecution of war or in the interest of national defense.

- b. When the Contract, or any portion thereof, is terminated before completion of all items of work in the Contract, payment will be made for the actual number of units or items of work completed at the Contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits or for any other reason in connection with the termination of the Contract shall be considered.

4) Implementation of Termination

- a. If the Owner cancels or terminates the Contract or any portion thereof, the Contractor shall stop all work on the date and to the extent specified in the Notice of Termination and shall:
  - i. Cancel all orders and Subcontracts, to the extent that they relate to the performance of the work terminated and which may be terminated without costs;
  - ii. Cancel and settle other orders and Subcontracts, except as may be necessary for completion of such portion of the Work not terminated, where the cost of settlement will be less than costs which would be incurred were such orders and subcontracts to be completed, subject to prior approval of the Field Representative;
  - iii. Settle outstanding liabilities and claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Owner, to the extent it may require, which approval or ratification shall be final for the purposes of this Article;
  - iv. Transfer title and deliver to the Owner, in the manner, at the time, and to the extent, if any, directed by it, in accordance with directions of the Field Representative, all fabricated or un-fabricated parts, all materials, supplies, work in progress, completed work, facilities, equipment, machinery or tools acquired by the Contractor in connection with the performance of the work and for which the Contractor has been or is to be paid;
  - v. Assign to the Owner in the manner, at the times and to the extent directed by it, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the Owner will have the right, at its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;
  - vi. Deliver to the Field Representative As-Built Documents, complete as of the date of cancellation or termination, plans, Shop Drawings, sketches, permits, certificates, warranties, guarantees, specifications, three (3) complete sets of maintenance manuals, pamphlets, charts, parts lists, spare parts (if any), operating instructions required for all installed or finished equipment or machinery, and all other data accumulated by the Contractor for use in the performance of the work;
  - vii. Perform all work as may be necessary to preserve the work then in progress and to protect materials, plant, and equipment on the site or in transit

thereto. The Contractor shall also take such action as may be necessary, or as the Architect/Engineer may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Owner has or may acquire an interest;

- viii. Complete performance of each part of the work not terminated by the Notice of Termination;
- ix. Use his best efforts to sell, in the manner, at the time, to the extent, and at the price or prices directed or authorized by the Owner, property of the types referred to above; provided, however, that the Contractor a) shall not be required to extend credit to any purchaser, and b) may acquire any such property under the conditions prescribed by and at a price or prices approved by the Owner; provided, further, that the proceeds of any such transfer or disposition will be applied in reduction of any payments to be made by the Owner to the Contractor under this Contract or will otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the Owner may direct;
- x. Termination of the Contract or a portion thereof shall neither relieve the Contractor of its responsibilities for the completed work nor shall it relieve its Surety of its obligation for and concerning any just claim arising out of the work performed;
- xi. In arriving at the amount due the Contractor under this article, there will be deducted, (1) any claim which the Owner may have against the Contractor in connection with this Contract and (2) the agreed price for, or the proceeds of sale of materials, supplies or other items acquired by the Contractor or sold, pursuant to the provisions of this article, and not otherwise recovered by or credited to the Owner.

5) Suspension of Work

- a. The Owner reserves the right to temporarily suspend execution of the whole or any part of the Work without compensation to the Contractor.
- b. In case the Contractor is actually and necessarily delayed by any act or omission on the part of the Owner, as determined by the Owner in writing, the time for completion of the Work shall be extended by the amount of the time of such delay as determined by the Owner, and an allowance may be made for actual direct costs, if any, which may have been borne by the Contractor. Such requests for additional time and/or compensation must be made in accordance with the applicable sections of the Contract Documents.
- c. Only the actual delay necessarily resulting from the causes specified in this Article, shall be grounds for extension of time. In case the Contractor is delayed at any time or for any period by two or more of the causes specified in this Article, the Contractor shall not be entitled to a separate extension for each one of the causes but only one period of extension will be granted for the delay.

- d. In case the Contractor is actually and necessarily delayed in the performance of the Work from one or more of the causes specified in this Article, the extension of time to be granted to the Contractor shall be only for such portion of the Work so delayed. The Contractor shall not be entitled by reason of such delay to an extension of time for the completion of the remainder of the Work. If the Contractor shall be so delayed as to a portion of the Work they shall nevertheless proceed continuously and diligently with the prosecution of the remainder of the Work. No demand by the Contractor that the Owner determine and certify any matter of extension of time for the completion of the Work or any part thereof will be of any effect whatsoever unless the demand be made in writing at least 30 days before the completion date of the Work or any part thereof for which Liquidated Damages are established when meeting those dates is claimed to have been delayed by a suspension under this Article. Owner's determination as to any matter of extension of time for completion of the Work or any part thereof shall be binding and conclusive upon the Contractor.
- e. Permitting the Contractor to finish the Work or any part thereof after the time fixed for completion or after the date to which the time for completion may have been extended or the making of payments to the Contractor after any such periods shall not operate as a waiver on the part of the Owner of any rights under this contract.
- f. The Contractor shall insert in each subcontract a provision that the subcontractor shall comply immediately with a written order of the Owner to the Contractor to suspend the Work, and that they shall further insert the same provision in each subcontract of any tier.

#### END OF ARTICLE

## 12. MISCELLANEOUS PROVISIONS

### A. Third-Party Beneficiary

No contractual relationship will be recognized under the Contract other than the contractual relationship between the Owner and the Contractor. There shall be no third-party beneficiary to this Contract.

### B. Venue

Any litigation which may arise out of this Contract shall be commenced either in the Eleventh Judicial Circuit Court in and for Miami-Dade County, Florida, or in the United States District Court, Southern District of Florida.

### C. Governing Laws

- 1) The Contractor shall, during the term of this Contract and in the prosecution of the work, be governed by the statutes, regulatory orders, ordinances and procedures of the United States of America, the State of Florida, and Miami-Dade County including, but not limited to, the Florida Building Code and Florida Fire Prevention Code.
- 2) The Contractor(s) shall comply with all applicable laws including, but not limited to, the Small Business Enterprise (SBE) programs (including, without limitation, SBE-Construction, SBE-Architectural and Engineering, and SBE-Goods, SBE-Services); as set forth in Sections 10-33.02, 2-10.4.01, 2-8.1.1.1.2, 2-8.1.1.1.1, 2-11.16, 2-1701, and 2-11.17 of the Code; the Sustainable Buildings Program; Chapter 119 of the Florida Statutes regarding public records laws; the State of Florida and the County's Prompt Payment laws as set forth in Sections 2-8.1.4 and 10-33.02 of the County's ordinances; the County's Inspector General requirements as set forth herein; the County's Art in Public Places requirements as set forth herein; and provide the requisite bonding in accordance with Section 255.05 of the Florida Statutes, as well as the insurance requirements set forth in this Agreement

Specifically, the Contractor and his subcontractors shall comply with Miami-Dade County Resolution Nos. R-1386-09 and R-138-10 governing the treatment of SBE-CON firms.

- 3) In addition, the Contractor agrees to abide by all federal, state, and local procedures, as may be amended from time to time, regarding how documents that the Contractor has access to, are handled, copied, and distributed, particularly documents that contain sensitive security information.

### D. Successors and Assigns

The Owner and the Contractor each bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to the partners, successors, assigns and legal representatives of such other party in respect to all covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or sublet it as a whole without the written consent of the Owner, nor shall the Contractor assign any moneys due or to become due the Contractor hereunder, without the previous written notice to the Owner. Consent will not be given to any proposed assignment, which would relieve the Contractor or his Surety of their responsibilities under the Contract.

E. Written Notice

- 1) Written notice to the Contractor shall be deemed to have been duly served if delivered in person to the individual or member of the firm or to any officer of the corporation for whom it was intended or if delivered at or sent by registered or certified mail to the last business address known to those who give the notice.
- 2) Written notice to the Owner shall be deemed to have been duly served if delivered in person, delivered at or sent by registered or certified mail to the individual identified in the Special Provisions.

F. Indemnification

- 1) In consideration of this Agreement, and to the maximum extent permitted by Chapter 725, Florida Statutes, as may be amended, the Contractor agrees to indemnify, protect, defend, and hold harmless the Government, State, County, their elected officials, officers, employees, consultants, and agents from claims, liabilities, damages, losses, and costs including, but not limited to reasonable attorney's fees at both the trial and appellate levels to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor and other persons employed or utilized by the Contractor in the performance of the Work.
- 2) The indemnification obligation under this clause shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor and/or any subcontractor under worker's compensation acts, disability benefit acts, or other employee benefit acts.
- 3) In the event that any claims are brought, or actions are filed against the Owner with respect to the indemnity contained herein, the Contractor agrees to defend against any such claims or actions regardless of whether such claims or actions are rightfully or wrongfully brought or filed. The Contractor agrees that the Owner may select the attorneys to appear and defend such claims or actions on behalf of the Owner. The Contractor further agrees to pay at the Contractor's expense the attorneys' fees and costs incurred by those attorneys selected by the Owner to appear and defend such claims or actions on behalf of the Owner. The Owner, at its sole option, shall have the sole authority for the direction of the defense, and shall be the sole judge of the acceptability of any compromise or settlement of any claims or actions against the Owner.
- 4) To the extent this indemnification clause or any other indemnification clause in this Agreement does not comply with Chapter 725, Florida Statutes, as may be amended, this provision and all aspects of the Contract Documents shall hereby be interpreted as the parties' intention for the indemnification clauses and Contract Documents to comply with Chapter 725, Florida Statutes, as may be amended.
- 5) This Section shall survive expiration or termination of this Agreement.

G. Audit Rights

- 1) Access to Records
  - a. The Contractor shall, during the term of this Contract and for a period of five years thereafter, allow the Owner and its duly authorized representatives to inspect all payroll records, invoices for materials, books of account, job cost ledgers, Project correspondence and Project-related files and all relevant records pertinent to the Contract.

- b. The Owner retains the right to audit accounts and access all files, correspondence and documents in reference to all work performed under this Contract. The Owner shall be provided full access upon request to all documents, including those in possession of subcontractors or suppliers during the work and for a period of five years after the completion of the Work. In case of any litigation regarding this Project, such rights shall extend until final settlement of such litigation. Failure to allow the Owner access shall be deemed a waiver of Contractor's claims.
- c. The Contractor shall maintain a banking account within Miami-Dade County for all payments to laborers, subcontractors and vendors furnishing labor and materials under this Contract. All records shall be maintained in Miami-Dade County for the term of this Contract.

2) Inspector General

- a. According to Section 2-1076 of the Code of Miami-Dade County, Miami-Dade County has established the Office of the Inspector General (IG) which may, on a random basis, perform audits, inspections, and reviews of all, on any County/Trust contracts, throughout the duration of said contracts. This random audit is separate and distinct from any other audit by the County. To pay for the functions of the Office of the Inspector General, any and all payments to be made to the Contractor under this contract will be assessed one quarter (1/4) of one (1) percent of the total amount of the payment, to be deducted from each progress payment as the same becomes due unless this Contract is federally or state funded where federal or state law or regulations preclude such a charge or where such a charge is otherwise precluded by Special Condition. The Contractor shall, in stating its agreed prices, be mindful of this assessment which will not be separately identified, calculated, or adjusted in the proposal or Bid Form.
- b. The Miami-Dade Office of the Inspector General is authorized to investigate County affairs and empowered to review past, present, and proposed County and Public Health Trust programs, accounts, records, contracts and transactions. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of witnesses, and monitor existing Projects and programs. Monitoring of an existing Project or program may include a report concerning whether the Project is on time, within budget and in conformance with the Contract Documents and applicable law. The Inspector General shall have the power to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process including but not limited to Project design, bid specifications, (bid/proposal) submittals, activities of the (Contractor/ Vendor/ Consultant), its officers, agents and employees, lobbyists, County and Public Health Trust staff and elected officials to ensure compliance with the Contract Documents and to detect fraud and corruption.
- c. Upon 10 days written notice to the Contractor, the Contractor shall make all requested records and documents available to the Inspector General for inspection and copying. The Inspector General is empowered to retain the services of independent private sector inspectors general to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process

including but not limited to Project design, bid specifications, (bid/proposal) submittals, activities of the (Contractor/ Vendor/ Consultant), its officers, agents and employees, lobbyists, County staff and elected officials to ensure compliance with the Contract Documents and to detect fraud and corruption.

- d. The Inspector General shall have the right to inspect and copy all documents and records in the (Contractor/Vendor/Consultant's) possession, custody or control which in the Inspector General's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements from and with successful subcontractors and suppliers, all Project-related correspondence, memoranda, instructions, financial documents, construction documents, (bid/proposal) and contract documents, back-change documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records and supporting documentation for the aforesaid documents and records.
- e. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence regarding the acquisition (bid preparation) and performance of this contract, for examination, audit, or reproduction, until three (3) years after final payment under this contract or for any longer period required by statute or by other clauses of this contract. In addition:
  - i. If this contract is completely or partially terminated, the Contractor shall make available records relating to the work terminated until three (3) years after any resulting final termination settlement; and
  - ii. The Contractor shall make available records relating to appeals or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.
- f. The provisions in this section shall apply to the (Contractor/Vendor/Consultant), its officers, agents, employees, subcontractors, and suppliers. The (Contractor/Vendor/Consultant) shall incorporate the provisions in this section in all subcontracts and all other agreements executed by the (Contractor/Vendor/Consultant) in connection with the performance of this contract.
- g. Nothing in this section shall impair any independent right to the Owner to conduct audits or investigative activities. The provisions of this section are neither intended nor shall they be construed to impose any liability on the Owner by the (Contractor/Vendor/Consultant) or third parties.

#### H. Severability

In the event any article, section, sub-article, paragraph, sentence, clause or phrase contained in the Contract Documents shall be determined, declared or adjudged invalid, illegal, unconstitutional or otherwise unenforceable, such determination, declaration or adjudication shall in no manner affect the other articles, sections, sub-articles, paragraphs, sentences, clauses or phrases of the Contract Documents, which shall remain in full force and effect as if the article, section, sub-article, paragraph, sentence, clause or phrase declared, determined or adjudged invalid, illegal, unconstitutional or otherwise unenforceable was not originally contained in the Contract Documents.

I. Payment and Performance Bond

- 1) A single instrument Payment and Performance Bond, satisfactory to the Owner, for twice the penal sum (no less than 100 percent of the total maximum contract amount for payment-related issues and 100 percent of the total maximum contract amount for performance-related issues), shall be required of the Contractor.
  - a. The bond shall be written through surety insurers authorized to do business in the State of Florida as Surety, with the following qualifications as to management and financial strength according to the latest edition of Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey:

Bond (Total Contract) Amount	Best's Rating
\$500,001 to \$1,500,000	B V
\$1,500,001 to \$2,500,000	A VI
\$2,500,001 to \$5,000,000	A VII
\$5,000,000 to \$10,000,000	A VIII
Over \$10,000,000	A IX

- 2) On Contract amounts of \$500,000 or less, the Bond provisions of Section 287.0935, Florida Statutes shall be in effect and surety companies not otherwise qualifying with this paragraph may optionally qualify by:
  - a. Providing evidence that the surety has twice the minimum surplus and capital required by the Florida Insurance Code at the time the Invitation to Bid is issued.
  - b. Certifying that the surety is otherwise in compliance with the Florida Insurance Code, and
  - c. Providing a copy of the currently valid Certificate of Authority issued by the United States Department of Treasury under 31 U.S.C. 9304-9308.

Surety insurers shall be listed in the latest Circular 570 of the U.S. Department of the Treasury entitled "Surety Companies Acceptable on Federal Bonds," published annually. The Bond amount shall not exceed the underwriting limitations as shown in this circular.

- 3) For Contracts in excess of \$500,000 the provisions of the Contract Documents will be adhered to, plus the surety insurer must have been listed on the U.S. Treasury list for at least three consecutive years, or currently hold a valid Certificate of Authority of at least 1.5 million dollars and listed on the Treasury list.
- 4) Payment and Performance Bonds guaranteed through U.S. Government Small Business Administration or Contractors Training and Development Inc. will also be acceptable.
- 5) The attorney-in-fact or other officer who signs a Payment and Performance Bond for a surety company must file with such Bond a certified copy of his/her power of attorney authorizing him/her to do so.
- 6) The cost of the Bonds shall be included in the Bid.

- 7) The required Bond shall be written by or through and shall be countersigned by, a licensed Florida agent of the surety insurer, pursuant to Section 624.425 of the Florida Statutes.
- 8) The Bond shall be delivered to the Contracting Officer in accordance with the instructions within the Notice of Award.
- 9) In the event the Surety on the Payment and Performance Bond given by the Contractor becomes insolvent, or is placed in the hands of a receiver, or has its right to do business in its State of domicile or the State of Florida suspended or revoked as provided by law, the Owner shall withhold all payments under the provisions of these Contract Documents until the Contractor has given a good and sufficient Bond in lieu of Bond executed by such Surety.
- 10) Cancellation of any bond, or non-payment by the Contractor of any premium for any Bond required by this Contract, shall constitute a breach of this Contract. In addition to any other legal remedies, the Owner at its sole option may terminate this Contract or pay such premiums and deduct the costs thereof from any amounts that are or may be due to the Contractor.

J. Insurance

The Contractor shall maintain the insurance set forth in the Special Provisions throughout the performance of this Contract until the Work has been completed by the Contractor and accepted by the Owner.

K. Conflict of Interest

- 1) The Contractor or his employees shall not enter into any Contract involving services or property with a person or business prohibited from transacting such business with Miami-Dade County pursuant to Section 2-11.1 of the Code of Miami-Dade County, Florida, known as the Miami-Dade County Conflict of Interest and Code of Ethics Ordinance.
- 2) In the event the Contractor, or any of its officers, partners, principals, or employees are convicted of a crime arising out of, or in connection with, the work to be done or payment to be made under this Contract, this Contract, in whole or any part thereof may, at the discretion of the Owner, be terminated without prejudice to any other rights and remedies of the Owner under the law.
- 3) In accordance with the Code of Miami-Dade County, no officer or employee of Miami-Dade County during his tenure or for two years thereafter shall have any interest, direct or indirect, in this Contract or the proceeds thereof.

L. Rights in Shop Drawings

- 1) Shop Drawings submitted to the Architect/Engineer by the Contractor, pursuant to the Work, may be duplicated by the Owner and the Owner may use and disclose, in any manner and for any purpose Shop Drawings delivered under this Contract.
- 2) This paragraph shall be included in all subcontracts hereunder at all tiers.

M. Patent and Copyright

- 1) If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, he shall provide for such use by suitable legal agreement with the patentee or owner. The Contractor and the surety shall indemnify and save harmless the Owner, the Field Representative, and the Architect/Engineer from any and all claims for

infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the prosecution or after the completion of the work.

- 2) The Contractor shall warrant that the materials, equipment, or devices used on or incorporated in the Work shall be delivered free of any rightful claim of any third party for infringement of any United States patent or copyright. The Contractor shall defend, or may settle, at his expense, any suit or proceeding against the Owner or the Architect/Engineer so far as based on a claimed patent or copyright infringement which would result in a breach of this warranty, and the Contractor shall pay all damages and costs awarded therein against the Owner or the Architect/Engineer due to such breach. The Contractor shall report to the Architect/Engineer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Contract of which the Contractor has knowledge. In the event of any claim or suit against the Owner on account of any alleged patent or copyright infringement arising out of the performance of this Contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Owner when requested, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Contractor.
- 3) The Contractor shall bear all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work. In such case materials, equipment, devices, or processes are held to constitute an infringement and their use enjoined, the Contractor, at his expense shall:
  - a. Secure for the Owner the right to continue using said materials, equipment, devices, or processes by suspension of the injunction or by procuring a license or licenses; or
  - b. Replace such materials, equipment, devices or processes with non-infringing materials, equipment, devices, or processes; or
  - c. Modify them so that they become non-infringing or remove the enjoined materials, equipment, devices, or processes and refund the sum paid therefore without prejudice to any other rights of the Owner.
- 4) The preceding paragraph shall not apply to any materials, equipment or devices, specified by the Owner or the Architect/Engineer or manufactured to the design of the Owner or the Architect/Engineer or in accordance with the details contained in the Contract Documents; and as to any such materials, equipment or devices the Contractor assumes no liability whatsoever for patent or copyright infringement and the Owner will hold the Contractor harmless against any infringement claims arising therefrom.
- 5) Patent rights to patentable invention, item or ideas of every kind or nature arising out of the Work, as well as information, designs, specifications, know-how, data and findings shall be made available to the Government for public use, unless the Owner shall, in specific cases where it is legally permissible, determine that it is in the public interest that it not be so made available.
- 6) The sense of this article shall be included in all subcontracts. The foregoing states the entire liability of the Contractor for patent or copy infringement by use of said materials, equipment, or devices.

N. The Contractor shall be responsible for acknowledging the County's Recycling Programs when hauling materials that meets the requirement for a commercial business establishment. Please contact the Department of Solid Waste Management at [dswm@miamidade.gov](mailto:dswm@miamidade.gov) or visit [www.earth911.com](http://www.earth911.com) to search for recycling or disposal options and locations.

O. Historical, Scientific and Archaeological Discoveries

All articles of historical, scientific, or archaeological interest uncovered by the Contractor during progress of the Work shall be preserved and reported immediately to the Architect/Engineer. Further operations of the Contractor with respect to the find, including disposition of the articles, will be decided by the Owner.

P. Use of Owner's Name in Contractor Advertising or Public Relations

The Owner reserves the right to review and approve Owner-related copy prior to publication. The Contractor shall not allow Owner-related copy to be published in Contractor's advertisement or public relations programs until submitting the Owner-related copy and receiving prior approval from the Owner. The Contractor shall agree that published information on the Owner or the Owner's program shall be factual and in no way imply that the Owner endorses the Contractor's firm, service or product. The Contractor shall insert the substance of this provision, including this sentence, in each subcontract and supply Contract or purchase order.

Q. Accounts Receivable Adjustments

In accordance with Miami-Dade County Implementing Order 3-9, Accounts Receivable Adjustments, if money is owed by the Contractor to the County, whether under this Contract or for any other purpose, the County reserves the right to retain such amount from payment due by County to the Contractor under this Contract. Such retained amount shall be applied to the amount owed by the Contractor to the County. The Contractor shall have no further claim to such retained amounts which shall be deemed full accord and satisfaction of the amount due by the County to the Contractor for the applicable payment due herein.

R. User Access Program (UAP)

Pursuant to Miami-Dade County Code Section 2-8.10. User Access Program in County Purchases this Contract is subject to a user access fee under the County's User Access Program (UAP) in the amount of two percent (2%). All construction services provided under this contract are subject to the two percent (2%) UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity. From every payment made to the Contractor under this contract (including the payment of retainage), the County will deduct the two percent (2%) UAP fee provided in the ordinance and the Contractor will accept such reduced amount as full compensation for any and all deliverables under the contract. The County shall retain the two percent (2%) UAP for use by the County to help defray the cost of its procurement program. Contractor participation in this pay request reduction portion of the UAP is mandatory.

S. Public Records and Contracts for Services Performed on Behalf of Miami-Dade County

The Contractor shall comply with the Public Records Laws of the State of Florida, including but not limited to: (1) keeping and maintaining all public records that ordinarily and necessarily would be required by Miami-Dade County (County) in order to perform the service; (2) providing the public with access to public records on the same terms and conditions that the County would provide the

records and at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law; (3) ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (4) meeting all requirements for retaining public records and transferring, at no cost, to the County all public records in possession of the Contractor upon termination of the contract and destroying any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements upon such transfer. In addition, all records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the County. Failure to meet any of these provisions or to comply with Florida's Public Records Laws as applicable shall be a material breach of the agreement and shall be enforced in accordance with the terms of the agreement. **If the contractor has questions regarding the application of Chapter 119, F.S. to the contractor's duty to provide public records relating to this contract, contact the custodian of public records via phone at (305) 375-5773, or via email at [isd-vss@miamidade.gov](mailto:isd-vss@miamidade.gov). Offices are located at 111 NW 1st Street, Suite 1300, Miami, FL 33128.**

END OF ARTICLE

### 13. APPLICABLE LEGISLATION

Contractors and subcontractors are required to abide by all applicable federal, state, and local laws and ordinances, as they may be amended from time to time. Applicable local laws and ordinances include, but are not limited to, the following:

#### A. Resolutions

<http://www.miamidade.gov/govaction/searchleg.asp>

- R-1049-93 - Affirmative Action Plan Furtherance and Compliance
- R-385-95 - Policy prohibiting contracts with firms violating the American with Disabilities Act (ADA) and other laws prohibiting discrimination on the basis of disability ADA requirements, are a condition of award, as amended by Resolution R-182-00
- R-531-00 - Prohibition of contracting with individuals and entities while in arrears with the County
- R-894-05 - Independent Private Sector Inspector General (IPSIG) Services
- R-183-00 - Family Leave Requirements
- R-185-00 - Domestic Violence Leave
- R-1386-09 - Community Small Business Development Program; directing County Mayor to include additional subcontractor provisions in all future contracts, where applicable unless waived by the Board of County Commissioners
- R-138-10 - Resolution requiring that construction contracts include language mandating that the scope of work of SBEs be separately stated and accounted for in schedule of values.
- R-63-14 - Contractor Due Diligence

#### B. Administrative Orders

<http://www.miamidade.gov/ao/home.asp?Process=completelist>

- 3-20 - Independent Private Sector Inspector General (IPSIG) Services
- 3-39 - Standard Process for Construction of Capital Improvements, Acquisition of Professional Services, Construction Contracting, Change Orders and Reporting
- 10-10 - Duties and Responsibilities of County Departments for Compliance with the Americans with Disabilities Act (ADA)

#### C. Implementing Orders

<http://www.miamidade.gov/ao/home.asp?Process=completelist>

- 3-9 - Accounts Receivables Adjustments
- 3-21 - Bid Protest Procedure
- 3-22 - Small Business Enterprise (SBE) Program for the Purchase of Construction Services
- 3-41 - Small Business Enterprise (SBE) Program for the Purchase of Goods and Services

#### D. Code of Miami-Dade County:

- [https://library.municode.com/fl/miami\\_-\\_dade\\_county/codes/code\\_of\\_ordinances](https://library.municode.com/fl/miami_-_dade_county/codes/code_of_ordinances)Section 2-1 Rule 5.09 Statement of consideration of impact of sea level rise.
- Section 2-1076 - Office of the Inspector General
- Section 2-2113 First Source Hiring Referral Program
- Section 2-8.1 - Contracts and Purchases
- Sections 2-8.1.1 Bids from related parties and bid collusion for the purchase of goods and services, leases, permits, concessions, and management agreements.
- Section 2-8.1(d) Disclosure required of contractors and entities transacting business with Miami-Dade County.
- Section 2-8.1(f) Listing of subcontractors required
- Section 2-8.2.6.1 Buy American Iron and Steel Products
- Section 2-8.2.6.2 Cybersecurity and Information Technology
- Section 2-8.2.7 Economic Stimulus Ordinance
- Section 2-8.4 - Protest Procedures
- Section 2-8.5 - Local Preference
- Section 2-8.5.1 - Local Certified Veteran Business Enterprise
- Section 2-8.8 - Fair Subcontracting PracticesSection 2-8.8(4) Reporting of subcontracting policies procedures and payments
- Section 2-8.10. - User Access Program in County Purchases.
- Section 2-10.4.01 Small Business Enterprise – Architecture & Engineering Program
- Section 2-10.33.02 Small Business Enterprise – Construction Program
- Section 2-10.7 Sales Tax Exemption Program
- Section 2.11.1 - Conflict of Interest and Code of Ethics
- Section 2-11.1 (i)-(r) Financial Disclosure
- Section 2-11.16.1 Construction Contract Fee for Affordable Housing
- Section 2-1076 Office of the Inspector General
- Section 9-71 through 9-75 Sustainable Building Program
- Section 10-34 - Listing of Subcontractors Required
- Section 11A-38 through 11A-52 Discrimination
- Section 21-255 through 21-266 False Claims Ordinance

END OF ARTICLE

## **SECTION 14**

**SPECIAL PROVISIONS TO BE ATTACHED**

## **SPECIAL PROVISIONS**

### **1.0 SCOPE OF WORK:**

The Contractor is responsible to verify all quantities to perform this work. The quantities provided are an approximation only.

### **2.0 ALLOWANCE ACCOUNTS:**

**A. *Contingency Allowance*** - A Contingency Allowance Account has been established for the exclusive use of the Department of Solid Waste Management as a reserve account to cover unforeseeable and unavoidable costs associated with the Work. This Contingency Allowance account shall be calculated at ten percent (10%) of the total base bid for the Work. It is understood that any unspent portion of the contingency allowance account is to remain with the COUNTY.

**B. *Dedicated Allowance*** (if applicable) - A Dedicated Allowance Account has been established for the exclusive use of the Department of Solid Waste Management as a reserve account for the purpose of repairs of pavement/drainage system. The Dedicated Allowance shall be in the amount of \$30,000.00. It is understood that any unspent portion of the allowance account is to remain with the COUNTY.

No Authorization to Proceed on a change shall be issued against this Allowance Account if the aggregate of the change exceeds the authorized amount of this Allowance Account.

### **3.0 INSURANCE REQUIREMENTS:**

*Refer to the Indemnification and Insurance section below.*

### **4.0 CONTRACTOR USE OF PREMISES:**

4.1 The Contractor's use of the premises is limited to the limits of construction. The Contractor will coordinate all work with the Project Manager and perform work in a manner which allows continuous use of adjoining facilities by DSWM. The Contractor shall maintain safe access to all project areas at all times.

4.2 The Contractor shall remain flexible with respect to his work schedule and if the Contractor is delayed due to the non-availability of the project site, his sole remedy for delay shall be limited to a contract time extension only, with no consideration for additional compensation for lost productivity. This remedy for delay (time extension only, no additional compensation) shall also apply to inclement weather conditions.

4.3 The Contractor and his subcontractors shall obtain all necessary Permits and provide copies to the Project Manager prior to commencement of work. At the

completion of the project, the Contractor shall provide to the Project Manager as-built drawings, all equipment owner's manuals and related documentation provided by the Manufacturers and a copy of the permit(s) with all required inspections signed off.

- 4.4 The Contractor shall clean the area after each workday. In addition, the contractor shall clean the area, remove materials and equipment that would create a potential hazard to pedestrians and DSWM operations personnel.

## **5.0 EQUIPMENT:**

The contractor will provide equipment of sufficient size and capacity to meet project needs.

## **6.0 INSPECTIONS/MATERIAL TESTING:**

- A. **Inspections:** Daily inspections may be performed by the DSWM Representative at their sole discretion. Inspections by the DSWM Representative shall not relieve the Contractor of his duties and obligations related to performance and/or quality of the Work.

The Contractor shall coordinate with the DSWM Representative the inspection of all pertinent work activities that may be deemed crucial to the completion of the Project. The pertinent work activities shall be defined by the DSWM Representative prior to installation. The Contractor will be responsible to schedule a meeting with the DSWM Representative to identify the pertinent work activities. Refer to technical specifications/notes provided in the project drawings. Installation Procedures recommended by manufacturer shall be submitted by the Contractor to the DSWM Representative. Contractor to comply with Technical Specifications/Notes provided on the Contract Drawings.

- B. **Materials:** As specified in the Scope of Work and Project Schedule of Values.

## **7.0 MEASUREMENT AND PAYMENT:**

The Schedule of Values includes all costs required for the complete construction of the specified unit of work including cost of material, delivery; installation, testing, and labor including social security, insurance, and other required fringe benefits, workmen's compensation insurance, bond premiums, cost of the Inspector General random audits, rental of equipment and machinery, taxes, incidental expenses and supervision.

The Contractor shall be compensated based on percentage of work completed if a lump sum contract or by unit price quantities as agreed upon by the DSWM Representative. The Schedule of Values will be used for payment and negotiation of additions/deletions to scope. DSWM reserves the right to modify/adjust any of the unit item quantities at the same unit rate as specified on the Schedule of Values with no additional adjustment (compensation) for the reduction of work scope.

The Contractor shall comply with Resolution No. R-138-10, which mandates that SBE firms work be identified in the Schedule of Values, if applicable. In accordance with Resolution R-138-10, the Contractor is required as a condition subsequent to award and prior to the issuance of notice to proceed, that the scope of work to be performed by any SBE utilized to satisfy any SBE goal in the contract be separately identified in such schedule of values. Payment requisitions for the scope of work of such SBE shall be accomplished by statements of completion of the work of the SBE and shall be accompanied by appropriate documentation including invoicing and checks reflecting payment of the SBE for the previous construction draw.

#### **8.0 TIME OF WORK:**

Refer to Request for Price Quotation/Technical Specification and related technical documents.

#### **9.0 PRE-CONSTRUCTION MEETING:**

A Pre-Construction Meeting will be scheduled prior to the NTP date. The DSWM Representative may require the Contractor to submit at the time of the Pre-Construction meeting a Project Schedule, Detailed Schedule of Values, Maintenance of Traffic (MOT) Plan, Shop Drawing Submittal Log, Emergency Contact List, and List of Subcontractors.

#### **10.0 CONSTRUCTION COORDINATION MEETINGS:**

The Contractor shall attend Construction Coordination meetings at the site, if quired by the DSWM Representative. The DSWM Representative will advise the Contractor of the frequency of the meetings. The meetings shall be attended by the Contractors representative and the DSWM Representative at a time and location to be determined by the DSWM Representative.

#### **11.0 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK:**

TIME IS OF THE ESSENCE. The work to be performed under this Contract shall commence on the effective date of the Notice-to-Proceed and be completed and released to MDC upon completion of all punch list items within the time specified.

Completion of All Work: The Contractor shall complete all work included in the Contract Documents, including punch list, no later than 112 calendar days after NTP.

#### **12.0 LIQUIDATED DAMAGES:**

TIME IS OF THE ESSENCE and completing the work within the specified time is of the utmost importance to MDC. The following liquidated damages rate(s) have been determined based on the best information available at the time of bidding and represent a good faith effort by MDC to quantify the damages that MDC will incur if the contract duration is not achieved. Therefore, for failure to complete the work within the number

of days stipulated in the RPQ, the Contractor and his/her sureties will be assessed Liquidated Damages as follows:

**Final Completion**

Liquidated Damages shall be assessed in the amount of \$349.20, per day for each day of delay, not as a penalty, but as Liquidated Damages for each day or fraction thereof of delay until the Final Completion Date is met, which will be paid to Miami-Dade County by the Contractor.

**13.0 COLLUSION AFFIDAVIT:**

In accordance with Sections 2-8.1.1 and 10-33.1 of the Miami-Dade County Code as amended by Ordinance No. 08-113, bidders/proposers on County contracts are requested to submit the Collusion Affidavit within five (5) days from notification of intent to award.

Failure to provide a Collusion Affidavit within 5 business days after the recommendation to award has been filed with the Clerk of the Board shall be cause for the contractor to forfeit their bid/proposal bond.

NTP shall not be issued and no work shall commence until a fully executed Collusion Affidavit is submitted and approved by DSWM.

**14.0 SUBCONTRACTOR / SUPPLIER LISTING (WHEN APPLICABLE):**

Pursuant to Section 2-8.1 and 10.34 of the Miami-Dade County Code, for contracts valued at \$100,000 or more when subcontractor(s) and/or supplier(s) are utilized, the Prime contractor/vendor/consultant shall report to Miami-Dade County the race, gender, and ethnic origin of all such first tier subcontractor(s) and supplier(s). The paper-based Subcontractor/Supplier Listing that was previously submitted at time of bid submission is no longer being used. The Prime contractor/vendor/consultant shall be required to identify its first tier subcontractor(s)/supplier(s) and provide demographic information for both their firm and each subcontractor/supplier on the contract as soon as reasonably available and in any event prior to final payment under the contract via Miami-Dade County's online Business Management Workforce System (BMWS).

**15.0 E-VERIFY:**

**Obligations of State Funded Contracts**

Executive Order 11-116, which supersedes Executive Order 11-02, directs all agencies under the direction of the Governor to verify the employment eligibility of all new agency employees through the U.S. Department of Homeland Security's E-Verify system. Further agencies are directed to include as a condition of all contracts for the provision of goods or services to the state in excess of nominal value, an express requirement that contractors utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the contractor during the contract term, and an express requirement that contractors include

in such subcontracts the requirement that subcontractors performing work or providing services pursuant to the state contract utilize the E-Verify system to verify the employment eligibility of all new employee hired by the subcontractor during the contract term.

In accordance with Executive Order 11-116, Miami-Dade County required all vendors doing business with the County who are awarded state-funded contracts to verify employee eligibility using the E-Verify system. It is the responsibility of the awarded vendor to ensure compliance with E-Verify requirements (as applicable). To enroll in E-Verify, employers should visit the E-Verify website (<http://www.uscis.gov-e-verify>) and follow the instructions. The employer must, as usual, retain the I-9 Form for inspection.

#### **16.0 PUBLIC RECORDS AND CONTRACTS FOR SERVICES PERFORMED ON BEHALF OF MIAMI-DADE COUNTY (HB 1309):**

HB 1309 re: governmental accountability has been signed into law by the Governor and was effective July 1. It generally applies only to state agencies, but there is one provision of HB 1309 that also applies to counties. This provision requires public agency contracts for services performed on behalf of the public agency to contain contract provisions clarifying the public record responsibilities of the contractor.

The Contractor shall comply with the Public Records Laws of the State of Florida, including but not limited to, (1) keeping and maintaining all public records that ordinarily and necessarily would be required by Miami-Dade County (County) in order to perform the service; (2) providing the public with access to public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law; (3) ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (4) meeting all requirements for retaining public records and transferring, at no cost, to the County all public records in possession of the Contractor upon termination of the contract and destroying any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements upon such transfer. In addition, all records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the County. Failure to meet any of these provisions or to comply with Florida's Public Records Laws as applicable shall be a material breach of the agreement and shall be enforced in accordance with the terms of the agreement.

**IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (305) 375-5773; [ISD-VSS@MIAMIDADE.GOV](mailto:ISD-VSS@MIAMIDADE.GOV); 111 NW 1 STREET, SUITE 1300, MIAMI, FLORIDA 33128.**

## **17.0 DISCLOSURE OF ALLEGED DISCRIMINATION LAWSUITS:**

In accord with Resolution No. R-828-19, the County reserves the right to request from any Bidder the disclosure of any lawsuits which include allegations of discrimination in the last ten years prior to date of solicitation, the disposition of such lawsuits, or statement that there are NO such lawsuits.

## **18.0 PRE-BID MEETING:**

Pre-Bid Meeting will be held as indicated in the Request for Price Quotation (RPQ). Please refer to the RPQ for instructions and additional information.

## **19.0 METHOD OF AWARD:**

Award shall be made to the lowest responsive and responsible bidder. DSWM reserves the right to negotiate additional or deductive services related to this project with the low bidder. DSWM reserves the right to reject all bids if deemed in the best interest of Miami-Dade County.

## **20.0 PERFORMANCE & PAYMENT BOND:**

The Contractor shall provide a Surety Performance and Payment Bond for 100% of the contract amount. NTP shall not be issued and no work shall commence until a fully executed performance bond and required insurance are submitted and approved by Miami-Dade County's Risk Management Division. Failure to provide a Performance & Payment Bond within the time required inclusive of any time extensions granted by DSWM may be considered withdrawal of the bid and forfeiture of the Bid Bond. The Contractor will be reimbursed for the direct (actual) Surety Performance and Payment costs upon presentation of an invoice and paid receipt/cancelled check.

## **21.0 SCRUTINIZED COMPANIES:**

By executing this proposal through a duly authorized representative, the bidder certifies that the bidder is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, as those terms are used and defined in sections 287.135 and 215.473 of the Florida Statutes. In the event that the bidder is unable to provide such certification but still seeks to be considered for award of this solicitation, the bidder shall execute the proposal through a duly authorized representative and shall also initial this space: \_\_\_\_\_. In such event, the bidder shall furnish together with its proposal a duly executed written explanation of the facts supporting any exception to the requirement for certification that it claims under Section 287.135 of the Florida Statutes. The bidder agrees to cooperate fully with the County in any investigation undertaken by the County to determine whether the claimed exception would be applicable. The County shall have the right to terminate any contract resulting from this solicitation for default if the bidder is found to have submitted a false certification or to have been, or is subsequently during the term of the contract, placed on the Scrutinized Companies for Activities in

Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

**22.0 USER ACCESS PROGRAM:**

Pursuant to Miami-Dade County Budget Ordinance No. 03-192, this Contract is subject to a user access fee under the County's User Access Program (UAP) in the amount of two percent (2%). All construction services provided under this contract are subject to the 2% UAP. This fee applies to all Contract usage whether by County Departments or by any other governmental, quasi-governmental or not-for-profit entity. From every payment made to the Contractor under this contract (including the payment of retainage), the County will deduct the two percent (2%) UAP fee provided in the ordinance and the Contractor will accept such reduced amount as full compensation for any and all deliverables under the contract. The County shall retain the 2% UAP for use by the County to help defray the cost of its procurement program. Contractor participation in this pay request reduction portion of the UAP is mandatory.

**23.0 CONTRACTOR DUE DILIGENCE AFFIDAVIT:**

The attention of the Contractor is hereby directed to the requirements of Resolution R63-14 in that the award of this contract is conditioned on the Contractor providing the County, when required, with a "CONTRACTOR DUE DILIGENCE AFFIDAVIT".

**24.0 CONE OF SILENCE:**

The attention of the Contractor is hereby directed to the requirements of Miami-Dade County Administrative Order No. 3-27 – Cone of Silence.

**25.0 BID PROTEST:**

The attention of the Contractor is hereby directed to the requirements of Miami-Dade County Implementing Order No. 3-21 – Bid Protest and Resolution R-1080-19 which updated the Bid Protest filing fees for contracts set-aside for bidding solely by certified Small Business Enterprises, and other relevant sections.

**26.0 PROMPT PAYMENT:**

The attention of the Contractor is hereby directed to the requirements of Miami-Dade County Administrative Order No. 3-19 – Prompt Payment.

**27.0 ASSIGNABILITY/ASSIGNMENT:**

ASSIGNABILITY - Department of Solid Waste Management (DSWM) may assign its rights and obligations under the Contract to any successor to the rights and functions of DTW or to any governmental agency to the extent required by applicable laws or

governmental regulations or to the extent that DSWM deems necessary or advisable under the circumstances.

ASSIGNMENT - The Contractor shall not assign, transfer, or otherwise dispose of this Contract, including any rights, title or interest therein, or their power to execute such Contract to any person, company or corporation without the prior written consent to DSWM. DSWM's consent for any assignment will not be unreasonably withheld.

**28.0 SECTION 20.055 (5):**

The contractor/consultant/vendor agrees to comply with s.20.055 (5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with s.20.055 (5), Florida Statutes.

*Section 20.055 (5): It is the duty of every state officer, employee, agency, special district, board, commission, contractor, and subcontractor to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section. Beginning July 1, 2015, each contract, bid, proposal, and application or solicitation for a contract shall contain a statement that the corporation, partnership, or person understands and will comply with this subsection.*

**29.0 RESOLUTION NO. 1181-18 / DIRECTIVE NO. 182536**

The Contractor is directed to the attached report regarding consideration of Contractor Safety Information as a Part of the Contractor Responsibility Review for Contract Award – Directive No. 182536 and the requirements of Resolution No. 1181-18, applicable to this Project.

**30.0 BUY AMERICAN IRON AND STEEL PRODUCTS PROCUREMENT PROGRAM**

Pursuant to Section 2-8.2.6.1 of the County Code, this section shall be known as the "Buy American Iron and Steel Products Procurement Program" and is intended to set forth requirements to use iron and steel products produced in the United States for construction contracts that are subject to approval or ratification by the Board of County Commissioners.

**31.0 CYBERSECURITY AND INFORMATION TECHNOLOGY PROCUREMENT AND PROTECTION PROGRAM (When Applicable)**

Pursuant to Section 2-8.2.6.2 of the County Code, this section shall be known as the "Cybersecurity and Information Technology Procurement and Protection Program" and is intended to set forth requirements to purchase cybersecurity products produced in the United States for contracts that are subject to approval or ratification by the Board of County Commissioners and to provide heightened review of vendors with access to County cybersecurity systems.

## **32.0 AMERICANS WITH DISABILITY ACT (ADA)**

Pursuant to Administrative Order No. 10-10, it is the policy of Miami-Dade County to ensure that all Miami-Dade County departments adhere to the Americans with Disabilities Act (ADA). The ADA is a federal law that prohibits public entities from discriminating on the basis of disability by providing comprehensive civil rights protections to individuals with disabilities in the areas of employment, state and local government services, telecommunications, and public accommodations. This Administrative Order establishes the duties and responsibilities of Miami-Dade County departments, and their respective ADA Coordinators and designated staff, to ensure compliance and improve equity and engagement with the disability community.

## **33.0 HUMAN TRAFFICKING AFFIDAVIT**

The Human Trafficking Affidavit is required by Section 787.06, Florida Statutes (“F.S.”), as amended by HB 7063, which is deemed as being expressly incorporated into this Form. The Form must be completed by a person authorized to make this attestation on behalf of the Contractor (Nongovernmental Entity) for the purpose of executing, amending, or renewing a Contract with the County (Governmental Entity). The associated Contract shall not become effective unless and until this completed and executed Form is submitted to the County (Governmental Entity). The term Governmental Entity has the same meaning as in Section 287.138(1), F.S.

## **34.0 CERTIFICATE OF ASSURANCE (COA) AND UTILIZATION PLAN (UP):**

For all projects with approved **SBE-CONS, SBE-A/E, SBE-G, and SBE-S “Set-Aside” or “Goal”** measures, all bidders are required to submit a Small Business Development (SBD) Certificate of Assurance (COA) at the time of bid submission. The COA must be completely filled out, signed, notarized, and submitted with each bid in order for the bidder to be deemed compliant by SBD. **Failure to submit the required COA at the time of bid submittal may result in the bidder being deemed non-compliant and not eligible for award of the contract.**

Successful first, second, and third ranked bidders will subsequently be notified to complete a Utilization Plan (UP), within a specified time frame, for SBD’s review and approval via Miami-Dade County’s online Business Management Workforce System (BMWS). The UP shall list all certified Miami-Dade County Small Business Enterprise (SBE) subcontractor(s), subconsultant(s), and/or sub-vendor(s) that will satisfy the project’s established SBE measure(s). Each SBE subcontractor, subconsultant, and/or sub-vendor will also be required to confirm its contractual relationship via BMWS, within the specified time frame, for final approval by SBD. The COA and UP requirements do not apply to “No Measure” open market projects; however, all prime and subcontractor(s), subconsultant(s), and/or sub-vendor(s) will be required to report and confirm all payments made on County projects

**\*\*Bidders may request a copy of any ordinance, resolution and/or administrative order cited in this bid solicitation, by contacting the Clerk of the Board at 305-375-5126.**



## INDEMNIFICATION AND INSURANCE

Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the performance of this Agreement by the Contractor or its employees, agents, servants, partners principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon. Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided.

The Contractor shall furnish to Department of Solid Waste Management, 2525 NW 62<sup>nd</sup> Street, 5<sup>th</sup> Floor, Miami, FL 33147, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

- A. Worker's Compensation Insurance for all employees of the Contractor as required by Florida Statute 440.
- B. Commercial General Liability Insurance in an amount not less than \$1,000,000 per occurrence, and \$2,000,000 in the aggregate, not to exclude Products and Completed Operations. **Miami-Dade County must be shown as an additional insured with respect to this coverage.**
- C. Automobile Liability Insurance covering all owned, non-owned and hired vehicles, in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage.
- D. Umbrella Liability Insurance in an amount not less than \$3,000,000 per occurrence, and \$3,000,000 in the aggregate.
  - a. *If Excess Liability is provided must be follow form of the General Liability policy.*

All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida, with the following qualifications:

The company must be rated no less than "A-" as to management, and no less than "Class VII" as to financial strength, by Best's Insurance Guide, published by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.

or

The company must hold a valid Florida Certificate of Authority as shown in the latest “List of All Insurance Companies Authorized or Approved to Do Business in Florida” issued by the State of Florida Department of Financial Services.

**NOTE: CERTIFICATE HOLDER MUST READ:**

**MIAMI-DADE COUNTY  
111 NW 1<sup>st</sup> STREET  
SUITE 2340  
MIAMI, FL 33128**

ATTACHMENT “ A “

Certificate of Acceptance for Substantial Completion

Certificate of Final Acceptance

## CERTIFICATE OF ACCEPTANCE FOR SUBSTANTIAL COMPLETION

**RPQ No.:** \_\_\_\_\_

**Date :** \_\_\_\_\_

**Description :** \_\_\_\_\_

**Address :** \_\_\_\_\_

**Contractor :** \_\_\_\_\_

**Consultant :** \_\_\_\_\_

**Surety :** \_\_\_\_\_

*The work performed under the subject Contract has been reviewed, and subject to the Contract requirements of **Article 29, Substantial Completion, Final Inspection and Acceptance**, all remaining work has been found to be Substantially Completed as of \_\_\_\_\_.*

*A **Punch List** of items to be completed or corrected, is appended hereto.*

*In the event that the Work, including the Punch List items, is not corrected by the Contract Completion date, the Contract stipulations regarding **Liquidated Damages** will be imposed until such time as the work is certified by the County's Resident Engineer or its Consultant and the Director, DSWM to be complete in all respects and a **Certificate of Final Acceptance** is issued.*

( COMPANY SEAL)

Signed : \_\_\_\_\_

**Contractor**

Recommended : \_\_\_\_\_

**Resident Engineer/Project Manager**

Recommended : \_\_\_\_\_

**Chief, Construction**

## Certificate of Final Acceptance

RPQ No.:

Description:

Address:

Consultant:

Contractor:

Surety:

The **UNDERSIGNED** hereby certify that, to the best of our knowledge and belief, based on observations of the punch list work required under the terms of the Agreement, we have found that the Work items identified in the **PUNCH LIST**, dated \_\_\_\_\_ (**"PUNCH LIST"**) were completed as of \_\_\_\_\_. We therefore recommend that the **FINAL ACCEPTANCE DATE** be established as: \_\_\_\_\_

Notwithstanding the above, this Certificate shall not be construed as a finding regarding whether work performed on this Contract was done in accordance with all applicable Contract requirements, and the County expressly reserves all of its rights and claims under the Contract, or otherwise, to seek recovery or indemnity for any defects in materials, equipment, or workmanship, or for non-conformance with any Contract requirements.

Recommended : \_\_\_\_\_  
**Resident Engineer/Project Manager**

Recommended : \_\_\_\_\_  
**Chief, Construction**

:

ATTACHMENT “ B “

Contractor Release

Agreement on Final Quantities and Amounts

Final Affidavit

Labor Standards Provisions Final Certificate

Memorandum of Understanding

Certificate of Sub-Contractor Status

Final Release of Lien

## CONTRACTOR RELEASE

**RPO No.:**

**KNOW ALL MEN BY THESE PRESENTS :** Pursuant to the terms of the Contract and in consideration of the sum of \_\_\_\_\_ paid by the ***Miami-Dade County*** under the Contract, the undersigned Contractor does, and by the receipt of said sum shall, for itself, its successors and assigns, remise, release and forever discharge MDC, its officers , agents and employees, of and from all liabilities, obligations, and claims whatsoever, in law and in equity, under or arising out of said Contract.

**IN WITNESS WHEREOF**, this release has been executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

( ***COMPANY SEAL*** )

\_\_\_\_\_  
***Contractor***

\_\_\_\_\_  
***Signature***

WITNESS :

***Print Name :*** \_\_\_\_\_

***Print Title :*** \_\_\_\_\_

**NOTE** : In the case of a corporation, witnesses are not required , but the ***CERTIFICATE*** below must be completed.

### ***CERTIFICATE***

I, \_\_\_\_\_, certify that I am the ***Secretary*** of the corporation named as Contractor in the foregoing release; that \_\_\_\_\_ who signed said release on behalf of the Contractor, was then \_\_\_\_\_ of said Corporation; that said release was duly signed for and on behalf of said corporation under the authority of its governing body, and within the scope of its corporate powers.

( ***CORPORATE SEAL*** )

\_\_\_\_\_  
***Signature***

AGREEMENT  
ON  
FINAL QUANTITIES AND AMOUNTS

**RPO No.:**

The Contractor and Resident Engineer agree that the **QUANTITIES** as shown on the **FINAL PAY REQUEST No.** are **EQUITABLY** paid for by application of the agreed **LUMP SUM PRICES**.

It is finally agreed that the right in the Contract clause to request negotiation of a different amount is **WAIVED** by the Contractor and the Authorized Representative of the Contracting Officer.

*( Company Seal )*

\_\_\_\_\_  
***Contractor***

\_\_\_\_\_  
***Signature***

\_\_\_\_\_  
***Print Name***

\_\_\_\_\_  
***Print Title***

\_\_\_\_\_  
***Date***

\_\_\_\_\_

***Resident Engineer***

\_\_\_\_\_

***Date***

\_\_\_\_\_  
***Print Name***

## FINAL AFFIDAVIT

***RPQ No.:***

The undersigned Contractor, \_\_\_\_\_, certifies and warrants to **Department of Solid Waste Management** that \_\_\_\_\_ has paid in full and completely discharged any and all claims, demands, obligations and liabilities of \_\_\_\_\_ in connection with or arising out of ***RPQ No.*** \_\_\_\_\_, including without limitation, all claims for labor performed and materials, supplies, equipment and other items furnished or used in connection with performance of said Contract.

( ***COMPANY SEAL*** )

***Contractor :*** \_\_\_\_\_

***Signature :*** \_\_\_\_\_

***Print Name :*** \_\_\_\_\_

***Print Title :*** \_\_\_\_\_

***Date :*** \_\_\_\_\_

## LABOR STANDARDS PROVISIONS

### FINAL CERTIFICATE

**RPQ No.:**

The undersigned Contractor, \_\_\_\_\_, hereby certifies that all laborers, mechanics, apprentices and trainees employed by him or by any Subcontractor performing work under the Contract on the project have been paid ***wages at rates no less than those required by the Contract provisions***, and that the work performed by each laborer, mechanic, apprentice or trainee conformed to the classifications set forth in the Contract or training program provisions applicable to the wage rate paid.

EXCEPTION (S) :

***Contractor :*** \_\_\_\_\_

***( COMPANY SEAL )***

***Signature :*** \_\_\_\_\_

***Print Name :*** \_\_\_\_\_

***Print Title :*** \_\_\_\_\_

***Date :*** \_\_\_\_\_

## MEMORANDUM OF UNDERSTANDING

### **RPO No.:**

**WHEREAS,** \_\_\_\_\_, ( hereafter referred to as the " Contractor " ) and the **Department of Solid Waste Management**, the parties hereto, have mutually agreed to the **total Contract amount** in the sum of \_\_\_\_\_ and a final payment of \_\_\_\_\_ for a **COMPLETE CLOSE-OUT** of **RPO No.**

It is understood and expressly agreed that :

- (1) This Memorandum of Understanding is subject to the recommendations of the Assistant Director and the Director of Department of Solid Waste Management.
- (2) In consideration of the payment by DSWM of a **total Contract amount** of \_\_\_\_\_, ( inclusive of all finalized Change Orders ), the Contractor hereby withdraws with prejudice all Claims, Disputes, and Appeals of the Contractor or any of its Subcontractors or Suppliers under the subject Contract. DSWM likewise, withdraws with prejudice, all Claims and/or Backcharges it has against the Contractor.
- (3) The retention withheld in **Pay Request No.** \_\_\_\_\_ is \_\_\_\_\_ and will be paid in full. Therefore, the Contractor acknowledges the final payment of \_\_\_\_\_ in **Pay Request No.** \_\_\_\_\_ as the outstanding balance due to date on the Contract.
- (4) DSWM reserves the right to complete an audit upon the request of the Assistant Director, Engineering Services when warranted.
- (5) All terms and conditions of the Contract otherwise remain unchanged including the Contractor's liabilities for warranties, latent defects and the like.
- (6) The execution of this Memorandum and payment in accordance with these terms, and the finalized Contract Change Orders, shall constitute a full accord and satisfaction of all Claims and all rights of the parties against each other, except for claims of the Owner for latent defects discussed after the date of this Memorandum or for warranty items.

( COMPANY SEAL )

*Contractor :* \_\_\_\_\_

*Signature :* \_\_\_\_\_

*Print Name :* \_\_\_\_\_

*Print Title :* \_\_\_\_\_

*Date :* \_\_\_\_\_

**RECOMMENDED**

By : \_\_\_\_\_  
Resident Engineer/Project Manager

By : \_\_\_\_\_  
Chief, Construction Division

## CERTIFICATE OF SUB-CONTRACTOR STATUS

This is to certify that the following is a complete list of sub-contractors who worked on  
**RPO No.**

Name	Description of work	Original Contract Amount	Paid to date	Amount Owed

( COMPANY SEAL )

\_\_\_\_\_  
***Contractor***

\_\_\_\_\_  
***Signature***

\_\_\_\_\_  
***Print Name & Title***

\_\_\_\_\_  
***Date***

## FINAL RELEASE OF LIEN

Notary Seal:

ATTACHMENT "C"

Sub-Contractor's/Supplier's Release of Claim

Consent of Surety Company to Requisition Payment

SUBCONTRACTOR'S / SUPPLIER'S RELEASE OF CLAIM

NOTE: The General Contractor shall attach this statement, completed by each Subcontractor whose work appears on the prior requisition for payment or has work in place since the last requisition for payment.

Project No.: \_\_\_\_\_

Date: \_\_\_\_\_

Project Title: \_\_\_\_\_

Subcontractor: \_\_\_\_\_

Requisition No.: \_\_\_\_\_ From: \_\_\_\_\_ To: \_\_\_\_\_

Before me, the undersigned authority, authorized to administer oaths and take acknowledgments appeared: \_\_\_\_\_ who, after being first duly sworn, upon oath, deposes and says that pursuant to the provisions of his contract for said project, all money due him under prior requisitions for payment have been paid to him by \_\_\_\_\_, the General Contractor.

(COMPANY SEAL)

\_\_\_\_\_  
Legal Name of Subcontractor

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

State of \_\_\_\_\_)

) ss

County of \_\_\_\_\_)

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_ on behalf of \_\_\_\_\_.

[ ] who is personally known to me or [ ] who has produced \_\_\_\_\_ as identification and who

[ ] did [ ] did not take an oath.

Notary Signature: \_\_\_\_\_

Type or Print Name: \_\_\_\_\_

Notary Seal:



## CONSENT OF SURETY COMPANY TO REQUISITION PAYMENT

PROJECT No. \_\_\_\_\_

PROJECT TITLE: \_\_\_\_\_

PROJECT LOCATION: \_\_\_\_\_

TO: \_\_\_\_\_ Re: PAY REQUEST No. \_\_\_\_\_ DATE: \_\_\_\_\_

IN THE AMOUNT OF: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ RPQ No. \_\_\_\_\_

THE UNDERSIGNED SURETY COMPANY \_\_\_\_\_,  
(INSERT NAME OF SURETY COMPANY)

\_\_\_\_\_, ON BOND OF  
(ADDRESS)

THE CONTRACTOR LISTED ABOVE, HEREBY APPROVES THIS PAYMENT TO THE CONTRACTOR AND AGREES THAT THE PAYMENT TO THE CONTRACTOR SHALL NOT RELIEVE THE SURETY COMPANY OF ANY OF ITS OBLIGATIONS TO MIAMI-DADE COUNTY, INCLUDING THE SECURITY FROM ANY AND ALL LIENS, CLAIMS OR DEMANDS WHATSOEVER THAT MAY NOW EXIST OR BE MADE IN THE FUTURE BY ANY SUB-CONTRACTOR OR MATERIAL SUPPLIERS AGAINST THIS PROJECT AND CONTRACT.

THIS CONSENT OF SURETY RECOGNIZES THAT CLAIMS HAVE BEEN MADE BY THE FOLLOWING SUB-CONTRACTORS AND MATERIAL SUPPLIERS AGAINST THE CONTRACT IN THE AMOUNTS LISTED BELOW:

_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

SURETY RECOGNIZES THAT RELEASES OF LIEN OR RELEASES AND ASSIGNMENT OF CLAIM HAVE NOT BEEN REQUESTED OR RECEIVED FROM ALL THE SUB-CONTRACTORS AND MATERIAL SUPPLIERS FOR THIS FACILITY.

IN WITNESS THEREOF,

THE SURETY COMPANY HAS HEREUNTO SET ITS HAND THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
SURETY COMPANY

ATTEST:  
(SEAL)

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
TITLE

ATTACHMENT “D”

“Contractor Agent to Accept Service”

## CONTRACTOR AGENT TO ACCEPT SERVICE

RPQ No.: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTRACT TITLE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

NOTICE TO PROCEED (NTP) DATE: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR TELEPHONE No.: \_\_\_\_\_

CONTRACTOR E-MAIL ADDRESS: \_\_\_\_\_

AGENT'S NAME: \_\_\_\_\_

AGENT'S TITLE: \_\_\_\_\_

AGENT'S ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

AGENT'S TELEPHONE No. \_\_\_\_\_

AGENT'S E-MAIL ADDRESS \_\_\_\_\_

***Contractor Corporate Representative***

Submitted By: \_\_\_\_\_

SIGNATURE

CONTRACTOR

ATTACHMENT "E"

Force Account Daily Report:  
Labor, Material & Equipment



**FORCE ACCOUNT DAILY REPORT:  
LABOR, MATERIAL & EQUIPMENT**

DATE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

CONTRACT No. \_\_\_\_\_ REPORT No. \_\_\_\_\_

CONTRACT CHANGE NOTICE / DSWM LETTER: \_\_\_\_\_ PAGE No. \_\_\_\_\_ of \_\_\_\_\_

**IMPORTANT-THIS FORM MUST BE SIGNED AND SUBMITTED NOT LATER THAN THE DAY FOLLOWING DATE WORK WAS PERFORMED.**

**The following work was performed this date requiring the use of the Labor Force, Materials, Equipment, Special Forces and Services listed hereon:**

Description of work performed:

LABOR					EQUIPMENT					
NAME	CRAFT	HRRAT	HOURS	TOTALS	MAKE	MODEL	DESCRIPTION	HOURS	RATE	EXT.

CERTIFIED CORRECT BY:

DATE

MATERIAL INVOICE ON UNIT PRICES TO BE PROVIDED.  
NO INVOICE OLDER THAN 30 DAYS ACCEPTED.

ALL EQUIPMENT RATES ARE ADJUSTED TO REFLECT CALIFORNIA BLUE BOOK

QUAN.	UNIT	DESCRIPTION	MATERIALS	RECAP
				LABOR
				MATERIALS
				EQUIPMENT

CERTIFIED CORRECT BY: \_\_\_\_\_ DATE \_\_\_\_\_

TOTAL THIS SHEET

**FOR ENGINEER'S USE**

APPROVED AS TO SUBSTANCE

EXTENSION OF LABOR, MATERIAL & EQUIPMENT VERIFIED BY:

BY: \_\_\_\_\_  
RESIDENT ENGINEER DATE

INSPECTOR \_\_\_\_\_ DATE

ATTACHMENT "F"

Certification of the Contractor

## CERTIFICATION OF THE CONTRACTOR

The Contractor shall execute this Affidavit and submit it with all releases.  
RPQ No. \_\_\_\_\_

According to the best of my knowledge and belief, I certify that as of the date of this release all work has been performed and materials supplied in full accordance with the terms and conditions of the Contract.

I further certify that to the best of my knowledge and believe there are no outstanding claims for Labor, material or Time by or against Contractor unless otherwise noted below and that payments in full have heretofore been made by the Contractor, for which payment has been received, to all persons, firms and corporations supplying labor, materials, equipment or supplies, used directly or indirectly by the Contractor or by any subcontractor in the prosecution of the work provided for in said Contract.

Estimate No. \_\_\_\_\_

For period ending: \_\_\_\_\_

Date: \_\_\_\_\_

Contractor: \_\_\_\_\_

Affix corporate seal if corporation

By: \_\_\_\_\_

Exception(s) for claims and to appropriate payment to subcontractors and obtaining a Miami-Dade County Release of Lien is/are: \_\_\_\_\_

Signed, Sealed and Delivered in the presence of:

State of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, before me, a Notary Public, in aforesaid County, personally appeared \_\_\_\_\_, the \_\_\_\_\_ of \_\_\_\_\_ who acknowledged that he/she executed the above Affidavit on behalf of the Corporation or Entity as its free act and deed.

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

# SPECIFICATIONS

- Scope of Work
- Project Specifications
- Florida Department of Transportation Standard Specifications /  
Technical Specifications
- Drawings

## **SCOPE OF WORK**

The project, “**Asphalting at Various DSWM Locations – Northeast Transfer Station,**” located at **18701 NE 6th Ave, Miami, FL 33179**, consists of furnishing all materials, labor, and equipment necessary for its completion. The scope includes:

- Restoration of the Northeast Transfer Station through milling and resurfacing
- Replacement/repair of asphalt pavement
- Upgrading of signage and pavement markings
- Drainage/inlet adjustments
- Any additional work specified in the plans

### **General Sequence of Construction**

#### **Phase 1 – Traffic Separator Reconstruction**

- Remove the designated portion of the existing traffic separator as indicated in the plans
- Reconstruct the proposed traffic separator and maintain it free of loading for 72 hours to allow for concrete curing

#### **Phase 2 – Flexible Pavement Reconstruction**

- Remove and reconstruct flexible pavements in specified areas
- Replace speed hump as indicated in the plans
- Adjust utility valves and manholes as necessary
- Ensure that areas where pavement reconstruction is incomplete at the end of the construction day are filled with suitable material to avoid disruption of facility operations

#### **Phase 3 – Milling, Resurfacing, Overbuild, Pavement Markings & Signage**

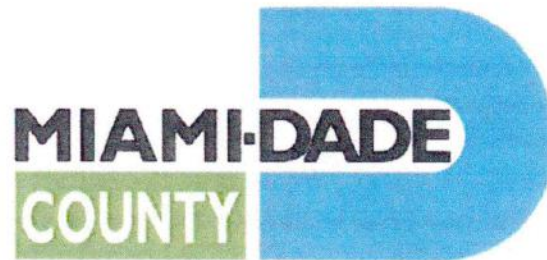
- Remove and reset existing wheel stops as needed for milling and resurfacing
- Perform milling, resurfacing, and overbuilding as indicated in the plans
- Apply painted pavement markings
- Remove, replace, and install signage as indicated in the plans

#### **Phase 4 – Thermoplastic Pavement Marking**

- Apply thermoplastic pavement markings

# MIAMI-DADE COUNTY

DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICE DIVISION



## PROJECT SPECIFICATIONS

ASPHALTING VARIOUS DSWM LOCATIONS  
NORTHEAST TRANSFER STATION

18701 NE 6<sup>th</sup> AVENUE, MIAMI, FL 33179  
MIAMI-DADE COUNTY, FLORIDA

**PROJECT No. EDP-SW-18470-22**

May, 2025



**Asphalting at Various DSWM Locations  
Northeast Transfer Station  
EDP-SW-18470-22**

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**04 APPENDIXES**

**05 APPENDIX A - Permits**

**END OF TABLE OF CONTENTS**

## SECTION 01 10 15

### LIST OF DRAWINGS

#### PART 1 GENERAL

##### 1.1 PLANS

- A. Plans dated **March 23, 2025** and any subsequent revision thereto introduced by Addenda prior to Bid, showing the work of the Contract are hereby made a part of the Plans and are listed as follows:

#### **Asphalting at Various DSWM Locations Northeast Transfer Station EDP-SW-18470-22**

<u>SHEET No.</u>	<u>SHEET DESCRIPTION</u>
1	COVER
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	PROJECT LAYOUT
5-10	PAVEMENT IMPROVEMENTS
11-12	SPECIAL DETAILS
13-18	SIGNING AND PAVEMENT MARKING PLANS
19	SIGNING AND PAVEMENT MARKING DETAILS
1 TO 8 OF 8	TOPOGRAPHIC SURVEY NORTHEAST TRANSFER STATION

- B. Due to the possibility of typing errors or omissions, the above list shall not be considered as necessarily complete, nor shall the Standard Details which may be included elsewhere herein be considered as forming a complete listing of all Standard Details which may apply to this Project. Perform all work shown on all sheets of the Plans, as specified herein or necessary for a complete functional installation and no extra compensation will be made due to the omission or incorrect listing of a Drawing in this Section. All applicable FDOT Standard Plans are incorporated into these Contract Documents and all work shall be performed in accordance with these plans.

#### **PART 2 PRODUCTS** (NOT USED)

#### **PART 3 EXECUTION** (NOT USED)

**END OF SECTION**

## **SECTION 01 11 00**

### **SUMMARY OF WORK**

#### **PART 1 GENERAL**

##### **1.1 SCOPE OF WORK**

- A. This Section describes the project in general and provides an overview of the extent of the work to be performed under this Contract. Detailed requirements and extent of work is stated in the applicable Specification sections and shown on the Contract Drawings. The Contractor shall, except as otherwise specifically stated herein or in any applicable parts of the Contract Documents, provide and pay for all labor, materials, equipment, tools, construction equipment, and other facilities and services necessary for proper execution, testing, and completion of the work under this Contract.

##### **1.2 SPECIFICATIONS**

- A. The Specifications included in these Contract Documents establish the minimum performance and quality requirements for materials and equipment together with the minimum standards for quality of workmanship and appearance. Generally, there has been no attempt to separate the Specification sections into groups for the work of separate subcontractors, or for work to be performed by the various trades. Should there be any question as to the interpretation of any particular Specification section or part of Specification section, such question should be directed to the Engineer prior to the submittal of a proposal for the work under this Contract.
- B. The work shown on the Plans is intended to be comprehensive and descriptive, not an exact and complete representation of the actual finished work.
- C. It is the intent of the Department to obtain a complete functional, and satisfactory installation under this project, and any items of labor, equipment or materials which may be reasonably assumed as necessary to accomplish this end shall be supplied whether or not they are specifically shown on any plans which may be supplied or stated herein. The Contractor shall provide all materials for the project unless they are specifically called out in these specifications as being supplied by the Department. The Contractor shall also supply all sheeting, shoring, bracing and all other labor, material or equipment required to preclude damage to, or loss of functionality of, any existing facility or system.
- D. No request for additional compensation or Contract time (except for a non-compensable time extension at the sole discretion of the Engineer, whose decision shall be final) resulting from encountering utilities or structures not shown, or differing in location or elevation from that shown, will be considered. The Contractor shall explore sufficiently ahead of the Work to allow time for any necessary adjustments without delay to the progress of the installation. Costs

due to delays occasioned by encountering underground utilities or structures which could have or should have been discovered by timely exploration ahead of the Work shall rest solely with the Contractor.

### 1.3 REASONABLY IMPLIED PARTS OF THE WORK SHALL BE DONE THOUGH ABSENT FROM SPECIFICATIONS

- A. Any part of the work which is not mentioned in the Specifications but is shown on the Drawings, or any part not shown on the Drawings but described in the Specifications, or any part not shown on the Drawings nor described in the Specifications, but which is necessary or normally required as a part of such work, or is necessary or required to make each installation satisfactorily and legally operable, shall be performed by the Contractor as incidental work without extra cost to the Department, as if fully described in the Specifications and shown on the Drawings, and the expense thereof shall be included in the applicable unit prices or lump sum bid for the work.

### 1.4 DESCRIPTION OF WORK

- A. The work consists of furnishing all materials, labor, and equipment necessary for the project "Asphalting at Various DSWM Locations Northeast Transfer Station" located at 18701 NE 6<sup>th</sup> Ave., Miami FL 33179. The project shall include, but is not limited to, the restoration of the Northeast Transfer Station by milling and resurfacing, replacement/reparation of the asphalt pavement, upgrading the signing and pavement markings, and drainage/inlet adjustments. and any other work as indicated in the contract plans.
- B. It is the intent of the Department to obtain a complete functional and satisfactory working installation under this Contract and any items of labor, equipment and materials which may reasonably be assumed as necessary to accomplish this end shall be supplied whether or not they are specifically shown on the Plans or stated herein.

### 1.5 MINIMUM CONSTRUCTION EXPERIENCE OF THE CONTRACTOR

- A. As preferred with his bid, the successful Bidder shall submit proof that his/her firm has at least 5 years of successful contract experience with similar projects as required below for the RPQ being bid. Such proof shall consist of a list of projects, completed prior to the bid date, with the names and telephone numbers of the owners or representatives the Department can call and confirm the listed experience.
- B. The experience of key senior personnel with other firms may be counted toward the experience requirement, if acceptable to the Engineer. Should such evidence not be satisfactory to the Engineer, whose decision shall be final, the bid will be considered non-responsive, and the second low bidder will be considered for award. The qualifying proof shall be submitted in a separate sealed envelope with the bid.

- C. In the event a firm is established by executives, supervisors and other senior field staff (key employees) that would have met these minimum experience requirements with a prior firm, the Department reserves the right to qualify the firm based on the Department's sole determination and evaluation of the knowledge and prior experience of these key employees employed by the new firm.

## 1.6 TESTING

- A. Testing procedures shall be submitted to the Engineer as Shop Drawings and will be subject to review and approval. The Department reserves the right to require test procedure and equipment changes and revisions to the extent considered appropriate by the Engineer whose decision shall be final. The Contractor is advised that all testing shall be carried out in accordance with the best practices of the trade, best management practices (bmp) and as recommended in writing by the engineering/technical/test staff of the manufacturer of the equipment and he should plan and price his test work accordingly. In no case will test recommendations of a manufacturer's sales or management groups be considered sufficient. All necessary temporary power sources, load banks, test materials, test instrumentation, qualified test personnel including manufacturer's representatives, fuels and lubricants shall be provided by the Contractor and shall be as approved by the Engineer and, if not approved, the Contractor shall change the item(s) to the satisfaction of the Engineer. Where required by the Engineer, testing shall be carried out utilizing Contractor- supplied power sources. The Contractor shall include in his prices bid all costs for testing and no extra compensation will be allowed.

**PART 2      PRODUCTS**  
(NOT USED)

**PART 3      EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 29 00**

### **MEASUREMENT AND PAYMENT**

#### **PART 1 GENERAL**

##### **1.01 GENERAL**

- A. The Contractor shall receive and accept the compensation as provided in the Quotation, the RPQ and "Invoices and Payments" of the Special Conditions as full payment for furnishing all labor, materials, tools and equipment, for performing all operations necessary to complete the work under this Contract, and also in full payment for all loss or damages arising from the nature of the Work, or from the action of the elements or from unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the Department.
- B. The cost breakdown (schedule of values) approved by the Engineer will be used as the basis for making progress payments and for determining the cost of extra work which is the same or similar (as determined by the Engineer) to that defined in the schedule of values.
- C. The prices stated in the Quotation include full compensation for overhead and profit, all costs and expenses for taxes, labor, equipment, furnishing and repairing small tools and ordinary equipment, mobilization, home office expenses and general supervision, materials, commissions, transportation charges and expenses, patent fees and royalties, bond, insurance, labor for handling materials during inspection, together with any and all other costs and expenses for performing and completing the work as shown on the Contract Drawings and specified herein. In addition, the Contractor shall include the actual cost of social security taxes, unemployment insurance, worker's compensation, fringe benefits, inclusive of life and health insurance, union dues, pension, pension plans, vacations, and insurance and contractor's public liability and property damage insurance involved in the work based on the actual wages paid to such labor and all other general costs and profits, prorated to each item.
- D. Unless otherwise specifically stated elsewhere herein, the Contractor shall include in the prices bid all materials, electrical supply, fuel, lubricants, temporary equipment, temporary wiring, temporary piping and fittings, pumps, gages, and all other items of whatever nature required to completely test, balance, disinfect if required, and put into fully operational condition all equipment and/or systems supplied by either the Department or the Contractor and installed as a part of this Project. Further, any test materials supplied by the Contractor shall be completely satisfactory to the Department. Any decision as to whether a particular material is suitable for test purposes shall be at the sole discretion of the Engineer whose decision shall be final. Any material considered not suitable shall be immediately replaced by the Contractor with suitable material and no extra compensation will be allowed.
- E. It is the intent of the Department to obtain a complete and working installation under this Contract, and any items of labor, equipment or materials which may

reasonable be assumed as necessary to accomplish this end shall be supplied whether or not they are specifically shown on the Plans or stated herein.

- F. It is intended that all work required to complete this Contract will be included in the various bid items as follows:

## 1.02 PAYMENT ITEMS

Item No. 1. Mobilization: For performing preparatory work and operations in mobilizing for beginning the work of the Project, including preparation and acceptance of Maintenance of Traffic Plan, MOT, but excluding materials costs, which are paid under other payment items, shall include, but not be limited to: preparation, submission and acceptance of the MOT, by first the Department and if acceptable to the Department, submission and acceptance by all other governing authorities; supply, submission and correction of all shop drawings for long lead time materials or equipment which need to be ordered immediately; together with ordering said equipment and materials in a timely fashion; those operations necessary for the movement of personnel, equipment, supplies and incidentals to the Project site; for the establishment of safety equipment and first aid supplies, sanitary and other facilities; temporary offices and buildings if required; the cost of MOT and permit preparation/submission/acceptance; the costs of bonds, required insurance and other preconstruction expense. Also, included are the costs of required permits, fees, inspections, impact fees, and other direct costs of this nature, if authorized by the Engineer. Required permits include but are not limited to Miami-Dade County Building Department at the end of the Specifications. Payment shall reimburse the Contractor for only the cost of the construction permit or fee. Any question of whether a construction permit or fee is required shall be decided by the Engineer and Department whose words shall be final. Any portion of this fund remaining after all authorized payments have been made will be withheld from contract payments and will remain with the County.

No actual construction or physical preparation work may be performed at the site until the work of this item has been successfully achieved unless specific written approval by the Engineer is granted for said work. Such permission by the Engineer will only be granted if all bond and insurance is in place and a complete price together with construction duration for those items of work has been supplied by the Contractor and approved by the Engineer.

The mobilization item will be paid in four (4) separate payments, each equal to twenty-five (25%) percent of the amount bid for this item. The four payments will be made with the first, respectively, payment draws and is conditioned upon progress satisfactory to the Engineer being made pursuant to the accepted Project schedule.

Since this item is bid as a lump sum, payment will be in accordance with the cost breakdown as approved by the Engineer and measured as required by and satisfactory to the Engineer.

Item No. 2. Maintenance of Traffic: The price bid shall be full compensation for Maintaining traffic within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Provide facilities for access to residences, businesses, etc., along the project. Furnish, install and maintain traffic control and safety devices during construction. Furnish and install work zone pavement markings for maintenance of traffic (MOT) in construction areas. Provide any other special requirements for safe and expeditious movement of traffic specified in the Temporary Traffic Control Plans. MOT includes all facilities, devices and operations as required for safety and convenience of the public within the work zone.

Do not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Do not obstruct or create a hazard to any traffic during the performance of the work, and repair any damage to existing pavement open to traffic.

Since this item is bid as a lump sum, payment will be in accordance with the cost breakdown as approved by the Engineer and measured as required by and satisfactory to the Engineer

Item No. 3. Inlet Protection System. The price bid shall be full compensation for furnishing and installing Inlet Protection System at the locations shown on the plans or were directed by the Engineer in the field, complete and accepted by the Engineer.

This bid item will be paid for at the unit price bid times the number of locations and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory installation.

Item No. 4. Mowing: The price bid shall be full compensation for the area shown in the Contract Documents, in acres, for each mowing cycle completed and accepted. No adjustments will be made to the project area quantity.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 5. Clearing and Grubbing: The price bid shall be full compensation for all clearing and grubbing required for the property right-of-way and grubbing indicated, or required for the construction of the project, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc.

Since this item is bid as a lump sum, payment will be in accordance with the cost breakdown as approved by the Engineer and measured as required by and satisfactory to the Engineer.

Item No. 6. Tree Protection Barrier: The price bid shall be full compensation for the installation and removal of the tree protection barrier as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory installation and removal.

Item No. 7. Removal of Existing Concrete: The price bid shall be full compensation for performing and completing all the work of removal and satisfactory disposal.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory removal.

Item No. 8. Regular Excavation: The price bid shall be full compensation for all excavation work described in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 9. Embankment: The price bid shall be full compensation for all embankment work described in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 10. Type B Stabilization: The price bid shall be full compensation for all work and materials specified including furnishing, spreading and mixing of all stabilizing material required and any reprocessing of stabilization areas necessary to attain the specified bearing.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 11. Optional Base, Base Group 8: The price bid shall be full compensation for all work specified in the Contract Documents, including tack coat between base layers, prime coat, cover material for prime coat, bituminous material used in bituminous plant mix, and cement used in soil-cement.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 12. Milling Existing Asphalt Pavement 1" Average Depth: The price bid shall be full compensation for milling operations as specified in the contract documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 13. Superpave Asphaltic Concrete Traffic C: The price bid shall be full compensation for constructing a Superpave Asphalt Concrete pavement with the type of mixture specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 14. Manhole Adjust: The price bid shall be full compensation for the vertical adjustment of drainage manholes as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory adjustment.

Item No. 15. Manhole Adjust, Utilities: The price bid shall be full compensation for the vertical adjustment of utility manholes as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a

complete and satisfactory adjustment.

Item No. 16. Valve Boxes Adjust: The price bid shall be full compensation for the vertical adjustment of valve boxes as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory adjustment.

Item No. 17. Drainage Structures, Miscellaneous, Adjust: The price bid shall be full compensation for the vertical adjustment of drainage structures as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory adjustment.

Item No. 18. Replace Grate: The price bid shall be full compensation for the replacement of the grate of the drainage structures as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory replacement.

Item No. 19. Bollards: The price bid shall be full compensation for the installation of the bollards as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory installation.

Item No. 20. Traffic Separator Concrete Type I, 4' Wide: The price bid shall be full compensation for the construction of the concrete traffic separator as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 21. Concrete Curb Type D: The price bid shall be full compensation for the construction of the curb as specified in the Contract Documents including joint materials.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory construction.

Item No. 22. Bumper Guards, Concrete Bumper Guard, Concrete (Regular): The price bid shall be full compensation for all work specified in the Contract Documents for the installation of regular bumper guards.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory installation.

Item No. 23. Bumper Guards, Concrete Bumper Guard, Concrete (Large): The price bid shall be full compensation for all work specified in the Contract Documents for the installation of large bumper guards.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory installation.

Item No. 24. Performance Turf, Sod: The price bid shall be full compensation for the placement of performance turf as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all materials, labor, and equipment for a complete and satisfactory placement.

Item No. 25. Speed Hump: The price bid shall be full compensation for all work specified in the Contract Documents for the installation of the speed hump.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory installation.

Item No. 26. Single Column Ground Sign Assembly, Furnish and Install Ground Mount, Less Than 12 SF: The price bid shall be full compensation for furnishing and installing all single column ground mounted signs; which will include the sign panels, sheeting, support structure foundation, hardware, and labor necessary for a complete and satisfactory installation.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory installation.

Item No. 27. Single Column Ground Sign Assembly, Relocate: The price bid shall be full compensation to relocate all single column ground sign assemblies as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory relocation.

Item No. 28. Single Column Ground Sign Assembly, Remove: The price bid shall be full compensation for removing each sign; including the foundation if existing as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory removal.

Item No. 29. Sign Panel, Furnish and Install Ground Mount, Up to 12 SF: The price bid shall be full compensation for furnishing and installing all single panels; which will include hardware, and labor necessary for a complete and satisfactory installation.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and

satisfactory installation.

Item No. 30. Sign Panel, Furnish and Install Ground Mount, 21-30 SF: The price bid shall be full compensation for furnishing and installing all single panels; which will include hardware, and labor necessary for a complete and satisfactory installation.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory installation.

Item No. 31. Sign Panel, Remove, 21-30 SF: The price bid shall be full compensation for removing each panel as specified in the Contract Documents.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory removal.

Item No. 32. Raised Pavement Marker, Type B: The price bid shall be full compensation for all work specified in the Contract Documents for the placement of raised pavement markers.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for the satisfactory placement.

Item No. 33. Painted Pavement Markings, Final Surface: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

Since this item is bid as a lump sum, payment will be in accordance with the cost breakdown as approved by the Engineer and measured as required by and satisfactory to the Engineer

Item No. 34. Thermoplastic Standard White, Solid, 18" For Diagonals and Chevrons: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 35. Thermoplastic Standard White, 24" for Stop Lines and Crosswalk: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 36. Thermoplastic Standard White, 2-4 Dotted Guide Line, 6-10 Gap Extension Line, 6":

The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 37. Thermoplastic Standard White, Message or Symbol: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 38. Thermoplastic Standard White Arrow: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 39. Thermoplastic Standard Yellow Solid 18" for Diagonal or Chevron: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 40. Thermoplastic Standard Yellow, 2-4 Dotted Guide Line, 6-10 Dotted Extension Line, 6": The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 41. Thermoplastic Standard, Blue, Solid, 6": The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic,

furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 42. Thermoplastic Standard – Other Surfaces, White, Solid, 6”: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 43. Thermoplastic Standard – Other Surfaces, White, Solid, 8”: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 44. Thermoplastic Standard – Other Surfaces, Yellow, Solid, 6”: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

Item No. 45. Thermoplastic Standard – Other Surfaces, Yellow, Skip, 6”: The price bid shall be full compensation for all work specified in this Contract Documents, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.

This bid item will be paid for at the unit price bid times the number of units shown and accepted by the Engineer, and shall be full compensation for all labor, and equipment for a complete and satisfactory construction.

**Item No. 46; Total Base Amount, the total of Bid Item Nos. 1 through 45.**

**Item No. 47. Contingency Allowance:** 10% Contingency Allowance for Unforeseeable Conditions, Minor Construction Changes and Quantity Adjustments, additional work not covered by other items, if approved by the Department.

This account is for all labor, materials, equipment and services necessary for modification or extra work required to complete the Project because of unforeseen conditions, unforeseen conflicts between existing elements of work and the proposed work; for minor changes required to resolve any unforeseen conditions, Revised Regulations, Technological and Products Development, Operational Changes, Schedule Requirements, Program Interface, Emergencies and Other Miscellaneous Costs; and for adjustments to estimated quantities shown on the unit prices of the Quotation to conform to actual quantities installed; and associated time related to this work only if ordered by the Department.

Payment to the Contractor under the Allowance Account Item will only be made for work ordered in writing by the Engineer. Any portion of these accounts remaining after all authorized payments have been made will be withheld from Contract payments and will remain with the Department.

**Item No. 48 (Dedicated Allowance) for Repairs of pavement/drainage system:**

Includes the required investigation by the contractor to determine the repair method for the damaged pavement/drainage system located south of the compactor building and west of the downward exist ramp between the surge building and the compactor building. The contractor will provide and assessment for the repairs and coordinate with the engineer/DSWM the measurements for the repairs, what is included in the repairs, and what units will be used for payment. A total of thirty thousand dollars and zero cents (\$30,000.00) are allocated for this dedicated allowance.

**Item No 49; Total Bid (Sum of Bid Item 46, 47 and 48)**

The price bid for each item shall be stated in both words and figures in the appropriate places in the Quotation form. All blank spaces for bid prices must be filled in with ink, or with a typewriter. The Bidder is further directed that any and all alterations, changes, corrections and modifications, made to the Quotation forms prior to submission of bids, must be initialed by the Bidder. Non-compliance by the Bidder of this directive may be grounds for rejection of his bid.

In the event that there is a discrepancy between the price written in words and the price written in numbers, the price written in words shall govern except where the number of units multiplied by the unit price shown in numbers equals the total price for that bid item. In such case the unit price shown in numbers shall govern over the unit price shown in words.

Where an error is made in the calculation of the total bid price of an item, the unit price shall govern.

If the bidder makes an error in his addition of the total bid prices of the applicable items in the Quotation, the correct sum of its' applicable bid item totals shall be the Total Bid.

It has been determined that the County is not exempt from the payment of Florida State Sales Tax under this Contract. All items of materials, equipment and supplies furnished by the Contractor and remaining a part of the completed Project are subject to this Tax. The Bidder shall include a sufficient amount of money to pay for this Tax in his bid price. Sufficient money to pay the Tax for all miscellaneous materials and minor items shown on the Plans, specified herein, or necessary for the work, and which will remain a part of the completed Project, shall also be included in the price or prices bid, and no other compensation will be provided.

**1.03 PAYMENT**

A. General: Progress payments will be made monthly on the date established in the

Contract Documents.

- B. Payment for all Work shown and specified in the Contract Documents or necessary in completing the asphaltting at the DSWM Northeast Transfer Station is included in the Contract Price. No measurement or payment will be made for individual items.
- C. Payment for Lump or Aggregate Sum Work covers all Work specified or shown within the limits or Specification sections.
- D. The Contractor will be paid each month the value of the work completed during the preceding month (less retainage) and the invoiced cost including applicable sales taxes and shipping value (less retainage) of materials not already used, but which have been furnished by the Contractor under the Specifications, provided that such materials have been delivered, properly stored and inspected by the Engineer and that payment therefore has been satisfactorily certified by the Contractor to the Engineer. Remaining cost for materials (less retainage) will be paid at the same time as installation. Any payment for materials which are not used will be withheld from the final payment.

#### 1.04 NON-PAYMENT FOR REJECTED OR UNUSED PRODUCTS

Payment will not be made for following:

- 1. Loading, hauling, and disposing of rejected material.
- 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
- 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.
- 4. Material not unloaded from transporting vehicle.
- 5. Defective Work not accepted by DEPARTMENT.
- 6. Material remaining on hand after completion of Work.

#### 1.05 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Partial Payment: Partial payments will be made in accordance with the Contract Documents.
- B. Final Payment: Will be made only for materials incorporated in Work; remaining materials, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from final payment.

#### 1.06 FINAL APPLICATION FOR PAYMENT

- A. Prior to submitting final application makes acceptable delivery of required documents, and other requirements as specified in Section 01 77 00, Contract Closeout.
- B. Final payment shall be subject to the conditions and requirements included in the Contract Documents.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 30 00**

### **PROJECT SCHEDULES, MEETINGS, AND REPORTS**

#### **PART 1 GENERAL**

##### **1.01 RELATED WORK**

- A. Section 01 33 00 - Shop Drawings, Product Data and Samples.

##### **1.02 PROJECT SCHEDULES**

- A. The Contractor shall develop and submit, for approval by the Engineer a construction progress schedule and phasing plan demonstrating complete fulfillment of all contract requirements including all activities of subcontractors, equipment vendors and suppliers. Unless otherwise directed by the Engineer, the construction progress schedule shall be computer developed and maintained using Microsoft Project as manufactured by Microsoft, Inc or approved equal. The Contractor shall prepare a network plan utilizing CPM (Critical Path Method). the Department reserves the right to require submission of the schedule in electronic format as called for by the Engineer.
- B. Submittal: The progress schedule shall be plotted on 11-inch by 17-inch paper and shall be revised and updated every two weeks, depicting progress through the last day of the current month and scheduled progress through completion. Six up-to-date copies of the schedule shall be submitted along with the application for monthly progress payments for the same period.
  - 1. Immediately after award of contract, submit for review the progress schedule describing the activities to be accomplished and their dependency relationships, showing starting and completion dates for each activity in terms of the number of days after receipt of Notice to Proceed. All completion dates shown shall be within the period specified for Contract completion.
  - 2. After receipt by the Engineer and initial review, and within three days the Engineer will meet with the Contractor for joint review, correction or adjustment of the proposed plan and schedule. The Contractor shall revise the schedule in accordance with agreements reached during the joint review, using calendar dates. The Contractor shall submit six copies of the corrected schedule at the preconstruction meeting, discussion and approval of the schedule will take place at the meeting, the Engineer may require the schedule prior to the meeting.
- C. Schedule Requirements
  - 1. Show the sequence and interdependence of activities required for complete performance. In preparing the schedule, break up the work into activities of a duration of no longer than ten working days each, except as to non-construction activities (such as procurement of materials, delivery of equipment and concrete curing) and any other activities for which the Engineer may approve the showing of longer duration. The schedule

shall show the activities for actual construction work for each trade category of the project. The Contractor is to include a schedule of submittals of Shop Drawings, equipment schedules, coordination drawings, templates, fabrication, delivery and the like, and review and approval of Shop Drawings. Activities related to a specific physical area of the project shall be grouped on the schedule for ease of understanding and simplification. Activity duration (i.e. the single best estimate, considering the scope of the activity, and the resources planned for the activity) shall be shown on each activity on the diagram. To the extent that the schedule or any revised schedule shows anything not jointly agreed upon or fails to show anything jointly agreed upon, it shall not be deemed to have been approved by the Engineer. Failure to include any element of work required for the performance of this Contract shall not excuse the Contractor from completing all Work required within any applicable completion date, notwithstanding the Department's approval of the schedule.

2. At the preconstruction meeting, the Contractor shall include a cost estimate for each activity which cumulatively equals the total Contract cost. Estimated mobilization, home office expense, extended overhead and profit shall be prorated throughout all activities. The partial payments as defined under the General Conditions will be based on these approved activity costs.
3. With each request for a partial payment, beginning with the first request submit a copy of the schedule marked to show the activities completed and partially completed, for which payment is requested, in order to receive monthly draws.
4. The Contractor is advised that, if the work of this project includes work in the public right of way, that work may be shut down by the roadway governing authority during the period from the beginning of the Thanksgiving holiday through the end of the New Year holiday or some portion(s) of that period. Unless otherwise specifically called out herein, or granted by the Engineer In writing, no extension of Project will be allowed due to such a shutdown. If any extension of time is allowed, it will be a non-compensable nature. All costs of such a shutdown including any demobilization/re-mobilization costs shall be the sole responsibility of the Contractor and no extra compensation will be allowed. Upon ending of any such shutdown, the Contractor shall immediately resume construction operations unless otherwise ordered by the Engineer in writing.
5. The Contractor shall fully comply with any special working hours, and with all other requirements of the Permits, at no additional cost to the Department. Working hours noted in permits or the specifications are subject to change. In the event that changed working hours effects the work of the Contractor, the Contractor's sole remedy shall be a non-compensable time extension. Said extension to be full compensation for all direct and indirect costs, including but not limited to loss of efficiency, loss of opportunity, increased bond or insurance premiums, or home office or extended overhead, incurred by the Contractor as a result of such change, and no additional compensation shall be considered. Night work may be required as a part of the construction.

### 1.03 PROGRESS MEETINGS

- A. General progress meetings will be held once each week at which every entity then involved in the planning, coordination and performance of work shall be present. The progress of each element of current work shall be discussed as to whether it is ahead of schedule, on time or behind time in relation to the updated progress schedule. In addition to showing the progress schedule of the previous week for each meeting, the Contractor shall prepare a three week "look ahead" schedule in detail. Methods to expedite behind time work shall be determined and commitments secured from the entities involved for bringing the lagging activities back to the scheduled date. Everything of significance which could affect the progress of the work, including schedule revisions, shall be discussed to ensure that current and subsequent work will be completed within the Contract time. Within three days after each meeting, copies of the minutes of the meeting, including a brief summary of progress of the work since the previous meeting, shall be distributed by the Contractor to each of those present or who should have been present. Whenever revisions to the progress schedule have been made or recognized at the progress meeting, a copy of the revised schedule shall accompany the minutes distributed.
- B. Each computer-generated construction progress schedule, and associated report shall include the following tabulations: a list of activities in numerical order, a list of activity precedence, schedules sequenced by Early Start Date, Total Float, and Late Start Date. Each schedule and report shall include the following minimum items:
1. Activity Numbers
  2. Estimated Duration
  3. Activity Description
  4. Early Start Date (Calendar Dated)
  5. Early Finish Date (Calendar Dated)
  6. Latest Allowable Start Date (Calendar Dated)
  7. Latest Allowable Finish Date (Calendar Dated)
  8. Status (Whether Critical)
  9. Total Float and Free Float
- C. In addition, each construction progress schedule, network analysis and report shall be prefaced with the following summary data:
1. Contract Name and Number
  2. Contractor's Name
  3. Project Duration
  4. Contract Schedule
  5. The Effective or Starting Date of the Schedule (the Date Indicated in the Notice to Proceed)

- D. The contractor is limited to the following working hours: from 9:00 p.m. to 5:30 a.m. Mondays, Tuesdays, Thursdays and Fridays, from 6:00 p.m. to 5:30 a.m. on Wednesdays, and from 6:00 p.m. on Saturdays to 5:30 a.m. on Mondays.
- E. If the Contractor desires to make changes in his method of operating which affect the construction progress schedule and related items, he shall notify the Engineer in writing stating what changes are proposed and the reason for the change while maintaining all construction activities within the contract duration. If the Engineer accepts these changes, in writing, the Contractor shall revise and submit, without additional cost to the Department, all affected portions of the construction progress schedule, and associated reports. The construction progress schedule and related items shall be adjusted by the Contractor only after prior acceptance, in writing by the Engineer. Adjustments may consist of changing portions of the activity sequence, activity durations, division of activities, or other adjustments as may be required. The addition of extraneous, nonworking activities and activities which add restraints to the construction progress schedule will not be accepted.
- F. Except where earlier completions are specified, schedule dates which show completion of all work prior to the contract completion date shall, in no event, be the basis for claim for delay against the Department by the Contractor.
- G. Construction progress schedules and related items which contain activities showing negative float or which extend beyond the contract completion date will not be accepted by the Engineer. Whenever it becomes apparent from the current construction progress schedule and associated reports that delays to the critical path have resulted and the contract completion date will not be met, or if the completion of any activity, whether or not critical, falls more than 100 percent behind its previously scheduled and accepted duration, or when so directed by the Engineer, the Contractor shall take some or all of the following actions at no additional cost to the Department. He shall submit to the Engineer for approval, a written statement of the steps he intends to take to remove or arrest the delay in the current construction progress schedule.
1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of work.
  2. Increase the number of working hours per shift, shifts per day, working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate the backlog of work.
  3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities and comply with the revised schedule.
- H. If the Contractor fails to submit a written statement of the intended steps or fails to take such steps, as are reviewed and accepted in writing by the Engineer, the Engineer may direct the Contractor to increase the level of effort in manpower (trades), equipment and work schedule (overtime, weekend and holiday work, etc.) in order to remove or arrest the delay to the critical path in the current construction progress schedule. The Contractor shall promptly provide such increased level of effort at no additional cost to the Department.

- I. Shop Drawings which are not approved on the first submittal or within the time scheduled, and equipment which does not pass the specified tests and certifications, shall be immediately rescheduled.
- J. The Contract time will be adjusted only in accordance with the Contract Documents as may be applicable. If the Engineer finds that the Contractor is entitled to any extension of the Contract completion date, the Engineer's determination as to the total number of days extension will be based upon the current construction progress schedule and on all data relevant to the extension. Such data shall be included in the next updating of the schedule and related items. Actual delays in activities which, according to the construction progress schedule, do not affect any contract completion date will not be the basis for a change therein.
- K. From time to time, it may be necessary for the Contract schedule of completion time to be adjusted by the Department in accordance with the Contract Documents as may be applicable. Under such conditions, the Engineer will direct the Contractor to reschedule the work or Contract completion time to reflect the changed conditions, and the Contractor shall revise the construction progress schedule and related items accordingly, at no additional cost to the Department.
- L. Available float time may be used by the Department through the Engineer.
- M. The Department controls the float time and, therefore, without obligation to extend either the overall completion date or any intermediate completion dates, only the Department may initiate changes that absorb float time. The Department initiated changes that affect the critical path on the network diagram shall be the sole grounds for extending the completion dates. Contractor initiated changes that encroach on the float time may be accomplished only with the Department's concurrence. Such changes, however, shall give way to the Department initiated changes competing for the same float time.
- N. Review and approval of the construction progress schedule, and related reports, by the Engineer is advisory only and shall not relieve the Contractor of the responsibility for accomplishing the work within the contract completion date. Omissions and errors in the construction progress schedule, and related reports shall not excuse performance less than that required by the Contract Documents and in no way make the Engineer an insurer of the Contractor's success or liable for time or cost overruns flowing from any shortcomings in the construction progress schedule, and related reports.
- O. The Contractor shall present and discuss the proposed schedule at the preconstruction conference. This schedule shall have been previously reviewed and agreed to by the Engineer. See Section 01 30 00, 1.02, B.
- P. The construction progress schedule shall be based upon the precedence diagramming method of scheduling and shall be prepared in the form of a horizontal bar chart showing in detail the proposed sequence of the work and identifying all construction activities. The schedule shall be time scaled, identifying the first day of each week, with the estimated date of starting and

completion of each stage of the Work in order to complete the project within the Contract time. The project critical path shall be clearly identified.

#### 1.04 DAILY REPORTS

- A. The Contractor shall prepare and submit to the Engineer at weekly meetings a separate daily report recording information concerning events at the site. The daily reports shall contain the following and any other significant information:
1. General weather conditions, rain, high/low temperatures
  2. List of subcontractors on site
  3. List of separate contractors at the site, if any
  4. Meetings and significant decisions
  5. Stoppages, delays, shortages, losses
  6. Emergency procedures, field orders
  7. Orders/requests by governing authorities
  8. Other events or activities
  9. Partial completions

#### **PART 2 PRODUCTS** (NOT USED)

#### **PART 3 EXECUTION** (NOT USED)

**END OF SECTION**

**SECTION 01 32 13**  
**SEQUENCE OF CONSTRUCTION**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Before commencement of any work, in compliance with the requirements of Section 01 30 00 "Project Schedules, Meeting and Reports" and Section 0133 00 "Shop Drawing, Product Data & Samples", submit to the Engineer for approval a detailed sequence of construction, clearly showing the interrelationship and the interdependency of work activities with one another. The work of this project is to be performed on the site of existing County property.
- B. Coordinate sequence of construction with progress schedule to ensure timely performance of the work and project completion within the specified construction time.

**1.02 GENERAL NOTES**

- A. Following receipt of Notice to proceed with the work, the Contractor shall notify the Engineer at least 5 days before he is ready to start actual construction, to allow the Department time to make arrangements for inspection of the work. The work of this project will impact the entrance of businesses and residential properties.
- B. Contractor shall verify property line and all elevation prior to commencing the work. Contractor shall verify nature, depth and character of all existing underground utility services prior to start of construction. Extreme care shall be taken to avoid disturbing existing utility services in the area under construction. The Contractor shall include in his price the cost the relocation of existing utilities if applicable.
- C. If any errors or omissions appear on the drawings, specifications or other documents, the contractor shall notify the Engineer in writing of such omissions or errors prior to proceeding with any work which appears in question; in the event of the Contractor's failure to give such notice, he shall be held responsible for the results of any such errors or omissions and the cost of rectifying the same.
- D. The Contractor's equipment must be in first class operating condition, including proper mufflers and other silencing accessories. All equipment must be properly lubricated on a special maintenance type schedule to reduce noise, including tracks, rollers, idlers, sheaves and other noise producing components. Care must be taken to prevent oil spillage of any kind or oil dripping from equipment.
- E. If the equipment used proves less than satisfactory and is unduly or needlessly disturbing the neighbors, in the opinion of the Engineer, he will have the right to order the Contractor to immediately modify the equipment to make it satisfactory, or to change to other equipment that is satisfactory at no additional

cost to the Department.

- F. During construction the Contractor shall, by sprinkling with water or by other means approved by the Engineer, eliminate dust annoyance to adjacent property owners. No additional compensation will be paid to the Contractor for any costs incurred in complying with the provisions herein.
- G. The Contractor is responsible for restoration of damaged items and work caused by his work. No additional compensation will be furnished by the Department for damage during construction.
- H. All ornamental structures, walls and landscaping damaged during the construction shall be replaced by the Contractor as part of the work and paid for as part of Bid Item 5, Clearing and Grubbing.
- I. The cost of any tree pruning, arborist, permit or other work required by the agency having jurisdiction shall be the responsibility of the Contractor.
- J. The contractor shall take steps to provide accessibility for local traffic. The construction in this area shall proceed as quickly as possible and paving shall follow immediately to reduce inconvenience to residents in this area of the project.
- K. All items shall be performed by the Contractor with special emphasis on the fact that numerous standard and miscellaneous construction phases are not mentioned specifically, but shall be performed by the Contractor as required for a completed Project.
- L. The Contractor shall fully comply with all requirements of the Permits, at no additional cost to the Department. Working hours noted in permits or the specifications are subject to change. In the event that changed working hours effects the work of the Contractor, the Contractor's sole remedy shall be a non-compensable time extension. Said extension to be full compensation for all direct and indirect costs, including but not limited to loss of efficiency, loss of opportunity, increased bond or insurance premiums, or home office or extended overhead, incurred by the Contractor as a result of such change, and no additional compensation shall be considered. Night work may be required as a part of the construction.

#### 1.03 SEQUENCE OF CONSTRUCTION

- A. See "TABULATION OF QUANTITIES AND CONSTRUCTION SEQUENCE PLAN" sheet.
- B. Any coordination work performed by the Contractor shall be an ordinary part of the work of this Contract and no extra compensation will be granted.
- C. The general sequence of construction (progression) shall be as follows, but a detailed sequence of construction shall be supplied by the Contractor and approved by the Engineer before any work is started. All items shall be performed by the Contractor. The Department reserves the right to make changes to the sequence as necessary to facilitate the work or minimize any conflict with operations.

1. Notify "Sunshine State One-Call of Florida Inc. 1-800-432-4770 forty-eight (48) hours prior to any excavation.
2. Setup any applicable maintenance of traffic as necessary for work within the Northeast Transfer Station and public right-of-way.
3. Phase 1 - Traffic Separator Reconstruction.  
Remove portion of the existing traffic separator to be reconstructed as shown in the plans.  
Reconstruct the proposed traffic separator and maintain free of loading for 72 hours to allow for curing of the concrete.
4. Phase 2 - Flexible Pavement Reconstruction.  
Remove and reconstruct the flexible pavement in the areas indicated in the plans.  
Replace speed hump as indicated in the plans.  
Adjust utility valves and manholes as indicated in the plans.  
The contractor shall fill with suitable material the areas where the proposed pavement reconstruction is not fully reconstructed at the end of the construction day, not to disrupt the facility operations.
5. Phase 3 - Mill, Resurface and Overbuild - pavement marking and signage - wheel stops.  
Remove and reset the existing wheel stops as required to perform the milling and resurfacing operations.  
Mill, resurface and overbuild as indicated in the plans.  
Place pavement painted pavement markings, remove, replace and provide signage as indicated in the plans.
6. Phase 4 - Thermoplastic pavement marking  
Place thermoplastic pavement markings.  
Complete all remaining miscellaneous and appurtenant work, including final cleanup.

In performing the work in the above-described sequence, all requirements of the specifications shall be strictly followed, particularly those pertaining to tests and cleanup as the work progresses.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 32 36**

### **CONSTRUCTION PHOTOGRAPHS AND VIDEOS**

#### **PART 1 GENERAL**

##### **1.01 DESCRIPTION OF WORK**

- A. This section specifies the taking and submission of construction photographs and audio-video photography.
- B. Prior to the delivery of any equipment, materials or supplies to the site of any work, or to the beginning of any of the construction work, the Contractor shall provide pre-construction photography as specified herein for the purpose of establishing the surface conditions existing in all of the areas to be affected by the construction of the Project.
- C. Ground photography shall consist of photographs and color video taping of surface features taken along the entire of the Project and including all work, intersecting roadways and properties that will be impacted.
- D. The purpose of the color audio-video taping of the project is to provide the necessary information for restoration of surface features after completion of the Project. The Contractor shall be responsible for repairing any damage or defect not documented as existing prior to construction.

##### **1.02 QUALITY ASSURANCE**

- A. Photographs shall be clean, sharp and clearly show details. Out-of-focus photographs will not be acceptable. Digital photographs shall be submitted on CD/DVD in JPG, TIF or Department approved format.
- B. Photographs and/or prints which are poorly lit or lack definition will not be acceptable.
- C. Photographs and video shall be clean, sharp and clearly show details and the date stamp.

##### **1.03 SUBMITTALS**

- A. Submit three (3) prints and the digital file of each construction photograph and one (1) DVD of the video as follows:
  - 1. Within fourteen (14) days of receiving Notice to Proceed.
  - 2. Enclose each print in a clear Mylar protector punched to fit a standard three ring binder. Prints shall have notes to detail location, date, and existing condition. The prints shall be used to provide documentation of existing conditions in case of claims or disputes.

3. Number photographs in sequence beginning with the numeral one.

## **PART 2 PRODUCTS**

### **2.01 SIZE AND QUALITY**

- A. Standard commercial quality prints, color, 3½-inches by 5-inches, single weight paper.
- B. Digital pictures and videos shall be compatible with Department software.

### **2.02 IDENTIFICATION**

- A. Each print shall be stamped with the following information stamped or typed on the back of the print:

MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE  
MANAGEMENT

Contract No. \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

Photograph No. \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Description: \_\_\_\_\_

### **2.03 QUANTITY**

- A. A minimum of twenty photographs shall be taken prior to construction and twelve more each month until completion of the Work.
- B. The number of photographs required shall be at the sole discretion of the Engineer whose decision shall be final.
- C. An increase in the number of photographs above the minimums shall not be cause for an increase in cost and no extra compensation will be allowed.

### **2.04 VIDEO PHOTOGRAPHY**

- A. Color audio-video shall be DVD format.

## **PART 3 EXECUTION**

### **3.01 INITIAL AND CONSTRUCTION PHOTOGRAPHY**

- A. Take pre-construction photographs of the entire site after receiving the Notice to Proceed and prior to disturbing the site in any manner. Coordinate with the Engineer as to the vantage points and number of photographs required in Paragraph 2.03.
- B. Photography During Construction: Coordinate with the Engineer as to the actual number and location of views to be photographed and the day and time of photographing and videotaping.
- C. The Contractor shall make and supply video tape or digital video recording to the Department and keep one copy for his records.
- D. Photographs and CD/DVD shall be done to the satisfaction of the Engineer for the propose of defending the Department against false claims from property owners and for returning the site to as good or better condition than original at the end of construction.

**END OF SECTION**

## **SECTION 01 33 00**

### **SHOP DRAWINGS, PRODUCT DATA AND SAMPLES**

#### **PART 1 GENERAL**

##### **1.01 GENERAL**

- A. Submit to the Engineer for review and approval, Shop Drawings, test reports and data on materials, equipment, and material samples as required for the proper control of work, and as specified in the Specification sections. Shop Drawings shall be submitted for all materials and equipment to be furnished.
- B. Shop drawings shall be submitted prior to any project construction activity. In a timely fashion, well before the contemplated ordering for fabrication of special order or long-lead items or construction use of any standard element of the work, the Contractor shall furnish shop drawings for the review and approval of the Department.
- C. It is the Contractor's sole responsibility upon the first occasion of submittal of a particular element of the work, to submit shop drawings of an element which match and fulfill the requirements and intent of the approved drawings and the Department's standards. Any delays or costs caused, either directly or indirectly, by non-timely submissions; submission of items differing significantly from the intent of the approved drawings for the project and/or the Department's standards; repeated submission of, or argument over, rejected elements or changes required for acceptance; arguments with the criteria or requirements of the Plans or Specifications; or any other such similar activities shall be at the expense of the Contractor.
- D. After award of the project, the Contractor may begin providing submittals for approval. Submit to the Engineer a complete list of preliminary data on items for which Shop Drawings are to be submitted. Included in this list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way expressed or implied relieve the Contractor from submitting complete Shop Drawings and providing materials, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.
- E. Maintain an accurate updated Shop Drawing submittal log which shall include the following items:
  - 1. Submittal Description and Number Assigned
  - 2. Specification Section
  - 3. Plans Sheet Number
  - 4. Date to Engineer
  - 5. Date Returned to Contractor (from Engineer)
  - 6. Status of Submittal (Approved, Approved as Noted, Rejected/Resubmit)

7. Date of Resubmittal and Return (as Applicable)
  8. Date Material Release (for Fabrication)
  9. Projected Date of Fabrication
  10. Projected Date of Delivery to Site
  11. Status of Installation, Equipment Startup and O & M Manuals Submittal
- F. The approval of Pre-Approved Product Sheets, Shop Drawings and Product Data will be general and shall mean that upon examination of the plans, no variations from the approved plans and project requirements have been discovered, and approval will not relieve the Contractor of his responsibilities as defined herein. The Department's review will not constitute an approval of dimensions, quantities and details of the material, equipment or item shown.

#### 1.02 PRE-APPROVED LIST

- A. The Florida Department of Transportation (FDOT) has established an "Approved Product List" for products to be used in the construction of roadway facilities. The "Approved Product List" lists products and manufacturer's product models pre-approved by FDOT which meet the minimum requirements established in FDOT's Design and Construction Standards and Specifications. The "Approved Product List" is not an exclusive collection of all qualified and approved products. For those products that are not on the "Approved Product List," the Contractor shall submit shop drawings as specified herein.
- B. Products listed in the "Approved Product List" do not require the submittal of shop drawings to the Department. Contractors and suppliers can submit the product specification found on the FDOT's Portal for the products that are intended to be used in the construction. Each product specification must be stamped, reviewed and initialed by the Contractor and by his Engineer of Record, if applicable, prior to submittal to the Department.

#### 1.03 CONTRACTOR SUBMITTALS

- A. The Contractor shall submit digital PDF files of the shop drawings.
- B. The Shop Drawing submittal package shall include a transmittal, submittal registry and the pre-approved product specification sheet or shop drawing sheets stamped by the Contractor.
- C. The Contractor shall meet with the Construction Manager at the earliest possible opportunity to begin the shop drawing submittal process and establish a schedule for submittal and approval.
- D. It is the intent of the Contract Documents that the Contractor shall, in the first instance, submit Shop Drawings of elements which meet or exceed the

requirements of the Contract Documents and fit with the other elements of the work and the existing conditions. Delays or the inability to obtain shop drawing approval may subject the Contractor to costs for liquidated or actual damages as specified in the Contract.

- E. Where there is a deviation from the Specifications, the Contractor shall note it and state the reasons why a deviation is required.

#### 1.04 CONTRACTOR'S RESPONSIBILITY

- A. Furnish the Engineer with a schedule of Shop Drawings submittals, fixing the respective dates for the submission of Shop Drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall indicate those that are critical to the progress schedule.
- B. Submit shop drawings sufficiently in advance of construction requirements to provide maximum time for checking and appropriate action from the time the Engineer receives them.
- C. Check and approve all submittals prepared by or for him before submitting them to the Engineer for review. Each submittal shall bear Contractor's stamp showing that they have been checked and approved. Shop Drawings submitted to the Engineer without the Contractor's stamp and approval shall be returned to the Contractor for conformance with this requirement before Engineer's review. Shop Drawings shall indicate any deviations in the submittal from requirements of the Project Documents and the Contractor shall state the reason why a deviation is required.
- D. All submittals shall be accompanied by a submittal registry and transmittal letter. The submittal requirements are as follows:
  - 1. The date of submission and the dates of any previous submissions.
  - 2. Electronic submittal that includes Project Title, Numbers and Contract Identification Information.
  - 3. Contractor's name and address.
  - 4. Contractor's stamp, initialed or signed, shall certify Contractor's review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal that the product meets the requirements of the work and of the contract documents.
  - 5. Supplier, Manufacturer Information.
  - 6. Notification of Deviations from Project Documents.
  - 7. Submittal Log Number conforming to and referring to Specification Section Numbers.
  - 8. Any field dimensions clearly identified as such.
  - 9. Relationship to adjacent or critical features of the work or materials.
  - 10. Where there is a deviation from the Specifications, the Contractor shall

note it and state the reason why a deviation is required.

- E. After receiving approval by the Engineer, the Contractor shall be responsible for submitting the Shop Drawings to the Building Department. Shop Drawings of all pre-manufactured items and all other Shop Drawings are required to obtain approval prior to manufacturing or installing the submitted items. The Contractor shall also be responsible for contesting any interpretations by the Building Department that the Engineer considers non-acceptable. The Contractor shall include in the bid prices, all costs for permits, fees and expenses associated with the submittals, including resubmittals (if any) of Shop Drawings to the Building Department. The Building Department as used in this paragraph shall be taken to mean the Miami-Dade County Building Department and/or other governing building authority appropriate to this project.
- F. Do not begin any of the work covered by a drawing, data, or a sample returned as "Rejected/Resubmit" until a revision or correction thereof has been reviewed and returned to the Contractor, by the Engineer, with approval or approval "As Noted". Be responsible for and bear all costs of damages which may result from the ordering of any material or from proceeding with any part of work prior to receiving Engineer's approval or approval "As Noted" of the necessary Shop Drawings
- G. When substitutions in materials or equipment are allowed, the Contractor shall make all necessary changes in adjacent or connected structures and equipment at his expense. Where contemplated changes, substitutions or appurtenant work require engineering design, in the opinion of the Engineer, the Contractor shall have such design services performed at his expense. Said engineering design services shall be of an extent satisfactory to the Engineer whose word shall be final and shall be performed by a Registered Professional Engineer licensed to practice in the State of Florida.
- H. When substitutions in materials or equipment are allowed, the Contractor shall be solely responsible for all costs and time required by any differences in construction methods, fabrication or assembly required and no additional time will be allowed.
- I. When a construction change, initiated by the Contractor or resulting from a change made by the Contractor, requires re-permitting, the Contractor shall be responsible for all labor, material and equipment required to redraw the Plan sheet or sheets affected by the change to the satisfaction of the Engineer of Record. The costs for all work of this sort and all costs of re-permitting shall be borne by the Contractor and no extra compensation will be allowed.
- J. All returned shop drawings shall bear the Department's mark of approval thereon or will be marked to indicate changes necessary to effect compliance with the Department's standards. Material for which drawings are rejected, shall not be used during construction of the project. When the shop drawings have been approved, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein, except upon written instructions from the Department. Any errors or omissions on the shop drawings shall not relieve the Contractor of his responsibility. He shall inform the Department and correct such errors, or omissions, including any necessary additions or alterations to

construction.

#### 1.05 ENGINEER'S REVIEW OF SHOP DRAWINGS

- A. Consultant Engineers working for the Department shall be responsible for review of shop drawings that are part of the project associated with their task agreement. Shop drawings shall be reviewed by the Department Engineering Consultant within five business days or as otherwise stipulated by the Department Program Manager. The Department Program Manager or his designee shall have the opportunity to provide further review of the shop drawings.
- B. Engineer's review of plans, data and samples, submitted by the Contractor will cover only general conformity to the Drawing and Specifications. The Engineer's review will not constitute an approval of dimensions, quantities, and details of the material, equipment, device, or item shown. The review of plans and schedules will be general, and shall not be construed:
  - 1. As permitting any departure from the Contract requirements.
  - 2. As relieving the Contractor of responsibility for any errors, including detail, dimensions, and materials.
  - 3. As approving departures from details furnished by the Engineer, except as otherwise provided herein.
- C. When the Shop Drawings have been approved by the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.
- D. When reviewed by the Engineer, each of the Shop Drawings shall be stamped and dated to indicate it had been reviewed. Shop Drawings stamped "Revise and Resubmit" and with required corrections shown will be returned to the Contractor for correction and resubmittal.
- E. All shop drawings received by the Department will be processed within a reasonable amount of time in accordance with the Department's standard procedures.

#### 1.06 SUBSTITUTIONS

- A. Changes in products, materials, equipment, and methods of construction required by the Contract Documents, which are proposed by the Contractor after award of the Contract, are considered to be requests for substitutions. Where the Plans and/or Specifications designate the products of a particular manufacturer, the product specified has been found suitable for the intended use. Articles or products of similar characteristics may be offered for the approval of the Engineer, whose decision shall be final. Copies of complete descriptive data shall be furnished regarding all materials furnished by the Contractor, consisting of dimension drawings, catalog references, product data, cost, and other information necessary to clearly identify and evaluate each article. When substitutions are permitted, the Contractor shall make all necessary changes in adjacent, connected, or other structures and equipment at his expense.

- B. Where changes, substitutions or other appurtenant work require engineering design, the Contractor shall have such design services performed. Those engineering design services shall be of an extent satisfactory to the Engineer, whose decision shall be final. Engineering services for engineer-recommended changes, substitutions or appurtenant work, shall be performed by a Registered Professional Engineer licensed to practice in the State of Florida.
- C. Unless specifically authorized by the Engineer in writing, no additional contract time will be allowed, and a decrease in time may be appropriate.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 35 00**

### **SPECIAL PROJECT PROCEDURES**

#### **PART 1 GENERAL**

##### **1.01 RESPONSIBILITY OF THE CONTRACTOR**

- A. The Contractor shall have at all times as his agent on the site of the work a competent superintendent capable of reading and thoroughly understanding the Plans and Specifications.
- B. The Contractor shall be responsible for the good condition of the work or materials until formal release from his obligations under the guidelines of this project. The Contractor shall store materials and shall be responsible for and shall maintain partly or wholly finished work during the continuance of the Contract. He shall place sufficient lights and danger signals on or near the work from sunset to sunrise; shall erect suitable railings or other protective devices about unfinished work, open trenches, embankments, or other obstructions; shall provide all necessary watchmen on the work by day or by night for the safety of the public, and shall take all necessary precautions for preventing accidents or injuries to persons or property in or about the work.
- C. The Contractor shall be responsible for the coordination, location, and relocation of utilities, including but not limited to utility light poles, cables, fiber optic lines, water mains and services, sewer mains and services, electrical, telephone and television cables, signals and signal poles, fences, guard rails, piping, culverts, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such coordination and relocations shall be included in the Bid for the Project and shall not result in any additional cost to the Department.
- D. It is the responsibility of the Contractor to ensure that all utility or other existing facilities, the stability of which may be endangered by the close proximity of excavation, are temporarily held in position while work proceeds in the vicinity of the pole or other facilities and that the utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.
- E. The Contractor shall take all reasonable precautions against damage to existing utilities. However, in the event of a break in an existing water main, gas main, sewer or underground cable, the Contractor shall immediately notify the responsible official of the organization operating the interrupted utility. The Contractor shall lend all possible assistance in restoring services and shall assume all cost, charges, or claims connected with the interruption and repair of such services, as determined by the Owner.
- F. The Contractor shall familiarize himself with all codes and regulations of the Federal Government, the State of Florida, the County of Miami-Dade and any municipal corporations applicable to every aspect of the Project. The Contractor shall provide all materials and shall perform all work necessary to fully comply with all provisions and requirements of applicable codes and regulations whether

specifically indicated in the Plans and Specifications or not. It is the intent of the Department to obtain a finished project in full compliance with all requirements of any agencies having jurisdiction over any portion of the work involved in the Project. The Inspector will not recommend acceptance of the work until all requirements and provisions of pertinent codes and regulations have been satisfactorily fulfilled.

#### 1.02 WATER USED IN CONSTRUCTION

- A. The Department will furnish water for construction purposes from the nearest on-site water connection using the Contractor's designated floating meter. The Contractor shall obtain a project specific floating meter and maintain daily records for meter readings.
- B. All piping, fittings, valves and equipment, including pumps and power, required for handling the water shall be furnished by the Contractor. Care shall be exercised in the use of the water and provision shall be made to protect the water supply from contamination and indiscriminate use by unauthorized persons. The Contractor shall use only potable water.
- C. Under no circumstance shall the Contractor utilize a water source, including existing piping, until such source or piping has been approved for use by the Engineer/DSWM.
- D. In instances where no Department-owned source of water is available, the Contractor shall make his own arrangements with the municipality or other controlling authority and include the cost of all water required during construction in his overall construction cost. No reimbursement will be made.

#### 1.03 DAMAGE TO EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall be responsible for and make good all damage to pavement, buildings, telephone or other cables, water pipes, irrigation systems, sanitary pipes, or other structures, caused by this Contract, which may be encountered, whether shown or not shown on the Drawings.
- B. Information shown on the Drawings as to the location of existing utilities has been prepared from the most reliable data available to the Engineer. This information is not guaranteed, however; and it shall be the Contractor's responsibility to determine the locations, character and depth of any existing utilities. He shall assist the utility companies, by every means possible to determine said locations. Extreme caution shall be exercised to eliminate any possibility of any damage to utilities resulting from his activities.

#### 1.04 MATERIALS AND EQUIPMENT FURNISHED BY THE DEPARTMENT

- A. No material or equipment will be furnished by the Department under this Contract. All material, labor and equipment necessary for completion of the work shall be furnished and installed by the Contractor, whether or not shown on the Plans or specifically mentioned in the Specifications.

1.05 MATERIALS AND EQUIPMENT FURNISHED BY THE CONTRACTOR

- A. The Contractor shall furnish all materials required to complete the construction of the project and related items. The Contractor shall care for and protect against loss or damage all material to be incorporated in the construction, for the duration of the Contract, and shall repair or replace any damaged or lost materials. He shall be relieved of such responsibility only upon final acceptance of all the work by the Engineer.

1.06 INCLEMENT WEATHER

- A. In the event of inclement weather, all work shall be suspended which might be damaged or rendered inferior by such weather conditions and Contractor will and will cause Subcontractors to protect carefully the Work and materials against damage or injury from the weather and to protect the public from damage or injury. If, in the opinion of Engineer, any portion of work or materials shall have been damaged or injured by reason of failure on the part of Contractor or any Subcontractors to so protect the Work, such Work and materials shall be removed and replaced at the expense of Contractor.

1.07 SAFETY AND HEALTH REGULATIONS

- A. The Contractor shall comply with the Department of Labor Safety & Health Regulations for construction promulgated under the Occupational Safety & Health Act of 1970, (PL 91-596) and under Section 107 of the Contract Work Hours & Safety Standards Act (PL 91-54).

1.10 PROTECTION OF PUBLIC AND PROPERTY

- A. Barricades, Guards and Safety Provisions:
  - 1. The Contractor shall be solely responsible for adhering to the rules and regulations of OSHA and appropriate authorities regarding safety provisions. To protect persons from injury and to avoid property damage, adequate barricades, construction signs, lights and guards as required shall be placed and maintained by the Contractor at his expense during the progress of the Work and until it is safe for traffic to use the roads and streets.
  - 2. Signage and barricades shall be in accordance with applicable FDOT manuals.
  - 3. During construction, pedestrian corridors shall be maintained in a safe, passable, and stabilized manner. Measures utilized shall include, but not be limited to, boardwalks or stabilized pathways. The Contractor shall be solely responsible for coordination with School Board Transportation Safety Manager for potential construction impacts to schoolyards and crossings or Parks Department for any impacts to parks or trails. Closure of any sidewalks and/or school crossings near schools shall require coordination with the School Board Transportation Safety Manager and written authorization from the Department if construction is conducted when school is in session.
- B. Protection of Utility Structures:

1. Temporary support, adequate protection and maintenance of all underground and surface utility structures including drains, sewers, manholes, hydrants, valves, valve covers, power poles and miscellaneous other utility structures encountered in the progress of the Work shall be furnished by the Contractor at his expense. Any such structures that may have been disturbed shall be restored upon completion of the Work. The Departments' valves, hydrants, manholes and other appurtenances shall be made accessible to the Departments' personnel during all phases of construction.

C. Open Excavation:

1. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges with handrails and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall be removed when no longer required. The length of open trench will be controlled by the particular surrounding conditions. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Department may require special construction procedures such as limiting the length of open trench, fencing, prohibiting excavated material in the street and requiring that the trench shall not remain open overnight. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches excavated material, equipment or other obstacles that could be dangerous to the public shall be barricaded and well lighted at night. OSHA Regulations shall apply to all open excavation.

D. Tree and Shrub Protection and Trimming

1. Contractor shall exercise care to protect all trees and shrubs not shown to be removed on construction drawings. Trees and shrubs outside construction limits shall remain and shall be protected and where damaged, restored to original condition. Contractor shall obtain approval from Department's Representative prior to removing any trees. Trees damaged within or outside of construction limits due to negligence shall be restored to original condition at the expense of the Contractor.
2. Tree limbs which interfere with construction operations and are approved for pruning shall be neatly cut with sharp pruning instruments; do not break or chop. All cut faces shall be coated with an approved tree pruning compound which is waterproof, antiseptic, elastic and free of kerosene, coal tar, creosote and other substances harmful to plants. Pruning operations shall be extended to restore the natural shape of the entire tree or shrub. Do not allow fires under or adjacent to trees or other plants which are to remain.
3. Contractor shall protect tree and shrub root systems. Do not store construction materials, debris or excavated materials beyond construction limits. Do not permit vehicles or construction equipment beyond the limits of utility line construction. Restrict foot traffic to prevent excessive compaction of soil over root system. Excavated material shall be stockpiled away from tree drip lines as approved by the Engineer. Protect tree and shrub root systems from damage due to noxious

materials in solution caused by run-off or spillage during construction operations, or drainage from stored materials. Protect root systems from flooding, erosion or excessive wetting resulting from dewatering operations. Excavate within the drip line of trees only when approved by the Engineer. Where trees are designated to remain within the limits of construction and trenching for utilities is required within tree drip lines, cut roots with sharp pruning instruments; do not break or chop. Paint roots over 2" caliper with approved tree pruning compound.

4. Trees damaged by construction operations shall be repaired promptly after damage occurs to prevent progressive deterioration of damaged trees. Removed trees, branches, roots and other excess materials shall be removed from the construction site to an approved land fill at the expense of the Contractor.

E. Protection of Lawn Areas:

1. Lawn areas shall be left in as good or better condition as before starting of the Work. Where sod is to be removed it shall be carefully restored with new sod of the same type.

F. Restoration of Fences:

1. Any fence, or part thereof, that is damaged or removed during the course of the Work shall be replaced or repaired by the Contractor and shall be left in as good a condition as before the starting of the Work. The manner in which the fence is repaired or replaced, and the materials used shall be subject to the approval of the Department.

G. Protection Against Siltation and Bank Erosion:

1. The Contractor shall follow federal, state and local permit requirements.

#### 1.11 SITE CLEANUP AND RESTORATION

- A. In addition to the requirements set forth in the General Conditions and Section 01 74 00, the Contractor shall keep the working areas free at all times of tools, materials and equipment not essential to the progress of the Work. Debris, waste materials, and rubbish shall be properly disposed of and not allowed to accumulate. If the Contractor should fail to do this, the Department will make the necessary arrangements to effect the cleanup by others and will back charge the cost to the Contractor. If such action becomes necessary on the part of and in the opinion of the Department, the Department will not be responsible for the inadvertent removal of material which the Contractor would not have disposed of had he effected the required cleanup.
- B. Where material or debris has washed or flowed into or been placed in watercourses, ditches, gutters, drains, catch-basins, or elsewhere as result of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during progress of the Work, and the ditches, channels, drains etc., kept in a clean and neat condition.
- C. On or before the completion of the Work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools, and

machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations, in a neat and satisfactory condition.

- D. The Contractor shall restore the entire project site to its original or better condition, with the exception of any area(s) designated for alteration by the Contract Documents. The Contractor shall restore or replace; when and as directed, any public or private property damaged by his work, equipment, or employees to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk, and landscaping work. Suitable materials, equipment, and methods shall be used for such restoration.
- E. The Contractor shall thoroughly clean all materials and equipment installed by him and his subcontractors and on completion of the Work shall deliver it undamaged and in fresh and new appearing condition.

#### 1.12 EXISTING JOB SITE

- A. The work of this project is to be performed at the DSWM Northeast Transfer Station located at 18701 NE 6<sup>th</sup> Ave., Miami FL 33179. The work includes the restoration of the Northeast Transfer Station by milling and resurfacing, replacement/repair asphalt pavement, upgrading pavement markings, and minor drainage/inlet adjustments.
- B. The Contractor shall coordinate his work to ensure minimal impact any public or private facilities, and exercise extreme care to prevent damage to the existing facilities, particularly when making interconnections thereto.
- C. Any coordination work performed by the Contractor shall be an ordinary part of the work of this Contract and not extra compensation will be granted.

#### 1.13 LAND FOR CONSTRUCTION PURPOSES

- A. The Contractor shall limit his operations, temporary facilities and storage of equipment and materials to on-site areas to be designated by the Engineer.
- B. Should the Contractor require additional space he shall make his own arrangements for storage of materials and equipment in locations off the construction site. For the allocated space, submit to the Engineer for approval, proposed plan and layout for all temporary sanitary facilities, offices, storage facilities, temporary water service and distribution, and temporary power service and distribution. Prior to commencing any new construction remove, relocate and protect where necessary all existing underground and above ground facilities, pipelines, utility systems, plantings and all other existing installations. All of these existing features shall be restored to their initial or better than initial conditions.

## **PART 2 PRODUCTS** (NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 35 29**

### **SAFETY REQUIREMENTS AND PROTECTION OF PROPERTY**

#### **PART 1 GENERAL**

##### **1.01 CONTRACTOR'S RESPONSIBILITY FOR SAFETY**

- A. Conduct whatever work is necessary for safety and be solely and completely responsible for conditions of the job site, including safety of all persons (including employees) and property during the Contract period. This requirement shall apply continuously and not be limited to normal working hours.
- B. Neither the Professional activities of the Engineer, nor the presence of his representatives nor his or her employees and subconsultants at a construction site, shall relieve the Contractor and any other entity of their obligations, duties and responsibilities including but not limited to, construction means, methods, sequence techniques or procedures necessary for performing, superintending, or coordinating all portions of the Work of construction in accordance with the Contract Documents and any health and safety precautions required by any regulatory agencies.

##### **1.02 FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS**

- A. Safety provisions shall conform to the Federal and State Departments of Labor Occupational Safety and Health Act (OSHA), and all other applicable Federal, State, County, and local laws, ordinances, codes, the requirements set forth herein, and any regulations that may be specified in other parts of these Contract Documents. Where any of these are in conflict, the more stringent requirements shall be followed. Contractor's failure to thoroughly familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.
- B. All open excavations made in the earth shall be performed in compliance with the State of Florida Trench Safety Act, OSHA 29 CFR 1926 Subpart P (Chapter 90-96, Laws of Florida). The Contractor shall appoint a "competent person", in accordance with Subpart P, who shall be present at the jobsite. A "competent person" shall mean one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- C. The Contractor shall familiarize himself with the "Underground Facility Damage Prevention and Safety Act", Florida Statute 556. The Contractor shall contact the Sunshine 811, at 1-800-432-4770, (or by submitting an internet ticket entry via [www.sunshine811.com](http://www.sunshine811.com)) at least forty-eight hours prior to any excavation. Failure to familiarize himself with the aforementioned safety provisions shall not relieve him from compliance with the obligations and penalties set forth therein.

- D. Conduct operations in such a manner utilizing warning devices, such as traffic cones, barricades and warning lights that traffic, pedestrian and Department personnel are given adequate warning of hazards of the worksite as may be deemed necessary by the Department, Engineer of Record, and governing agency having jurisdiction over the work or political subdivision.
- E. The Contractor shall be in compliance with all applicable provisions of the OSHA Code of Federal Regulations (CFR), including, but not limited to, the following:
  - 1. Process Safety Management (29 CFR 1910.119)
  - 2. Personal Protective Equipment (29 CFR 1910.132)
  - 3. Respiratory Protection (29 CFR 1910.134)
  - 4. Industrial Truck / Forklift (29 CFR 1910.178)
  - 5. Electrical Safety (29 CFR 1910.301)
  - 6. Fall Prevention Protection (29 CFR 1926.104)
  - 7. Excavation Protection (29 CFR 1926.650)
  - 8. Movement of Traffic (FDOT Index)

#### 1.03 SAFE ACCESS BY FEDERAL, STATE AND LOCAL GOVERNMENT OFFICIALS

- A. The Contractor shall at all times provide proper facilities for safe access to the Work by authorized government officials.

#### 1.04 CONSTRUCTION SAFETY PROGRAM

- A. Develop and maintain for the duration of this Contract, a safety program that will effectively incorporate and implement all required safety provisions. The Contractor's Manual of Safety Practices outlining the firm's policies on field safety procedures for employees shall be submitted to the Engineer for review before "Notice to Proceed" will be issued. The Contractor shall appoint an employee who is qualified and authorized to supervise and enforce compliance with the safety program.
- B. The duty of the Engineer to conduct construction review of the Contractor's performance is not intended to include a review or approval of the adequacy of the Contractor's Safety Supervisor, the safety program, or any safety measures taken in, on, or near the construction site.

#### 1.05 SAFETY EQUIPMENT

- A. As part of the safety program, maintain at an office or other well-known place at the jobsite, safety equipment applicable to the Work as prescribed by the governing safety authorities, all articles necessary for giving first-aid to the injured, and establish the procedure for the immediate relocation to a hospital or a doctor's care of any person who may be injured on the jobsite.
- B. Perform all necessary work to protect all personnel and the general public

from hazards, including, but not limited to, surface irregularities or un-ramped grade changes, and trenches or excavations. Furnish barricades, lanterns, and proper signs to safeguard all persons and work.

- C. There shall be no oil dripping from equipment or oil spills.

#### 1.06 STORAGE OF HAZARDOUS MATERIALS

- A. The material shall be stored and handled in a proper and safe manner and upon its use, immediately dispose of the containers, cans, rags and remnants of the material in a manner approved by the Department of Environmental Resources Management (DERM) at the Contractor's sole cost. The Contractor is not allowed to store empty containers at the site. In case of any violation, the Engineer will report such violation to DERM and the Contractor shall be subject to all penalties and fines as required by State and County regulations.

#### 1.07 ACCIDENT REPORTS

- A. If death, serious injuries, or serious damages are caused, report the accident immediately by telephone or messenger to the Engineer. In addition, the Contractor must promptly report in writing to the Engineer and the Department all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.
- B. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, promptly report the facts in writing to the Engineer and the Department, giving full details of the claim.

#### 1.08 TRAFFIC SAFETY AND ACCESS TO PROPERTY

- A. Comply with all rules and regulations of the city, state, and county authorities regarding closing or restricting the use of public streets or highways. No public or private road shall be closed, except by express permission of the Department and the controlling authority. Conduct the work so as to assure the least possible obstruction to traffic and normal commercial pursuits. Protect all obstructions within traveled roadways by installing approved barricades, signs, and lights where necessary for the safety of the public. The convenience of the general public and residents and the protection of persons and property are of prime importance and shall be provided for in an adequate and satisfactory manner.
- B. Where traffic will pass over backfilled trenches before they are paved, the top of the trench shall be maintained with temporary asphalt that will allow normal vehicular traffic to pass over. Temporary access driveways must be provided where required. Access to businesses, schools and homes along the route of the work shall be provided by the Contractor at all times. Cleanup operations shall follow immediately behind backfilling and the worksite shall be kept in an orderly condition at all times.

- C. Supply flagmen and guards or Police when they are required by regulation, when deemed necessary for safety, or required by the Engineer. Flagmen and Guards shall be furnished with approved orange wearing apparel and other regulation traffic control devices.

#### 1.09 FIRE PREVENTION AND PROTECTION

- A. Perform all work in fire-safe manner. Furnish and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

#### 1.10 HURRICANE

- A. Hurricane Preparedness: During such periods of time as are designated by the United States Weather Bureau as being a hurricane alert, the Contractor shall perform all precautions as necessary to safeguard the work and property, including the removal of all small equipment and materials from the site, lashing all other equipment and materials to each other and to rigid construction, and any other safety measures as may be directed by the Engineer.
- B. Prior to the Start of Work: The Contractor shall submit for approval, a Plan of Action for the specific actions to be taken on his particular projects during a hurricane watch and hurricane warning.
- C. Upon Notification of a Hurricane Warning
  - 1. Formal notification to the Contractors to implement their approved Plan of Action to protect the project and the public.
  - 2. For construction projects within the public right-of-way, the Contractor will be notified by the Construction Manager Office to suspend his construction operations. The Contractor will backfill all open trenches, remove all construction equipment and materials from the right-of-way, remove unnecessary traffic barricades and signs, secure remaining barricades by "half burial" or "double sand bags".

#### 1.11 POST DISASTER WORK

- A. In the event of a disaster declaration by the Local or State governing authorities, the Department may choose to obtain the services of the Contractor to perform work made an imminent priority for the disaster event. The compensation for the additional work caused by the disaster shall be negotiated between the Engineer and the Contractor with written approval provided by both parties prior to mobilizing at the designated location or locations. The value of the work performed shall be up to the amount of the original contract with contingencies and dedicated allowances.

1.12 JOINT SURVEY TO ESTABLISH AUTHENTICITY OF POSSIBLE DAMAGE CLAIMS

- A. The Contractor shall maintain vertical and horizontal survey control points on all structures and improvements, located in the vicinity of the work prior to beginning work, and shall periodically check the points for movements with copies provided to the Engineer, of the survey notes for each survey and a copy of the layout of the survey control points.
- B. After the contract is awarded and before commencement of work, the Contractor shall perform a thorough examination of existing buildings, structures, and other improvements in the vicinity of the work, as applicable, which might be damaged by his operations.
  - 1. Examinations of existing structures, buildings, and other improvements in the vicinity of the work shall be done by the Contractor. The scope of the examination shall include cracks in the structures, settlement, leakage, and similar conditions. The Department assumes no responsibility for pre-existing conditions of the structure.
  - 2. Records in triplicate of all observations shall be prepared by the Contractor, photographs shall be taken by the Contractor signed and dated, with descriptive information and in the manner specified above. One signed copy of every document and photograph will kept on file in the office of the Engineer. Video recording also required.
  - 3. The above records are intended to be used as indisputable evidence in ascertaining the extent of any damage which may occur as a result of the Contractor's operations and are for the protection of the Contractor and the Department and will be a means of determining whether and to what extent damage, resulting from the Contractor's operations, occurred during the Contract work.
- C. In order to protect himself from being held liable for any existing damaged pavement, including detour routes, the Contractor is advised to notify in writing the authority having jurisdiction over the street where such defective pavement exists prior to proceeding with any work in the vicinity. Preconstruction videos and digital pictures shall be taken with date stamps of the entire area of work. A copy of all such notices shall be forwarded to the Department.

1.13 TRAFFIC CONTROL AND USE OF PUBLIC STREETS

- A. The Contractor shall be responsible for traffic control as specified hereinafter. Any reference to Miami-Dade County, its departments, or its published regulations, permits and data, shall be synonymous and interchangeable with other recognized governing bodies over particular areas of streets or their departments, published regulations, permits, or data. Abide by all applicable laws, regulations and codes thereof, pertaining to maintenance of public streets, detour of traffic, traffic control and other provisions as may be required for this project.

- B. The Contractor shall be fully responsible for the maintenance of public streets, detour of traffic (including furnishing and maintaining regulatory and informative signs along the detour route), traffic control and other provisions, throughout the project as required by the Miami- Dade County Department of Public Works, Traffic Engineering Division (Traffic Division). Traffic shall be maintained according to corresponding typical traffic control details as outlined in the Miami-Dade County Public Works Manual. No street shall be completely blocked nor blocked more than one-half at any time, keeping the other half open for traffic without specific approval.
- C. If required by the Traffic Division, employ the required number of uniformed off-duty policemen to maintain and regulate the flow of traffic through the construction area. The number of men required and the number of hours on duty necessary for the maintenance and regulation of the traffic flow shall be subject to their approval. If required for traffic control permits or agencies, the Contractor shall work odd or night hours, as required for traffic control reasons, and the cost of such work shall be considered as incidental to construction.
- D. The Contractor shall provide all barricades and/or flashing warning lights necessary to warn motorist of the construction throughout the project.
- E. Excavated or other material stored adjacent to or partially upon a roadway pavement shall be adequately marked for traffic safety at all times. Provide necessary access to all adjacent property during construction.
- F. The contractor shall be responsible for the provision, installation and maintenance of all traffic control and safety devices, in accordance with specifications outlined in the Miami-Dade County Public Works Manual. In addition, provide for the resetting of all traffic control and information signing removed during the construction period.
- G. Where excavations are to be made in the vicinity of signalized intersections, attention is directed to the fact that vehicle loop detectors may have been embedded in the pavement. Verify these locations by inspecting the site of the work and by contacting the Sunshine 811, at 1-800-432-4770, (or by submitting an internet ticket entry via [www.sunshine811.com](http://www.sunshine811.com)) . Any loop detector which is damaged, whether shown on the Plans or not, shall be repaired or replaced to the satisfaction of the Traffic Division.
- H. Notify the Traffic Division 24 hours in advance of the construction date, and 48 hours in advance of construction within any signalized intersection.
- I. Temporary pavement will be required over all cuts in pavement areas, and also where traffic is to be routed over swale or median areas. When the temporary pavement for routing traffic is no longer necessary, it shall be removed and the swale or median area restored to their previous condition.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3   EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 41 26**

### **PERMITS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. All necessary permits shall be obtained by the Contractor, including but not limited to: Miami-Dade County Department of Regulatory and Economic Resources (RER) Building Permit, permit application forms are appended at the end of the Specifications. Any question of whether a construction permit or fee is required shall be decided by the Engineer and Department, whose words shall be final.
- B. The Contractor shall be familiar with, and comply with, all requirements of these permits.
- C. All permit fees will be paid for as specified in Section 01 29 00 Measurement and Payment, as part of Bid Item 1, Mobilization.
- D. Unless otherwise specifically stated elsewhere in the Contract Documents, Supply Plans and Calculations for work not designed by the Department that are preponderantly of a structural nature shall be signed and sealed by a Professional Engineer registered in the State of Florida as stated in the Florida Building Code; Section 104.2.1, 104.2.2; and Section 202 which each read as follows:
  - 1. All information, Plans, Specifications and accompanying data shall bear the name and signature of the person responsible for the design.
  - 2. Design professional: If the design professional is an architect or engineer legally registered under the laws of this state regulating the practice of architecture or engineering, then he/she shall affix their official seal to said Plans, Specifications and accompanying data, as required by Florida Statute.
  - 3. Engineer: A Florida-registered engineer (Section 202).
- E. The Contractor's particular attention is called to any Special Conditions of the permits relating to construction procedures, excavation and backfill requirements, open trench restrictions, turbidity control and all other general and special conditions, including flowable fill and pavement details. In the event any of the conditions of the permits are in conflict with the requirements of these Specifications, the more stringent conditions shall take precedence. The Contractor is to conform to all regulations of the governmental agencies having jurisdiction over this work, whether or not included in the permit.

- F. Any deviations from the Plans, Specifications or permits appended thereto must first be approved by the Engineer even if approval for the change has been given by the permitting agency.
- G. The Contractor shall assume throughout the life of the Contract all obligations and responsibilities imposed on the Department or other County departments as permittee of the above-mentioned permits. All expenses necessary for compliance with the regulations and requirements of each permitting agency and its permit shall be borne by the Contractor and shall be included in the overall bid price.
- H. All surveying required by the Project permits shall be done by the Contractor's Florida Registered Surveyors and Mapper. This includes staking out limits of construction, maintaining baselines and preparing monthly as-builts.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## SECTION 01 42 19

### REFERENCE STANDARDS

#### PART 1 GENERAL

##### 1.01 REFERENCE STANDARDS

- A. Comply with the requirements of standard with date as specified herein. Standards without dates shall be understood as the Standard current at the time of bid. In case of conflict between the referenced standards, the one having the more stringent requirements shall govern.
- B. In case of conflict between the referenced standards and the Project Documents, the Project Documents shall govern.
- C. Governing standards as specified in the contract plans. When no reference is made to a code, standard, or specification, the standard specifications of the ASTM, the ANSI, the ASME, the IEEE, or the NEMA shall govern.

##### 1.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents or applicable codes establish stricter standards.
- B. Publication Date: Whenever in these specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or within the Contract Documents shall be waived because of any provision of or omission from said standards or requirements.

##### 1.03 ABBREVIATIONS AND ACRONYMS

- A. Abbreviated titles for other governing standards are used throughout these specifications and although most of them are widely known, their complete titles are given below to avoid misunderstanding.

1.	AASHTO	American Association of the State Highway and Transportation Officials
2.	ACI	American Concrete Institute
3.	AI	Asphalt Institute
4.	ASTM	American Society for Testing and Materials
5.	CRSI	Concrete Reinforcing Steel Institute
6.	FDEP	Florida Department of Environmental Protection
7.	FDOT	Florida Department of Transportation

- |     |      |   |
|-----|------|---|
| 8.  | OSHA | Occupational Safety and Health Administration |
| 9.  | PCA  | Portland Cement Association                   |
| 10. | FBC  | Florida Building Code                         |

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 45 29**

### **TESTING AND TESTING LABORATORY SERVICES**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. The Contractor will employ and pay for services of an independent testing laboratory to perform testing as indicated in the Project Documents, and may at any time elect to have materials and equipment tested for conformance with the Project Documents.
- B. Cooperate with the laboratory to facilitate the execution of its required services.
- C. Testing laboratory inspection, sampling and testing will be required for, but not limited to, the following:
  - 1. Soil Compaction
  - 2. Cast-in-Place Concrete
  - 3. Asphalt.

##### **1.02 CONTRACTOR'S RESPONSIBILITIES**

- A. Cooperate with laboratory personnel and provide access to Work.
- B. Make available, at no cost to the Department, adequate quantities of representative samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix approved to be used for concrete, and other materials mixes, which require control by the testing laboratory.
- D. Furnish incidental labor and facilities:
  - 1. To provide access to work to be tested
  - 2. To obtain and handle samples at the Project site or at the source of the product to be tested
  - 3. To facilitate inspections and tests
  - 4. For storage and curing of test samples
- E. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

##### **1.03 PAYMENT FOR TESTING**

- A. The Contractor will pay for initial testing services required elsewhere in these Specifications.

- B. When initial tests indicate non-compliance with the Project Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same Testing Laboratory, and all costs thereof shall be paid for by the Contractor.
- C. Inspecting and testing, performed exclusively for the Contractor's convenience, shall be the sole responsibility of and shall be paid for by the Contractor.

#### 1.04 QUALITY ASSURANCE

- A. Upon completion of each test and/or inspection, promptly distribute copies of test or inspection reports to the Engineer, the Contractor, to governmental agencies requiring submission of such reports, and to other persons as directed by the Engineer.

### **PART 2 PRODUCTS**

#### 2.01 TEST METHODS

- A. Tests and Inspections will be conducted in accordance with the requirements of these specifications or, if not herein specified, in accordance with the latest standards of the American Society for Testing and Materials (ASTM), or other approved and recognized authorities as acceptable to the Department.
- B. Requirements for testing are described in various Sections of these Specifications.

### **PART 3 EXECUTION** (NOT USED)

**END OF SECTION**

## **SECTION 01 55 26**

### **MAINTENANCE OF TRAFFIC AND PUBLIC STREETS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. The Contractor shall be responsible for providing the Engineer with Maintenance of Traffic (M.O.T.) plans for lane closures and/or detours for approval. These M.O.T. plans shall be produced by an individual employed by the Contractor and certified as "Work Zone Traffic Safety Supervisor" by the American Traffic Safety Service Association, ATSSA.
- B. The Contractor shall be responsible for the maintenance of public streets and traffic control for the duration of the project. The cost of Traffic Control including the cost of any required off duty police officers shall be included under the appropriate bid item in the Proposal. If no bid item for this is included, said costs shall be included in other appropriate items of the bid and no extra compensation will be allowed.

##### **1.02 REGULATIONS**

- A. As used herein, any reference to Miami-Dade County, its departments, or its published regulations, permits and data, shall be synonymous and interchangeable with other recognized governing bodies over particular areas or streets, or their departments, published regulations, permits or data. The Contractor shall abide by all applicable laws, regulations, and codes thereof pertaining to maintenance of public streets, detour of traffic, traffic control and other provisions as may be required for this Project.

##### **1.03 MAINTENANCE OF TRAFFIC (M.O.T.)**

- A. The Contractor shall be fully responsible for the maintenance of public streets, detour of traffic (including furnishing and maintaining regulatory and informative signs along the detour route), traffic control, and other provisions throughout the Project as required by the Miami-Dade County Department of Transportation and Public Works (MDCDTPW), Traffic Engineering Division (Traffic Division), FDOT or another governing agency. Traffic shall be maintained according to corresponding typical traffic control details as outlined in the MDCDTPW Manual. No street shall be completely blocked, nor blocked more than one-half at any time, keeping the other one-half open for traffic, without specific approval.
- B. If required by the Traffic Division, the Contractor shall make arrangements for the employment of uniformed off-duty policemen to maintain and regulate the flow of traffic through the construction area. The number of men required and the number of hours on duty necessary for the maintenance and regulation of the traffic flow shall be subject to their approval. The cost of such off-duty policemen shall be paid from the Quotation Item established for this purpose. If required by traffic control permits or agencies, the Contractor shall work, odd or night hours, as required for traffic control reasons, and the cost of such work shall be considered as incidental

to construction and no extra compensation will be allowed.

- C. The Contractor shall provide all barricades with warning lights, necessary arrow boards and signs, to warn motorists of the work throughout the Project. Adequate approved devices shall be erected and maintained by the Contractor to detour traffic.
- D. Excavated or other material stored adjacent to or partially upon a roadway pavement shall be adequately marked for traffic safety at all times. The Contractor shall provide necessary access to all adjacent property during construction.
- E. The Contractor shall be responsible for the provision, installation and maintenance of all traffic control and safety devices, in accordance with specifications outlined in the MDCDTPW Manual. In addition, the Contractor shall be responsible for the resetting of all traffic control and information signing removed during the construction period.
- F. Where excavations are to be made in the vicinity of signalized intersections, the Contractor is alerted that vehicle loop detectors may have been embedded in the pavement. Every effort has been made to show the approximate locations on the Plans; however, the Contractor shall verify these locations by inspecting the site of the work and by contacting the Traffic Division. Any loop detector which is damaged by the Contractor, whether shown on the Plans or not, shall be repaired or replaced by the Contractor, at his expense, and to the satisfaction of the Traffic Division.
- G. Where applicable, the Contractor shall notify the Traffic Division 24 hours in advance of the construction date or 48 hours in advance of construction within any signalized intersection.
- H. Temporary pavement will be required over all cuts in pavement areas, and also where traffic is to be routed over swale or median areas. When the temporary pavement for routing traffic is no longer necessary, it shall be removed and the swale or median areas restored to their previous condition.
- I. Pavement markings damaged during construction shall be remarked, as required by the Traffic Division.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 71 23**

### **GRADES, LINES AND LEVELS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE**

- A. This work of this Section comprises the establishing of grades, lines and levels as given herein and as established in the FAC-Chapter 61G17-6 Minimum Technical Standards.

##### **1.02 RELATED WORK**

- A. Section 01 77 00 – Contract Closeout
- B. Section 01 78 39 – Project Record Documents

#### **PART 2 PRODUCTS**

##### **2.01 MATERIALS**

- A. Furnish all stakes, templates and other materials necessary for establishing and maintaining of the lines and grades necessary for control and construction of the Work and all incidental labor necessary for the prosecution of the Work.

#### **PART 3 EXECUTION**

##### **3.01 LAYOUT OF THE WORK:**

- A. General
  - 1. The Engineer of Record, through retaining the services of a Professional Land Surveyor and Mapper, who is licensed in the State of Florida, shall furnish the Contractor with horizontal and vertical controls which shall be utilized as specified elsewhere herein to layout the work. The Professional Land Surveyor and Mapper, who is licensed in the State of Florida hired by the Contractor, shall verify all controls provided by the Engineer of Record and it shall be the responsibility of the Contractor to preserve same.
  - 2. The Contractor shall retain the services of a Professional Land Surveyor and Mapper, who is licensed in the State of Florida who, shall furnish and set stakes, establishing line and grade and shall solely be responsible for the layout of the work as well as the recording of all as-built dimensions and elevations. The Contractor shall furnish all additional stakes, templates, and other materials for marking and maintaining survey points and lines given, and shall be responsible for their preservation. Should any of the horizontal and vertical control points set by the Engineer of Record be destroyed or disturbed, they shall be reset by the Contractor's Florida Registered Land Surveyor and Mapper, at the Contractor's expense. All

control points previously set by the Engineer of Record shall be verified by the Contractor's surveyor.

B. Layout

As provided in Subsection 3.01-A, above, the Contractor through the services of his Florida Registered Land Surveyor and Mapper, shall establish the line and benchmark and other reference points to perform the work.

3.02 RECORD DRAWINGS:

- A. During the entire construction operation, the Contractor shall retain the services of a State of Florida Registered Land Surveyor and Mapper who shall maintain records of the installation, including all deviations from the Plans and Specifications by obtaining "as-built" dimensions and elevations.
- B. The Surveyor shall prepare Record As-Built Drawings showing correctly and accurately all changes and deviations made during construction, including approved construction variances, to reflect the work as it was actually constructed.
- C. Refer to Sections 01 77 00, 01 78 39 and 01 78 40 for Department's criteria for developing project record documents and record As-Built drawings.

**END OF SECTION**

## **SECTION 01 73 29**

### **CUTTING AND PATCHING**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. Work Included: This section includes work required to provide complete, in place, cutting, fitting, and patching of new and existing work.
  - 1. Do not imperil any work by cutting or altering work or any part of it.
  - 2. Do not cut structural or reinforcing steel without the written consent of the Engineer.

##### **1.02 DESCRIPTION OF WORK**

- A. Execute cutting (including excavating), fitting or patching of work, required to:
  - 1. Make the several parts fit properly.
  - 2. Uncover work to provide for the installation of ill-timed work.
  - 3. Remove samples of installed work as specified for testing.
  - 4. Install specified work in existing construction.
- B. In addition to Contract requirements, upon written instructions from the Engineer:
  - 1. Uncover work to provide for Engineer's observation of covered work.
  - 2. Remove samples of installed materials for testing.

##### **1.03 SUBMITTALS DURING CONSTRUCTION**

- A. Prior to cutting which affects structural integrity or safety, submit written notice to the Engineer and other Contractors, requesting consent to proceed with cutting.
- B. All cutting and patching, to be performed at no additional cost to the Department.
- C. Should conditions of work, schedule, indicate change of materials or methods, submit written recommendation to the Engineer, including:
  - 1. Conditions indicating change.
  - 2. Recommendations for alternative materials and/or methods.
  - 3. Submittals as required for substitutions.
  - 4. Submit written notice to the Engineer, designating time work will be uncovered, to provide for observation.

## **PART 2 PRODUCTS**

### **2.01 GENERAL**

- A. Materials for replacement of work removed shall comply with applicable sections of these specifications for type of work to be performed. Materials not specified herein shall be replaced as specified in Sub- Section 3.03 of this Section, Restoration.
- B. Provide all tools and equipment required to accomplish cutting and patching.
- C. Completely remove damaged or deteriorated concrete or other material.
- D. Legally dispose of all demolition debris generated by the project. The Contractor shall pay for all loading, hauling, transportation and applicable tipping fees.

## **PART 3 EXECUTION**

### **3.01 INSPECTION**

- A. Inspect existing condition of work, including elements subject to movement or damage during cutting, patching, excavating, and backfilling.
- B. After uncovering work, inspect conditions affecting installation of new products.

### **3.02 PERFORMANCE**

- A. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances and finishes.
- B. Execute cutting and demolition as specified below:
  - 1. The cutting and removal of existing work necessary for modifications and installation of new work shall be made with a minimum of damage to the work that is to remain. Any damage done to existing facilities which are to remain shall be repaired at the Contractor's expense to the satisfaction of the Department.
  - 2. When removing materials, the Contractor shall take all precautions and use all necessary barriers and other protective devices so as not to damage the structures beyond the limits necessary for the new work, and not to damage the structures or contents by falling or flying debris. Unless otherwise permitted, line drilling will be required in cutting existing concrete.
  - 3. Surfaces of seals visible in the completed work shall be made to match as nearly as possible the adjacent surfaces.
  - 4. Non-shrink grout shall be used for setting wall casting, sleeves, and leveling equipment bases. Doweling anchors into existing concrete and elsewhere as required shall be done with an approved type of epoxy material.

5. Debris created within facilities, which are to remain in service during the modification work, shall be removed daily. Operators of the Department and Contractor's employees shall not be subjected to hazardous areas, when performing their duties.
  6. Follow other specific instructions for the modification work given in other sections of these specifications and as shown on the Drawings. Should these instructions conflict, the more stringent conditions shall prevail.
- C. Restore work which has been cut or removed; install new products to provide completed work in accordance with the requirements of Contract Documents.

### 3.03 RESTORATION

- A. Restore structures and surfaces damaged during the course of this Contract that are to remain in the completed work.
- B. Restoration shall be done with new materials and appropriate methods as specified elsewhere in these specifications for new work of similar nature; if not specified, best recommended practice of manufacturer, or appropriate trade association.
- C. Restore damaged work in such a way that there is a secure intimate bond or fastening between new and old work. Restored surfaces shall be finished to such planes, shapes, and textures that no transition between new and old work is evident in finished surfaces.

### 3.04 CLEANING

- A. Remove from site all debris, rubbish, and extra material caused by cutting and patching.

**END OF SECTION**

## **SECTION 01 74 00**

### **CLEANING**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. This Section specifies the maintenance of the work site in a clean, orderly, hazard-free condition.

##### **1.02 QUALITY ASSURANCE**

- A. Conduct cleaning and disposal operations in accordance with local ordinances and anti-pollution laws. Rubbish, volatile wastes, and other construction wastes shall be neither burned nor buried on the work site, and shall not be disposed of into storm drains, sanitary drains, streams or other waterways.
- B. Final cleaning shall be accomplished either by workmen experienced in cleaning operations or by professional cleaners.

##### **1.03 DISPOSAL REQUIREMENTS**

- A. Conduct cleaning and disposal operations to comply with local codes, ordinances, regulations, and anti-pollution laws. Do not burn or bury rubbish or waste materials on Project site. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains. Volatile wastes shall be disposed in accordance with proper laws and be approved by the Department. Do not dispose of wastes into streams or waterways.

#### **PART 2 PRODUCTS**

##### **2.01 ON-SITE WASTE CONTAINERS**

- A. Provide on-site waste containers for collection of waste materials, debris and rubbish. See Section 01 35 29 - Safety Requirements and Protection of Property, Subsection 1.06 regarding storage of hazardous materials.

##### **2.02 CLEANING MATERIALS**

- A. Cleaning materials shall be as recommended by the manufacturer of the surface to be cleaned.

#### **PART 3 EXECUTION**

##### **3.01 SAFETY REQUIREMENTS**

- A. Maintain work site in accordance with local ordinances and anti-pollution laws applicable to work site cleanliness and in a neat, orderly and hazard-free

condition until final acceptance of the work. Catwalks, accessible underground structures, work site sidewalks and walkways adjacent to the work site shall be kept free from hazards caused by construction activities.

- B. Store volatile wastes including rags in covered metal containers and remove from work site daily.
- C. Prevent accumulations of wastes which create hazardous conditions.

### 3.02 CLEANING DURING CONSTRUCTION

- A. Perform cleaning every workday for duration of the Work. Structures, grounds, and areas of the work site, access roads and adjacent public and private properties shall be maintained free from accumulations of waste materials and rubbish caused by construction operations on the work site. Place waste materials and rubbish in on site containers or as otherwise approved. Unneeded construction equipment shall be removed and all damaged repaired so that the public and property owners will be inconvenienced as little as possible.
- B. Remove or secure loose material on open decks and on other exposed surfaces at end of each day's work or more often to maintain work site in hazard-free condition.
- C. Prevent dislodgement of materials due to wind and other forces. Wet down dry materials and rubbish to lay dust and prevent blowing dust. Cover or wet excavated material leaving and arriving at the site to prevent blowing dust. Clean the public access roads to the site of any material falling from the haul trucks.
- D. Empty on-site waste containers whenever necessary so that trash overflow does not occur. Legally dispose of contents at either public or private dumping areas.
- E. Control the handling of materials, debris and rubbish; do not drop or throw from heights.
- F. Immediately remove spillages of construction-related materials from hauling routes or the site.
- G. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes, structures, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc., shall, upon completion of the work, be left in a clean and neat condition.

### 3.03 FINAL CLEANING

- A. In addition to the cleaning performed above, in preparation for final inspection, remove grease, dust, dirt, rust stain from surfaces. Remove labels, fingerprints and other foreign materials from exposed exterior finished surfaces.
- B. In preparation for final acceptance or occupancy, conduct final inspection and cleaning of exposed exterior surfaces, and of concealed spaces.

- C. Maintain cleaning operations until project has been finally accepted.

**END OF SECTION**

**SECTION 01 77 00**  
**CONTRACT CLOSEOUT**

**PART 1 GENERAL**

**1.01 SCOPE OF WORK**

- A. Work Included: This section outlines the procedure to be followed in closing all contracts.

**1.02 RELATED SECTION**

- A. Section 01 33 00 - Shop Drawings, Product Data, and Samples.
- B. Section 01 78 39 - Project Record Documents.

**1.03 FINAL INSPECTIONS**

- A. The Department will not issue preliminary punch lists. After final cleaning and upon written notice from the Contractor that he has inspected the work and it is a 100% completed, the Engineer will make a preliminary inspection with the Department and the Contractor present. Upon completion of this preliminary inspection, the Engineer will submit to the Contractor a written final punch list of any particulars which this inspection reveals as defective or incomplete work.
- B. Upon receiving written notice from the Engineer, the Contractor shall immediately undertake the work required to remedy the defects and complete the work to the satisfaction of the Department.
- C. The items identified to be completed shall constitute the Punch List. The Construction Manager and the Contractor shall have seven (7) calendar days from the date of substantial completion to create the Punch List. When the Contractor successfully completes all identified items to the satisfaction of the Engineer in accordance with the Contract Documents, the Contractor may submit a payment request for all remaining retainage withheld for the Project. Each item in the punch list shall have a time duration agreed upon by both parties. Punchlist items may be eliminated individually from the list when approved by the Engineer.
- D. When the Contractor has corrected or completed the items as listed in the Engineer's written notice, inform the Engineer, in writing, that the required work has been completed. Upon receipt of this notice, the Engineer, in the presence of the Contractor, shall make the final inspection of the Project.
- E. Should the Engineer find all work satisfactory at the time of the inspection, the Contractor will be allowed to make application for final payment in accordance with the provisions of the Contract Documents.

1. If the Contractor fails to complete any item of work within a time period equal to 100% of the agreed upon duration of time for all individual items, the Engineer will notify the Contractor in writing specifying the conditions pertaining thereto and directing the Contractor to comply with his directive. If the Contractor has not corrected such condition within five (5) days of such notice, it shall be sufficient grounds for the Engineer to order the subject items discontinued and have them completely remedied in a timely manner at the expense of the Contractor.
2. No final estimate shall be issued by the Engineer until the Engineer has assured himself that the punch list has been 100% completely finished and all other related documents are submitted.

#### 1.04 FINAL SUBMITTALS

- A. No Contract will be finalized until all of the following have been submitted and approved in conformance with Section 01 33 00 - Shop Drawings, Product Data and Samples, and Section 01 78 39 - Project Record Documents.
  1. Final Shop Drawings.
  2. Record Drawings.
  3. Interface Information.
  4. Operation and Maintenance Manuals.
  5. Maintenance Summaries.
  6. Manufacturer's Certificates of Proper Installation.
  7. Material Tests and Certifications.
  8. All Test Reports.

#### 1.05 GUARANTEES, BONDS, AND AFFIDAVITS

- A. No Contract will be finalized until all guarantees, bonds, certificates, licenses, and affidavits required for work as specified are satisfactorily filed with the Engineer.
- B. The Contractor shall comply with the Public Records Laws of the State of Florida.

#### 1.06 SUBSTANTIAL COMPLETION

- A. "Substantial Completion" shall occur when the work is in a state of final completion as regards all aspects of occupancy, ingress, egress, habitability, functionality and efficiency thereof, safety, durability and interaction with other existing or contemplated systems, and is otherwise substantially fit for use or operation. Any work remaining after substantial completion shall be of a minor nature such that should the Department elect to occupy and put into full service the facility constructed under the Project, or any portion thereof, said work may be accomplished without interference to an extent causing loss of efficiency to any of the above required aspects. The date of substantial completion is the

date certified by the Engineer and approved by the Department (if different from the Engineer) when construction is sufficiently complete to satisfactorily fulfill all of the above requirements. If any portion of the Contract Documents specifies a particular measure of substantial completion for the work, in whole or in part, that definition shall take precedence of this section.

#### 1.07 FINAL COMPLETION

- A. "Final Completion" shall occur when the work is in a state such that no further work is required in accordance with the Contract Documents to render complete, satisfactory and acceptable to the Department all construction services purchased, including those for any pending items whether or not they were listed after substantial completion, and provide all manuals, certifications, as-built Plans, certified payrolls, and any other documentation required by the Department or other governing authority. If any portion of the Contract Documents specifies a particular measure of final completion for the work, in whole or in part, that definition shall take precedence of this Section.

#### **PART 2 PRODUCTS** (NOT USED)

#### **PART 3 EXECUTION** (NOT USED)

**END OF SECTION**

## **SECTION 01 78 39**

### **PROJECT RECORD DOCUMENTS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE OF WORK**

- A. The Contractor is responsible for maintaining one record copy of:
  - 1. Record Drawings
  - 2. Record Specifications
  - 3. Addenda
  - 4. Change Orders and Other Modifications of the Contract
  - 5. Engineer's Written Orders or Instructions
  - 6. Approved Shop Drawings, Product Data and Samples
  - 7. Field Test Records
  - 8. Construction Photographs
  - 9. As-Built Dimensions and Elevations as Recorded by the Contractor's Florida Registered Land Surveyor
- B. The records listed above are to be made available for the Department's review at all times for all projects.
- C. Related Requirements Described Elsewhere:
  - 1. Section 01 33 00 - Shop Drawings, Product Data and Samples
  - 2. Section 01 71 23 - Grades, Lines and Levels

##### **1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES**

- A. Maintain documents clean, dry, legible and in good order. Do not use record documents for construction purposes.

##### **1.03 RECORDS**

- A. During the life of the Contract, the Contractor shall retain the services of a Florida Registered Land Surveyor who shall maintain records of the installation, including all deviations from Plans and Specifications.
- B. Measure and record all information for all projects concurrently with construction progress.
- C. Submit redlines, partially completed as-built plan sheets and fully complete as-built Plan sheets, all as required by and satisfactory to the Department, on a monthly basis, or such lesser interval as directed by the Department.

- D. Label each document "Project Record" in neat large printed letters.
1. Do not conceal any work until as-built information is recorded by the Contractor's surveyor and, if so required, by the Department surveyor.
  2. For all projects, the Contractor's FRLS shall maintain exact and extensive records of any deviations from the Plans or Specifications. These records shall be satisfactory to the Engineer, whose decision shall be final, and sufficient to allow the production of accurate as-built Plans which correctly and completely portray the work as constructed.
  3. For all projects, the Contractor's FRLS shall, during the entirety of construction, record the following data:
    - a. The Contractor's Licensed Surveyor shall prepare from the field data, As-built Record Drawings showing correctly, completely and accurately the installation, embracing all changes and deviations made during construction, including all construction variances to reflect the work as it was constructed.
    - b. Record Drawings shall be prepared as specified hereinafter.
    - c. If the Department determines that the Plans are not acceptable, they will be returned to the Contractor with a cover letter noting the deficiencies and/or reasons for the disapproval. Contractor shall have ten calendar days to correct all exceptions taken by the Department and resubmit as-built record drawings to the Department for final acceptance.

#### 1.04 DRAWINGS

- A. During the life of the Contract, maintain records of all deviations from the Plans and Specifications and prepare therefrom As-Built Record Drawings showing correctly and accurately all changes and deviations made during construction to reflect the work as it was actually constructed. It is the responsibility of the Contractor to check the As-Built Record Drawings for errors and omissions prior to submittal to the Department and certify in writing that the As-Built Record Drawings are correct and accurate.
- B. Legibly Mark to Record Actual Construction: All data as previously specified for all installations by the Contractor's FRLS. For on-site structures and facilities work the Contractor's FRLS shall record:
1. Depths of various elements of foundation in relation to finish first floor and datum plane.
  2. Field changes in dimensions, locations and details.
  3. Changes made by Engineer's written instructions or by Change Order.
  4. Details not on original Plans.
  5. Record Drawings shall be prepared as specified hereinafter.
- C. Specifications and Addenda: Legibly mark each section to record the following:
1. Changes made by Engineer's written instructions or by Change Order.

## 1.05 SUBMITTALS

- A. Accompany submittal with transmittal letter in duplicate, containing:
  - 1. Date.
  - 2. Project title and number.
  - 3. Contractor's name and address and phone number.
  - 4. Title and number of each Record Document.
  - 5. Signature of Contractor or his authorized representative.
  - 6. The Contractor shall use the corresponding Department transmittal form as a cover sheet for all submittals to the Department.
- B. Record Drawings with five blue line copies which have been signed and sealed by the surveyor shall be submitted to the Department for the Engineer's review. Plans shall conform to recognized standards of drafting and the minimum technical standards as set forth by the Board of Professional Surveyors and Mappers, shall be neat, legible and on 24-inch by 36-inch Mylar. These materials shall be submitted to the Department for the Engineer's review as a prerequisite for payment during the course of construction as previously specified and final, complete sets of documents within ten calendar days following the completion date of successful testing of all mains, equipment and appurtenances under this Contract. Final acceptance will not be made until the set of as-built record drawings and five sets of blue-line prints have been approved and accepted by the Department.
  - 1. As-Built Record Drawings, as prepared by the Contractor's Florida Registered Land Surveyor and submitted by the Contractor, shall comply with following criteria and standards:
    - a. Title block must show the Contract or Project Title (as applicable); Contract number; the Department Project number; Contractor's name; Engineer of Record's name; Surveyor's name and address; date; location; and where appropriate to the work.
    - b. Refer to vertical datum plane and identify the location, elevation and source supplying the benchmark used.
    - c. Tie easement lines to platted centerline and right-of-way.
  - 2. Certification: The Contractor shall certify on as-built record drawings all other actual constructed details and information as may be required by the Department.
- C. Plans on Magnetic Media: the Department reserves the right to request submittal of as-built drawings in AutoCAD for Windows Release 14 format or later. Graphical information contained on magnetic media shall be the same as provided on plan sheets. Magnetic media shall be delivered to the office of the Department Technical Service Division, at 2525 NW 62nd Street, 5th Floor, Miami, FL 33147. A letter of transmittal shall be provided, containing a list of all files and data being provided.

## **PART 2 PRODUCTS** (NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 01 78 40**

### **PROJECT AS-BUILT/RECORD DRAWINGS**

#### **PART 1 GENERAL**

##### **1.01 SCOPE**

- A. This Section shall serve to set requirements for As-Built/Record Drawings submitted to the Department.
- B. The facility shall have As- Built/Record Drawings in the format and information specified herein, as recorded by a Professional Surveyor and Mapper (PSM) and prepared in accordance with these guidelines as part of the construction and inspection process.

##### **1.02 RELATED WORK SPECIFIED ELSEWHERE**

- A. The work shall proceed in accordance with the following specification sections, bound herein:
  - 1. Section 01 71 23 – “Grades, Lines and Levels”
  - 2. Section 01 77 00 – “Contract Closeout”

##### **1.03 GENERAL**

- A. The Contractor shall retain the services of a Florida Registered Professional Surveyor and Mapper as a prerequisite to receiving a Notice To Proceed (NTP).
  - 1. Prior to receiving the NTP the Contractor shall provide a letter from the PSM indicating that the Contractor has secured his services to perform all survey work for the duration of the Project, and to prepare final As-built/Record Drawings.
  - 2. Prior to receiving the NTP the Contractor shall provide a copy of the insurance policy declaration page of the surveying company, and the professional Liability insurance coverage.
  - 3. The Surveyor shall attend the Preconstruction Conference. It is the Contractor’s responsibility to have the services of the PSM by the Preconstruction Conference and the PSM in attendance.
  - 4. Survey Company or PSM is required to carry professional liability insurance coverage. A copy of the insurance policy including the declaration page shall be provided with the Final As-Built/Record Drawings.
- B. The Florida Registered PSM shall maintain records of the installation, including all deviations from Plans and Specifications, and for the purposes of preparing and submitting to the Department As-Built/Record Drawing in compliance

with:

1. Florida Statutes Chapter 472.027.
2. Florida Administrative Code Chapter 5J-17.
3. As further required by the Contract Documents.

#### 1.04 AS-BUILT SUBMITTAL PACKAGE

##### A. As-Built Package-Submittal

1. A set of signed and sealed As-Built/Record Drawings (DWFX or PDF file), signed and sealed field book information, electronic field raw data shall be submitted using the applicable Department systems.
2. As-Built/Record Drawings in digital format DWG.
3. Bill of Materials, Bill of Sale Sketch (completed and signed by the Contractor).
4. All surveys for right of ways, properties, topographical, boundaries and other special purposes.

##### B. Final submittal shall consist of corrected As-Built/Record Drawings and Documents in digital format (DWG and PDF files), to be submitted using the applicable Department systems and the following sets of signed and sealed hard copies:

1. Two sets for the entire project,
2. PSM's signed and sealed copy of the Field Book.
3. A copy of the insurance policy of the PSM, and the surveying company, including the declaration page.

##### C. As-Built/Record Drawings signed and sealed by the Florida Registered Professional Surveyor and Mapper and/or Engineer of Record or designated Florida Registered Professional Engineer must comply with format requirements.

##### D. Platted Lots Requirement

1. In lieu of recorded plats, 1 copy of a tentative plat signed by a representative of the Miami-Dade County, Department of Transportation and Public Works, Plats Division may be acceptable for As-Built/Record purposes. The Plats Division representative shall attest that the lot and block numbers, street names, easements, and other pertinent data shown are as will be recorded in the plat's final form. In this case, the submitter is responsible to provide a copy of the recorded plat to the Department.

#### 1.05 AS-BUILT/RECORD DRAWINGS FORMAT AND GENERAL SUBMITTAL REQUIREMENTS

##### A. Size shall be 24" X 36".

1. Preferred scales are 1" = 20' for contracts and 1"=40' for donations horizontally, and 1" = 2' for contracts and 1"=4' for donations vertically. Other scales may be permitted but must be approved by the Department prior to preparation of the drawings.
2. Any deviations from the design plans must be approved by the Department.

B. Quality of As-Built/Record Drawings

1. To ensure that As-Built/Record Drawings may serve their intended purposes, they shall be prepared with consideration for quality. The Inspector and As-Built Reviewer will consider the following elements to ensure the quality of As-Built/Record Drawings:
  - a. Accuracy: The Florida Registered Professional Surveyor and Mapper shall be responsible for providing measurements in accordance with the standard of practice established in Chapter 5J-17 of the Florida Administrative Code, pursuant to Section 427.027, Florida Statutes. The approved final As-Built/Record Drawing will be used as part of the DEPARTMENT GIS and Record System. In addition, the horizontal accuracy shall not exceed 1 foot in 7,500 feet, a commonly value accepted for suburban areas. The elevations shall be based on a closed level between two-benchmarks and shall not exceed the calculated value of a closure in feet of plus or minus 0.05 feet times the square root of the distance in miles.
  - b. Appearance: As-Built/Record Drawing shall be prepared in a professional manner consistent with common drafting standards for layout, lettering and line work.
  - c. Understandability: As-Built information shall be portrayed in a manner that is readily understandable by someone not familiar with the specific job.
  - d. Clarity: Preparer shall endeavor to present As-Built information clearly without "cluttering" the drawing. Do not include or show trees, shrubs, traffic lights or signs, landscaping, etc.

1.06 CERTIFICATION

- A. As-Built/Record Drawings shall include a signed, sealed and dated certification statement by the responsible Florida Registered Professional Surveyor and Mapper, that all measurements were recorded under his direction and that they are accurate.
- B. Certifier shall be fully responsible for the accuracy of the As-Built/Record Drawings. As-Built/Record Drawings shall not contain any statement that the information was obtained from another party other than a Professional Surveyor and Mapper under his direction (e.g. a statement such as "As-Built information provided by Contractor" shall not be permitted).
- C. The Contractor shall certify on the As-Built/Record Drawings that the As-Built/Record Drawings are correct and accurately depict what was constructed in the field, in addition that all As-Built field information submitted to the EOR or designated Florida Registered Professional Engineer and/or PSM reflects actual field As-Built project conditions.

1.07 QUALITY ASSURANCE

- A. Contractor's Responsibility
  1. As-Built/Record Drawing preparation and submittal shall be the responsibility of the Contractor. The final As-Built/Record Drawings shall be completed and

submitted to the Department.

2. As-Built/Record Drawings shall be checked by the Contractor for errors and omissions prior to submittal to the Department.
3. A Bill of Materials shall also be certified as correct by signature and presented at the time of As-Built submission. Quantities shown on the Bill of Materials shall match installed and As-Built quantities, not quantities proposed, bid or bought nor scaled distances or quantities.

B. Professional Surveyor and Mapper Responsibility

1. The PSM shall be responsible for all locations, measurements and associated information on the As-Built/Record Drawings.
2. Infrastructure being shown on As-Built/Record Drawings shall have been located under the direction of a Florida Registered Professional Surveyor and Mapper.
3. As-Built/Record Drawings shall meet the requirements established in these specifications.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**

3.01 GENERAL

- A. If construction drawings are used to create the As-Built/Record Drawings, all "proposed" construction related information such as "equal to", "typical", "approximately", "shall", etc. shall be removed from As-Built/Record Drawings, leaving only "As-Built" information reflected on the drawing. Do not remove any information on materials installed. The construction drawings need to be adjusted accordingly to reflect constructed as-built information.
- B. Site location sketch shall be provided showing the Project site and surrounding area with all streets clearly named, its own north arrow and a readable scale. The section, township and range shall also be provided therein.

3.02 REQUIRED INFORMATION AND MEASUREMENTS

A. Set-Up Verification

1. The Contractor's Florida Registered Professional Surveyor and Mapper (PSM) is required to verify the elevations and coordinates on a regular basis as needed.
2. The Florida Registered Professional Surveyor and Mapper shall establish and maintain throughout the construction the property boundaries and easements of the DEPARTMENT facilities and infrastructure. The PSM shall verify that the work of the Project does not encroach into adjacent (abutting) property. Property corners lost during construction shall be reset at the first opportunity to ensure that the work is done within the designated limits.

B. As-Built/Record Drawings Content Requirements and Procedures

1. The following shall be made a part of any As-Built submittal:
  - a. All applicable permit numbers for the Project shall be shown on the cover sheet.
  - b. Graphic and numeric scale, north arrow and any symbol legend needed.
  - c. All involved streets shown with centerlines, right-of-way lines, widths and names, with matching plat, if applicable, subdivision name, phase line and number. (Phasing to be nearest valve and manhole in limits of phase area). Show station at all intersecting streets.
  - d. All involved lots and blocks shown and correctly designated (to match plat).
  - e. All control lines identified (i.e. centerline, section line, monument line, property line, etc.). Identify all streets by name or number.
  - f. Horizontal Control
    - 1) The PSM shall show on the As-Built/Record Drawings the Florida State Plane Coordinate (current readjustment - NAD 83, FLA East Zone 901) with at least two physically located horizontal control points within the Project limits.
    - 2) For As-Built/Record Drawings within Department facilities with relative coordinates, a coordinate conversion equation needs to be included on every sheet.
  - g. Vertical Control
    - 1) As-Built/Record Drawing shall use the same datum as per approved design plans.
    - 2) Nationwide, surveys and As-Built/Record Drawings are in the process of conversion to NAVD 88 from the NGVD 1929. The Department will accept NAVD 88 datum with a conversion factor to NGVD 1929 on each page.
  - h. Manhole rim and valve box rim elevations shall be shown.

3.03 DEPARTMENT PROCESSING

- A. The Department will require ten (10) County calendar days to perform the As-Built review.
- B. As-Built/Record Drawings will be initially reviewed, commented and/or recommended to be approved, from construction perspective, by the responsible Field Inspector, who shall verify that they are an accurate representation of the work as installed and that the job as shown is complete and in accordance with the permitted plans.
- C. Following the Field Inspector's review, As-Built/Record Drawings will be reviewed in depth by the As-Built Reviewer to ensure compliance with these specifications. The Reviewer will also check the complete package which for donation projects shall include the Bill of Materials.
- D. The complete submittal package as defined above shall be delivered using the

applicable Department's system.

E. Cause for Non-Review

1. If review by the As-Built Reviewers reveals excessive errors or omissions, the As-Built/Record Drawings shall be deemed "non reviewable". As-Built/Record Drawings containing excessive errors or omissions shall include those with omission of major sections of the installation, water and sewer As- Built/Record Drawings on same sheet, those lacking large amounts of information and other errors or omissions that are considered excessive in the opinion of the As-Built Reviewer.
2. In cases when an As-Built/Record Drawing is considered "non-reviewable", it shall be marked "Not Reviewable", the reviewer shall note comments regarding obvious problem(s) and shall be returned to submitter. Such As-Built/Record Drawings will not be considered as having been reviewed for the purposes of Sub-section F, Punch List, below.

F. Punch List (for donation projects only)

1. Punch List items may be generated from the Department initial review. Successive reviews are solely for the purpose of ensuring that original punch list items are completely and correctly done to obtain a final As- Built/Record Drawing acceptable to the Department.
2. Successive punch list items may only be added to correct a problem resulting from submitter's efforts to comply with the original punch list. The Department will prevent adding new punch list item(s). Submitter shall be required to make these successive changes.
3. In the case of a major oversight on the part of the As-Built Reviewer, punch list items may be added to the list or requested to the submitter after the valid time for such items. The Department requires that all corrections be made as a condition of accepting the final As-Built/Record Drawings.

G. Acquisition and Resubmittal

1. After notification from the Department, DWFX and/or PDF file with markups along with the As-Built punch list (donation projects only) can be obtained from the applicable Department's System.
2. After making the corrections requested on the As-Built/Record Drawing set and punch list, upload the revised package to the applicable Department's System. On contracts, contractor shall resubmit corrected As- Built/Record Drawings to the Department within ten (10) County calendar days for contracts
3. The Department will require ten (10) County calendar days to perform the As-Built/Record Drawing review.

H. Disputes or Interpretation

1. Resolution of disputes and interpretation of these requirements is the responsibility of the As-Built Reviewer. Submitting parties are urged to work with him to resolve any problems of this nature.
2. Where necessary, the submitting party may request a hearing with the

Department's PSM in matters of dispute or interpretation. The Department's PSM's decisions shall be final.

**END OF SECTION**

## **SECTION 02 00 00**

### **SITE CONDITIONS**

#### **PART 1 GENERAL**

##### **1.01 SITE INVESTIGATION AND REPRESENTATION**

- A. The contractor acknowledges that he has satisfied himself as to the nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation; disposal, handling and storage of materials; availability of labor, water, electric power, roads; disposal of water from construction; uncertainties of weather; the conformation and conditions at the ground; the type of equipment and facilities needed preliminary to and during the prosecution of the work and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. The Contractor further acknowledges that he has satisfied himself as to the character, quality, and quantity of surface and subsurface materials to be encountered from inspecting the site, making whatever site investigations he deems diligent or prudent, and from evaluating information derived from exploratory work that may have been done by the Department or included with these Contract Documents. Any failure by the Contractor to acquaint himself with all the available information will not relieve him from responsibility for properly estimating the difficulty or cost thereof under this Contract.
- C. The Contractor acknowledges that by personal field observation or other means satisfactory to himself, performed prior to the Bid, he has included in the prices bid all costs for dealing with all construction problems created by observable above or on grade features on or adjacent to the site of the work whether or not these features are shown on the Plans or described in the Specifications. In instances where the observable features indicate subsurface conditions which may affect the Project work, as for example, a pavement patch or catch basin gratings indicating respectively a utility or storm sewer not shown on the Plans, the Contractor acknowledges that he has made timely, diligent, inquiry of the Engineer or by other means fully satisfied himself prior to the Bid as to the nature of, and costs created by, the subsurface condition and included all costs therefore in the prices bid.

##### **1.02 INFORMATION ON SITE CONDITIONS**

- A. All information obtained by the Department regarding the site conditions, topography, subsurface information, ground water elevations, existing construction of site facilities as applicable, and similar data will be available for inspection at the office of the Engineer upon request. Such information is offered as supplementary information only. Neither the Engineer nor the Department assumes any responsibility for the completeness or for the Contractor's interpretation of such supplementary information. Prior to bidding and after written approval from the Department, bidder may make his own survey investigations to satisfy himself with site conditions at his own cost.

### 1.03 SUBSURFACE INFORMATION

- A. Subsurface investigations, including test borings, have been made to indicate subsurface conditions at locations. All information regarding subsurface conditions and all available soil samples recovered from test borings at the project site that the Department may have, may be examined by all prospective bidders prior to the receipt of proposals. Appointment for the examination of such information or soil samples shall be made with the Department.

### 1.04 DIFFERING SUBSURFACE CONDITIONS

- A. In the event subsurface or latent physical conditions are found materially different from those indicated in these Documents and differing materially from those ordinarily encountered and generally recognized as inherent in the character of work covered in these Contract Documents, promptly, and before such conditions are disturbed, notify the Engineer in writing of such changed conditions.
- B. The Engineer and/or the Engineer of Record will investigate such conditions promptly and following this investigation, the Contractor shall proceed with the work, unless otherwise instructed by the Engineer. If the Engineer and/or the Engineer of Record find that such conditions do so materially differ as to cause an increase or decrease in cost and time considered reasonable by the Engineer, the Department will make the final decision regarding any adjustment in cost or time for completion.
- C. In the event that site conditions differ from those expected by the Contractor, the Contractor shall proceed to complete the work as contemplated by the Plans and Specifications at his own cost and expense. If in the discretion of the Engineer, the difference in site conditions renders completion of the work as described by the Plans and Specifications impossible, the Engineer may alter the work, whereupon the Contractor shall be compensated for any extra work; the Engineer shall not alter the work where the site conditions render the work more difficult or costly to perform, if such work is otherwise still possible as described in the Contract Documents.

### 1.05 EXISTING UTILITIES AND LOCATION SERVICES

- A. Known utilities and structures adjacent to or encountered in the work are shown on the Drawings. The locations shown are taken from existing records and the best information available from existing plans; however, it is expected that there may be some discrepancies and omissions in the locations and quantities of utilities and structures shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by the Department, the Engineer, and/or the Engineer of Record for their accuracy or completeness. No request for additional compensation or Contract time (except for a non-compensable time extension at the sole discretion of the Engineer, whose decision shall be final) resulting from encountering utilities or structures not shown, or differing in location or elevation from that shown, will be considered. The Contractor shall explore sufficiently ahead of the Work to allow time for any necessary adjustments without delay to the progress of the installation. Costs due to delays occasioned by encountering underground

utilities or structures which could have or should have been discovered by timely exploration ahead of the Work shall rest solely with the Contractor.

#### 1.06 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Where the Contractor's operation could cause damage or inconvenience to telephone, fiber optic, television, electrical power, oil, gas, water, sewer, irrigation system, or any other utility, the Contractor shall make all arrangements necessary for the protection of these utilities and services.
- B. Notify all utility companies that are affected by the construction operation at least 48 hours in advance. Under no circumstance expose any utility without first obtaining permission from the appropriate agency. Once permission has been granted, locate, expose, and provide temporary support for all existing underground utilities and utility poles where necessary. Absolutely no extra compensation will be allowed for construction problems created by utility poles of whatever size, overhead electric, telephone or other lines, whether shown on the Plans or not. The Contractor is solely responsible for discerning such items in the field prior to bidding and including all costs for such work in the prices bid.
- C. The Contractor and his subcontractors shall be solely and directly responsible to the owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.
- D. Neither the Department nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no event shall interruption of any utility service be allowed unless granted by the owner of the utility.
- F. Replace, with material approved by the Engineer, at Contractor's expense, any and all other laterals, existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract Documents and as approved by the Engineer.

#### 1.07 INTERFERING STRUCTURES

- A. Take necessary precautions to prevent damage to existing structures whether on the surface, above ground, or underground. An attempt has been made to show major structures on the Drawings. While the information has been compiled from the best available sources, its completeness and accuracy cannot be guaranteed, and is presented as a guide. The Contractor is solely responsible for field verification of all locations and information provided and to determine the type, location, elevation and extent of any utilities which may not have been shown on the Plans.

1.08 FIELD RELOCATION

- A. During the process of construction, it is expected that minor relocations of the work may be necessary. Such relocations shall be made only by the direction of the Engineer at the Contractor's expense. If existing structures are encountered that will prevent construction as shown, notify the Engineer before continuing with the work in order that the Engineer may make such field revisions as necessary to avoid conflict with the existing structures. If the Contractor fails to notify the Engineer when an existing structure is encountered, and proceeds with the work despite this interference, the Connies, the traffic and transportation authorities, etc., shall be notified in accordance with the provisions set forth in the relevant sections of the Specifications and the permitting documents.

**PART 2 PRODUCTS**  
(NOT USED)

**PART 3 EXECUTION**  
(NOT USED)

**END OF SECTION**

## **SECTION 02 60 00**

### **ENVIRONMENTAL CONTAMINATION**

#### **PART 1 - GENERAL**

##### **1.01 ENVIRONMENTAL CONSIDERATIONS**

- A. For any work conducted in a contaminated area within the project boundaries where hazardous materials or hydrocarbons have been encountered, were previously known to exist, or is suspected by the Contractor or the Department Inspector, the Contractor must comply with all applicable requirements of OSHA, EPA, FDEP and Miami-Dade County DERM.

##### **1.02 SPECIALIZED CONSTRUCTION AREA**

- A. Specialized construction areas are defined as areas where contaminants are discovered and require construction by personnel qualified by training and equipped for such work.
- B. Work in specialized construction areas shall be carried out by personnel qualified by training and equipped for such activities. These personnel shall be either subcontractors with licensing and certification as specialists in this type of construction or the Contractor's own personnel who have taken and been certified as having passed the required training course(s). Licensing and certifications shall be submitted to the Department for verification and shall in all cases be satisfactory to both the Department and other authorities with jurisdiction. The field Health and Safety Technician furnished by the Certified Industrial Hygienist shall be present on the site during all construction in specialized construction areas unless the nature of the work is non- hazardous such that either the Site-Specific Health and Safety Plan or the CIH authorizes his absence.
- C. Disposal of any contaminated soils and/or groundwater must comply with all applicable federal, state and local requirements.

#### **PART 2 PRODUCTS (NOT USED)**

#### **PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## **TECHNICAL SPECIFICATIONS**

In addition to all sections provided within this Project Specification package. The Florida Department of Transportation Standard Specifications for Road and Bridge Construction, FY 2024-25 Division II (Construction Details), are the Governing Standard Specifications to be used for this project.

The following sections apply:

SECTION 104 – PREVENTION, CONTROL, AND ABATEMENT OF  
EROSION AND WATER POLLUTION  
SECTION 107 – LITTER REMOVAL AND MOWING  
SECTION 110 – CLEARING AND GRUBBING  
SECTION 120 – EXCAVATION AND EMBANKMENT  
SECTION 160 – STABILIZING  
SECTION 285 – OPTIONAL BASE COURSE  
SECTION 327 – MILLING OF EXISTING ASPHALT PAVEMENT  
SECTION 334 – SUPERPAVE ASPHALT CONCRETE  
SECTION 425 – INLETS, MANHOLES AND JUNCTION BOXES  
SECTION 520 – CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC  
SEPARATOR  
SECTION 570 – PERFORMANCE TURF  
SECTION 700 – HIGHWAY SIGNING  
SECTION 706 – RAISED PAVEMENT MARKERS AND MARKER  
ADHESIVE  
SECTION 710 – PAINTED PAVEMENT MARKINGS  
SECTION 711 – THERMOPLASTIC PAVEMENT MARKINGS

## **APPENDIX A**

### **PERMITS**

**Miami-Dade County Department of Regulatory and Economic Resources (RER)**

**Building Permit Application Form**

# NOTE: ALL SHEETS MUST BE REVIEWED

## DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES

Herbert S. Saffir Permitting and Inspection Center

11805 SW 26th Street (Coral Way), • Miami, Florida 33175-2474 • (786) 315-2000

### PERMIT APPLICATION

123\_01-52 PAGE 1 9/23

IF SUBSIDIARY PROVIDE MASTER PERMIT NUMBER HERE																																
LOCATION OF IMPROVEMENTS	Job Address <u>18701 NE 6TH AVENUE</u>			CONTRACTOR INFORMATION	Contractor No. <u>TBD</u>																											
	Folio <u>30-2206-000-0117 / 30-2206-000-0121</u>				Last four (4) digits of Qualifier No. _____																											
	Lot _____ Block _____				Contractor Name _____																											
	Subdivision _____ PBpg _____				Qualifier Name _____																											
	Metes and bounds _____				Address _____																											
					City _____ State _____ Zip _____																											
TYPE OF IMPROVEMENTS	<table border="1"> <tr> <td>New Construction on Vacant Land</td> <td>Recovery (Roof)</td> <td>New Roof</td> </tr> <tr> <td>Alteration Interior</td> <td>Permit by Affidavit</td> <td>Re-Roof</td> </tr> <tr> <td>Alteration Exterior</td> <td>Enclosure</td> <td>Roof Maintenance</td> </tr> <tr> <td>Relocation of Structure</td> <td>Repair</td> <td>Coating</td> </tr> <tr> <td>Short Term Event</td> <td>Repair Due to Fire</td> <td>Fastrack Permit</td> </tr> <tr> <td>Shell Only</td> <td>Demolish</td> <td></td> </tr> <tr> <td></td> <td>Foundation Only</td> <td></td> </tr> <tr> <td></td> <td>Addition Attached</td> <td></td> </tr> <tr> <td></td> <td>Addition Detached</td> <td></td> </tr> </table>			New Construction on Vacant Land	Recovery (Roof)	New Roof	Alteration Interior	Permit by Affidavit	Re-Roof	Alteration Exterior	Enclosure	Roof Maintenance	Relocation of Structure	Repair	Coating	Short Term Event	Repair Due to Fire	Fastrack Permit	Shell Only	Demolish			Foundation Only			Addition Attached			Addition Detached			Current use of property <u>Solid Waste Disposal and Transfer</u>
	New Construction on Vacant Land	Recovery (Roof)	New Roof																													
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	Foundation Only																															
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	Addition Detached																															
			Description of Work <u>Mill &amp; Resurface asphalt, concrete slabs repairs and signing and markings</u>																													
PERMIT TYPE	<table border="1"> <tr> <td>Building* Category <u>01</u></td> <td rowspan="5">CHANGE TO AN EXISTING PERMIT</td> <td>Chg. Contractor</td> </tr> <tr> <td>Electrical _____</td> <td>Re-Issue</td> </tr> <tr> <td>Mechanical _____</td> <td>Extension</td> </tr> <tr> <td>Plumbing _____</td> <td>Supplement</td> </tr> <tr> <td>LPGX _____</td> <td>Reinspection</td> </tr> </table>			Building* Category <u>01</u>	CHANGE TO AN EXISTING PERMIT	Chg. Contractor	Electrical _____	Re-Issue	Mechanical _____	Extension	Plumbing _____	Supplement	LPGX _____	Reinspection	PROPERTY OWNERS INFORMATION	Owner <u>MIAMI DADE SOLID WASTE MGMT</u>																
	Building* Category <u>01</u>	CHANGE TO AN EXISTING PERMIT	Chg. Contractor																													
Electrical _____	Re-Issue																															
Mechanical _____	Extension																															
Plumbing _____	Supplement																															
LPGX _____	Reinspection																															
			Address <u>2525 NW 62 ST</u>																													
PERMIT CONTACT	Name <u>RAFAEL LAGOS, P.E.</u>			ARCHITECT ENGINEER	Name <u>RAFAEL LAGOS, P.E. (MARLIN ENG, INC)</u>																											
	Address <u>3363 W. COMMERCIAL BLVD - STE 115</u>				Address <u>3363 W. COMMERCIAL BLVD - STE 115</u>																											
	City <u>FT LAUDERDALE</u> State <u>FL</u> Zip <u>33309</u>				City <u>FT LAUDERDALE</u> State <u>FL</u> Zip <u>33309</u>																											
	Phone <u>(954) 870-5051</u>				Phone <u>(954) 870-5070</u>																											
BONDING	Name _____			MORTGAGE LENDER	Name _____																											
	Address _____				Address _____																											
	City _____ State _____ Zip _____				City _____ State _____ Zip _____																											
	Phone _____				Phone _____																											

\* See reverse side for Building Category

Application is hereby made to obtain a permit to do work and installation as indicated. I certify that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I understand that separate permits are required for **ELECTRICAL, PLUMBING, SIGNS, POOLS, MECHANICAL, WINDOW, SHUTTERS and ROOFING WORK** and there may be additional permits required for other governmental entities.

**OWNER'S/PERMIT APPLICANT AFFIDAVIT:** I certify that all of the foregoing information is true and accurate and made under the penalty of perjury, and I acknowledge that Miami-Dade County reserves the right to revoke, cancel, void, or suspend the permit issued hereto if this application contains any materially false or fraudulent information, and I acknowledge that continued work after revocation, cancellation, voiding, or suspension of the permit, may subject me to enforcement penalties allowed by law. I certify that I am not a named violator with: unpaid civil penalties; unpaid administrative costs of hearing; unpaid County investigative, enforcement, testing, or monitoring costs; or unpaid liens, any or all of which are owed to Miami-Dade County pursuant to the provisions of the Code of Miami-Dade County, Florida.

**WARNING TO OWNER:** YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOU PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR ATTORNEY OR LENDER BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

"The issuance of the permit does not relieve the property owner from obtaining homeowner's association approval (if required) prior to beginning any work and in no way authorizes work that is in violation of any association rule or regulation."

Signature of Owner or Owner's Agent \_\_\_\_\_  
Print \_\_\_\_\_

STATE OF FLORIDA, COUNTY OF MIAMI-DADE

Sworn to and subscribed before me by means of physical presence OR online notarizations

this 11<sup>TH</sup> day of October, 2024

by John Wong

Signature of Notary Public \_\_\_\_\_

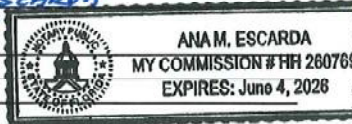
Print Name ANA M. ESCARDA

(SEAL)

Personally known ☒

or Produced Identification \_\_\_\_\_

Type of Identification Produced \_\_\_\_\_



Signature of Qualifier \_\_\_\_\_  
Print \_\_\_\_\_

STATE OF FLORIDA, COUNTY OF MIAMI-DADE

Sworn to and subscribed before me by means of physical presence OR online notarizations

this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_

Signature of Notary Public \_\_\_\_\_

Print Name \_\_\_\_\_

(SEAL)

Personally known \_\_\_\_\_

or Produced Identification \_\_\_\_\_

Type of Identification Produced \_\_\_\_\_

## BUILDING PERMIT CATEGORIES

CATEGORY	DESCRIPTION
01	GENERAL BUILDING—COMMERCIAL
02	SUB—GENERAL BUILDING—RESIDENTIAL
08	CANVAS AWNING
10	COMMUNICATION TOWER
15	DEMOLITION
18	FENCE
19	FLAGPOLE—SATELLITE DISH
22	GARAGE DOOR REPLACEMENT
29	METAL AWNING & STORM SHUTTER
35	ORNAMENTAL IRON
48	SCREEN ENCLOSURES
51	SIGN (NON-ELECTRIC)
55	SWIMMING POOL
82	WINDOWS (RESIDENTIAL OR COMMERCIAL)
83	STORE FRONT (RESIDENTIAL OR COMMERCIAL)
84	GLAZED CURTAIN WALLS
86	TRAILER TIE DOWN
88	WALK-IN COOLER
91	MARINAS
92	LOW SLOPE APPLICATIONS (GRAVEL, SMOOTH MODIFIED, SINGLE PLY)
95	SHINGLES (ASPHALT, FIBERGLASS)
96	SHINGLES (METAL ROOFS/WOOD SHINGLES & SHAKE)
99	SOIL IMPROVEMENT
0100	BULK STORAGE PROPANE TANK
0101	REMOVABLE STORM PANELS
0104	SINGLE ENTRANCE DOOR
0106	LIGHTWEIGHT CONCRETE
0107	TILE ROOF
0109	WATERPROOFING SYSTEMS
0113	CHINESE DRYWALL REPAIR – RESIDENTIAL
0114	CHINESE DRYWALL REPAIR – COMMERCIAL

### **ATTENTION**

Please be advised that Roadway Impact Fee may be required for Building Permit categories "01" Commercial, "02" Residential, "18" Fence and "86" Trailer Tie Down.

Please complete the following if your application is for one of the above mentioned categories.

Impact Fee, Fee Payer Name \_\_\_\_\_"

Address \_\_\_\_\_"Phone No. \_\_\_\_\_"

Last four (4) digits of Social Security/Tax Identification No. \_\_\_\_\_

Please be advised that any existing or proposed Development served or to be served with a septic tank requires approval from the Florida Department of Health.

## NOTICE OF COMMENCEMENT

A RECORDED COPY MUST BE POSTED ON THE JOB SITE AT TIME OF FIRST INSPECTION

PERMIT NO. \_\_\_\_\_ TAX FOLIO NO. \_\_\_\_\_

STATE OF FLORIDA:

COUNTY OF MIAMI-DADE:

THE UNDERSIGNED hereby gives notice that improvements will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

Space above reserved for use of recording office

1. Legal description of property and street/address: \_\_\_\_\_

2. Description of improvement: \_\_\_\_\_

3. Owner(s) name and address: \_\_\_\_\_

Interest in property: \_\_\_\_\_

Name and address of fee simple titleholder: \_\_\_\_\_

4. Contractor's name, address and phone number: \_\_\_\_\_

5. Surety: (Payment bond required by owner from contractor, if any)

Name, address and phone number: \_\_\_\_\_

Amount of bond \$ \_\_\_\_\_

6. Lender's name and address: \_\_\_\_\_

7. Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by Section 713.13(1)(a)7., Florida Statutes,

Name, address and phone number: \_\_\_\_\_

8. In addition to himself, Owners designates the following person(s) to receive a copy of the Lienor's Notice as provided in Section 713.13(1)(b), Florida Statutes.

Name, address and phone number: \_\_\_\_\_

9. Expiration date of this Notice of Commencement: \_\_\_\_\_

(the expiration date is 1 year from the date of recording unless a different date is specified)

**WARNING TO OWNER:** ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13. FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

Signature(s) of Owner(s) or Owner(s)' Authorized Officer/Director/Partner/Manager

Prepared By \_\_\_\_\_ Prepared By \_\_\_\_\_

Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Title/Office \_\_\_\_\_ Title/Office \_\_\_\_\_

STATE OF FLORIDA

COUNTY OF MIAMI-DADE

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_.

By \_\_\_\_\_

☐ Individually, or ☐ as \_\_\_\_\_ for \_\_\_\_\_

☐ Personally known, or ☐ produced the following type of identification: \_\_\_\_\_

Signature of Notary Public: \_\_\_\_\_

Print Name: \_\_\_\_\_

(SEAL)

### VERIFICATION PURSUANT TO SECTION 92.525, FLORIDA STATUTES

Under penalties of perjury, I declare that I have read the foregoing and that the facts stated in it are true, to the best of my knowledge and belief.

Signature(s) of Owner(s) or Owner(s)'s Authorized Officer/Director/Partner/Manager who signed above:

By \_\_\_\_\_ By \_\_\_\_\_

This instrument prepared by:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**NOTICE OF TERMINATION**  
(of Notice of Commencement)

STATE OF FLORIDA:  
COUNTY OF MIAMI-DADE:

Space above reserved for use of recording office

The undersigned hereby gives notice that the effective period of that certain Notice of Commencement dated \_\_\_\_\_, recorded in O.R. Book/Page \_\_\_\_\_ / \_\_\_\_\_ of the Public Records of Dade County, Florida, will terminate; and, in accordance with Section 713.132, Florida Statutes, the following information is provided:

1. The date and recording information for the Notice of Commencement being terminated are as described above, and all information contained therein is hereby expressly incorporated into this NOTICE OF TERMINATION.
2. The Notice of Commencement shall be terminated as of \_\_\_\_\_, or 30 days from the recording date of this Notice of Termination, whichever date is later.
3. This Notice of Termination applies to:  
☐ all the real property subject to the above described Notice of Commencement.  
☐ only to the portion of such real property described as:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. All lienors have been paid in full or prorata in accordance with Section 713.06(4), Florida Statutes.
5. A copy of this notice has been served on the contractor and on each lienor who has given notice, if any.

Owner Signature: \_\_\_\_\_ Owner Signature: \_\_\_\_\_  
Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

SWORN TO AND SUBSCRIBED before me by means of ☐ physical presence OR ☐ online notarizations this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Personally known to me, or produced \_\_\_\_\_ as identification.

Notary Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

seal

**Exhibit attached:**

- ☐ Contractor's Final Payment Affidavit  
☐ Property Legal Description  
☐ Copy of Notice of Commencement

## RELEASE OF LIEN AND AFFIDAVIT

Space above reserved for use of recording office

1. The undersigned contractor, for an in consideration of the payments of the sum of \_\_\_\_\_ paid by receipt of which is hereby acknowledged, hereby releases and quit claims to \_\_\_\_\_, the owner of the hereinafter described property, all liens, lien rights, claims or demands of any kind whatsoever, which the undersigned now has to might have against the building located on, or premises legally described as \_\_\_\_\_

\_\_\_\_\_ on account of labor performed and/or materials furnished for the construction of any such improvements on said premises.

2. All labor and materials used by the undersigned in the erection of said improvements have been paid in full, except as follows: \_\_\_\_\_

3. All lienors furnishing labor, services, or materials for said improvements have been paid in full, except as follows: \_\_\_\_\_

4. This instrument is executed and delivered to the owner in compliance with Chapter 713, Florida Statutes.

5. The undersigned contractors does hereby consent to the payment by the owner of all lienors giving notice and those lienors above named.

IN WITNESS WHEREOF, I have hereunto set by hand and seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

Witnesses:

1. \_\_\_\_\_ (SEAL)

(Contractor)

2. \_\_\_\_\_ By \_\_\_\_\_

(President)

**STATE OF FLORIDA:**

**COUNTY OF MIAMI-DADE:**

I, hereby acknowledge that the statements contained in the foregoing Release of Lien and Affidavit are true and correct.

Sworn to and subscribed before me by means of ☐ physical presence OR ☐ online notarizations, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Notary Public \_\_\_\_\_

Print Notary's Name: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_



## MIAMI-DADE COUNTY CONSTRUCTION LIEN LAW FOR OWNERS

**NOTE: IF YOU SIGNED AS THE OWNER'S AGENT YOU ARE RESPONSIBLE FOR DELIVERING THIS INFORMATION SHEET TO THE OWNER OF THE PROPERTY.**

### WARNING TO OWNER

Florida's Construction Lien Law (Chapter 713, Part One, Florida Statutes) requires the recording with the Clerk of the Courts a Notice of Commencement for real property improvements greater than \$2,500.00. However, it does not apply to the repair or replacement of an existing heating or air conditioning system less than \$7,500.00 in value. This notice must be signed by you, the property owner.

Under Florida law, those who work on your property or provide materials and are not paid, have a right to enforce their claim for payment against your property. This claim is known as a construction lien.

### YOU MUST FILE A NOTICE OF COMMENCEMENT

For your protection under the Construction Lien Law and to avoid the possibility of paying twice for improvements to real property, you must record a Notice of Commencement in the Clerk of the Court's Office. You also must provide a certified copy of the recorded document at the construction site. The Notice of Commencement must be signed by you, the owner contracting the improvements, and not by your agent.

The Notice of Commencement form, provided with this information packet, must be completed and recorded within 90 days before starting the work.

A copy of the payment bond, if any is required by you and purchased by the contractor, must be attached as part of the Notice of Commencement when recorded.

If improvements described in the Notice of Commencement are not actually started within 90 days after the recording of the Notice, a new Notice of Commencement must be recorded.

You lose your protection under the Construction Lien Law if the payments are made to the contractor after the expiration of the Notice of Commencement. The Notice is good for one year after the recording date or up to the date specified under item nine of the form.

Florida law requires the Department of Regulatory and Economic Resources to be a second source of information concerning the improvements made on real property. The Building Permit Application (included with this packet) has been expanded to include information on the construction lender and the contractor's surety, if any. The new application requires your signature or your agent's, to inform you of the Construction Lien Law.

### YOU MUST POST THE NOTICE OF COMMENCEMENT AT THE JOB SITE

By law, the Department of Regulatory and Economic Resources is required to verify at the first inspection, after the building permit is issued, that a certified copy of the recorded Notice of Commencement, with attached bonds if any, is posted at the construction site. Failure to show the inspector a certified copy of the recorded Notice will result in a disapproved inspection, (Florida Statute 713.135(1)(d)).

### NOTICE TO OWNER FROM SUBCONTRACTORS AND SUPPLIERS

You may receive a Notice to Owner from subcontractors and material suppliers. This notice advises you that the sender is providing services or materials. Subcontractors and suppliers must serve a Notice to Owner within 45 days of commencing work to preserve their ability to lien your property.

If your address changes from that given in the Notice of Commencement, you should record a corrected Notice reflecting your current address. This is done to help ensure you will receive all notices.

### RELEASE FROM LIEN FROM CONTRACTOR

Prior to paying the contractor, you need to receive a Release of Lien and Affidavit to the extent of payment from the general contractor. The Release of Lien and Affidavit shall state either that all the subcontractors and suppliers have been paid or list those unpaid and the amount owed. The contractor is required to list on the Release of Lien and Affidavit any subcontractor or supplier that has not been paid. That amount may be withheld from the contractor's pay and paid directly to the subcontractor or suppliers after 10 days written notice to the contractor.

If the balance due to the contractor is not sufficient to pay in full all subcontractors and suppliers listed on the contractor's affidavit, you may wish to consult an attorney.

The general contractor shall furnish a final Release of Lien and Affidavit to the owner indicating all subcontractors and suppliers have been paid at the time he requests final payment. You can rely on the affidavit in making final payment to the general contractor. If you make final payment to the general contractor without obtaining the affidavit, your property can be lien for non-payment if the general contractor fails to pay the subcontractors or suppliers. You should always obtain a Release of Lien and Affidavit from the contractor to the extent of any payments being made.

### RELY ON YOUR LENDER FOR COMPLIANCE WITH CONSTRUCTION LIEN LAW

If you have a lender, you may rely on the lender to handle the recording of the Notice of Commencement. Learn more about the Construction Lien Law by contacting an attorney, your lender, or the Florida Department of Agricultural and Consumer Services, Division of Consumer Services.

**Documents are recorded at the Clerk of the Courts, MIAMI-DADE COUNTY RECORDER, COURTHOUSE EAST, 22 N.W. First Street, 1st Floor, Miami, FL 33128.**

You can record the Notice of Commencement by mail. The original Notice should be sent to the County Recorder, P.O. Box 011711, Flagler Station, Miami, Florida 33101. Please make sure the original Notice is signed and notarized. Also, remember to enclose the recording fee (for a single copy) and written instructions for recording and returning a certified copy of the recorded documents. For additional information on fees and recording documents call (305) 275-1155.

Application: C2025018220

SummaryContacts\$ FeesHolds

Tracking Number: 3009018220	Submittal Type: Electronic	Permit Number: <span>Go to Permit</span>
Application Type: REPAIR	Application Date: 11/7/2024	Permit Type: BLDG
Property Type: Commercial	Address(es): 18701 NE 6 AVE	Permit Category: GENERAL (COUNTY)
File(s): 30-2206-000-0121	Square Footage: 0	Estimated Value: \$1,400,000
Proposed Use Detail: GOVERNMENT FACILITIES, REPAIRS	Building Code: FBC 2023	



Click the disposition icon to access reviewer comments and remarks.

To meet with your Plan Reviewer, either online or in-person, please visit our [Hear\(\)](#) system and register to schedule an appointment.

Task	Current Disposition	Current Disp. Date	Reviewed By	Task Status	Task Status Date	Assigned To	Est. Comp. Date
PUBLIC WORKS		2/28/2025	SANCHEZ, LISSETTE	Checked Out	2/28/2025	SANCHEZ, LISSETTE	3/3/2025
BUILDING		2/26/2025	ACOSTA, JORGE	Checked Out	2/28/2025		3/3/2025
UNSAFE STRUCTURES		2/13/2025	ERICKSON, SPENCER	Checked Out	2/13/2025		2/14/2025
DERM TREES		2/12/2025	MACIAS, HILCIA	Checked Out	2/12/2025	MACIAS, HILCIA	2/13/2025
DERM PAVING & DRAINAGE		1/9/2025	CHEN, CHI-RUEY	Checked Out	1/9/2025	CHEN, CHI-RUEY	1/10/2025
IMPACT FEES		1/9/2025	RICHARDSON, KEITH	Checked Out	1/9/2025		1/10/2025
DERM CORE		1/9/2025	GULLARTE, YALYN	Checked Out	1/9/2025		1/10/2025
ZONING		1/9/2025	ACLE, RONALDO	Checked Out	1/9/2025	ACLE, RONALDO	1/10/2025
PLANNING		1/9/2025	ACLE, RONALDO	Checked Out	1/9/2025		1/10/2025
DERM FLOOD		1/9/2025	CEDELL, LUIS	Checked Out	1/9/2025	CEDELL, LUIS	1/9/2025
FIRE		1/8/2025	FRAS, JOSE	Checked Out	1/8/2025	FRAS, JOSE	1/15/2025
ELECTRICAL		1/8/2025	ISRAEL, SAMUEL	Checked Out	1/8/2025		1/9/2025
PLUMBING		1/8/2025	ROJAS, JORGE R.	Checked Out	1/8/2025		1/9/2025
UPFRONT FEES		1/7/2025	WEB APPLICATION ID	Checked Out	1/7/2025		11/8/2024
STRUCTURAL		1/12/2025	ARVELO, ABRAHAM	Checked Out	1/12/2025	ARVELO, ABRAHAM	1/13/2025
MECHANICAL		1/10/2025	FERNANDEZ, ERNESTO	Checked Out	1/10/2025		1/13/2025
DERM COASTAL		1/10/2025	MACIAS, HILCIA	Checked Out	1/10/2025	MACIAS, HILCIA	1/10/2025
DRYS				Pending			

Showing 1 to 18 of 18 entries

## **SECTION 104 PREVENTION, CONTROL, AND ABATEMENT OF EROSION AND WATER POLLUTION**

### **104-1 Description.**

Provide erosion control measures where work is accomplished in conjunction with the project, to prevent erosion, pollution of water, detrimental effects to public or private property adjacent to the project right-of-way and damage to work on the project.

### **104-2 General.**

Coordinate the installation of temporary erosion control devices with the construction of the permanent erosion control devices to ensure economical, effective, and continuous control of erosion and water pollution throughout the life of the Contract.

### **104-3 Control of Contractor's Operations Which May Result in Water Pollution.**

Prevent contaminants, pollutants or hazardous substances, as defined in Section 376.301, Florida Statutes, from migrating from the construction site or from materials and equipment into any surface waters, wetlands, groundwater or property beyond the project limits. Conduct and schedule operations to avoid and minimize pollution or siltation from the project to surface waters, wetlands, groundwater, or property beyond the project limits.

Do not drive in, operate, or place construction equipment or materials in surface waters, wetlands, groundwater, or property beyond the project limits without permitted authority for permanent or temporary impacts. Water crossings or other wetlands impacts must be authorized by permit. Obstructing or impeding the water flow or movement of the water or wildlife must be authorized by permit.

Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water by one or more of the following methods prior to discharge from the project: pumping into grassed swales or appropriate upland vegetated areas or constructed sediment basins, or confined by an appropriate enclosure such as turbidity barriers when other methods are not practical. Do not discharge, water that does not meet State water quality standards or does not meet the criteria specified in any applicable permit.

Remove sediment accumulated during construction from all existing or newly constructed stormwater facilities prior to final acceptance. Ensure that all stormwater conveyances and stormwater facilities meet final grade requirements at final acceptance. Remove silt or regrade as necessary to comply with the lines and grades shown in the Plans.

Do not enter onto lands or waters outside the limits of construction as staked, except as authorized by the Engineer. Do not allow water that does not meet state water quality standards or does not meet the permitted criteria to exit the project limits.

Obtain the Engineer's approval for the location and method of operation in borrow pits, material pits, and disposal areas furnished for waste material from the project (other than commercially operated sources) such that erosion during and after completion of the work will not result in detrimental siltation or water pollution.

### **104-4 Materials for Temporary Erosion Control.**

For materials that are part of the permanent work, meet the testing requirements of the applicable permanent materials.

For materials not part of the permanent work, no testing is required; acceptance will be based on visual inspection

Use new or used materials for the construction of temporary silt fence, staked turbidity barriers, and floating turbidity barrier not to be incorporated into the completed project

For geotextile fabrics, use a product on the Approved Product List (APL) meeting the requirements of Section 985.

#### **104-5 Preconstruction Requirements.**

Prior to the Preconstruction Conference, submit an Erosion and Sediment Control Plan meeting the requirements or special conditions of all permits authorizing project construction. If no permits are required or the approved permits do not contain special conditions or specifically address erosion and water pollution, the project's Erosion and Sediment Control Plan will be governed by 7-1.1, 7-2.2, 7-8.1, 7-8.2, and Section 104.

When a DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities permit is issued, the Contractor's Erosion and Sediment Control Plan shall be prepared to accompany the Department's Stormwater Pollution Prevention Plan. Ensure the Erosion and Sediment Control Plan includes procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-storm water discharges, such as contaminated groundwater or accidental spills. Do not begin any soil disturbing activities before receiving the Engineer's written approval of the Erosion and Sediment Control Plan, including the required signed certification statements.

Failure to sign and submit any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed without the required signed documents or certification statements is considered a violation of the DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

Prepare a site-specific Erosion and Sediment Control Plan in accordance with the planned sequence of operations and present it in a format acceptable to the Department. The Erosion and Sediment Control Plan shall describe, but not be limited to, the following items or activities:

1. For each phase of construction operations or activities, supply the following information:

- a. Locations of all erosion control devices
- b. Types of all erosion control devices
- c. Estimated time erosion control devices will be in operation
- d. Monitoring schedules for maintenance of erosion control devices
- e. Methods of maintaining erosion control devices
- f. Dewatering plan
- g. Locations of all stored fuel or other containments, pollutants or hazardous waste
- h. Spill prevention and response measures and disposal and removal methods
- i. Submit any changes to the Erosion and Sediment Control Plan within seven calendar days

2. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

3. Submit for approval the Erosion and Sediment Control Plans meeting paragraphs 3a, 3b, or 3c below:

a. Projects permitted by the Southwest Florida Water Management District (SWFWMD), require the following:

Submit the Erosion and Sediment Control Plan to the Engineer for review and to the appropriate SWFWMD Office for review and approval. Include the SWFWMD permit number on all submitted data or correspondence.

The Contractor may schedule a meeting with the appropriate SWFWMD Office to discuss the Erosion and Sediment Control Plan in detail, to expedite the review and approval process. Advise the Engineer of the time and place of any meetings scheduled with SWFWMD.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from both SWFWMD and the Engineer.

b. Projects permitted by the South Florida Water Management District or the St. Johns River Water Management District, require the following:

Obtain the Engineer's approval of the Erosion and Sediment Control Plan.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from the Engineer.

c. Projects authorized by permitting agencies other than the Water Management Districts or projects for which no permits are required require the following:

The Engineer will review and approve the Contractor's Erosion and Sediment Erosion Control Plan.

Do not begin construction activities until the Erosion and Sediment Control Plan receives written approval from the Engineer.

## **104-6 Construction Requirements.**

**104-6.1 Limitation of Exposure of Erodible Earth:** Do not allow the surface area of erodible earth that clearing and grubbing operations, excavation and filling operations, or other earth disturbing activities to exceed 750,000 square feet without specific prior written approval by the Engineer. This limitation applies separately to clearing and grubbing operations and excavation and filling operations.

The Engineer may further limit the surface areas of unprotected erodible earth exposed by the construction operation and may direct the Contractor to provide additional erosion or pollution control measures to prevent contamination of any surface waters, wetlands, or groundwater or to prevent detrimental effects on property outside the project limits or damage to the project.

**104-6.2 Incorporation of Erosion and Sediment Control Devices:** Incorporate permanent erosion and sediment control devices into the project at the earliest practical time. Complete the installation of temporary erosion and sediment control devices prior to the commencement of any earthwork. Use temporary erosion and sediment control devices found in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (E&SC Manual) to control erosion and sediment generated by construction operations, to correct unforeseen conditions during construction, and to control erosion and sediment prior to the incorporation of permanent erosion and sediment control devices. An electronic version of the E&SC Manual can be found at the following URL:

<https://www.fdot.gov/programmanagement/Implemented/URLinSpecs/FLEROSIONSedimentManual.shtm>.

**104-6.3 Scheduling of Successive Operations:** Schedule operations such that the area of unprotected erodible earth exposed at any one time is not larger than the minimum area necessary for efficient construction operations, and the duration of exposure of uncompleted construction to the elements is as short as practicable.

Schedule and perform clearing and grubbing such that grading operations can be incorporated immediately thereafter. Schedule and perform grading operations so that permanent erosion control devices can follow immediately thereafter if conditions on the project permit.

**104-6.4 Details for Temporary Erosion and Sediment Control Devices:**

**104-6.4.1 General:** Use temporary erosion, sediment and water pollution control devices found in the E&SC Manual. These devices consist of, but are not limited to, temporary sod, rolled erosion control products, sediment containment systems, runoff control structures, sediment barriers, inlet protection systems, silt fences, turbidity barriers, and chemical treatment. For design details for some of these devices, refer to the E&SC Manual. Perform installation, inspection, maintenance, and removal of all temporary erosion and sediment control devices in accordance with applicable permits, manufacturer's directions, and the Contract Documents.

**104-6.4.2 Temporary Sod:** The Engineer may designate certain areas of sod constructed in accordance with Section 570, as a temporary erosion control device. Do not use seed as a temporary erosion control device. The Engineer may waive the turf establishment requirements of Section 570 for areas of temporary sod that will not be a part of the permanent construction.

**104-6.4.3 Runoff Control Structures:** Construct runoff control structures in accordance with the details shown in the Contract Documents.

**104-6.4.4 Sediment Containment Systems:** Construct sediment containment systems in accordance with the details shown in the Contract Documents. Clean out sediment containment systems as necessary in accordance with the Contract Documents.

**104-6.4.5 Sediment Barriers:** Provide and install sediment barriers according to details shown in the Contract Documents or, as directed by the Engineer to protect against downstream accumulation of sediment. Sediment Barriers include, but are not limited to synthetic bales, silt fence, fiber logs and geosynthetic barriers. Reusable barriers that have had sediment deposits removed may be reinstalled on the project as approved by the Engineer.

**104-6.4.6 Silt Fence:**

**104-6.4.6.1 General:** Furnish, install, maintain, and remove silt fences, in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents.

**104-6.4.6.2 Materials and Installation:** Use a geotextile fabric made from woven or nonwoven fabric, meeting the physical requirements of Section 985 according to those applications for erosion control.

Choose the type and size of posts and wire mesh reinforcement (if required). Do not use products which have a separate layer of plastic mesh or netting. Provide a durable and effective silt fence that controls sediment in accordance with the Contract Documents.

Erect silt fence at upland locations and at temporary locations shown in the Contract Documents or where continuous construction activities change the natural contour and drainage runoff. Do not attach silt fence to existing trees unless approved by the Engineer.

**104-6.4.6.3 Inspection and Maintenance:** Inspect all silt fences in accordance with any applicable permit. If the project does not have a permit, inspect within 24 hours after each rain event and at least daily during prolonged rainfall. Immediately correct any deficiencies. In addition, make a daily review of the location of silt fences in areas where construction activities have changed the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, repair or replace silt fences in accordance with the Contract Documents or as directed by the Engineer.

Remove sediment deposits when the deposit reaches approximately 1/2 the height of the silt fence or as directed by the Engineer. Shape any remaining sediment deposits to conform with the finished grade and prepare the area for turf in accordance with Section 570.

**104-6.4.7 Floating Turbidity Barriers and Staked Turbidity Barriers:**

Furnish, install, maintain, and remove floating turbidity barriers in accordance with the applicable permits, the manufacturer's directions, and the Contract Documents. The Contractor may need to deploy turbidity barriers around isolated areas of concern (such as, seagrass beds, coral communities) both within as well as outside the project limits. The Engineer will identify such areas. Place the barriers prior to the commencement of any work that could impact the area of concern. Ensure that the type of barrier used and the deployment and maintenance of the barrier will minimize dispersion of turbid waters from the project. The Engineer may approve alternate methods or materials.

Install and maintain turbidity barriers to avoid or minimize the degradation of the water quality of the surrounding waters and minimize damage to areas where the floating barriers are installed.

**104-6.4.8 Inlet Protection System:** Furnish and install inlet protection systems as shown in the Contract Documents.

**104-6.4.9 Rolled Erosion Control Products (RECPs):**

**104-6.4.9.1 General:** Install RECPs in locations where temporary protection from erosion is needed. Two common applications are described below.

1. Use RECPs composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against erosion, when directed by the Engineer, during temporary pauses in construction caused by inclement weather or other circumstances. Remove the material when construction resumes.

2. Use RECPs as erosion control blankets, at locations shown in the Plans, to facilitate plant growth while permanent grassing is being established. For the purpose described, use non-toxic, biodegradable, natural or synthetic woven fiber mats. Install erosion control blankets capable of sustaining a maximum design velocity of 6.5 ft/sec as determined from tests performed by Utah State University, Texas Transportation Institute or an independent testing laboratory approved by the Department. Submit to the Engineer, certified test reports from the manufacturer showing that the erosion control blankets meet the requirements of this Specification. Certification must be attested, by a person having legal authority to bind the manufacturing company. Also, furnish two 4 by 8 inch samples for product identification. The manufacturers test records shall be made available to the Department upon request. Leave the material in place, as installed, to biodegrade.

**104-6.4.10 Chemical Treatment:** Provide chemical treatment in accordance with the Contract Documents. Chemical treatment may be used to clarify turbid or sediment laden water that does not meet state water quality standards or to supplement other erosion and

sediment control devices to aid in their performance. The contractor must provide the required toxicity testing information in accordance with the Contract Documents to the Engineer for review and acceptance prior to using any chemical treatment on the project site.

**104-6.5 Removal of Temporary Erosion Control Devices:** In general, remove or incorporate into the soil any temporary erosion control devices upon incorporation of the permanent erosion control devices into the project. The Engineer may direct that temporary devices be left in place.

#### **104-7 Maintenance of Erosion and Sediment Control Devices.**

**104-7.1 General:** Provide routine maintenance of permanent and temporary erosion and sediment control devices, at no expense to the Department, until the project is complete and accepted. If reconstruction or replacement of erosion and sediment control devices is necessary due to the Contractor's negligence or carelessness or, in the case of temporary erosion and sediment control devices, improper installation, lack of maintenance, excessive wear, design-life exceedance or failure by the Contractor to install permanent erosion control devices as scheduled, the Contractor shall repair or replace such erosion control devices at no expense to the Department. If reconstruction of permanent or temporary erosion and sediment control devices is necessary due to factors beyond the control of the Contractor, the Department will pay for replacement under the appropriate Contract pay item or items.

Inspect all erosion and sediment control devices at least once every seven calendar days and within 24 hours of the end of a storm event that is 0.50 inches or greater. Maintain all erosion and sediment control devices as required in the Stormwater Pollution Prevention Plan, the Contractor's Erosion and Sediment Control Plan, and if applicable, as specified in the State of Florida Department of Environmental Protection Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

#### **104-8 Protection During Suspension of Contract Time.**

Initiate stabilization measures within seven calendar days upon suspension of construction activities. If it is necessary to suspend the construction operations for any appreciable length of time, shape the disturbed areas to facilitate stormwater runoff and construct earthen berms along the top edges of embankments to intercept stormwater runoff. Provide temporary slope drains in areas that are highly erodible to avoid pollution of surface waters, wetlands, groundwater, or property beyond the project limits. Locate slope drains at intervals of approximately 500 feet and stabilize by paving or covering with waterproof materials. Should such preventive measures fail, immediately take action as necessary to effectively prevent erosion and siltation. During suspension of operations, the Engineer may direct the Contractor to perform additional erosion and sediment control work as necessary.

#### **104-9 Method of Measurement.**

When separate items for temporary erosion control devices are included in the Contract, the quantities to be paid for will be:

1. the area, in square yards, of rolled erosion control products;
2. the length, in feet, of runoff control structures, measured along the surface of the work constructed;
3. the number of sediment containment systems constructed and accepted;
4. the number of sediment containment system cleanouts accomplished and accepted;

5. the length, in feet, of sediment barriers;
6. the length, in feet, of floating turbidity barrier;
7. the length, in feet, of staked turbidity barrier;
8. the number of inlet protection systems, for existing inlets;
9. the area, in square yards, of chemical treatment;
10. the number of floc logs or drums of product for chemical treatment;

Upon acceptance by the Engineer, the quantity of floating turbidity barriers, sediment barriers, staked turbidity barriers, and inlet protection devices will be paid for regardless of whether materials are new, used, or relocated from a previous installation on the project. Protection of newly constructed inlets and drainage systems is incidental to their installation. No separate payment will be made for temporary erosion control devices used to protect newly constructed drainage systems.

#### **104-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including construction and routine maintenance of temporary erosion control devices.

Any additional costs resulting from compliance with the requirements of this Section, other than construction, routine maintenance, and removal of temporary erosion control devices, will be included in the Contract unit prices for the item or items to which such costs are related. Temporary sod used as a temporary erosion control device in accordance with 104-6.4.2 will be paid for under Section 570.

Separate payment will not be made for the cost of constructing temporary earth berms along the edges of the roadways to prevent erosion during grading and subsequent operations. The Contractor shall include these costs in the Contract prices for grading items.

In case of repeated failure on the part of the Contractor to control erosion, pollution, or siltation, the Engineer reserves the right to employ outside assistance or to use the Department's own forces to provide the necessary corrective measures. Any such costs incurred, including engineering costs, will be charged to the Contractor and appropriate deductions made from the monthly progress estimate.

Payment will be made under:

Item No. 104- 1-	Artificial Coverings/ Rolled Erosion Control Products - per square yard.
Item No. 104- 6-	Slope Drains (Temporary)/ Runoff Control Structures - per foot.
Item No. 104- 7-	Sediment Basins/ Containment Systems - each.
Item No. 104- 9-	Sediment Basin/ Containment system Cleanouts - each.
Item No. 104- 10-	Sediment Barriers - per foot
Item No. 104- 11-	Floating Turbidity Barrier - per foot.
Item No. 104- 12-	Staked Turbidity Barrier - per foot.
Item No. 104- 18-	Inlet Protection System - each.
Item No. 104- 19-	Chemical Treatment - per square yard.
Item No. 104- 20-	Chemical Treatment (floc logs, drums of product) - each.

## SECTION 107 LITTER REMOVAL AND MOWING

### 107-1 Description.

Provide pickup, removal and disposal of litter within the project limits from the outside edge of travel way to the right of way line. Include the median on divided highways, from the inside edge of travel way to the inside edge of travel way. Litter includes but is not limited to, bottles, cans, paper, tires, tire pieces, lumber, vehicle parts, metal junk, and brush debris.

Mow turf or vegetation within the project limits. Turf consists of grasses planted in accordance with Section 570. Vegetation consists of planted and natural grasses, weeds, and other natural vegetation that have been previously mowed.

### 107-2 Operation.

**107-2.1 Frequency:** Begin litter removal and mowing when directed by the Engineer and continue every 30 days, unless otherwise directed by the Engineer. Continue litter removal and mowing until final acceptance in accordance with 5-11. Mow all areas to obtain a uniform height of 6 inches.

After final acceptance, perform litter removal and mowing until new turf is established in accordance with 570-4 at no cost to the Department. Maintain turf and vegetation height between 6 inches and 12 inches. Do not include seed stalk or wildflowers when measuring height.

Perform litter removal prior to and in conjunction with mowing; however, the Engineer may direct litter pickups in addition to those performed in conjunction with mowing.

Do not mow new turf until a healthy root system is established. In designated wildflower areas, avoid cutting wildflowers when in bloom and when re-seeding.

**107-2.2 General:** Mow shoulders and medians concurrently so that not more than one mile will be left partially mowed at the conclusion of the working day. Mow turf and vegetation on slopes or around appurtenances concurrent with the mowing operation.

In areas saturated with standing water, mow or cut to the surface of the water using hand labor or other specialized equipment when standard equipment will cause damage.

Do not remove turf or other vegetation cuttings from the right-of-way, or rake or pick up the cuttings unless the cuttings are in the traveled ways, bike lanes, or sidewalk; are obstructing drainage structures; or are the result of cleaning the equipment.

**107-2.3 Limitations:** Maintain traffic in accordance with Section 102. When mowing within four feet of a travel lane, operate the equipment in the same direction of traffic, unless the adjacent lane is closed to traffic due to construction operations.

Perform all work during daylight hours.

**107-2.4 Disposal of Litter and Debris:** During each litter removal cycle, bag and remove all litter or piles at the end of each working day. Dispose of litter in accordance with applicable local and state laws. Do not store or stockpile litter within the project limits.

### 107-3 Method of Measurement.

The quantity to be paid will be the project area shown in the Contract Documents, in acres, for each litter removal or mowing cycle completed and accepted. No adjustments will be made to the project area quantity.

**107-4 Basis of Payment.**

Price and payment will be full compensation for all work specified in this section.

No separate payment will be made for litter removal and mowing after final acceptance.

Payment will be made under:

Item No. 107 - 1- Litter Removal - per acre.

Item No. 107 - 2- Mowing - per acre

## CLEARING CONSTRUCTION SITE

### SECTION 110 CLEARING AND GRUBBING

#### 110-1 Description.

Clear and grub within the areas shown in the Plans. Remove and dispose of all trees, stumps, roots and other such protruding objects, buildings, structures, appurtenances, existing flexible asphalt pavement, and other facilities necessary to prepare the area for the proposed construction. Remove and dispose of all product and debris not required to be salvaged or not required to complete the construction.

Perform miscellaneous work necessary for the complete preparation of the overall project site as specified in 110-10.

#### 110-2 Standard Clearing and Grubbing.

**110-2.1 Work Included:** Completely remove and dispose of all buildings, timber, brush, trees, stumps, roots, rubbish, debris, existing flexible pavement and base, drainage structures, culverts, and pipes. Remove all other obstructions resting on or protruding through the surface of the existing ground and the surface of excavated areas.

Perform standard clearing and grubbing within the following areas:

1. All areas where excavation is to be done, including borrow pits, lateral ditches, right-of-way ditches, etc.
2. If constructing over an existing road, remove existing asphalt pavement. If shown in the Contract Documents, remove existing pavement base.
3. All areas where roadway embankments will be constructed.
4. All areas where structures will be constructed, including pipe culverts and other pipe lines.

**110-2.2 Depths of Removal of Roots, Stumps, and Other Debris:** In all areas where excavation is to be performed, or roadway embankments are to be constructed, remove roots and other debris to a depth of 12 inches below the ground surface. Remove roots and other debris from all excavated material to be used in the construction of roadway embankment or roadway base. Plow the surface to a depth of at least 6 inches, and remove all roots thereby exposed to a depth of at least 12 inches. Completely remove and dispose of all stumps within the roadway right-of-way.

Remove all roots, etc., protruding through or appearing on the surface of the completed excavation within the roadway area and for structures, to a depth of at least 12 inches below the finished excavation surface.

Remove or cut off all stumps, roots, etc., below the surface of the completed excavation in borrow pits, material pits, and lateral ditches.

In borrow and material pits, do not perform any clearing or grubbing within 3 feet inside the right-of-way line.

Within all other areas where standard clearing and grubbing is to be performed, remove roots and other debris projecting through or appearing on the surface of the original ground to a depth of 12 inches below the surface, but do not plow or harrow these areas.

**110-2.3 Boulders:** Remove any boulders encountered in the roadway excavation (other than as permitted under the provisions of 120-7.2) or found on the surface of the ground. When approved by the Engineer place boulders in neat piles inside the right of way. The Contractor

may stockpile boulders encountered in Department-furnished borrow areas, which are not suitable for use in the embankment construction, within the borrow area.

#### **110-2.4 Asbestos Containing Materials (ACM) Not Identified Prior to the Work:**

When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer, in accordance with 110-6.5.

### **110-3 Selective Clearing and Grubbing.**

**110-3.1 General:** Remove and dispose of vegetation, obstructions, etc., as shown in the Plans. Provide acceptable fill material, and grade and compact holes or voids created by the removal of the stumps. Perform all selective clearing and grubbing in accordance with ANSI A300.

No staging, storing, stockpiling, parking or dumping will be allowed in selective clearing and grubbing areas. Only mechanical equipment related to selective clearing and grubbing activities will be allowed in selective clearing and grubbing areas. Protect trees to remain from trunk, branch and root damage.

**110-3.2 Protection of Plant Preservation Areas:** Areas to remain natural may be designated in the Plans. No clearing and grubbing, staging, storage, stockpiling, parking or dumping is allowed in these areas. Do not bring equipment into these areas.

**110-3.3 Tree Protection Barrier:** Construct a tree protection barrier in accordance with Standard Plans Index 110-100 and the Plans. Maintain barrier for duration of the Contract.

**110-3.4 Tree Root and Branch Pruning:** When pruning cuts or root pruning to existing trees are shown in the Plans, work is to be supervised on site by an International Society of Arboriculture (ISA) Certified Arborist and performed in accordance with ANSI A300.

**110-3.5 Tree Removal:** Remove trees as shown in the Plans.

### **110-4 Protection of Property Remaining in Place.**

Protect property to remain in place in accordance with 7-11.

### **110-5 Removal of Buildings.**

**110-5.1 Parts to be Removed:** Completely remove all parts of the buildings, including utilities, plumbing, foundations, floors, basements, steps, connecting concrete sidewalks or other pavement, septic tanks, and any other appurtenances, by any practical manner which is not detrimental to other property and improvements.

Remove utilities to the point of connection to the utility authority's cut-in. After removing the sewer connections to the point of cut-in, construct a concrete plug at the cut-in point, as directed by the Engineer, except where the utility owners may elect to perform their own plugging. Contact the appropriate utility companies prior to removal of any part of the building to ensure disconnection of services.

Submit demolition schedule 15 working days before beginning any demolition or renovation of a building.

**110-5.2 Removal by Others:** Where buildings within the area to be cleared and grubbed are so specified to be removed by others, remove and dispose of any foundations, curtain walls, concrete floors, basements or other foundation parts which might be left in place after such removal of buildings by others.

### **110-6 Removal of Existing Bridges.**

**110-6.1 General:** The work under this Article includes bridges, as defined in 1-3.

Remove and dispose of the materials from existing bridges. Remove

1. those bridges and approach slabs, or portions of bridges, shown in the Plans to be removed,

2. those bridges and approach slabs, or portions of bridges, found within the limits of the area to be cleared and grubbed, and directed by the Engineer to be removed,

3. those bridges and approach slabs, or portion of bridges, which are necessary to be removed in order to complete the work, and

4. other appurtenances or obstructions which may be designated in the Contract Documents to be included as an item of payment for the work under this Article.

Submit schedule information and demolition plan for approval 15 working days before beginning any demolition or renovation of any structures.

#### **110-6.2 Method of Removal:**

**110-6.2.1 General:** Remove the structures in such a way so as to leave no obstructions to any proposed new bridge or to any waterways. Pull, cut off, or break off pilings to the requirements of the permit or other Contract Documents, or if not specified, not less than 2 feet below the finished graded surface. In the event that the Plans indicate channel excavation to be done by others, consider the finished graded surface as the limits of such excavation. For materials which are to remain the property of the Department or are to be salvaged for use in temporary bridges, avoid damage to such materials, and entirely remove all bolts, nails, etc. from timbers to be so salvaged. Mark structural steel members for identification as directed.

**110-6.2.2 Removal of Steel Members with Hazardous Coatings:** Submit to the Engineer for approval the “Contractor’s Lead in Construction Compliance Program”, QP2 certification from the Society for Protective Coatings (SSPC) from the firm actually removing and disposing of these steel members before any members are disturbed.

Vacuum power tool clean any coated steel member to bare metal as defined by SSPC-SP11 a minimum of 4 inches either side of any area to be heated (e.g. torch cutting, sawing, grinding, etc.) in accordance with 29 CFR 1926.354. Abrasive blasting is prohibited.

**110-6.3 Partial Removal of Bridges:** On concrete bridges to be partially removed and widened, remove concrete by manually or mechanically operated pavement breakers, by concrete saws, by chipping hammers, or by hydro-demolition methods. Do not use explosives. Where concrete is to be removed to neat lines, use concrete saws or hydro-demolition methods capable of providing a reasonably uniform cleavage face. If the equipment used will not provide a uniform cut without surface spalling, first score the outlines of the work with small trenches or grooves. For all demolition methods, submit for review and approval of the Engineer, a demolition plan that describes the method of removal, equipment to be used, types of rebar splices or couplers, and method of straightening or cutting rebar. In addition, for hydro-demolition, describe the method for control of water or slurry runoff and measures for safe containment of concrete fragments that are thrown out by the hydro-demolition machine.

**110-6.4 Authority of U.S. Coast Guard:** For bridges in navigable waters, when constructing the project under authority of a U.S. Coast Guard permit, the U.S. Coast Guard may inspect and approve the work to remove any existing bridges involved therein, prior to acceptance by the Department.

**110-6.5 Asbestos Containing Materials (ACM) Not Identified Prior to the Work:** When encountering or exposing any condition indicating the presence of asbestos, cease operations immediately in the vicinity and notify the Engineer.

Make every effort to minimize the disturbance of the ACM. Immediately provide provisions for the health and safety of all jobsite personnel and the public that may be exposed to

any ACM. Provisions shall meet all applicable Federal, State, and Local Rules and Regulations regarding potentially hazardous conditions due to ACM.

The Engineer will notify the District Contamination Impact Coordinator (DCIC) who will engage the services of the Department's Contamination Assessment/Remediation Contractor (CAR). Provide access to the potential contamination area. Preliminary investigation by the CAR Contractor will determine the course of action necessary for site security and the steps necessary to resolve the contamination issue.

The CAR Contractor will perform an asbestos survey to delineate the asbestos areas, and identify any staging or holding areas that will be needed for assessment or abatement of the asbestos material.

The CAR Contractor will maintain jurisdiction over activities within areas contaminated with ACM including staging and holding areas. The CAR Contractor will be responsible for the health and safety of workers within these delineated areas. Provide continuous access to these areas for the CAR Contractor and representatives of regulatory or enforcement agencies having jurisdiction.

Coordinate with the CAR Contractor and Engineer to develop a work plan with projected completion dates for the final resolution of the contamination, in coordination with any regulatory agencies as appropriate. Use the work plan and schedule as a basis for planning the completion of all work efforts. The Engineer may grant Contract Time extensions according to the provisions of 8-7.3.2.

Cooperate with the CAR Contractor to expedite integration of the CAR Contractor's operations into the construction project. Adjustments to quantities or to Contract unit prices will be made according to work additions or reductions on the part of the Prime Contractor in accordance with 4-3.

The Engineer will inform the Prime Contractor when operations may resume in the affected area.

#### **110-7 Removal of Existing Concrete.**

Remove and dispose of existing Portland cement concrete pavement, sidewalk, slope pavement, ditch pavement, curb, and curb and gutter, etc., where shown in the Plans.

Remove all gravity walls, noise/sound walls, retaining walls, MSE walls, perimeter walls, and roadway concrete barriers, where shown in the Plans. All ancillary elements of these concrete features being removed including, but not limited to, base, leveling pads, copings, reinforcing steel or straps, footings, edgedrains, etc, are incidental and included in the cost of the removal.

#### **110-8 Ownership of Materials.**

Except as may be otherwise specified in the Contract Documents, take ownership of all buildings, structures, appurtenances, and other materials removed and dispose of them in accordance with 110-9.

#### **110-9 Disposal of Materials.**

**110-9.1 General:** Either stack materials designated to remain the property of the Department in neat piles within the right-of-way, load onto the Department's vehicles, or deliver to location designated in the Plans.

Dispose of timber, stumps, brush, roots, rubbish, and other material resulting from clearing and grubbing in areas and by methods meeting the applicable requirements of all Federal, State and Local Rules and Regulations. Do not block waterways by the disposal of debris.

With the approval of the Engineer, wood chips may be evenly distributed to a depth of no more than one inch in designated areas in the Department's right-of-way.

**110-9.2 Burning Debris:** Where burning of such materials is permitted, perform all such burning in accordance with the applicable Federal, State and Local rules and regulations. Perform all burning at locations where trees and shrubs adjacent to the cleared area will not be harmed.

**110-9.3 Timber and Crops:** The Contractor may sell any merchantable timber, fruit trees, and crops that are cleared under the operations of clearing and grubbing for his own benefit, subject to the provisions of 7-1.2, which may require that the timber, fruit trees, or crops be burned at or near the site of their removal, as directed by the Engineer. The Contractor is liable for any claims which may arise pursuant to the provisions of this Subarticle.

**110-9.4 Disposal of Treated Wood:** Treated wood must be handled and disposed of properly during removal. Treated wood should not be cut or otherwise mechanically altered in a manner that would generate dust or particles without proper respiratory and dermal protection. The treated wood must be disposed of in at least a lined solid waste facility or through recycling/reuse. Treated wood shall not be disposed by burning or placement in a construction and demolition (C&D) debris landfill.

**110-9.5 Hazardous Materials/Waste:** Handle, transport, and dispose of hazardous materials/waste in accordance with all Federal, State, and Local Rules and Regulations including, but not limited to, the following:

1. SSPC Guide 7
2. Federal Water Pollution Control Act, and
3. Resource Conservation and Recover Act (RCRA).

Accept responsibility for the collection, sampling, classification, packaging, labeling, accumulation time, storage, manifesting, transportation, treatment and disposal of hazardous materials/waste, both solid and liquid. Separate all solid and liquid waste and collect all liquids used at hygiene stations and handle as hazardous materials/waste. Obtain written approval from the Engineer for all hazardous materials/waste stabilization methods before implementation.

Obtain an EPA/FDEP Hazardous Waste Identification Number (EPA/FDEP ID Number) before transporting and/or disposal of any hazardous materials/waste.

List the Department as the generator for hazardous materials/waste resulting from removal or demolition of Department materials.

Submit the following for the Engineers' approval before transporting, treatment or disposal of any hazardous materials/waste:

1. Name, address and qualifications of the transporter,
2. Name, address and qualifications of the treatment facility,
3. Proposed treatment and/or disposal of all Hazardous Materials/Waste.
4. EPA/FDEP Hazardous Waste Identification Number Application Form.
5. Manifest forms.

Transport all hazardous materials/waste in accordance with applicable Federal, State, and Local Rules and Regulations including, but not limited to, the 40 CFR 263 Standards.

Submit all final Hazardous Materials/Waste manifest/bills of lading and certificates of disposal to the Engineer within 21 days of each shipment.

**110-9.5.1 Steel Members with Hazardous Coating:** Dispose of steel members with hazardous coating in one of the following manners:

1. Deliver the steel members and other hazardous waste to a licensed recycling or treatment facility capable of processing steel members with hazardous coating.
2. Deliver the steel members with hazardous coating to a site designated by the Engineer for use as an offshore artificial reef. Deliver any other hazardous materials/waste to a licensed hazardous materials/waste recycling treatment facility.

Dismantle and/or cut steel members to meet the required dimensions of the recycling facility, treatment facility or offshore artificial reef agency.

All compensation for the cost of removal and disposal of hazardous materials/waste will be included in the Cost of Removal of Existing Structures.

**110-9.5.2 Certification of Compliance:** Submit certification of Compliance from the firm actually removing and disposing of the hazardous materials/waste stipulating, the hazardous materials/waste has been handled, transported and disposed of in accordance with this Specification. The Certification of Compliance shall be attested to by a person having legal authority to bind the company.

Maintain all records required by this Specification and ensure these records are available to the Department upon request.

## **110-10 Miscellaneous Operations.**

**110-10.1 Water Wells Required to be Plugged:** Fill or plug all water wells within the right-of-way, including areas of borrow pits and lateral ditches, that are not to remain in service, in accordance with applicable Federal, State, and Local Rules and Regulations.

Cut off the casing of cased wells at least 12 inches below the existing surface or 12 inches below the elevation of the finished graded surface, whichever is lower. Water wells, as referred to herein, are defined either as artesian or non-artesian, as follows:

1. An artesian well is an artificial hole in the ground from which water supplies may be obtained and which penetrates any water-bearing rock, the water in which is raised to the surface by natural flow or which rises to an elevation above the top of the water-bearing bed. Artesian wells are further defined to include all holes drilled as a source of water that penetrate any water-bearing beds that are a part of the artesian water system of Florida, as determined by representatives of the applicable Water Management District.

2. A non-artesian (water-table) well is a well in which the source of water is an unconfined aquifer. The water in a non-artesian well does not rise above the source bed.

**110-10.2 Leveling Terrain:** Within the areas between the limits of construction and the outer limits of clearing and grubbing, fill all holes and other depressions, and cut down all mounds and ridges. Make the area of a sufficient uniform contour so that the Department's subsequent mowing and cutting operations are not hindered by irregularity of terrain. Perform this work regardless of whether the irregularities were the result of construction operations or existed originally.

**110-10.3 Mailboxes:** When the Contract Documents require furnishing and installing mailboxes, permit each owner to remove the existing mailbox. Work with the Local Postmaster to develop a method of temporary mail service for the period between removal and installation of the new mailboxes. Install the mailboxes in accordance with the Standard Plans.

## **110-11 Method of Measurement.**

**110-11.1 Clearing and Grubbing:** The quantity to be paid for will be the lump sum quantity.

**110-11.2 Selective Clearing and Grubbing:** The quantity to be paid will be the plan quantity area in acres designated for Selective Clearing and Grubbing. The quantity to be paid for Tree Protection Barrier will be the linear foot measurement as shown in the Plans. Tree Root, Branch Pruning, and Tree Removal will be paid per each tree. Tree Removal per each will not be used where Clearing and Grubbing or Selective Clearing and Grubbing per acre is used.

**110-11.3 Removal of Existing Bridges:** The quantity to be paid for will be the lump sum quantity or quantities for the specific structures, or portions of structures to be removed.

### **110-11.4 Removal of Existing Concrete:**

The quantity to be paid for will be the number of square yards of existing concrete elements, acceptably removed and disposed of, as specified. The quantity will be determined by actual measurement along the surface of the element before its removal. Measurements for appurtenances which have irregular surface configurations, such as curb and gutter, steps, and ditch pavement, will be the area as projected to an approximate horizontal plane. Where the removal of pavement areas is necessary only for the construction of box culverts, pipe culverts, storm sewers, inlets, manholes, etc., these areas will not be included in the measurements.

Area measurements for walls will be based on exposed vertical face measurements times the horizontal length of the wall.

**110-11.5 Plugging Water Wells:** The quantity to be paid for will be the number of water wells plugged, for each type of well (artesian or non-artesian).

**110-11.6 Mailboxes:** The quantity to be paid for will be the number of mailboxes acceptably furnished and installed.

**110-11.7 Delivery of Salvageable Material to the Department** The quantity to be paid for will be the Lump Sum quantity for delivery of salvageable materials to the Department, as indicated in the Plans.

**110-11.8 General:** In each case, except as provided below, where no item of separate payment for such work is included in the proposal, all costs of such work will be included in the various scheduled items in the Contract, or under specific items as specified herein below or elsewhere in the Contract.

## **110-12 Basis of Payment.**

### **110-12.1 Clearing and Grubbing:**

**110-12.1.1 Lump Sum Payment:** Price and payment will be full compensation for all clearing and grubbing required for the roadway right-of-way and for lateral ditches, channel changes, or other outfall areas, and any other clearing and grubbing indicated, or required for the construction of the entire project, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain and the landscaping work of trimming, etc.

Where construction easements are specified in the Plans and the limits of clearing and grubbing for such easements are dependent upon the final construction requirements, no adjustment will be made in the lump sum price and payment, either over or under, for variations from the limits of the easement defined in the Plans.

**110-12.1.2 When No Direct Payment is Provided:** When no item for clearing and grubbing is included in the proposal, the Contractor shall include the cost of any work of clearing and grubbing which is necessary for the proper construction of the project in the

Contract price for the structure or other item of work for which such clearing and grubbing is required. The Contractor shall include the cost of all clearing and grubbing which might be necessary in pits or areas from which base material is obtained in the Contract price for the base in which such material is used. The clearing and grubbing of areas for obtaining stabilizing materials, where required only for the purpose of obtaining materials for stabilizing, will not be paid for separately.

**110-12.2 Selective Clearing and Grubbing:** Price and payment will be full compensation for all selective clearing and grubbing, including all necessary hauling, furnishing equipment, Certified Arborist, equipment operation, furnishing any areas required for disposal of debris, leveling of terrain, root pruning and tree protection.

**110-12.3 Removal of Existing Bridges:** Price and payment will be full compensation for all work of removal and disposal of the designated bridges.

When direct payment for the removal of existing bridges is not provided in the proposal, the Contractor shall include the cost of removing all bridges in the Contract price for clearing and grubbing or, if no item of clearing and grubbing is included, in the compensation for the other items covering the new bridge being constructed.

**110-12.4 Removal of Existing Concrete:** Price and payment will be full compensation for performing and completing all the work of removal and satisfactory disposal.

When no separate item for this work is included, the Contractor shall include the costs of this work in the Contract price for the item of clearing and grubbing or for the pipe or other structure for which the concrete removal is required.

**110-12.5 Plugging Water Wells:** Price and payment will be full compensation for each type of well acceptably plugged.

If a water well requiring plugging is encountered and the Contract contains no price for plugging wells of that specific type, the plugging of such well will be paid for as unforeseeable work.

**110-12.6 Mailboxes:** Price and payment will be full compensation for all work and materials required, including supports and numbers.

**110-12.7 Delivery of Salvageable Material to the Department:** Price and payment will be full compensation for all work required for delivery of the materials to the Department.

**110-12.8 Payment Items:** Payment will be made under:

Item No. 110- 1-	Clearing and Grubbing - lump sum.
Item No. 110- 2-	Selective Clearing and Grubbing Area - acre.
Item No. 110- 3-	Removal of Existing Bridges - lump sum.
Item No. 110- 4-	Removal of Existing Concrete - per square yard.
Item No. 110- 5-	Plugging Water Wells (Artesian) - each.
Item No. 110- 6-	Plugging Water Wells (Non-Artesian) - each.
Item No. 110- 7-	Mailbox (Furnish and Install) - each.
Item No. 110- 21	Tree Protection Barrier - per linear foot.
Item No. 110- 22	Tree Root and Branch Pruning - per each tree.
Item No. 110- 23	Tree Removal - per each tree.
Item No. 110- 86-	Delivery of Salvageable Material to FDOT - lump sum.

## EARTHWORK AND RELATED OPERATIONS

### SECTION 120 EXCAVATION AND EMBANKMENT

#### 120-1 Description.

**120-1.1 General:** Excavate and construct embankments as required for the roadway, ditches, channel changes and borrow material. Use suitable excavated material or authorized borrow to prepare subgrades and foundations. Construct embankments in accordance with Standard Plans, Index 120-001. Compact and dress excavated areas and embankments.

Meet the requirements of Section 110 for excavation of material for clearing and grubbing and Section 125 for excavation and backfilling of structures and pipe. Material displaced by the storm sewer or drainage structure system is not included in the earthwork quantities shown in the Contract Documents.

The existing surface may be a combination of the following:

1. The original unpaved ground line;
2. The bottom of the existing pavement;
3. The bottom of existing features removed by clearing and grubbing;
4. The bottom of the existing base, if the base is to be removed.

The finished graded surface includes the completed grades of side slopes, unpaved shoulders, and the bottom of the base for flexible or rigid pavement.

**120-1.2 Unidentified Areas of Contamination:** When encountering or exposing any abnormal condition indicating the presence of contaminated materials, cease operations immediately in the vicinity and notify the Engineer. The presence of tanks or barrels; discolored earth, metal, wood, ground water, etc.; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal may indicate the presence of contaminated materials and must be treated with extreme caution.

Make every effort to minimize the spread of contamination into uncontaminated areas. Immediately provide for the health and safety of all workers at the job site and make provisions necessary for the health and safety of the public that may be exposed to any potentially hazardous conditions. Ensure provisions adhere to all applicable laws, rules or regulations covering potentially hazardous conditions and will be in a manner commensurate with the gravity of the conditions.

The Engineer will notify the District Contamination Impact Coordinator (DCIC) who will coordinate selecting and tasking the Department's Contamination Assessment/Remediation Contractor (CAR). Provide access to the potentially contaminated area. Preliminary investigation by the CAR Contractor will determine the course of action necessary for site security and the steps necessary under applicable laws, rules, and regulations for additional assessment and/or remediation work to resolve the contamination issue.

The CAR Contractor will delineate the contamination areas, any staging or holding area required; and, in cooperation with the Prime Contractor and Engineer, develop a work plan that will provide the CAR Contractor's operations schedule with projected completion dates for the final resolution of the contamination issue.

The CAR Contractor will maintain jurisdiction over activities inside any outlined contaminated areas and any associated staging holding areas. The CAR Contractor will be responsible for the health and safety of workers within the delineated areas. Provide continuous

access to these areas for the CAR Contractor and representatives of regulatory or enforcement agencies having jurisdiction.

Both Contractors will use the schedule as a basis for planning the completion of both work efforts. The Engineer may grant the Contract Time extensions according to the provisions of 8-7.3.2.

Cooperate with the CAR Contractor to expedite integration of the CAR Contractor's operations into the construction project. The Prime Contractor is not expected to engage in routine construction activities, such as excavating, grading, or any type of soil manipulation, or any construction processes required if handling of contaminated soil, surface water or ground water is involved. All routine construction activities requiring the handling of contaminated soil, surface water or groundwater will be by the CAR Contractor. Adjustments to quantities or to Contract unit prices will be made according to work additions or reductions on the part of the Prime Contractor in accordance with 4-3.

The Engineer will direct the Prime Contractor when operations may resume in the affected area.

## **120-2 Classifications of Excavation.**

**120-2.1 General:** The Department may classify excavation specified under this Section for payment as any of the following: regular excavation, subsoil excavation, lateral ditch excavation, and channel excavation.

If the proposal does not show subsoil excavation or lateral ditch excavation as separate items of payment, include such excavation under the item of regular excavation.

If the proposal shows lateral ditch excavation as a separate item of payment, but does not show channel excavation as a separate item of payment, include such excavation under the item of lateral ditch excavation. Otherwise, include channel excavation under the item of regular excavation.

**120-2.2 Regular Excavation:** Regular excavation includes roadway excavation and borrow excavation, as defined below for each.

**120-2.2.1 Roadway Excavation:** Roadway excavation consists of the excavation and the utilization or disposal of all materials necessary for the construction of the roadway, ditches, channel changes, etc., except for removal of existing pavement as defined in Section 110.

**120-2.2.2 Borrow Excavation:** Borrow excavation consists of the excavation and utilization of material from authorized borrow pits, including only material that is suitable for the construction of roadway embankments or of other embankments covered by the Contract.

A Cost Savings Initiative Proposal (CSIP) submittal based on using borrow material from within the project limits will not be considered.

**120-2.3 Subsoil Excavation:** Subsoil excavation consists of the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the existing surface. For pond and ditches that identify the placement of a blanket material, the existing surface is template as the bottom of the blanket material. Subsoil excavation also consists of the excavation of all suitable material within the above limits as necessary to excavate the unsuitable material. Consider the limits of subsoil excavation indicated in the Plans as being particularly variable, in accordance with the field conditions actually encountered.

The quantity of material required to replace the excavated material and to raise the elevation of the roadway to the bottom of the template will be paid for under embankment or borrow excavation (Truck Measure).

**120-2.4 Lateral Ditch Excavation:** Lateral ditch excavation consists of all excavation of inlet and outlet ditches to structures and roadway, changes in channels of streams, and ditches parallel to the roadway right-of-way. Dress lateral ditches to the grade and finished graded surface shown in the Plans.

**120-2.5 Channel Excavation:** Channel excavation consists of the excavation and satisfactory disposal of all materials from within the limits of the channel as shown in the Plans.

### **120-3 Preliminary Soils Investigations.**

When the Plans contain the results of a soil survey, do not assume such data is a guarantee of the depth, extent, or character of material present.

### **120-4 Removal of Unsuitable Materials and Existing Roads.**

**120-4.1 Subsoil Excavation:** Where muck, rock, clay, or other material within the limits of the roadway is unsuitable in its original position, excavate such material to the depths shown in the Plans as the removal limits or as indicated by the Engineer, and backfill with suitable material. Where the removal of plastic soils is required, meet a construction tolerance, of plus or minus 0.2 foot in depth and plus or minus 6 inches (each side) in width.

**120-4.2 Construction over Existing Old Road:** Where a new roadway is to be constructed over an old one, completely remove the existing flexible and Portland cement concrete pavement for the entire limits of the width and depth in accordance with Section 110. Compact disturbed material in accordance with Section 120 or 160, whichever material applies. If indicated in the Plans, remove the existing base in accordance with Section 110.

### **120-5 Disposal of Surplus and Unsuitable Material.**

**120-5.1 Ownership of Excavated Materials:** Dispose of surplus and excavated materials as shown in the Plans or, if the Plans do not indicate the method of disposal, take ownership of the materials and dispose of them outside the right-of-way.

**120-5.2 Disposal of Muck on Side Slopes:** As an exception to the provisions of 120-5.1, when approved by the Engineer, in rural undeveloped areas, the Contractor may place muck (A-8 material) on the slopes, or store it alongside the roadway, provided there is a clear distance of at least 6 feet between the roadway grading limits and the muck, and the Contractor dresses the muck to present a neat appearance. In addition, the Contractor may also dispose of this material by placing it on the slopes in developed areas where, in the opinion of the Engineer, this will result in an aesthetically pleasing appearance and will have no detrimental effect on the adjacent developments. Where the Engineer permits the disposal of muck or other unsuitable material inside the right-of-way limits, do not place such material in a manner which will impede the inflow or outfall of any channel or side ditches. The Engineer will determine the limits adjacent to channels within which such materials may be disposed.

**120-5.3 Disposal of Paving Materials:** Unless otherwise noted, take ownership of paving materials, such as paving brick, asphalt block, concrete slab, sidewalk, curb and gutter, etc., excavated in the removal of existing pavements, and dispose of them outside the right-of-way. If the materials are to remain the property of the Department, place them in neat piles as directed. Existing base materials that are removed may be incorporated in the stabilized portion

of the subgrade in accordance with Section 160. If the construction sequence allows, incorporate all existing base material into the project as allowed by the Contract Documents.

**120-5.4 Disposal Areas:** Where the Contract Documents require disposal of excavated materials outside the right-of-way, and the disposal area is not indicated in the Contract Documents, furnish the disposal area without additional compensation.

Provide areas for disposal of removed paving materials out of sight of the project and at least 300 feet from the nearest roadway right-of-way line of any State maintained road. If the materials are buried, disregard the 300-foot limitation.

## **120-6 Borrow.**

**120-6.1 Materials for Borrow:** Do not open borrow pits until the Engineer has approved their location.

Prior to the purchase or use of any borrow pit materials, provide the Engineer with a written certification of borrow pit compliance meeting the requirements of Section 337.0262, Florida Statutes.

Do not provide borrow materials that are polluted as defined in Chapter 376 of the Florida Statutes (oil of any kind and in any form, gasoline, pesticides, ammonia, chlorine, and derivatives thereof, excluding liquefied petroleum gas) in concentrations above any local, State, or Federal standards.

Prior to placing any borrow material that is the product of soil incineration, provide the Engineer with a copy of the Certificate of Materials Recycling and Post Burn Analysis showing that the material is below all allowable pollutant concentrations.

**120-6.2 Furnishing of Borrow Areas:** To obtain the Engineer's approval to use an off-site construction activity area that involves excavation such as a borrow pit or local aggregate pit, request in writing, a review for cultural resources involvement. Send the request to the Division of Historical Resources (DHR), Department of State, State Historic Preservation Officer, Tallahassee, FL. As a minimum, include in the request the Project Identification Number, the County, a description of the property with Township, Range, Section, etc., the dimensions of the area to be affected, and a location map. Do not start any work at the off-site construction activity area prior to receiving clearance from the DHR that no additional research is warranted.

For certain locations, the DHR will require a Cultural Resources Assessment (CRA) Survey before approval can be granted. When this is required, secure professional archaeological services to complete an historical and archaeological survey report. Submit the report to the DHR and to the Department. The Engineer will determine final approval or rejection of off-site construction activity areas based on input from the DHR.

Before receiving approval or before use of borrow areas, obtain written clearance from the Engineer concerning compliance with the Federal Endangered Species Act and other Wildlife Regulations as specified in 7-1.4 and Section 4(f) of the USDOT Act as specified in 7-1.8.

The Department will adjust Contract Time in accordance with 8-7 for any suspension of operations required to comply with this Article. The Department will not accept any monetary claims due to delays or loss of off-site construction activity areas.

Except where the Plans specifically call for the use of a particular borrow or dredging area, the Contractor may substitute borrow or dredging areas of his own choosing provided the Engineer determines the materials from such areas meet the Department's standards and other requirements for stability for use in the particular sections of the work in which it is to be placed, and the Contractor absorbs any increase in hauling or other costs. Stake the corners of

the proposed borrow area and provide the necessary equipment along with an operator in order for the Engineer to investigate the borrow area. The Engineer will determine test locations, collect samples, and perform tests to investigate the proposed borrow area based on soil strata and required soil properties. The Engineer will approve use of materials from the proposed area based on test results and project requirements. Final acceptance of materials will be based on Point of Use Test as described in 6-1.2.4.

Before using any borrow material from any substitute areas, obtain the Engineer's approval, in writing, for the use of the particular areas, and, where applicable, ensure that the Engineer has surveyed the surface. Upon such written approval by the Engineer, consider the substitute areas as designated borrow areas.

When furnishing the dredging or borrow areas, supply the Department with evidence that the necessary permits, rights, or waivers for the use of such areas have been secured.

Do not excavate any part of a Contractor furnished borrow area which is less than 300 feet from the right-of-way of the project or any State Road until the Engineer has approved a plan for landscaping and restoring the disturbed area. Perform this landscaping and land restoration at no expense to the Department, prior to final acceptance of the project. Do not provide a borrow area closer than 25 feet to the right-of-way of any state road. In Department furnished borrow pits, do not excavate material within 5 feet of adjacent property lines.

Upon completion of excavation, neatly shape, dress, grass, vegetate, landscape, and drain all exposed areas including haul roads, as necessary so as not to present an objectionable appearance.

Meet the requirements of Section 104 when furnishing borrow areas, regardless of location.

**120-6.3 Borrow Material for Shoulder Build-up:** When indicated in the Plans, furnish borrow material with a specific minimum bearing value, for building up of existing shoulders. Blend materials as necessary to achieve this specified minimum bearing value prior to placing the materials on the shoulders. Take samples of this borrow material at the pit or blended stockpile. Include all costs of providing a material with the required bearing value in the Contract unit price for borrow material.

**120-6.4 Haul Routes for Borrow Pits:** Provide and maintain, at no expense to the Department, all necessary roads for hauling the borrow material. Where borrow area haul roads or trails are used by others, do not cause such roads or trails to deteriorate in condition.

Arrange for the use of all non-public haul routes crossing the property of any railroad. Incur any expense for the use of such haul routes. Establish haul routes which will direct construction vehicles away from developed areas when feasible, and keep noise from hauling operations to a minimum. Advise the Engineer in writing of all proposed haul routes.

**120-6.5 Authorization for Use of Borrow:** When the item of borrow excavation is included in the Contract, use borrow only when sufficient quantities of suitable material are not available from roadway and drainage excavation, to properly construct the embankment, subgrade, and shoulders, and to complete the backfilling of structures. Do not use borrow material until so ordered by the Engineer, and then only use material from approved borrow pits.

## **120-7 Materials for Embankment.**

**120-7.1 Use of Materials Excavated from the Roadway and Appurtenances:** Assume responsibility for determining the suitability of excavated material for use on the project in

accordance with the applicable Contract Documents. Consider the sequence of work and maintenance of traffic phasing in the determination of the availability of this material.

**120-7.2 General Requirements for Embankment Materials:** Construct embankments of acceptable material including reclaimed asphalt pavement (RAP), recycled concrete aggregate (RCA) and Portland cement concrete rubble, but containing no muck, stumps, roots, brush, vegetable matter, rubbish, reinforcement bar or other material that does not compact into a suitable and enduring roadbed. Do not use RAP or RCA in the top 3 feet of slopes and shoulders that are to be grassed or have other type of vegetation established. Do not use RAP or RCA in stormwater management facility fill slopes or permitted wetland impact areas.

Remove all waste material designated as undesirable. Use material in embankment construction in accordance with Plans or as the Engineer directs.

Complete the embankment using maximum particle sizes (in any dimension) as follows:

1. In top 12 inches: 3-1/2 inches (in any dimension).
2. 12 to 24 inches: 6 inches (in any dimension).
3. In the depth below 24 inches: not to exceed 12 inches (in any dimension) or the compacted thickness of the layer being placed, whichever is less.

Spread all material so that the larger particles are separated from each other to minimize voids between them during compaction. Compact around these rocks in accordance with 120-9.2.

When and where approved by the Engineer, the Contractor may place larger rocks (not to exceed 18 inches in any dimension) outside the 1:2 slope and at least 4 feet or more below the bottom of the base. Compact around these rocks to a firmness equal to that of the supporting soil. Construct grassed embankment areas in accordance with 120-9.2.5. Where constructing embankments adjacent to bridge end bents or abutments, do not place rock larger than 3-1/2 inches in diameter within 3 feet of the location of any end-bent piling.

**120-7.3 Materials Used at Pipes, Culverts, etc.:** Construct embankments over and around pipes, culverts, and bridge foundations with selected materials.

## **120-8 Embankment Construction.**

**120-8.1 General:** Construct embankments in sections of not less than 300 feet in length or for the full length of the embankment. Do not construct another LOT over an untested LOT without the Engineer's approval in writing.

For construction of mainline pavement lanes, turn lanes, ramps, parking lots, concrete box culverts and retaining wall systems, a LOT is defined as a single lift of finished embankment not to exceed 500 feet.

For construction of shoulder-only areas, shared use paths, and sidewalks areas, a LOT is defined as a single lift of finished embankment not to exceed 2000 feet.

Isolated compaction operations will be considered as separate LOTs. For multiple phase construction, a LOT shall not extend beyond the limits of the phase.

### **120-8.2 Dry Fill Method:**

**120-8.2.1 General:** Construct embankments to meet the compaction requirements in 120-9 and in accordance with the acceptance program requirements in 120-10.

As far as practicable, distribute traffic over the work during the construction of embankments so as to cover the maximum area of the surface of each layer.

Construct embankment using the dry fill method whenever normal dewatering equipment and methods can accomplish the needed dewatering.

### 120-8.2.1.1 Maximum Compacted Lift Thickness Requirements:

Construct the embankment in successive layers with lifts up to a maximum listed in Table 120-1 below based on the embankment material classification group.

Table 120-1			
Group	AASHTO Soil Class	Maximum Lift Thickness	Thick Lift Control Test Section Requirements
1	A-3	12 inches	Not Needed
	A-2-4 (No. 200 Sieve $\leq$ 15%)		
2	A-1	6 inches without Control Test Section	Maximum of 12 inches per 120-8.2.1.2
	A-2-4 (No. 200 Sieve $>$ 15%)		
	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6		
	A-7 (Liquid Limit $<$ 50)		

### 120-8.2.1.2 Thick Lift Requirements: For embankment materials

classified as Group 2 in Table 120-1 above, the option to perform thick lift construction in successive layers of not more than 12 inches compacted thickness may be used after meeting the following requirements:

1. Notify the Engineer and obtain approval in writing prior to beginning construction of a test section. Demonstrate the possession and control of compacting equipment sufficient to achieve density required by 120-10.2 for the full depth of a thicker lift.
2. Construct a test section of the length of one full LOT of not less than 500 feet.
3. Perform five Quality Control (QC) tests at random locations within the test section.
  - a. All five QC tests and a Department Verification test must meet the density required by 120-10.2.
  - b. Identify the test section with the compaction effort and soil classification in the Department's Earthwork Records System (ERS).
4. Obtain Engineer's approval in writing for the compaction effort after completing a successful test section.

In case of a change in compaction effort or soil classification, failing QC test or when the QC tests cannot be verified, construct a new test section. The Contractor may elect to place material in 6 inches compacted thickness at any time. Construct all layers approximately parallel to the centerline profile of the road.

The Engineer reserves the right to terminate the Contractor's use of thick lift construction. Whenever the Engineer determines that the Contractor is not achieving satisfactory results, revert to the 6-inch compacted lifts.

### 120-8.2.1.3 Equipment and Methods: Provide normal dewatering

equipment including, but not limited to, surface pumps, sump pumps and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, sumps and siphons.

When normal dewatering does not adequately remove the water, the Engineer may require the embankment material to be placed in the water or on low swampy ground in accordance with 120-9.2.3.

**120-8.2.2 Placing in Unstable Areas:** When depositing fill material in water, or on low swampy ground that will not support the weight of hauling equipment, construct the embankment by dumping successive loads in a uniformly distributed layer of a thickness not greater than necessary to support the hauling equipment while placing subsequent layers. Once sufficient material has been placed so that the hauling equipment can be supported, construct the remaining portion of the embankment in layers in accordance with the applicable provisions of 120-9.2.2.

**120-8.2.3 Placing on Steep Slopes:** When constructing an embankment on a hillside sloping more than 20 degrees from the horizontal, before starting the fill, deeply plow or cut steps into the surface of the existing slope on which the embankment is to be placed.

**120-8.2.4 Placing Outside the Standard Minimum Slope:** The standard minimum slope is defined as the plane described by a one (vertical) to two (horizontal) slope downward from the roadway shoulder point or the gutter line, in accordance with Standard Plans, Index 120-001 and 120-002. Where material that is unsuitable for normal embankment construction is to be used in the embankment outside the standard minimum slope, place such material in layers of not more than 18 inches in thickness, measured loose. The Contractor may also place material which is suitable for normal embankment, outside such standard minimum slope, in 18 inch layers. Maintain a constant thickness for suitable material placed within and outside the standard minimum slope, unless placing in a separate operation.

### **120-8.3 Hydraulic Method:**

**120-8.3.1 Method of Placing:** When the hydraulic method is used, as far as practicable, place all dredged material in its final position in the embankment by such method. Place and compact any dredged material that is reworked or moved and placed in its final position by any other method, as specified in 120-9.2. Baffles or any other form of construction may be used if the slopes of the embankments are not steeper than indicated in the Plans. Remove all timber used for temporary bulkheads or baffles from the embankment, and fill and thoroughly compact all voids. When placing fill on submerged land, construct dikes prior to beginning of dredging, and maintain the dikes throughout the dredging operation.

**120-8.3.2 Excess Material:** Do not use any excess material placed outside the prescribed slopes or below the normal high-water table to raise the fill areas. Remove only the portion of this material required for dressing the slopes.

**120-8.3.3 Protection of Openings in Embankment:** Maintain openings in the embankments at the bridge sites. Remove any material which invades these openings or existing channels without additional compensation to provide the same existing channel depth as before the construction of the embankment. Do not excavate or dredge any material within 200 feet of the toe of the proposed embankment.

### **120-8.4 Reclaimed Asphalt Pavement (RAP) Method:**

**120-8.4.1 General:** Use only RAP material stored at facilities with an approved Florida Department of Environmental Protection Stormwater permit or transferred directly from a milling project to the Department project. Certify the source if RAP material is from an identifiable Department project. Do not use RAP material in the following areas: construction areas that are below the seasonal high groundwater table elevation; MSE Wall backfill; underneath MSE Walls or the top 6 inches of embankment.

Prior to placement, submit documentation to the Engineer for his approval, outlining the proposed location of the RAP material.

**120-8.4.2 Soil and RAP Mixture:** Place the RAP material at the location and spread uniformly, using approved methods to obtain a maximum layer thickness of 4 inches. Mix this 4-inch maximum layer of RAP with a loose soil layer 8 to 10 inches thick. After mixing, meet all embankment utilization requirements of Standard Plans, Index 120-001 for the location used. The total RAP and other embankment material shall not exceed 12 inches per lift after mixing and compaction if the Contractor can demonstrate that the density of the mixture can be achieved. Perform mixing using rotary tillers or other equipment meeting the approval of the Engineer. The Engineer will determine the order in which to spread the two materials. Mix both materials to the full depth. Ensure that the finished layer will have the thickness and shape required by the typical section. Demonstrate the feasibility of this construction method by successfully completing a 500-foot long test section.

**120-8.4.3 Alternate Soil and RAP Layer Construction:** Construct soil in 6-inch to 12-inch compacted lifts and RAP in alternate layers with 6-inch maximum compacted lifts. Use soil with a minimum LBR value of 40 to prevent failure during compaction of the overlying RAP layer. Demonstrate the feasibility of this construction method by successfully completing a 500-foot long test section.

## **120-9 Compaction Requirements.**

**120-9.1 Moisture Content:** Compact the materials at a moisture content such that the specified density can be attained. If necessary to attain the specified density, add water to the material, or lower the moisture content by manipulating the material or allowing it to dry, as is appropriate.

### **120-9.2 Compaction of Embankments:**

**120-9.2.1 General:** Uniformly compact each layer, using equipment that will achieve the required density, and as compaction operations progress, shape and manipulate each layer as necessary to ensure uniform density throughout the embankment.

**120-9.2.2 Compaction Over Unstable Foundations:** Where the embankment material is deposited in water or on low swampy ground, and in a layer thicker than 12 inches (as provided in 120-8.2.2), compact the top 6 inches (compacted thickness) of such layer to the density as specified in 120-10.2.

**120-9.2.3 Compaction Where Plastic Material Has Been Removed:** Where unsuitable material is removed and the remaining surface is of the A-4, A-5, A-6, or A-7 Soil Groups (see AASHTO M 145), as determined by the Engineer, compact the surface of the excavated area by rolling with a sheepsfoot roller exerting a compression of at least 250 psi on the tamper feet, for the full width of the roadbed (subgrade and shoulders). Perform rolling before beginning any backfill and continue until the roller feet do not penetrate the surface more than 1 inch. Do not perform such rolling where the remaining surface is below the normal water table and covered with water. Vary the procedure and equipment required for this operation at the discretion of the Engineer.

**120-9.2.4 Compaction of Grassed Shoulder Areas:** For the upper 6-inch layer of all shoulders which are to be grassed, since no specific density is required, compact only to the extent needed for planting.

**120-9.2.5 Compaction of Grassed Embankment Areas:** Do not compact the outer layers of any embankments where plant growth will be established. Leave this layer in a loose condition to a minimum depth of 6 inches for the subsequent seeding or planting

operations. Do not place RAP or RAP blended material within the top 12 inches of areas to be grassed.

**120-9.3 Compaction for Pipes, Culverts, etc.:** Compact the backfill of trenches to the densities specified for embankment or subgrade, as applicable, and in accordance with the requirements of 125-9.2.

Thoroughly compact embankments over and around pipes, culverts, and bridges in a manner which will not place undue stress on the structures, and in accordance with the requirements of 125-9.2.

**120-9.4 Compaction of Subgrade:** If the Plans do not provide for stabilizing, compact the subgrade in both cuts and fills, to the density specified in 120-10.2. For cut areas, determine Standard Proctor Maximum Density in accordance with FM 1-T099 at a frequency of one per mile or when there is a change in soil type, whichever occurs first. For undisturbed soils, do not apply density requirements where constructing paved shoulders 5 feet or less in width.

Where trenches for widening strips are not of sufficient width to permit the use of standard compaction equipment, perform compaction using vibratory rollers, trench rollers, or other type compaction equipment approved by the Engineer.

Maintain the required density until the base or pavement is placed on the subgrade.

## 120-10 Acceptance Program.

### 120-10.1 General Requirements:

**120-10.1.1 Equipment Comparison:** Before initial production, perform an initial three-way density gauge comparison with Verification and Independent Assurance (IA) gauges to validate QC and Verification gauges. When comparing the wet density between two density gauges, three sets of calculations must be performed (IA to QC, IA to Verification, and QC to Verification) within the same test hole and same test depth. Ensure that the difference between any two wet densities does not exceed the tolerances listed in Table 120-2. Repair, calibrate, or replace any gauge that does not compare favorably with the IA gauge.

Table 120-2			
Condition	Comparison Type	Manufacturer	Tolerance
<b>Condition 1:</b> When both gauges in the comparison are Nuclear Density Gauges (NDG)	NDG to NDG	Same Manufacturer	2 lb/ft <sup>3</sup>
	NDG to NDG	Different Manufacturer	3 lb/ft <sup>3</sup>
<b>Condition 2:</b> When one of the gauges in the comparison is a Low-Activity Nuclear Density Gauge (L-NDG)	L-NDG to L-NDG	Same Manufacturer	2 lb/ft <sup>3</sup>
	L-NDG to L-NDG	Different Manufacturer	3 lb/ft <sup>3</sup>
	NDG to L-NDG	Same/Different Manufacturer	

Ensure the equipment intended to determine the moisture content of soils by Speedy moisture tester in accordance with FM 5-507 has been calibrated and visually inspected by the Engineer.

To validate additional nuclear density gauges, perform a two-way comparison analysis between the QC nuclear gauge and the Verification nuclear gauge any time a nuclear gauge is first brought to the project or returns from annual calibration/repair. At least one of the nuclear gauges in the two-way comparison analysis must have been previously

validated in a comparison. Repair or replace any QC gauge that does not compare favorably with a validated Verification gauge at any time during the remainder of the project. Calibrate all gauges annually.

**120-10.1.2 Initial Production LOT:** Before construction of any production LOT, prepare a 500-foot initial control section consisting of one full LOT. Notify the Engineer in writing at least 24 hours prior to production of the initial control section. Perform all QC tests required in 120-10.1.4 with the Engineer present. Do not begin constructing another LOT until successfully completing the initial production LOT.

If the QC test result fails the density requirements of 120-10.2, correct the areas of non-compliance. The QC and Verification tests will then be repeated.

**120-10.1.3 Density over 105%:** When a QC computed dry density results in a value greater than 105% of the applicable Proctor maximum dry density, the Engineer will perform an Independent Verification (IV) density test within 5 feet. If the IV density results in a value greater than 105%, the Engineer will investigate the compaction methods, examine the applicable Standard Proctor Maximum Density and material description. The Engineer may collect and test an IV Standard Proctor Maximum Density sample for acceptance in accordance with the criteria of 120-10.2.

#### **120-10.1.4 Quality Control (QC) Tests:**

##### **120-10.1.4.1 Standard Proctor Maximum Density Determination:**

Determine the QC standard Proctor maximum density and optimum moisture content by sampling and testing the material in accordance with the specified test method listed in 120-10.2.

**120-10.1.4.2 Density Testing Requirements:** Ensure compliance to the requirements of 120-10.2 by Nuclear Density testing in accordance with FM 1-T310. Determine the in-place moisture content for each density test in accordance with FM 1-T310, FM 5-507 (Speedy Moisture), or ASTM D-4643 (Microwave Oven), whichever is applicable.

**120-10.1.4.3 Soil Classification:** Perform soil classification tests on the sample collected in 120-10.1.4.1, in accordance with AASHTO T88, T89, T90, and FM 1-T267. Classify soils in accordance with AASHTO M145 in order to determine compliance with embankment utilization requirements as specified in Standard Plans, Index 120-001.

**120-10.1.5 Department Verification:** The Engineer will conduct Verification tests in order to accept all materials and work associated with 120-10.1.4. The Engineer will verify the QC results if they meet the Verification Comparison Criteria, otherwise the Engineer will implement Resolution procedures.

The Engineer will select test locations, including Station, Offset, and Lift, using a random number generator, based on the LOTs under consideration. Each Verification test evaluates all work represented by the QC testing completed in those LOTs.

In addition to the Verification testing, the Engineer may perform additional Independent Verification (IV) testing. The Engineer will evaluate and act upon the IV test results in the same manner as Verification test results.

When the project requires less than four QC tests per material type, the Engineer reserves the right to accept the materials and work through visual inspection.

**120-10.1.6 Reduced Testing Frequency:** Obtain the Engineer's written approval for the option to reduce density testing frequency to one test every two LOTs if Resolution testing was not required for 12 consecutive verified LOTs, or if Resolution testing was required, but the QC test data was upheld and all substantiating tests are recorded in the ERS.

Generate random numbers based on the two LOTs under consideration. When QC test frequency is reduced to one every two LOTs, obtain the Engineer's approval to place more than one LOT over an untested LOT. Assure similar compaction efforts for the untested LOTs. If the Verification test fails, and QC test data is not upheld by Resolution testing, the QC testing will revert to the original frequency of one QC test per LOT. Do not apply reduced testing frequency in construction of shoulder-only areas, shared use paths, sidewalks, and first and last lift.

**120-10.1.7 Payment for Resolution Tests:** If the Resolution laboratory results compare favorably with the QC results, the Department will pay for Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.

If the Resolution laboratory results do not compare favorably with the QC results, the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing.

**120-10.2 Acceptance Criteria:** Obtain a minimum QC density of 100% of the standard Proctor maximum density as determined by FM 1-T099, with the following exceptions: embankment constructed by the hydraulic method as specified in 120-8.3; material placed outside the standard minimum slope as specified in 120-8.2.4 except when a structure is supported on existing embankment; and other areas specifically excluded herein.

**120-10.3 Additional Requirements:**

**120-10.3.1 Frequency:** Conduct QC sampling and testing at a minimum frequency listed in Table 120-3 below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in Table 120-3 below.

Table 120-3			
Test Name	Quality Control	Verification	Verification of Shoulder-Only Areas, Shared Use Paths, and Sidewalks
Standard Proctor Maximum Density	One per soil type	One per soil type	One per soil type
Density	One per LOT	One per four LOTs and for wet conditions, the first lift not affected by water	One per two LOTs
Soil Classification and Organic Content	One per Standard Proctor Maximum Density	One per Standard Proctor Maximum Density	One per Standard Proctor Maximum Density

**120-10.3.2 Test Selection and Reporting:** Determine test locations including stations and offsets, using the random number generator approved by the Engineer. Record data directly in the ERS section of the Department's database. Do not use notepads or worksheets to record data for later transfer to the ERS. Notify the Engineer upon successful completion of QC testing on each LOT prior to placing another lift on top.

**120-10.4 Verification Comparison Criteria and Resolution Procedures:**

**120-10.4.1 Standard Proctor Maximum Density Determination:** The Engineer will verify the QC results if the results compare within 4.5 lb/ft<sup>3</sup> of the Verification test result.

Otherwise, the Engineer will take one additional sample of material from the soil type in question. The State Materials Office (SMO) or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. The material will be sampled and tested in accordance with FM 1-T099.

The Engineer will compare the Resolution test results with the QC test results. If all Resolution test results are within 4.5 lb/ft<sup>3</sup> of the corresponding QC test results, the Engineer will use the QC test results for material acceptance purposes for each LOT with that soil type. If the Resolution test result is not within 4.5 lb/ft<sup>3</sup> of the Contractor's QC test, the Verification test result will be used for material acceptance purposes.

**120-10.4.2 Density Testing:** When a Verification or IV density test fails the acceptance criteria, perform an equipment comparison analysis using the same test hole and same test depth in accordance with 120-10.1.1. If the equipment compares favorably, then retest the site within a 5-foot radius of the failing Verification's test. Otherwise, repair, calibrate, or replace density gauge in accordance with 120-10.1.1.

If the QC retest meets the acceptance criteria, the Engineer will accept those LOTs in question. Otherwise, rework and retest the LOT. The Engineer will perform new verification testing. Record the equipment comparison data and the QC test results in the ERS section of the Department's database.

**120-10.4.3 Soil Classification:** The Engineer will verify the QC test results if the Verification and the QC test results both match the soil utilization symbol listed in Standard Plans, Index 120-001. Otherwise, the Engineer will test the sample retained for Resolution testing. The SMO or an AASHTO accredited laboratory designated by the SMO will perform the Resolution testing. The material will be sampled and tested in accordance with AASHTO T 88, T 89, and T 90, and classified in accordance with AASHTO M 145.

The Engineer will compare the Resolution test results with the QC test results. If the Resolution test matches the QC soil utilization symbol, the Engineer will use the QC soil utilization symbol for material acceptance purposes. If the Resolution test result does not match the Contractor's QC soil utilization symbol, the Verification test results will be used for material acceptance purposes.

**120-10.4.4 Organic Content:** The Engineer will verify the QC test results if the Verification test results satisfy the organic content test criteria in Standard Plans, Index 120-001. Otherwise, the Engineer will test the sample retained for Resolution testing. The SMO or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. The material will be sampled and tested in accordance with FM 1-T 267. If the Resolution test results satisfy the required criteria, material of that soil type will be verified and accepted. If the Resolution test results do not meet the required criteria, reject the material and reconstruct with acceptable material.

**120-10.5 Disposition of Defective Materials:** Assume responsibility for removing and replacing all defective material, as defined in Section 6.

Alternately, submit an Engineering Analysis Scope in accordance with 6-4 to determine the disposition of the material.

## **120-11 Maintenance and Protection of Work.**

While construction is in progress, maintain adequate drainage for the roadbed at all times. Maintain a shoulder at least 3 feet wide adjacent to all pavement or base construction in order to provide support for the edges.

Maintain all earthwork construction throughout the life of the Contract and take all reasonable precautions to prevent loss of material from the roadway due to the action of wind or water. Repair, at no expense to the Department except as otherwise provided herein, any slides, washouts, settlement, subsidence, or other mishap which may occur prior to final acceptance of the work. Perform maintenance and protection of earthwork construction in accordance with Section 104.

Maintain all channels excavated as a part of the Contract work against natural shoaling or other encroachments to the lines and grades, shown in the Plans, until final acceptance of the project.

## **120-12 Construction.**

**120-12.1 Construction Tolerances:** Shape the surface of the earthwork to conform to the lines and grades as shown in the Plans. In final shaping of the surface of earthwork, maintain a tolerance of 0.3 foot above or below the finished graded surface with the following exceptions:

1. Shape the surface of shoulders to within 0.1 foot of the finished graded surface shown in the Plans.
2. Shape the earthwork to match adjacent pavement, curb, sidewalk, structures, etc.
3. Shape the bottom of conveyance ditches so that the ditch impounds no water.
4. When the work does not include construction of base or pavement, shape the entire roadbed (shoulder point to shoulder point) to within 0.1 foot above or below the Plan finished graded surface.
5. When the work includes permitted linear stormwater management facilities, shape the swales and ditch blocks to within 0.1 foot of the finished graded surface shown in the Plans.

Ensure that the shoulder lines do not vary horizontally more than 0.3 foot from the true lines shown in the Plans.

**120-12.2 Operations Adjacent to Pavement:** Carefully dress areas adjacent to pavement areas to avoid damage to such pavement. Complete grassing of shoulder areas prior to placing the final wearing course. Do not manipulate any embankment material on a pavement surface.

When shoulder dressing is underway adjacent to a pavement lane being used to maintain traffic, exercise extreme care to avoid interference with the safe movement of traffic.

## **120-13 Method of Measurement.**

**120-13.1 General:** When payment for excavation is on a volumetric basis, the quantity to be paid for will be the volume, in cubic yards. The material will be measured in its original position by field survey or by photogrammetric means as designated by the Engineer, unless otherwise specified under the provisions for individual items.

Where subsoil excavation extends outside the lines shown in the Plans or authorized by the Engineer including allowable tolerances, and the space is backfilled with material obtained in additional authorized roadway or borrow excavation, the net fill, plus shrinkage allowance, will be excluded from the quantity of roadway excavation or borrow excavation to be paid for, as applicable.

The quantity of all material washed, blown, or placed beyond the limits of the finished graded surface will be determined by the Engineer and will be excluded from the quantity of roadway excavation or borrow excavation to be paid for, as applicable.

Subsoil excavation that extends outside the lines shown in the Plans or authorized by the Engineer including allowable tolerances will be excluded from the quantity to be paid for as subsoil excavation.

**120-13.2 Roadway Excavation:** The measurement will include only the net volume of material excavated between the original ground line or finished graded surface of an existing roadbed, as applicable, and the finished surface of new pavement, except that the measurement will also include all unavoidable slides which may occur in connection with excavation classified as roadway excavation.

The pay quantity will be the plan quantity provided that the excavation was accomplished in substantial compliance with the plan dimensions and subject to the provisions of 9-3.2 and 9-3.4. On designated 3-R Projects, regular excavation will be paid for at the Contract lump sum price provided that the excavation was accomplished in substantial compliance with the plan dimension.

**120-13.3 Borrow Excavation:** Measurement will be made on a loose volume basis, measured in trucks or other hauling equipment at the point of dumping on the road. If measurement is made in vehicles, level the material to facilitate accurate measurement.

Unsuitable material excavated from borrow pits where truck measurement is provided for and from any borrow pits furnished by the Contractor, will not be included in the quantity of excavation to be paid for.

**120-13.4 Lateral Ditch Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans or as directed by the Engineer. The measurement will include the full length shown in the Plans or directed by the Engineer and acceptably completed. Excavation included for payment under Section 125 will not be included in this measurement.

The pay quantity will be the plan quantity provided that the excavation was accomplished in substantial compliance with the plan dimensions and subject to the provisions of 9-3.2 and 9-3.4.

**120-13.5 Channel Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans or in accordance with authorized Plan changes. The measurement will include the full length shown in the Plans including any authorized changes thereto.

If shoaling occurs subsequent to excavation of a channel and the Engineer authorized the shoaled material to remain in place, the volume of any such material remaining within the limits of channel excavation shown in the Plans will be excluded from the measured quantity of channel excavation.

**120-13.6 Subsoil Excavation:** The measurement will include only material excavated within the lines and grades indicated in the Plans (including the tolerance permitted therefore) or as directed by the Engineer.

When no item for subsoil excavation is shown in the Contract but subsoil excavation is subsequently determined to be necessary, such unanticipated subsoil excavation will be paid for as provided in Article 4-4.

**120-13.7 Embankment:** The quantity will be at the plan quantity. Where payment for embankment is not to be included in the payment for the excavation and is to be paid for on a cubic yard basis for the item of embankment, the measurement will include material placed within the limits of the existing surface, to the finished graded surface as shown in the Plans, Standard Plans Index 120-001, or directed by the Engineer. Where embankment is constructed

over an existing road, the embankment measurement will include only the material actually placed up to the finished graded surface. If there are authorized changes in plan dimensions or if errors in plan quantities are detected, plan quantity will be adjusted as provided in 9-3.2.

Any overrun or underrun of plan quantity for subsoil excavation which results in a corresponding increase or decrease in embankment will be considered as an authorized plan change for adjustment purposes as defined in 9-3.2.2.

No payment will be made for embankment material used to replace unsuitable material excavated beyond the lines and grades shown in the Plans or ordered by the Engineer.

In no case will payment be made for material allowed to run out of the embankment on a flatter slope than indicated on the Plans. The Contractor shall make his own estimate on the volume of material actually required to obtain the pay section.

## **120-14 Basis of Payment.**

**120-14.1 General:** Prices and payments for the various work items included in this Section will be full compensation for all work described herein, including excavating, dredging, pumping, hauling, placing, and compacting; dressing the surface of the earthwork; maintaining and protecting the complete earthwork.

The Department will not allow extra compensation for any reworking of materials. The Department will compensate for the cost of grassing or other permanent erosion control measures directed by the Engineer as provided in the Contract.

### **120-14.2 Excavation:**

**120-14.2.1 Items of Payment:** When no classification of material is indicated in the Plans, and bids are taken only on regular excavation, the total quantity of all excavation specified under this Section will be paid for at the Contract unit price for regular excavation.

When separate classifications of excavation are shown in the proposal, the quantities of each of the various classes of materials so shown will be paid for at the Contract unit prices per cubic yard for regular excavation, lateral ditch excavation, subsoil excavation, and channel excavation, as applicable, and any of such classifications not so shown will be included under the item of regular excavation (except that if there is a classification for lateral ditch excavation shown and there is no classification for channel excavation, any channel excavation will be included under the item of lateral ditch excavation). As an exception on designated projects, regular excavation will be paid for at the Contract lump sum price.

**120-14.2.2 Basic Work Included in Payments:** Prices and payments will be full compensation for all work described under this Section, except for any excavation, or embankment which is specified to be included for payment under other items. Such prices and payments will include hauling; any reworking that may be necessary to accomplish final disposal as shown in the Plans; the dressing of shoulders, ditches and slopes; removal of trash, vegetation, etc., from the previously graded roadway where no item for clearing and grubbing is shown in the Plans; and compacting as required.

**120-14.2.3 Additional Depth of Subsoil Excavation:** Where subsoil excavation is made to a depth of 0 to 5 feet below the depth shown in the Plans, such excavation will be paid for at the unit price bid.

Where subsoil excavation is made to a depth greater than 5 feet, and up to 15 feet, deeper than the depth shown in the Plans, such excavation will be paid for at the unit price bid plus 25% of such unit price. Additional extra depth, more than 15 feet below such plan depth, will be considered as a change in the character of the work and will be paid for as unforeseeable work.

Where no subsoil excavation is shown in a particular location on the original Plans, payment for extra depth of subsoil will begin 5 feet below the lowest elevation on the finished graded surface.

**120-14.2.4 Borrow Excavation:** When the item of borrow excavation is included in the Contract, price and payment will also include the cost of furnishing the borrow areas and any necessary clearing and grubbing thereof, the removal of unsuitable material that it is necessary to excavate in order to obtain suitable borrow material, and also the costs incurred in complying with the provisions of 120-6.3.

**120-14.2.5 Materials Excluded from Payment for the Excavation:** No payment for excavation will be made for any excavation covered for payment under the item of embankment.

No payment will be made for the excavation of any materials which is used for purposes other than those shown in the Plans or designated by the Engineer. No payment will be made for materials excavated outside the lines and grades given by the Engineer, unless specifically authorized by the Engineer. As an exception, in operations of roadway excavation, all slides and falls of insecure masses of material beyond the regular slopes that are not due to lack of precaution on the part of the Contractor, will be paid for at the Contract unit price for the material involved. The removal of slides and falls of material classified as lateral ditch excavation or as subsoil excavation will not be paid for separately, but will be included in the Contract unit price for the pay quantity of these materials, measured as provided in 120-14.

### **120-14.3 Embankment:**

**120-14.3.1 General:** Price and payment will be full compensation for all work specified in this Section, including all material for constructing the embankment, all excavating, dredging, pumping, placing and compacting of material for constructing the embankment complete, dressing of the surface of the roadway, maintenance and protection of the completed earthwork, and the removal of rubbish, vegetation, etc., from the roadway where no clearing and grubbing of the area is specified in the Plans. Also, such price and payment, in each case, will specifically include all costs of any roadway, lateral ditch, or channel excavation, unless such excavation is specifically shown to be paid for separately, regardless of whether the materials are utilized in the embankment.

**120-14.3.2 Excluded Material:** No payment will be made for the removal of muck or overburden from the dredging or borrow areas. No payment will be made for embankment material used to replace muck or other unsuitable material excavated beyond the lines and grades shown in the Plans or ordered by the Engineer.

**120-14.3.3 Clearing and Grubbing:** No payment will be made for any clearing and grubbing of the borrow or dredging areas. Where no clearing and grubbing of such areas is specified in the Plans, the cost of any necessary clearing and grubbing will be included in the Contract unit or lump sum price for Embankment.

**120-14.3.4 Cost of Permits, Rights, and Waivers:** Where the Contractor provides borrow or dredging areas of his own choosing, the cost of securing the necessary permits, rights or waivers will be included in the Contract price for embankment.

### **120-14.4 Payment Items:** Payment will be made under:

- |                  |  |
|------------------|--|
| Item No. 120- 1- | Regular Excavation - per cubic yard.       |
| Item No. 120- 2- | Borrow Excavation - per cubic yard.        |
| Item No. 120- 3- | Lateral Ditch Excavation - per cubic yard. |

Item No. 120- 4-	Subsoil Excavation - per cubic yard.
Item No. 120- 5-	Channel Excavation - per cubic yard.
Item No. 120- 6-	Embankment - per cubic yard.
Item No. 120- 71-	Regular Excavation (3-R Projects) - lump sum.

## SECTION 160 STABILIZING

### 160-1 Description.

Stabilize designated portions of the roadbed to provide a firm and unyielding subgrade, having the required bearing value specified in the Plans.

### 160-2 Materials.

**160-2.1 Commercial Material:** Meet the requirements of Section 914-2.1.

**160-2.2 Local Material:** Submit test results to the Engineer at least 14 days prior to the stabilization operation.

**160-2.2.1 Local Stabilizing Material:** Sample and test material from each source and meet the requirements of Section 914. The Engineer will verify the Quality Control (QC) test results meet the requirements of Section 914. If the QC and Verification results do not compare, the Engineer will take one additional sample of material from the source in question and the State Materials Office (SMO) or an AASHTO accredited laboratory designated by the SMO will perform Resolution testing. If the Resolution test results satisfy the required criteria, material from that source will be verified and accepted. If the Resolution test results do not meet the required criteria, reject the material.

**160-2.2.2 Reclaimed Asphalt Pavement (RAP):** Obtain the Engineer's approval in writing for the option to use 100% RAP material. Material must be milled and stockpiled without blending or contaminating with any other material.

**160-2.2.3 Reclaimed Asphalt Pavement (RAP) Blended Material:** RAP blended material is defined as material meeting the requirements of 914-1 and 914-2.2 except for the limits for organic content. If the RAP blended material meets the requirements of 914-1 and 914-2, then the blended material will be classified as local stabilizing material. Provide test results to the Engineer and obtain their approval in writing before using RAP blended material. The Engineer will verify that the QC test results meet the acceptance criteria, otherwise the Engineer will perform Resolution testing procedures specified in 160-2.2.1.

**160-2.3 Existing Base:** Obtain the Engineer's approval in writing before using existing base. When the material from an existing base is used as all, or a portion, of the stabilizing additives, no further testing is required unless directed by the Engineer.

**160-2.4 Granular Subbase:** The Engineer may allow, at no additional cost to the Department, the substitution of 6 inches of granular subbase meeting the requirements of 290-2 and 290-3, only when 12 inches of Type B stabilization requiring a Limerock Bearing Ratio (LBR) value of 40 is specified in accordance with Standard Plans, Index 120-001.

### 160-3 Construction Methods.

**160-3.1 General:** Prior to the beginning of stabilizing operations, construct the area to be stabilized to an elevation such that, upon completion of stabilizing operations, the completed stabilized subgrade will conform to the lines and grades shown in the Plans. Prior to spreading any additive stabilizing material, bring the surface of the roadbed to a plane approximately parallel to the plane of the finished graded surface shown in the Plans.

Construct mainline pavement lanes, turn lanes, ramps, parking lots, concrete box culverts, retaining wall systems, shoulder-only areas, sidewalk, and shared use path areas meeting the requirements of 120-8.1, except replace "embankment" with "subgrade".

Isolated mixing operations will be considered as separate LOTs. Curb pads and shoulders compacted separately shall be considered separate LOTs. Isolated compaction operations will be considered as separate LOTs. For multiple phase construction, a LOT shall not extend beyond the limits of the phase.

**160-3.2 Application and Acceptance of Stabilizing Material:** After completing the roadbed grading operations, determine the type and quantity (if any) of stabilizing material necessary for compliance with the bearing value requirements. Before using any Fossil Fuel Combustion Products (FFCPs), submit documentation, at the preconstruction meeting or no later than 30 days prior to delivery of FFCP's to the project, signed and sealed by the Specialty Engineer that these materials meet the requirements of 403.7047 F.S. Notify the Engineer of the approximate quantity to be added before spreading. When additive stabilizing materials are required, spread the material uniformly over the area to be stabilized.

The Engineer may perform Independent Verification (IV) sampling and testing if variability in the stabilizing material is observed during inspection after spreading on the roadway. If the IV test results do not meet the requirements of Section 914, then remove and replace the failing LOTs with acceptable material. The Engineer reserves the right to reject stabilizing material that contains excessive deleterious substances.

**160-3.3 Mixing:** Perform mixing using rotary tillers, a plant or other equipment meeting the approval of the Engineer. The subgrade may be mixed in one course if the equipment and method of construction provides the uniformity, particle size limitation, compaction and other desired results of 160-4. Thoroughly mix the area to be stabilized throughout the entire depth and width of the stabilizing limits.

Perform the mixing operations, as specified, (either in place or in a plant) regardless of whether the existing soil, or any select soils placed within the limits of the stabilized sections, have the required bearing value without the addition of stabilizing materials.

**160-3.4 Mixed Material Requirements:** At the completion of the mixing, ensure the gradation of the material within the limits of the area being stabilized is such that 97% will pass a 3-1/2 inch sieve. Break down or remove from the stabilized area materials, including clay lumps or lumps made of clay-size particles (any particle size 2 microns or less), not meeting the gradation requirements. After mixing, remove any existing lumps of clay or clay-sized particles greater than one inch that do not meet the requirements of 160-3.2 or this Section from the stabilized area. The final product must meet the acceptance requirements of 160-4.

**160-3.4.1 Classification and Bearing Value:** Meet the soil utilization and bearing value requirements for the subgrade in accordance with 160-4.

**160-3.4.2 Compaction:** After completing the mixing operations and satisfying the requirements for bearing value, uniformity, and particle size, compact the materials at a moisture content permitting the specified compaction in 160-4.2.3. If the moisture content of the material is improper for attaining the specified density, either add water or allow the material to dry until reaching the proper moisture content for the specified compaction.

**160-3.4.3 Finish Grading:** Shape the completed stabilized subgrade to conform with the finished graded surface shown in the Plans. Check the subgrade using elevation stakes or other means approved by the Engineer.

**160-3.4.4 Condition of Completed Subgrade:** After completing the stabilizing and compacting operations, ensure that the subgrade is firm and substantially unyielding to the extent that it will support construction equipment and will have the bearing value required by the Plans.

Remove all soft and yielding material, and any other portions of the subgrade which will not compact readily, and replace it with suitable material so that the whole subgrade is brought to line and grade, with proper allowance for subsequent compaction.

**160-3.4.5 Maintenance of Completed Subgrade:** After completing the subgrade as specified above, maintain it free from ruts, depressions, and any damage resulting from the hauling or handling of materials, equipment, tools, etc. The Contractor is responsible for maintaining the required density until the subsequent base or pavement is in place including any repairs, replacement, etc., of curb and gutter, sidewalk, etc., which might become necessary in order to recompact the subgrade in the event of underwash or other damage occurring to the previously compacted subgrade. Perform any such recompaction at no expense to the Department. Construct and maintain ditches and drains along the completed subgrade section.

#### **160-4 Acceptance Program for Mixed Materials.**

##### **160-4.1 General Requirements:**

**160-4.1.1 Initial Equipment Comparison:** Meet the requirements of 120-10.1.1.

**160-4.1.2 Initial Production LOT:** Meet the requirements of 120-10.1.2.

**160-4.1.3 Density over 105%:** Meet the requirements of 120-10.1.3.

##### **160-4.1.4 Quality Control Tests:**

###### **160-4.1.4.1 Modified Proctor Maximum Density Determination:**

Collect enough material to split and create three separate samples. Determine test locations, including stations and offsets, using the Random Number generator approved by the Department. Retain the Verification and Resolution samples for the Department until the Engineer accepts the LOTs represented by the samples. Determine modified Proctor maximum density and optimum moisture content by sampling and testing the material in accordance FM 1-T 180.

**160-4.1.4.2 Density Testing Requirements:** Meet the requirements of 120-10.1.4.2.

**160-4.1.4.3 Bearing Value Requirements:** Test the stabilized subgrade sample collected in 160-4.1.4.1 to determine the LBR in accordance with FM 5-515. Within the entire limits of the width and depth of the areas to be stabilized, obtain the required minimum bearing value at the frequency in 160-4.4.1. For any area where the bearing value obtained is deficient from the value indicated in the Plans, in excess of the tolerances established herein, spread and mix additional stabilizing material in accordance with 160-3.3. Perform this reprocessing for the full width of the roadway being stabilized and longitudinally for a distance of 50 feet beyond the limits of the area in which the bearing value is deficient.

Determine the quantity of additional stabilizing material to be used in reprocessing.

###### **160-4.1.4.3.1 Under-tolerances in Bearing Value**

**Requirements:** The under-tolerances are allowed for the following specified Bearing Values:

Table 160-1	
Specified Bearing Value	Under-tolerance
LBR 40	5.0
LBR 35	4.0
LBR 30 (and under)	2.5

**160-4.1.4.3.2 Unsoaked LBR Requirements:** If unsoaked LBR is desired, submit request for approval to the Engineer. Upon approval by the Engineer to consider the use of unsoaked LBR, randomly sample and test from three locations in the initial LOT for both soaked and unsoaked LBR in accordance with FM 5-515. Ensure all of the tests achieves the LBR value shown in the table below. Continue testing unsoaked LBR at the frequency shown in 160-4.4.1. Discontinue unsoaked LBR testing if any unsatisfactory QC LBR test result is obtained or resolution determines an unsatisfactory LBR.

The following unsoaked bearing value requirement is based on tests performed on samples obtained after completing mixing operations:

Table 160-2		
Specified Bearing Value	Unsoaked Bearing Value Required	Under-tolerance
LBR 40	LBR 43	0.0

**160-4.1.4.4 Soil Classification and Organic Content Testing:** Perform soil classification tests on the sample collected in 160-4.1.4.1, in accordance with AASHTO T88, AASHTO T89, AASHTO T90, and FM 1-T 267. The Engineer may waive the soil classification and organic content testing requirements for existing base or granular subbase materials. Classify soils in accordance with AASHTO M145 to determine compliance with soil utilization requirements as specified in Standard Plans, Index 120-001. If the stabilizing material used is 100% RAP or RAP blended material, then replace FM 1-T 267 with FM 5-563 (excluding gradation analysis). The following testing requirements must be met.

Table 160-3	
Test Method	Criteria
AASHTO M145	Soil Symbol = S
FM 1-T 267	Average of 3 Organic Content $\leq 2.5\%$
	Individual Organic Content Result $\leq 4.0\%$
AASHTO T89	Liquid Limit $\leq 30$
AASHTO T90	Plastic Index $\leq 8$
FM 5-563*	Asphalt Content $\leq 4.0\%$
* Replace FM 1-T 267 with FM 5-563 (excluding gradation analysis) for 100% RAP or RAP blended material	

**160-4.1.5 Department Verification:** Meet the requirements of 120-10.1.5 except the Engineer will conduct the Verification tests in order to accept all materials and work associated with 160-4.1.4.

**160-4.1.6 Reduced Testing Frequency:** Meet the requirements of 120-10.1.6.

**160-4.1.7 Payment for Resolution Tests:** Meet the requirements of 120-10.1.7.

**160-4.2 Mixing Depth Requirements:** Report depth requirements in the Earthwork Records System (ERS) section of the Department's database measured to the nearest 0.25 inch. The difference between the individual measured depth thickness on the roadway and the plan target thickness must not exceed 2 inches. The difference between the LOT average (average of

the three individual measured depth thickness) and the plan target thickness must not exceed 1 inch. No undertolerance of mixing depth is allowed.

As an exception to the above mixing requirements, where the subgrade is of rock, the Engineer may waive the mixing operations (and the work of stabilizing), and the Department will not pay for stabilization for such sections of the roadway.

Meet the required Plan mixing-depths by measuring from the proposed final grade line. Determine test locations, including stations and offsets, using the Random Number generator approved by the Department. Notify the Engineer a minimum of 24 hours before checking mixing depths. Record results on Department approved forms.

#### **160-4.3 Density Acceptance Criteria:**

**160-4.3.1 General:** Within the entire limits of the width and depth of the areas to be stabilized, other than as provided in 160-4.3.2, obtain a minimum density at any location of 98% of the Modified Proctor maximum density as determined by FM 1-T 180.

**160-4.3.2 Exceptions to Density Requirements:** The Contractor need not obtain the minimum density specified in 160-4.3.1 in the upper 6 inches of areas to be grassed under the same Contract. Compact these areas to a reasonably firm condition as directed by the Engineer.

#### **160-4.4 Additional Requirements:**

**160-4.4.1 Frequency:** Conduct QC sampling and testing at a minimum frequency listed in the table below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in the table below.

Table 160-4			
Test Name	Quality Control	Verification	Verification for Shoulder-Only, Shared Use Path and Sidewalk Construction
Modified Proctor Maximum Density	One per two consecutive LOTs	One per eight consecutive LOTs	One per four LOTs
LBR			
Gradation, LL/PI, and Soil Classification			
Organic Content			
Asphalt Content*			
Density	One per LOT	One per four LOTs	One per two LOTs
Stabilizing Mixing Depth	Three per 500 feet	Witness QC	Witness QC

\*Replace organic content with asphalt content for 100% RAP or RAP blended material only.

#### **160-4.5 Verification Comparison Criteria and Resolution Procedures:**

**160-4.5.1 Bearing Value:** The Engineer will collect a sample at a location other than the location where the sample was collected in 160-4.1.4.1, and test the stabilized subgrade for determination of the LBR in accordance with FM 5-515. The Engineer will select test locations, including stations and offsets, using a Random Number generator, based on the LOTs under consideration.

**160-4.5.1.1 Unsoaked LBR:** The Engineer will sample and test the initial LOT for one soaked and one unsoaked LBR if consideration of the unsoaked LBR has been approved.

**160-4.5.1.2 Resolution Procedure:** If the Department's Verification test meets the requirements of 160-4.1.4.3, the Engineer will accept the corresponding LOTs. Otherwise, the Engineer will collect an additional sample in the same LOT the Verification sample was obtained. SMO or an AASHTO accredited laboratory designated by SMO will perform Resolution testing on the additional sample. The material will be sampled and tested in accordance with FM 5-515.

If the resolution testing results meet the requirements of 160-4.1.4.3, then the Engineer will accept the LOTs in question. Otherwise reprocess the corresponding LOTs in accordance with 160-3 and retest in accordance with 160-4.1.4.3.

**160-4.5.2 Modified Proctor Maximum Density Determination:** The Engineer will randomly select one of the retained split samples referenced in 160-4.1.4.1. The Engineer will compare the Verification test results to the corresponding Quality Control (QC) test results. If the test result is within 4.5 lb/ft<sup>3</sup> of the QC test result, the LOTs will be verified. Otherwise, the Engineer will collect the Resolution split sample corresponding to the Verification sample tested. The State Materials Office or an AASHTO accredited laboratory designated by the State Materials Office will perform Resolution testing. The material will be sampled and tested in accordance with FM 1-T 180.

The Engineer will compare the Resolution Test (RT) results with the QC test results. If the RT result is within 4.5 lb/ft<sup>3</sup> of the corresponding QC test result, the Engineer will use the QC test results for material acceptance purposes for each corresponding pair of LOTs. If the RT result is not within 4.5 lb/ft<sup>3</sup> of the corresponding QC test, the Engineer will collect and test the remaining Verification split samples for the LOTs in question. Verification test results will be used for material acceptance purposes for the remaining LOTs in question.

**160-4.5.3 Density Testing:** Meet the requirement of 120-10.4.2

**160-4.5.4 Soil Classification:** Meet the requirements of 120-10.4.3 with the exception that the limits will be in accordance with 160-4.1.4.4.

**160-4.5.5 Organic Content:** Meet the requirements of 120-10.4.4 with the exception that the limits will be in accordance with 160-4.1.4.4.

**160-4.5.6 Asphalt Content:** If the material used to stabilize is 100% RAP or RAP blended material, meet the requirement of 120-10.4.4, except replace FM 1-T 267 with FM 5-563 (exclude gradation analysis) and meet the limits of 160-4.1.4.4.

**160-4.5.7 Mixing Depth:** The Engineer will witness the Contractor's mixing depth checks to ensure compliance with 160-4.2. The Engineer will select test locations, including stations and offsets, using a Random Number generator. The Department will witness the mixing depth checks.

1. If the depth checks meet the requirements of 160-4.2, the Engineer will accept that 500-foot section.

2. If the depth checks confirm shallow depth, re-mix the 500-foot section to an appropriate depth and re-measure in accordance with 160-4.2. The Engineer will repeat the witness process.

3. If the depth checks confirm extra deep mixing, conduct an additional QC density test after compaction for the bottom 12 inches of the subgrade for that 500-foot

section in addition to a QC density test for the top 12 inches. The additional density test must meet the requirements of 160-4.3.

**160-4.6 Disposition of Defective Materials:** Meet the requirements of 120-10.5.

**160-5 Method of Measurement.**

The quantity to be paid for will be the plan quantity, in square yards, completed and accepted.

**160-6 Basis of Payment.**

Price and payment will constitute full compensation for all work and materials specified in this Section, including furnishing, spreading and mixing of all stabilizing material required and any reprocessing of stabilization areas necessary to attain the specified bearing value. The Department will make full payment for any areas where the existing subgrade materials meet the design bearing value requirements without the addition of stabilizing additives, as well as areas where the Contractor may elect to place select high-bearing materials from other sources within the limits of the stabilizing.

If the item of borrow excavation is included in the Contract, any stabilizing materials obtained from designated borrow areas will be included in the pay quantity for borrow excavation.

Payment will be made under:

Item No. 160- 4-      Stabilization - per square yard.

## SECTION 285 OPTIONAL BASE COURSE

### 285-1 Description.

Construct a base course composed of one of the optional materials shown on the typical sections.

### 285-2 Materials.

Meet the material requirements as specified in the Section covering the particular type of base to be constructed.

Graded Aggregate .....	Section 204
Asphalt .....	Section 234
Reclaimed Asphalt Pavement (RAP)* .....	Section 283
Limerock .....	Section 911
Shell Base.....	Section 911
Shell-Rock.....	Section 911
Cemented Coquina.....	Section 911
Recycled Concrete Aggregate (RCA)** .....	Section 911

\*Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications.

\*\*Do not use on interstate roadways.

### 285-3 Selection of Base Option.

The Plans will include typical sections indicating the various types of base construction (material and thickness) allowable.

When base options are specified in the Plans, use only those options. When base options are not specified, select one base option as allowed for each typical section shown in the Plans. Only one base option is permitted for each typical section. See Tables 285-1 and 285-2 for optional base materials, thickness and additional restrictions.

Notify the Engineer in writing of the base option selected for each typical section at least 45 calendar days prior to beginning placement of base material.

Table 285-1 Optional Base Groups 1 through 7							
Base Materials	Base Group (Base Group Pay Item)						
	1 (701)	2 (702)	3 (703)	4 (704)	5 (705)	6 (706)	7 (707)
Limerock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Cemented Coquina, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Shell Rock, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Bank Run Shell, LBR 100	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Recycled Concrete Aggregate, LBR 150 <sup>(1)</sup>	4"	5"	5-1/2"	6"	7"	8"	8-1/2"
Graded Aggregate Base, LBR 100	4-1/2"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	9"	10"
Type B-12.5	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4" <sup>(3)</sup>	4-1/2"	5"	5-1/2"
B-12.5 and 4" Granular Subbase, LBR 100 <sup>(2)</sup>	-	-	-	-	-	-	-
RAP Base <sup>(4)</sup>	5" <sup>(4)</sup>	-	-	-	-	-	-
<p>(1) Do not use on interstate roadways.</p> <p>(2) The construction of both the subbase and Type B-12.5 will be bid and used as Optional Base. Granular subbases include limerock, cemented coquina, shell rock, bank run shell, recycled concrete aggregate and graded aggregate base. All subbase thicknesses are 4" minimum prior to adding the required prime coat.</p> <p>(3) Based on minimum practical thickness.</p> <p>(4) Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications.</p> <p>(5) To be used for widening, three feet or less.</p>							

Table 285-1(continued) Optional Base Groups 8 through 15								
Base Materials	Base Group (Base Group Pay Item)							
	8 (708)	9 (709)	10 (710)	11 (711)	12 (712)	13 (713)	14 (714)	15 (715)
Limerock, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Cemented Coquina, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Shell Rock, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Bank Run Shell, LBR 100	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Recycled Concrete Aggregate, LBR 150 <sup>(1)</sup>	9-1/2"	10"	11"	12"	12-1/2"	13-1/2" <sup>(5)</sup>	14" <sup>(5)</sup>	-
Graded Aggregate Base, LBR 100	11"	12"	13"	14"	-	-	-	-
Type B-12.5	5-1/2"	6"	6-1/2"	7"	7-1/2"	8"	8-1/2"	9"
B-12.5 and 4" Granular Subbase, LBR 100 <sup>(2)</sup>	-	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"	7"

Table 285-1(continued) Optional Base Groups 8 through 15								
Base Materials	Base Group (Base Group Pay Item)							
	8 (708)	9 (709)	10 (710)	11 (711)	12 (712)	13 (713)	14 (714)	15 (715)
RAP Base <sup>(4)</sup>	-	-	-	-	-	-	-	-
(1) Do not use on interstate roadways. (2) The construction of both the subbase and Type B-12.5 will be bid and used as Optional Base. Granular subbases include limerock, cemented coquina, shell rock, bank run shell, recycled concrete aggregate and graded aggregate base. All subbase thicknesses are 4" minimum prior to adding the required prime coat. (3) Based on minimum practical thickness. (4) Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic bearing applications. (5) To be used for widening, three feet or less.								

Table 285-2: Limited Use Optional Base Groups <sup>(1)</sup>								
Base Materials	Base Group (Base Group Pay Item)							
	101 (701)	102 (702)	103 (703)	104 (704)	105 (705)	106 (706)	107 (707)	108 (708)
Limerock Stabilized, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell, LBR 70	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Shell Stabilized, LBR 70	7"	8-1/2"	9-1/2"	10-1/2"	12"	-	-	-
Sand-Clay, LBR 75	5"	6-1/2"	8"	9"	10"	11"	12-1/2"	-
Soil Cement (300 psi) (Plant Mixed)	5"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	9"	10"	11"
Soil Cement (300 psi) (Road Mixed)	5"	5-1/2"	6-1/2"	7-1/2"	8-1/2"	-	-	-
Soil Cement (500 psi) (Plant Mixed)	4" <sup>(2)</sup>	4"	5"	5-1/2"	6"	7"	7-1/2"	8-1/2"
(1) Use only when specified in the Plans. (2) Based on minimum practical thicknesses.								

## 285-4 Construction Requirements.

Construct the base in accordance with the Section covering the particular type of base to be constructed.

Graded Aggregate .....	Section 204
Asphalt .....	Section 234
Reclaimed Asphalt Pavement (RAP)* .....	Section 283
Limerock .....	Section 200
Shell Base.....	Section 200
Shell Rock.....	Section 200
Cemented Coquina.....	Section 200
Recycled Concrete Aggregate (RCA)** .....	Section 200

\*Only for use on non-limited access paved shoulders, shared use paths, or other non-traffic

\*\*Do not use on interstate roadways.

## 285-5 Variation in Earthwork Quantities.

The Plans will identify the optional materials used by the Department for determining the earthwork quantities (Roadway Excavation, Borrow Excavation, Subsoil Excavation, Subsoil Earthwork, or Embankment). The Department will not revise the quantities, for those items having final pay based on plan quantity, to reflect any volumetric change caused by the Contractor's selection of a different optional material.

## 285-6 Thickness Requirements.

**285-6.1 Measurements:** For non-asphalt bases, meet the requirements of 200-7.3.1.2.

For subbases, meet the thickness requirements of 290-4.

The Engineer will determine the thickness of asphalt base courses in accordance with 234-8.1.

**285-6.2 Correction of Deficient Areas:** For non-asphalt bases, correct all areas of the completed base having a deficiency in thickness in excess of 1/2 inch by scarifying and adding additional base material. As an exception, if authorized by the Engineer, such areas may be left in place without correction and with no payment.

For asphalt bases, correct all areas of deficient thickness in accordance with 234-8.

## 285-7 Calculation of Average Thickness of Base.

For bases that are not mixed in place, the Engineer will determine the average thickness from the measurements specified in 285-6.1, calculated as follows:

1. When the measured thickness is more than 1/2 inch greater than the design thickness shown on the typical section in the Plans, it will be considered as the design thickness plus 1/2 inch.
2. Average thickness will be calculated per typical section for the entire job as a unit.
3. Any areas of base left in place with no payment will not be included in the calculations.
4. Where it is not possible through borings to distinguish the base materials from the underlying materials, the thickness of the base used in the measurement will be the design thickness.
5. For Superpave asphalt base course, the average spread rate of each course shall be constructed in compliance with 234-8.

## 285-8 Method of Measurement.

The quantity to be paid for will be the plan quantity area in square yards, omitting any areas where under-thickness is in excess of the allowable tolerance as specified in 285-6. The pay area will be the surface area, determined as provided above, adjusted in accordance with the following formula:

$$\text{Pay Area} = \text{Surface Area} \left( \frac{\text{Calculated Average Thickness per 285-7}}{\text{Plan Thickness}} \right)$$

The pay area shall not exceed 105% of the surface area.

There will be no adjustment of the pay area on the basis of thickness for base courses constructed utilizing mixed-in-place operations.

For Superpave asphalt base course, the quantity to be paid for will be the plan quantity area in square yards. The pay area will be adjusted in accordance with 234-9.

#### **285-9 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, including tack coat between base layers, prime coat, cover material for prime coat, bituminous material used in bituminous plant mix, and cement used in soil-cement.

For superpave asphalt base course, a pay adjustment based upon the quality of the material will be applied in accordance with 334-8.

Where the Plans include a typical section which requires the construction of an asphalt base only, price adjustments for bituminous material provided for in 9-2.1.2 will apply to that typical section. For typical sections which permit the use of asphalt or other materials for construction of an optional base, price adjustments for bituminous material provided for in 9-2.1.2 will not apply.

Payment will be made under:

Item No. 285- 7- Optional Base - per square yard.

## SECTION 327

### MILLING OF EXISTING ASPHALT PAVEMENT

#### 327-1 Description.

Remove existing asphalt concrete pavement by milling to improve the rideability and cross slope of the finished pavement, to lower the finished grade adjacent to existing curb before resurfacing, or to completely remove existing pavement.

When milling to improve rideability, the Plans will specify an average depth of cut.

Take ownership of milled material.

#### 327-2 Equipment.

Provide a milling machine capable of maintaining a depth of cut and cross slope to achieve the results specified in the Contract Documents. Use a machine with a minimum overall length (out-to-out measurement excluding the conveyor) of 18 feet and a minimum cutting width of 6 feet.

Equip the milling machine with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.

To start the project, the Engineer will approve any commercially manufactured milling machine that meets the above requirements. If it becomes evident after starting milling that the milling machine cannot consistently produce the specified results, the Engineer will reject the milling machine for further use.

The Contractor may use a smaller milling machine when milling to lower the grade adjacent to existing curb or other areas where it is impractical to use the above described equipment.

Equip the milling machine with means to effectively limit the amount of dust escaping during the removal operation.

For complete pavement removal, the Engineer may approve the use of alternate removal and crushing equipment instead of the equipment specified above.

#### 327-3 Construction.

**327-3.1 General:** Remove the existing raised pavement markers (RPMs) before milling. Include the cost of removing existing RPMs in the price for milling.

When milling to improve rideability or cross slope, remove the existing pavement to the average depth specified in the Plans, in a manner that will restore the pavement surface to a uniform cross slope and longitudinal profile. The Engineer may require the use of a stringline to ensure maintaining the proper alignment.

Establish the longitudinal profile of the milled surface in accordance with the milling plans. Ensure the final cross slope of the milled surface parallels the surface cross slope shown in the Plans or as directed by the Engineer. Establish the cross slope of the milled surface by a second sensing device near the outside edge of the cut or by an automatic cross slope control mechanism. The Plans may waive the requirement of automatic grade or cross slope controls where the situation warrants such action.

Operate the milling machine to minimize the amount of dust being emitted. The Engineer may require prewetting of the pavement.

Provide positive drainage of the milled surface and the adjacent pavement. Perform this operation on the same day as milling. Pave all milled surfaces no later than the day after the surface was milled.

If traffic is to be maintained on the milled surface before the placement of the new asphalt concrete, provide suitable transitions between areas of varying thickness to create a smooth longitudinal riding surface. Control milling operations to produce a pattern of striations and a texture that provide an acceptable riding surface.

Before opening an area which has been milled to traffic, sweep the pavement and gutters with a power broom or other approved equipment to remove, to the greatest extent practicable, fine material which will create dust under traffic. Sweep in a manner to minimize the potential for creation of a traffic hazard and to minimize air pollution. Do not sweep or allow milled asphalt into inlets.

Sweep the milled surface with a power broom before placing asphalt concrete.

In urban and other sensitive areas, use a street sweeper or other equipment capable of removing excess milled materials and controlling dust. Obtain the Engineer's approval of such equipment, contingent upon its demonstrated ability to do the work.

Perform the sweeping operation immediately after the milling operations or as directed by the Engineer.

**327-3.1.1 Extended Time for Milled Surface Traffic:** Upon approval of the Engineer, the time period for maintaining traffic on a milled surface may be extended up to 3 calendar days before paving is required, provided the Contractor can demonstrate the ability to produce a milled surface texture with continuous, longitudinal milling striations with no gaps in the longitudinal striations, and drop off conditions are not exceeded. Gaps in the milling striations and cases where gaps create a diagonal pattern or chevron appearance are to be milled again such that continuous, longitudinal striations are achieved prior to allowing traffic on the milled surface. Photos of acceptable and unacceptable surface texture are located at:

<https://www.fdot.gov/programmanagement/implemented/urlinspecs/milling-patterns>

Maintain adequate drainage on the milled surface and at transitions between milled and non-milled surfaces on the same day as milling. At no cost to the Department, re-mill or pave any area the Engineer determines to have an unacceptable ride, does not provide adequate pavement structure, or does not provide adequate drainage.

If the Engineer determines the Contractor is unable to provide a milled surface meeting the Specification requirements above, at no cost to the Department, the Contractor will be required to pave all milled surfaces no later than the day after the surface was milled.

**327-3.2 Quality Control Requirements:** Furnish a four foot long electronic level accurate to 0.1 degree, approved by the Engineer for the control of cross slope. Make this electronic level available at the jobsite at all times during milling operations. Calibrate and compare electronic levels in accordance with 330-9.3.1 at a minimum frequency of once per day before any milling operation.

Multiple cuts may be made to achieve the required pavement configuration or depth of cut.

**327-3.2.1 Cross Slope Measurement:** Measure the cross slope of the milled surface by placing the level at the center of the lane and perpendicular to the roadway centerline. Record all the measurements to the nearest 0.1% on an approved form and submit the data to the Engineer.

### 327-3.2.1.1 Cross Slope Measurement Frequency:

1. Tangent Sections: Measure the cross slope at a minimum frequency of one measurement every 100 feet per lane. When the average absolute deviation is consistently within the acceptance tolerance in Table 327-1, upon approval by the Engineer, the frequency of the cross slope measurements can be reduced to one measurement every 200 feet.

2. Superelevated Sections: Measure the cross slope every 100 feet per lane within the length of full superelevation. For curves where the length of full superelevation is less than 250 feet, measure the cross slope at the beginning point, midpoint, and ending point of the fully superelevated section. For transition sections, measure the cross slope at control points identified in the Plans or, if not shown in the Plans, at a control point at a location of 0.0% cross slope.

**327-3.2.1.2 Cross Slope Deviations and Corrections:** Calculate the absolute deviation of each cross slope measurement and the average of the absolute deviations of ten consecutive cross slope measurements. The absolute deviation is the positive value of a deviation. In superelevated sections, when the number of measurements is less than ten, average the absolute deviation of all measurements.

If the average absolute deviation of any cross slope measurement falls outside the acceptance tolerance shown in Table 327-1, stop the milling operations and make adjustments until the problem is resolved to the satisfaction of the Engineer. If an individual cross slope deviation falls outside the acceptance tolerance as shown in Table 327-1, make corrections only in the deficient area to the satisfaction of the Engineer at no cost to the Department. For pavement with multiple cuts, the deficient areas not caused by the final cut may be left in place upon approval of the Engineer. All milling corrections shall be completed before placement of the asphalt course unless stated otherwise in the Plans or as determined by the Engineer.

The limits of deficient areas requiring correction may be verified and adjusted with more accurate measurement methods, including survey instruments, upon approval of the Engineer and at no cost to the Department.

Should the Contractor wish to have any required corrections waived, submit a request to the Engineer for approval. The Engineer may waive the corrections at no reduction in payment if the deficiencies are sufficiently separated so as not to significantly affect the final cross slope or project grade.

For intersections, tapers, crossovers, transitions at the beginning and end of the project, bridge approaches and similar areas, adjust the cross slope to match the actual site conditions, or as directed.

Table 327-1 Cross Slope Milling Acceptance Tolerance		
Roadway Feature	Individual Absolute Deviation	Average Absolute Deviation
Tangent section (including turn lanes)	0.4%	0.2%
Superelevated curve	0.4%	0.2%
Shoulder	0.5%	0.5%

In the event the distance between two edges of deficient areas is less than 100 feet, the correction work shall include the area between the deficient areas.

**327-3.3 Verification:** The Engineer will verify the Contractor's cross slope measurements by randomly taking a minimum of ten cross slope measurements per lane per mile in tangent sections, at control points in transition sections, and a minimum of three cross slope measurements in fully superelevated sections. The Engineer will measure the cross slope of the milled surface by placing the level at the center of the lane and perpendicular to the roadway centerline.

**327-3.3.1 Cross Slope Deviations and Corrections:** If the average absolute deviation or an individual cross slope deviation falls outside the acceptance tolerance in Table 327-1, immediately make a comparison check at the QC test locations to verify the QC measurements in the section. If the comparisons are beyond the acceptable comparison tolerance in accordance with 327-3.2, stop the milling operation until the issue is resolved to the satisfaction of the Engineer. Correct any cross slope not meeting the individual deviation acceptance tolerance at no cost to the Department. The Engineer reserves the right to check the cross slope of the milled surface at any time by taking cross slope measurements at any location.

#### **327-4 Milled Surface.**

Provide a milled surface with a reasonably uniform texture, within 1/4 inch of a true profile grade, and with no deviation in excess of 1/4 inch from a straightedge applied to the pavement perpendicular to the centerline. Ensure the variation of the longitudinal joint between multiple cut areas does not exceed 1/4 inch. The Engineer may accept areas varying from a true surface in excess of the above stated tolerance without correction if the Engineer determines they were caused by a pre-existing condition which could not have reasonably been corrected by the milling operations. Correct any unsuitable texture or profile, as determined by the Engineer, at no cost to the Department.

The Engineer may require remilling of any area where a surface lamination causes a non-uniform texture to occur.

#### **327-5 Method of Measurement.**

The quantity to be paid for will be the plan quantity area, in square yards, over which milling is completed and accepted.

#### **327-6 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, including hauling off and stockpiling or otherwise disposing of the milled material.

Payment will be made under:

Item No. 327- 70-      Milling Existing Asphalt Pavement - per square yard.

## SECTION 334 SUPERPAVE ASPHALT CONCRETE

### 334-1 Description.

**334-1.1 General:** Construct a Superpave Asphalt Concrete pavement with the type of mixture specified in the Contract Documents, or when offered as alternates, as selected. Superpave mixes are identified as Type SP-9.5, Type SP-12.5 or Type SP-19.0.

Obtain Superpave Asphalt Concrete from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105. Producers must meet the requirements of Section 320 for plant and equipment and the general construction requirements of Section 330.

**334-1.2 Traffic Levels:** The requirements for Type SP Asphalt Concrete mixtures are based on the design traffic level of the project. The traffic levels for the project are as specified in the Contract Documents.

**334-1.3 Gradation Classification:** The Superpave mixes are classified as fine and are defined in 334-3.2.2.

The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5.....	9.5 mm
Type SP-12.5.....	12.5 mm
Type SP-19.0.....	19.0 mm

**334-1.4 Thickness:** The total thickness of the Type SP asphalt layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate based on the maximum specific gravity of the asphalt mix being used, as well as the minimum density level, as shown in the following equation:

$$\text{Spread rate (lb/yd}^2\text{)} = t \times G_{mm} \times 43.3$$

Where: t = Thickness (in.) (plan thickness or individual layer thickness)

$G_{mm}$  = Maximum specific gravity from the verified mix design

The weight of the mixture shall be determined as provided in 320-3.2. For target purposes only, spread rate calculations should be rounded to the nearest whole number.

Note: Plan quantities are based on a  $G_{mm}$  of 2.540, corresponding to a spread rate of 110 lb/yd<sup>2</sup>-in. Pay quantities will be based on the actual maximum specific gravity of the mix being used.

**334-1.4.1 Layer Thicknesses:** The allowable layer thicknesses for Type SP Asphalt Concrete mixtures are as follows:

Type SP-9.5.....	1 to 1-1/2 inches
Type SP-12.5.....	1-1/2 to 3 inches
Type SP-19.0.....	2 to 4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on mixes when used as a structural course:

Type SP-9.5 - Limited to the top two structural layers, two layers maximum.

Type SP-9.5 - Do not place less than 1-1/2 inches thick for Traffic Level E applications.

Type SP-19.0 - Do not use for the final (top) structural layer below FC-5 mixtures. Type SP-19.0 mixtures are permissible for the layer directly below FC-9.5 and FC-12.5 mixtures. Do not use for the final (top) layer of shoulders.

**334-1.4.2 Additional Requirements:** The following requirements also apply to Type SP Asphalt Concrete mixtures:

1. A minimum 1-1/2 inch initial lift is required over an Asphalt Membrane Interlayer (AMI).

2. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder must be the same and paved in a single pass, unless called for differently in the Contract Documents.

3. All overbuild layers must be Type SP Asphalt Concrete designed at the traffic level as stated in the Contract Documents. Use the minimum and maximum layer thicknesses as specified above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum and maximum allowable thicknesses will be as specified below, unless called for differently in the Contract Documents.

Type SP-9.5..... 3/8 to 2 inches

Type SP-12.5..... 1/2 to 3 inches

Type SP-19.0..... 1-1/2 to 4 inches

4. Variable thickness overbuild layers constructed using a Type SP-9.5 or SP-12.5 mixtures may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of dense-graded mix placed over the variable thickness overbuild layer.

## 334-2 Materials.

**334-2.1 General Requirements:** Meet the following requirements:

Superpave PG Asphalt Binder\* .....Section 916

Coarse Aggregate.....Section 901

Fine Aggregate.....Section 902

\*Use products on the Department's Approved Product List (APL).

**334-2.2 Superpave Asphalt Binder:** Unless specified otherwise in the Contract Documents, use an asphalt binder grade as determined from Table 334-2.

High polymer binder mixtures may be used in lieu of mixtures with other specified binders at no additional cost to the Department, provided they meet the traffic level and mixture type requirements of the project.

High polymer binder may be substituted in a mixture at no additional cost to the Department when the mix design contains a maximum of 20% RAP.

**334-2.3 Reclaimed Asphalt Pavement (RAP) Material:**

**334-2.3.1 General requirements:** RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. When using a PG 76-22 asphalt binder in friction course mixtures, limit the amount of RAP material used in the mix to a maximum of 20% by weight of total aggregate. As an exception, amounts greater than 20% RAP by weight of total aggregate can be used if no

more than 20% by weight of the total asphalt binder comes from the RAP material. When using a PG 76-22 asphalt binder in structural course mixtures, refer to 334-2.3.6. RAP is not allowed in mixtures containing High Polymer asphalt binder. High Polymer asphalt is defined in Section 916.

2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.

3. Use RAP from a Department approved stockpile or millings from a Department project.

4. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.

5. Provide RAP material having a minimum average asphalt binder content of 4.0% by weight of RAP. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpiles to verify that this requirement is met.

**334-2.3.2 Material Characterization for Mix Design:** Assume responsibility for establishing the asphalt binder content, gradation, and bulk specific gravity ( $G_{sb}$ ) of the RAP material based on a representative sampling of the material by roadway cores or stockpile samples. For roadway core samples, assume responsibility for the degradation that will occur during the milling operation.

**334-2.3.3 RAP Stockpile Approval:** Prior to the incorporation of RAP into the asphalt mixture, stockpile the RAP material and obtain approval for the stockpile by one of the following methods:

1. Continuous stockpile: When RAP is obtained from one or multiple sources and is either processed, blended, or fractionated, and stockpiled in a continuous manner, assure an adequate number of test results are obtained for stockpile approval. Test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for  $G_{mm}$  (for  $G_{sb}$  determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. In addition, address the details and specifics of the processing, sampling, testing and actions to be taken in the Producer Quality Control (QC) Plan.

When RAP is added to the continuous stockpile after original approval of the stockpile as described above, test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for  $G_{mm}$  (for  $G_{sb}$  determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Monitor test results during crushing operations for conformance to the requirements of Table 334-1. After the minimum frequency of tests have been performed, the Engineer will review the test data and visually inspect the stockpiled material. The average gradation and  $G_{mm}$  of the added material shall be within the allowable ranges shown in Table 334-1 from the originally approved stockpile values. If the added RAP material does not meet the conditions of Table 334-1, then the Contractor must create a new stockpile when resuming crushing operations and the stockpile will receive a new number designation from the Department. The previously crushed material, which was added to

the continuous stockpile and did not meet the conditions of Table 334-1, may remain and that stockpile used until depleted.

Table 334-1 Allowable Ranges for Continuous RAP Stockpile Properties	
Characteristic	Limit from Original Approved Stockpile Gradation
No. 8 sieve and coarser	± 6.0%
No. 16 sieve	± 5.0%
No. 30 sieve	± 5.0%
No. 50 sieve	± 4.0%
No. 100 sieve	± 4.0%
No. 200 sieve	± 2.0%
$G_{mm}$	± 0.040

2. Non-continuous single stockpile: When an individual stockpile is being constructed, obtain representative samples at random locations and test the RAP material for gradation and asphalt content at a minimum frequency of one sample per 1,000 tons with a minimum of six test results. Test the RAP material for  $G_{mm}$  (for  $G_{sb}$  determination) at a minimum frequency of one sample per 5,000 tons with a minimum of two test results. Based on visual inspection and a review of the test data, the Engineer will determine the suitability of the stockpiled material. If the properties of the new stockpile compare with the properties of an existing stockpile within the ranges provided in Table 334-1, the RAP in the new stockpile may be added to the existing stockpile. Once the RAP stockpile has been approved, do not add additional material without prior approval of the Engineer.

Determine the asphalt binder content and gradation of the RAP material in accordance with FM 5-563 and FM 1-T 030, respectively. Establish the  $G_{sb}$  of the RAP material by using one of the following methods:

a. Calculate the  $G_{sb}$  value based upon the effective specific gravity ( $G_{se}$ ) of the RAP material, determined on the basis of the asphalt binder content and maximum specific gravity ( $G_{mm}$ ) of the RAP material. The Engineer will approve the estimated asphalt binder absorption value used in the calculation.

b. Measure the  $G_{sb}$  of the RAP aggregate, in accordance with FM 1-T 084 and FM 1-T 085. Obtain the aggregate by using a solvent extraction method.

**334-2.3.4 Pavement Coring Report:** When the Contract includes milling of the existing asphalt pavement, the Pavement Coring Report may be available on the Department's website.

**334-2.3.5 Asphalt Binder for Mixes with RAP:** Select the appropriate asphalt binder grade based on Table 334-2. The Engineer reserves the right to change the asphalt binder grade at design based on the characteristics of the RAP asphalt binder, and reserves the right to make changes during production.

Table 334-2 Asphalt Binder Grade for Mixes Containing RAP	
Percent RAP	Asphalt Binder Grade
0 - 15	PG 67-22
16 - 30	PG 58-22
>30	PG 52-28

**334-2.3.6 Allowable RAP Percentages for Type SP Structural Mixtures with PG 76-22 Asphalt Binder:** For Type SP structural mixtures using PG 76-22 asphalt binder, select the percentage of RAP material based on Table 334-3.

Table 334-3				
Allowable RAP Percentages <sup>1</sup> in Type SP Structural Mixtures with PG 76-22 Asphalt Binder				
		Coarse RAP	Intermediate RAP	Fine RAP
Gradation % Passing #16 Sieve <sup>2</sup>		≤ 40%	> 40% to ≤ 50%	> 50%
PG <sub>HT</sub> <sup>3</sup> > 100.0° C	Allowable RAP Percentage	≤ 25%	≤ 20%	≤ 20%
PG <sub>HT</sub> <sup>3</sup> ≤ 100.0° C		≤ 30%	≤ 25%	
Notes:				
1. RAP aggregate by weight of total aggregate or RAP binder by weight of total binder.				
2. RAP gradations based on ignition oven extraction of RAP material in accordance with FM 5-563.				
3. PG <sub>HT</sub> : asphalt binder high temperature continuous performance grade of RAP in accordance with Section 916.				

**334-2.4 Recycled Crushed Glass:** Recycled crushed glass may be used as a component of the asphalt mixture subject to the following requirements:

1. Consider the recycled crushed glass a local material and meet all requirements specified in 902-6.
2. Limit the amount of recycled crushed glass to a maximum of 15% by weight of total aggregate.
3. Use an asphalt binder that contains an anti-stripping agent listed on the Approved Product List (APL). The anti-strip additive shall be introduced into the asphalt binder by the supplier during loading.
4. Do not use recycled crushed glass in friction course mixtures or in structural course mixtures which are to be used as the final wearing surface.

### 334-3 General Composition of Mixture.

**334-3.1 General:** Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

#### 334-3.2 Mix Design:

**334-3.2.1 General:** Design the asphalt mixture in accordance with AASHTO R 35, except as noted herein. Prior to the production of any asphalt mixture, submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. For all mix designs, include representative samples of all component materials, including asphalt binder. Allow the Director of the Office of Materials a maximum of four weeks to either conditionally verify or reject the mix as designed.

At no additional cost to the Department, for a Type SP mix the following Traffic Level substitutions are allowed:

- Traffic Level E can be substituted for Traffic Level C.
- Traffic Level C can be substituted for Traffic Level B.

The same traffic level and binder type that is used for the mainline traffic lanes may be placed in the shoulder at no additional cost to the Department, even if the conditions stated above are not met for the shoulder.

Warm mix technologies (additives, foaming techniques, etc.) listed on the Department's website may be used in the production of the mix. The URL for obtaining this information, if available, is: <https://www.fdot.gov/materials/laboratory/asphalt/index.shtm>.

When warm mix technologies are used, for mixtures containing a PG 52-28, PG 58-22, or PG 67-22 binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 285°F or less. For mixtures containing a PG 76-22 or High Polymer binder, a mixture will be considered a warm mix asphalt design if the mixing temperature is 305°F or less.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and the Engineer will no longer allow the use of the mix design.

**334-3.2.2 Mixture Gradation Requirements:** Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323. Aggregates from various sources may be combined.

**334-3.2.2.1 Mixture Gradation Classification:** Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M 323, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M 323. Fine mixes are defined as having a gradation that passes above the primary control sieve control point and above the maximum density line for all sieve sizes smaller than the primary control sieve and larger than the No. 30 sieve.

**334-3.2.3 Aggregate Consensus Properties:** For Traffic Level C and E mixtures, meet the following consensus properties at design for the aggregate blend. Aggregate consensus properties do not apply to Traffic Level B mixtures.

**334-3.2.3.1 Coarse Aggregate Angularity:** When tested in accordance with ASTM D5821, meet the percentage of fractured faces requirements specified in AASHTO M 323.

**334-3.2.3.2 Fine Aggregate Angularity:** When tested in accordance with AASHTO T 304, Method A, meet the uncompacted void content of fine aggregate specified in AASHTO M 323. For Traffic Level C and E base and structural course mixtures, a fine aggregate angularity value less than 45.0 and greater than or equal to 42.0 is allowable provided testing parameters of AASHTO T 340-10 (2019) meet the following requirements:

1. Rutting tests are performed on two gyratory specimens compacted to  $N_{des}$  level of gyrations with a height of  $115 \pm 5$  mm and a diameter of 150 mm.
2. The air void ( $V_a$ ) content of each gyratory specimen after compacting to  $N_{des}$  shall be within the following range:  $3.0 \leq V_a \leq 4.8$ .
3. Rutting tests are performed at 64.0 C.
4. The average rut depth for two specimens shall not exceed 4.5 mm.

**334-3.2.3.3 Flat and Elongated Particles:** When tested in accordance with ASTM D4791, (with the exception that the material passing the 3/8-inch sieve and retained on the No. 4 sieve shall be included), meet the requirements specified in AASHTO M 323.

Measure the aggregate using the ratio of 5:1, comparing the length (longest dimension) to the thickness (shortest dimension) of the aggregate particles.

**334-3.2.3.4 Sand Equivalent:** When tested in accordance with AASHTO T 176, meet the sand equivalent requirements specified in AASHTO M 323.

**334-3.2.4 Gyratory Compaction:** Compact the design mixture in accordance with AASHTO T 312, with the following exception: use the number of gyrations at  $N_{\text{design}}$  as defined in Table 334-4. Measure the inside diameter of gyratory molds in accordance with AASHTO T 312.

Table 334-4 Gyratory Compaction Requirements	
Traffic Level	$N_{\text{design}}$ Number of Gyrations
B	65
C	75
E	100

**334-3.2.5 Design Criteria:** Meet the requirements for nominal maximum aggregate size as defined in AASHTO M 323, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M 323.  $N_{\text{initial}}$  and  $N_{\text{maximum}}$  requirements are not applicable.

**334-3.2.6 Moisture Susceptibility:**

1. For all traffic levels, use a liquid anti-strip agent listed on the APL at the specified dosage rate. Hydrated lime may be used instead of the liquid anti-strip agent.
2. Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 psi in accordance with FM 1-T 283.

**334-3.2.7 Additional Information:** In addition to the requirements listed above, provide the following information with each proposed mix design submitted for verification:

1. The design traffic level and the design number of gyrations ( $N_{\text{design}}$ ).
2. The source and description of the materials to be used.
3. The Department source number and the Department product code of the aggregate components furnished from a Department approved source.
4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.
5. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.
6. The bulk specific gravity ( $G_{\text{sb}}$ ) value for each individual aggregate and RAP component, as identified in the Department's aggregate control program.
7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.
8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature) in accordance with 320-6.3. Do not exceed a target temperature of 340°F for High Polymer asphalt binders, 330°F for PG 76-22 asphalt binders, and 315°F for unmodified asphalt binders.

9. Provide the physical properties at the optimum asphalt content, which must conform to all specified requirements.
10. The name of the Construction Training Qualification Program (CTQP) Qualified Mix Designer.
11. The ignition oven and maximum specific gravity ( $G_{mm}$ ) calibration factors.
12. The warm mix technology, if used.

**334-3.3 Mix Design Revisions:** During production, the Contractor may request a target value revision to a mix design, subject to meeting the following requirements: the target change falls within the limits defined in Table 334-5, appropriate data exists demonstrating that the mix complies with production air voids specification criteria, and the mixture gradation meets the basic gradation requirements defined in 334-3.2.2.

Table 334-5 Limits for Potential Adjustments to Mix Design Target Values	
Characteristic	Limit from Original Mix Design
Asphalt Binder Content <sup>(1)</sup>	±0.3%
Gradation and Aggregate Component <sup>(2)</sup>	
No. 8 sieve and Coarser	± 5.0%
No. 16 sieve	± 4.0%
No. 30 sieve	± 4.0%
No. 50 sieve	± 3.0%
No. 100 sieve	± 3.0%
No. 200 sieve	± 1.0%
Each Component of Aggregate Blend	± 5.0 %
<sup>(1)</sup> Reductions to the asphalt binder content will not be permitted if the VMA during production is lower than 1.0% below the design criteria. <sup>(2)</sup> The Engineer may waive the limits for the individual sieves and component of the aggregate blend contingent upon the quality of the production data for the mixture. Revisions to FC-5 mixtures to be determined by the Engineer.	

Submit all requests for revisions to mix designs, along with supporting documentation, to the Engineer. In order to expedite the revision process, the request for revision or discussions on the possibility of a revision may be made verbally, but must be followed up by a written request. The verified mix design will remain in effect until the Engineer authorizes a change. In no case will the effective date of the revision be established earlier than the date of the first communication between the Contractor and the Engineer regarding the revision.

A new design mix will be required if aggregate sources change, or for any substitution of an aggregate product with a different aggregate code, unless approved by the Engineer.

### 334-4 Producer Process Control (PC).

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes. Enter all PC test data into the Department's database. The Engineer will not use these test results in the acceptance payment decision.

Address in the Producer QC Plan how PC failures will be handled. When a PC failure occurs, investigate, at a minimum, the production process, testing equipment and/or sampling

methods to determine the cause of the failure, and make any necessary changes to assure compliance with these Specifications. Obtain a follow up sample immediately after corrective actions are taken to assess the adequacy of the corrections. In the event the follow-up PC sample also fails to meet Specification requirements, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the QC Manager.

### **334-5 Acceptance of the Mixture.**

**334-5.1 General:** The mixture will be accepted at the plant with respect to gradation ( $P_{-8}$  and  $P_{-200}$ ), asphalt content ( $P_b$ ), and volumetrics (volumetrics is defined as air voids at  $N_{design}$ ). The mixture will be accepted on the roadway with respect to density of roadway cores. Acceptance will be on a LOT by LOT basis (for each mix design) based on tests of random samples obtained within each subplot taken at a frequency of one set of samples per subplot. A roadway LOT and a plant production LOT shall be the same. Acceptance of the mixture will be based on Contractor QC test results that have been verified by the Department.

**334-5.1.1 Sampling and Testing Requirements:** Obtain the samples in accordance with FM 1-T 168. Obtain samples at the plant of a sufficient quantity to be split into three smaller samples; one for QC, one for Verification testing and one for Resolution testing. Obtain each split sample of a sufficient quantity, approximately 40 pounds, for all required testing. The split samples for Verification testing and Resolution testing shall be reduced in size and stored in three boxes each. The approximate size of each box must be 12 inches x 8 inches x 4 inches. Provide, label, and safely store sample boxes in a manner agreed upon by the Engineer for future testing.

The asphalt content of the mixture will be determined in accordance with FM 5-563. The gradation of the recovered aggregate will be determined in accordance with FM 1-T 030. Volumetric testing will be in accordance with AASHTO T 312 and FM 1-T 209. Prior to testing volumetric samples, condition the test-sized sample for one hour, plus or minus five minutes, at the target roadway compaction temperature in a shallow, flat pan, such that the mixture temperature at the end of the one-hour conditioning period is within plus or minus 20°F of the roadway compaction temperature.

If one of the QC gyratory specimens is damaged, make an additional gyratory specimen.

For situations where two properly prepared gyratory specimens do not meet single-operator precision requirements for  $G_{mb}$  as provided in FM 1-T 166:

1. Retest both gyratory specimens in accordance FM 1-T 166.
2. Following the retest, if the newly measured  $G_{mb}$  values do not meet single-operator precision requirements, QC shall prepare a third gyratory specimen in accordance with AASHTO T 312 and test in accordance with FM 1-T 166. All three test results shall be input into MAC. The average  $G_{mb}$  will be determined by MAC after performing an outlier check in accordance with ASTM E178.

Test for roadway density in accordance with FM 1-T 166.

**334-5.1.2 Acceptance Testing Exceptions:** When the total combined quantity of hot mix asphalt for the project, as indicated in the Plans for Type B-12.5, Type SP and Type FC mixtures only, is less than 2,000 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may require the Contractor to run process control tests for informational purposes, as defined in 334-4, or may run independent verification tests to determine the acceptability of the material.

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any SP-9.5 or SP-12.5 asphalt layer placed on subgrade with a layer thickness less than or equal to 3 inches, miscellaneous asphalt pavement, shared use paths, crossovers, gore areas, raised crosswalks, speed tables, or any course with a specified thickness less than 1 inch or a specified spread rate that converts to less than 1 inch as described in 334-1.4. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only per the requirements of 330-7.7. In addition, density testing for acceptance will not be performed on the following areas when they are less than 500 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes, ramps, or unsignalized side streets with less than four travel lanes and speed limits less than 35 mph. Do not perform density testing for acceptance in situations where the areas requiring density testing is less than 50 tons within a subplot.

Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer.

Where density testing for acceptance is not required, compact these courses (with the exception of open-graded friction courses) in accordance with the rolling procedure (equipment and pattern) as approved by the Engineer or with Standard Rolling Procedure as specified in 330-7.2. In the event that the rolling procedure deviates from the procedure approved by the Engineer, or the Standard Rolling Procedure, placement of the mix shall be stopped.

The density pay factor (as defined in 334-8.2) for areas not requiring density testing for acceptance will be paid at the same density pay factor as for the areas requiring density testing within the same LOT. If the entire LOT does not require density testing for acceptance, the LOT will be paid at a density pay factor of 1.00.

**334-5.2 Full LOTs:** Each LOT will be defined (as selected by the Contractor prior to the start of the LOT) as either (1) 2,000 tons, with each LOT subdivided into four equal sublots of 500 tons each, or (2) 4,000 tons, with each LOT subdivided into four equal sublots of 1,000 tons each. As an exception to this, the initial LOT of all new mix designs shall be defined as 2,000 tons, subdivided into four equal sublots of 500 tons each. Before the beginning of a LOT, the Engineer will develop a random sampling plan for each subplot and direct the Contractor on sample points, based on tonnage, for each subplot during construction.

**334-5.3 Partial LOTs:** A partial LOT is defined as a LOT size that is less than a full LOT. A partial LOT may occur due to the following:

1. The completion of a given mix type or mix design on a project.
2. Closure of the LOT due to time. LOTs will be closed 30 calendar days after the start of the LOT. Time periods other than 30 calendar days may be used if agreed to by both the Engineer and the Contractor, but under no circumstances shall the LOT be left open longer than 90 days.
3. A LOT is terminated per 334-5.4.4.

All partial LOTs will be evaluated based on the number of tests available, and will not be redefined. If a LOT is closed before the first plant random sample is obtained, then the LOT will be visually accepted by the Engineer and the LOT pay factor will be 1.00.

**334-5.4 QC Sampling and Testing:** Obtain all samples randomly as directed by the Engineer.

Should the Engineer determine that the QC requirements are not being met or that unsatisfactory results are being obtained, or should any instances of falsification of test data occur, acceptance of the Producer's QC Plan will be suspended and production will be stopped.

**334-5.4.1 Lost or Missing Verification/Resolution Samples:** In the event that any of the Verification and/or Resolution asphalt mixture samples that are in the custody of the Contractor are lost, damaged, destroyed, or are otherwise unavailable for testing, the minimum possible pay factor for each quality characteristic as described in 334-8.2 will be applied to the entire LOT in question, unless called for otherwise by the Engineer. Specifically, if the LOT in question has more than two sublots, the pay factor for each quality characteristic will be 0.55. If the LOT has two or less sublots, the pay factor for each quality characteristic will be 0.80. If only the roadway cores are lost, damaged, destroyed, or are otherwise unavailable for testing, then the minimum possible pay factor for density will be applied to the entire LOT in question. In either event, the material in question will also be evaluated in accordance with 334-5.9.5.

If any of the Verification and/or Resolution samples that are in the custody of the Department are lost, damaged, destroyed or are otherwise unavailable for testing, the corresponding QC test result will be considered verified, and payment will be based upon the Contractor's data.

**334-5.4.2 Plant Sampling and Testing Requirements:** Obtain one random sample of mix per subplot in accordance with 334-5.1.1 as directed by the Engineer. Test the QC split sample for gradation, asphalt binder content and volumetrics in accordance with 334-5.1.1. Complete all QC testing within one working day from the time the samples were obtained.

**334-5.4.3 Roadway Sampling and Testing Requirements:** Obtain five 6 inch diameter roadway cores within 24 hours of placement at random locations as directed by the Engineer within each subplot. Test these QC samples for density ( $G_{mb}$ ) in accordance with 334-5.1.1. Obtain a minimum of three cores per subplot at random locations as identified by the Engineer in situations where the subplot/LOT was closed or terminated before the random numbers were reached or where it is impractical to cut five cores per subplot. Do not obtain cores any closer than 12 inches from an unsupported edge. The Engineer may adjust randomly generated core locations for safety purposes or as the Engineer deems necessary. Do not perform density testing for acceptance in a subplot if the plant random sample for that subplot has not been obtained. Maintain traffic during the coring operation; core the roadway, patch the core holes (within three days of coring); and trim the cores to the proper thickness prior to density testing.

Density for the subplot shall be based on the average value for the cores cut from the subplot with the target density being a percentage of the maximum specific gravity ( $G_{mm}$ ) of the subplot, as defined in the Contract. Once the average density of a subplot has been determined, do not retest the samples unless approved by the Engineer. Ensure proper handling and storage of all cores until the LOT in question has been accepted.

**334-5.4.4 Individual Test Tolerances for QC Testing:** Terminate the LOT if any of the following QC failures occur:

1. An individual test result of a subplot for air voids does not meet the requirements of Table 334-6,
2. The average subplot density does not meet the requirements of Table 334-6,

3. Two consecutive test results within the same LOT for gradation or asphalt binder content do not meet the requirements of Table 334-6,

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Prior to resuming production, inform the Engineer of the problem and corrections made to correct the problem. After resuming production, sample and test the material to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.

In the event that a QC failure is not addressed as defined above, the Engineer's approval will be required prior to resuming production after any future QC failures.

Address any material represented by a failing test result, as defined above in this subarticle, in accordance with 334-5.9.5. Any LOT terminated under this subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics and will include all material placed up to the point when the LOT was terminated.

In the event that a  $G_{mm}$  test result differs by more than 0.040 from the mix design  $G_{mm}$ , investigate the causes of the discrepancy and report the findings and proposed actions to the Engineer.

Table 334-6 Master Production Range	
Characteristic	Tolerance <sup>(1)</sup>
Asphalt Binder Content (%)	Target $\pm 0.55$
Passing No. 200 Sieve (%)	Target $\pm 1.50$
Air Voids (%)	2.30 – 6.00
Density (minimum % $G_{mm}$ ) <sup>(2)</sup>	89.50
(1) Tolerances for sample size of $n = 1$ from the verified mix design	
(2) Based on an average of three to five randomly located cores	

**334-5.5 Verification Testing:** In order to determine the validity of the Contractor's QC test results prior to their use in the Acceptance decision, the Engineer will run verification tests.

**334-5.5.1 Plant Testing:** At the completion of each LOT, the Engineer will test a minimum of one Verification split sample randomly selected from the LOT. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed. Verification samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

The Verification test results will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-7.

Table 334-7 Between-Laboratory Precision Values	
Property	Maximum Difference
$G_{mm}$	0.016
$G_{mb}$ (gyratory compacted samples)	0.022
$G_{mb}$ (roadway cores)	0.014
$P_b$	0.44%
$P_{-200}$	FM 1-T 030 (Figure 2)
$P_{-8}$	FM 1-T 030 (Figure 2)

If all of the specified mix characteristics compare favorably, then the LOT will be accepted, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the Resolution samples from the LOT will be sent to the Resolution laboratory for testing, as described in 334-5.6.

**334-5.5.2 Roadway Testing:** At the completion of each LOT, the Engineer will determine the density ( $G_{mb}$ ) of each core (previously tested by QC) as described in 334-5.1.1 from the same subplot as the plant samples. For situations where roadway density is not required for the random subplot chosen, then another subplot shall be randomly chosen for roadway density cores only. Results of the testing and analysis for the LOT will be made available to the Contractor within one working day from the time the LOT is completed.

The individual Verification test results will be compared with individual QC test results by the Engineer based on the between-laboratory precision values given in Table 334-7.

If each of the core test results compare favorably, then the LOT will be accepted with respect to density, with payment based on the Contractor's QC test data for the LOT.

If any of the results do not compare favorably, then the core samples from the LOT will be sent to the Resolution laboratory for testing as specified in 334-5.6.

### **334-5.6 Resolution System:**

**334-5.6.1 Plant Samples:** In the event of an unfavorable comparison between the Contractor's QC test results and the Engineer's Verification test results on any of the properties identified in Table 334-7, the Resolution laboratory will test all of the split samples from the LOT for only the property (or properties) in question. Resolution samples shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. In lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1.

**334-5.6.2 Roadway Samples:** In the event of an unfavorable comparison between the Contractor's QC test data and the Engineer's Verification test data on the density results, the Resolution laboratory will test all of the cores from the LOT. Testing will be as described in 334-5.1.1.

**334-5.6.3 Resolution Determination:** The Resolution test results (for the property or properties in question) will be compared with the QC test results based on the between-laboratory precision values shown in Table 334-7.

If the Resolution test results compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the QC results, and the Department will bear the costs associated with Resolution testing. No additional compensation, either monetary or time, will be made for the impacts of any such testing.

If the Resolution test results do not compare favorably with all of the QC results, then acceptance and payment for the LOT will be based on the Resolution test data for the LOT, and the costs of the Resolution testing will be deducted from monthly estimates. No additional time will be granted for the impacts of any such testing.

In addition, the material failure requirements of 334-5.4.4 apply to the Resolution test data. Address any material represented by the failing test results in accordance with 334-5.9.5. For this situation, the LOT will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics.

In the event of an unfavorable comparison between the Resolution test results and QC test results, make the necessary adjustments to assure that future comparisons are favorable.

### **334-5.7 Independent Verification (IV) Testing:**

**334-5.7.1 Plant:** The Contractor shall provide sample boxes and take samples as directed by the Engineer for IV testing. Obtain enough material for three complete sets of tests (two samples for IV testing by the Engineer and one sample for testing by the Contractor). If agreed upon by both the Engineer and the Contractor, only one sample for IV testing by the Engineer may be obtained. IV samples will be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. The Contractor's split sample, if tested immediately after sampling, shall be reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. If the Contractor's sample is not tested immediately after sampling, then the sample shall be reheated at the target roadway compaction temperature for 1-1/2 hours, plus or minus 5 minutes, reduced to the appropriate testing size, and conditioned and tested as described in 334-5.1.1. For the IV and Contractor's samples, in lieu of the 1-1/2 hours reheating procedure, the mixture may be reheated to within plus or minus 20°F of the roadway compaction temperature using a microwave oven. Stir the mixture as necessary during the reheating process to maintain temperature uniformity. Subsequently, condition and test the mixture as described in 334-5.1.1. The Contractor's test results shall be provided to the Engineer within one working day from the time the sample was obtained.

If any of the IV test results do not meet the requirements of Table 334-6, then a comparison of the IV test results and the Contractor's test results, if available, will be made. If a comparison of the IV test results and the Contractor's test results meets the precision values of Table 334-7 for the material properties in question, or if the Contractor's test results are not available, then the IV test results are considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

If a comparison of the IV test results and the Contractor's test results does not meet the precision values of Table 334-7 for the material properties in question, then the second IV sample shall be tested by the Engineer for the material properties in question. If a comparison between the first and second IV test results does not meet the precision values of Table 334-7 for the material properties in question, then the first IV test results are considered unverified for the material properties in question and no action shall be taken, with the following exception: if the first and second IV test results do not meet the precision values of Table 334-7 and the first IV test result and Contractor's test result do not meet the precision values of Table 334-7, yet all three test results do not meet the requirements of Table 334-6, then address any material represented by the failing test results in accordance with 334-5.9.5.

If a comparison between the first and second IV test results meets the precision values of Table 334-7 for the material properties in question, then the first IV sample is considered verified and the Contractor shall cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Address any material represented by the failing test results in accordance with 334-5.9.5.

The Engineer has the option to use the IV sample for comparison testing as specified in 334-6.

**334-5.7.1.1 Asphalt Binder and Mixture Sampling for Determination of Asphalt Binder Quality:** At the Department's request, obtain an asphalt binder sample from the asphalt plant storage tank and a corresponding asphalt mixture sample using binder from the same storage tank. Samples of asphalt binder and mixture shall be sampled the same day. The asphalt binder from the storage tank and the asphalt binder recovered from the asphalt mixture will be tested by the Department for compliance with Contract Documents.

**334-5.7.2 Roadway:** Obtain five 6-inch diameter roadway cores within 24 hours of placement, as directed by the Engineer, for IV testing. In situations where it is impractical to cut five cores per subplot, obtain a minimum of three cores per subplot at random locations, as identified by the Engineer. These independent cores will be obtained from the same LOTs and sublots as the Independent Verification Plant samples, or as directed by the Engineer. The density of these cores will be obtained as described in 334-5.1.1. If the average of the results for the subplot does not meet the requirements of Table 334-6 for density, then a comparison of the IV  $G_{mm}$  test results and the Contractor's  $G_{mm}$  test results, if available, will be made in accordance with the procedure provided in 334-5.7.1. Address any material represented by the failing test results in accordance with 334-5.9.5.

**334-5.8 Surface Tolerance:** The asphalt mixture will be accepted on the roadway with respect to surface tolerance in accordance with the applicable requirements of 330-9.

#### **334-5.9 Minimum Acceptable Quality Levels:**

**334-5.9.1 PFs Below 0.90:** In the event that an individual pay factor for any quality characteristic of a LOT falls below 0.90, take steps to correct the situation and report the actions to the Engineer. In the event that the pay factor for the same quality characteristic for two consecutive LOTs is below 0.90, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

**334-5.9.2 CPFs Less Than 0.90 and Greater Than or Equal to 0.80:** If the composite pay factor for the LOT is less than 0.90 and greater than or equal to 0.80, cease production of the asphalt mixture until the problem is adequately resolved (to the satisfaction of the Engineer), unless it can be demonstrated to the satisfaction of the Engineer that the problem can immediately be (or already has been) resolved. Actions taken must be approved by the Engineer before production resumes.

**334-5.9.3 CPFs Less Than 0.80 and Greater Than or Equal to 0.75:** If the CPF for the LOT is less than 0.80 and greater than or equal to 0.75, address the defective material in accordance with 334-5.9.5.

**334-5.9.4 CPFs Less Than 0.75:** If the CPF for the LOT is less than 0.75, remove and replace the defective LOT at no cost to the Department, or as approved by the Engineer.

**334-5.9.5 Defective Material:** Assume responsibility for removing and replacing all defective material placed on the project, at no cost to the Department.

As an exception to the above and upon approval of the Engineer, obtain an engineering analysis in accordance with Section 6 by an independent laboratory (as approved by the Engineer) to determine the disposition of the material. The engineering analysis must be signed and sealed by a Professional Engineer licensed in the State of Florida.

The Engineer may determine that an engineering analysis is not necessary or may perform an engineering analysis to determine the disposition of the material.

Any material that remains in place will be accepted with a CPF as determined by 334-8, or as determined by the Engineer.

If the defective material is due to a high air void failure, gradation, asphalt binder content or density failure, upon the approval of the Engineer the Contractor may perform delineation tests on roadway cores in lieu of an engineering analysis to determine the limits of the defective material that may require removal and replacement. Prior to any delineation testing, all sampling locations shall be approved by the Engineer. All delineation sampling and testing shall be monitored and verified by the Engineer. For materials that are defective due to low air voids, an engineering analysis is required.

When evaluating defective material by engineering analysis or delineation testing, at a minimum, evaluate all material located between passing QC, PC or IV test results. Any additional PC samples obtained in the same work shift after an IV sample has been obtained shall include enough material for three complete sets of tests (PC, IV and IV check samples) in the event the Contractor requests using the PC test results for engineering analysis or delineation. These additional PC samples must compare with verified IV test results as determined by the comparison process of 334-5.7.1 in order to be used for engineering analysis or delineation. Exceptions to this requirement shall be approved by the Engineer.

### **334-6 Comparison Testing.**

At the start of the project (unless waived by the Engineer) and at other times as determined necessary by the Engineer, provide split samples for comparison testing with the Engineer. The purpose of these tests is to verify that the testing equipment is functioning properly and that the testing procedures are being performed correctly. In the event that the Engineer determines that there is a problem with the Contractor's testing equipment and/or testing procedures, immediately correct the problem to the Engineer's satisfaction. In the event that the problem is not immediately corrected, cease production of the asphalt mixture until the problem is adequately resolved to the satisfaction of the Engineer.

If so agreed to by both the Contractor and the Engineer, the split sample used for comparison testing may also be used for the QC sample. The split sample used for comparison testing must also meet the requirements for IV testing described in 334-5.7.

### **334-7 Method of Measurement.**

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. For each pay item, excluding overbuild, the pay quantity will be based on the quantity placed on the project, limited to 110% of the adjusted plan quantity for the pay item. The adjusted plan quantity will be determined by dividing the pay item's original plan quantity (including any Engineer approved quantity revisions) by the design  $G_{mm}$  stated in 334-1.4, then multiplying it by the tonnage-weighted average  $G_{mm}$  of the mixes used for the pay item.

The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as directed in 300-8. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix. For the calculation of unit price adjustments of bituminous material, the average asphalt content will be based on the percentage specified in 9-2.1.2. The weight will be determined as provided in 320-3.2 (including the provisions for the automatic recordation system).

Prepare and submit a Certification of Quantities to the Engineer in accordance with 9-2.1.2.

### **334-8 Basis of Payment.**

**334-8.1 General:** Price and payment will be full compensation for all the work specified under this Section (including the applicable requirements of Sections 320 and 330).

For materials accepted in accordance with 334-5, based upon the quality of the material, a pay adjustment will be applied to the bid price of the material as determined on a LOT by LOT basis. The pay adjustment will be assessed by calculating a Pay Factor for the following individual quality characteristics: pavement density, air voids, asphalt binder content, and the percentage passing the No. 200 and No. 8 sieves. The pay adjustment will be computed by multiplying a Composite Pay Factor (CPF) for the LOT by the bid price per ton.

#### **334-8.2 Pay Factors:**

**334-8.2.1 Partial LOTs:** For Partial LOTs where no random sample is obtained due to insufficient tonnage, a CPF of 1.00 shall be applied.

**334-8.2.2 Two or Less Sublot Test Results:** In the event that two or less sublot test results are available for a LOT, Pay Factors will be determined based on Table 334-8, using the average of the accumulated deviations from the target value. (Except for density, deviations are absolute values with no plus or minus signs.) Use the 1-Test column when there is only one sublot test result and use the 2-Tests column when there are two sublots.

Table 334-8 Small Quantity Pay Table		
Pay Factor	1 Sublot Test Deviation	2 Sublot Test Average Deviation
Asphalt Binder Content		
1.05	0.00-0.23	0.00-0.16
1.00	0.24-0.45	0.17-0.32
0.90	0.46-0.55	0.33-0.39
0.80	>0.55	>0.39
No. 8 Sieve		
1.05	0.00-2.25	0.00-1.59
1.00	2.26-4.50	1.60-3.18
0.90	4.51-5.50	3.19-3.89
0.80	>5.50	>3.89
No. 200 Sieve		
1.05	0.00-0.55	0.00-0.39
1.00	0.56-1.10	0.40-0.78
0.90	1.11-1.50	0.79-1.06
0.80	>1.50	>1.06
Air Voids		
1.05	0.00-0.50	0.00-0.35
1.00	0.51-1.00	0.36-0.71
0.90	1.01-1.70	0.72-1.20
0.80	1.71-2.00	1.21-1.41
0.70	2.01-2.50	1.42-1.77
0.55	>2.50	>1.77
Density <sup>(1)</sup> Target = 93.00 percent of $G_{mm}$		
1.05	+ (0.00-3.50), - (0.00-0.50)	+ (0.00-3.25), - (0.00-0.35)
1.00	+ (3.51-4.50), - (0.51-1.00)	+ (3.26-4.25), - (0.36-0.71)
0.95	+ (4.51-5.00), - (1.01-2.00)	+ (4.26-4.75), - (0.72-1.41)
0.90	+ (5.01-5.50), - (2.01-3.00)	+ (4.76-5.25), - (1.42-2.12)
0.80	+ (>5.50), - (>3.00)	+ (>5.25), - (>2.12)
Density <sup>(1)</sup> Target = 92.00 percent of $G_{mm}$		
1.05	+ (0.00-4.50), - (0.00-0.50)	+ (0.00-4.25), - (0.00-0.35)
1.00	+ (4.51-5.50), - (0.51-1.00)	+ (4.26-5.25), - (0.36-0.71)
0.95	+ (5.51-6.00), - (1.01-1.50)	+ (5.26-5.75), - (0.72-1.41)
0.90	+ (6.01-6.50), - (1.51-2.00)	+ (5.76-6.25), - (1.42-2.12)
0.80	+ (>6.50), - (>2.00)	+ (>6.25), - (>2.12)
(1). Each density test result is the average of three to five randomly located cores. The target density is 93.00 percent of $G_{mm}$ (92.00 percent when compaction is limited to the static mode or for layers specified to be one inch thick). When compaction is limited to the static mode, no vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer. In this case, the target density is 92.00 percent of $G_{mm}$ .		

**334-8.2.3 Three or More Sublot Test Results:** When three or more sublot test results are available for a LOT, the variability-unknown, standard deviation method will be used to determine the estimated percentage of the LOT that is within the specification limits. The

number of significant figures used in the calculations will be in accordance with requirements of AASHTO R 11/ASTM E29, Absolute Method.

**334-8.2.3.1 Percent Within Limits:** The percent within limits (PWL) and Pay Factors for the LOT will be calculated as described below. Variables used in the calculations are as follows:

x	= individual test value (sublot)
n	= number of tests (sublots)
s	= sample standard deviation
$\Sigma(x^2)$	= summation of squares of individual test values
$(\Sigma x)^2$	= summation of individual test values squared
$Q_U$	= upper quality index
USL	= upper specification limit (target value plus upper specification limit from Table 334-9)
$Q_L$	= lower quality index
LSL	= lower specification limit (target value minus lower specification limit from Table 334-9)
$P_U$	= estimated percentage below the USL
$P_L$	= estimated percentage above the LSL

1. Calculate the arithmetic mean  $(\bar{X})$  of the test values:

$$\bar{X} = \frac{\sum x}{n}$$

2. Calculate the sample standard deviation (s):

$$s = \sqrt{\frac{n \sum (x^2) - (\sum x)^2}{n(n-1)}}$$

3. Calculate the upper quality index ( $Q_U$ ):

$$Q_U = \frac{USL - \bar{X}}{s}$$

4. Calculate the lower quality index ( $Q_L$ ):

$$Q_L = \frac{\bar{X} - LSL}{s}$$

5. From Table 334-10, determine the percentage of work below the USL ( $P_U$ ).

6. From Table 334-10, determine percentage of work above the LSL ( $P_L$ ) Note: If USL or LSL is not specified; percentages within (USL or LSL) will be 100.

7. If  $Q_U$  or  $Q_L$  is a negative number, then calculate the percent within limits for  $Q_U$  or  $Q_L$  as follows: enter Table 334-10 with the positive value of  $Q_U$  or  $Q_L$  and obtain the corresponding percent within limits for the proper sample size. Subtract this number from 100.00. The resulting number is the value to be used in the next step (Step 8) for the calculation of quality level.

8. Calculate the percent within limits ( $PWL$ ) =  $(P_U + P_L) - 100$

9. Calculate the Pay Factor (PF) for each quality characteristic using the equation given in 334-8.2.3.2.

Table 334-9 Specification Limits	
Quality Characteristic	Specification Limits
Passing No. 8 sieve (percent)	Target $\pm 3.1$
Passing No. 200 sieve (percent)	Target $\pm 1.0$
Asphalt Content (percent)	Target $\pm 0.40$
Air Voids (percent)	$4.00 \pm 1.20$
Density, vibratory mode (percent of $G_{mm}$ ):	$93.00 + 4.00, - 1.20$
Density, static mode (percent of $G_{mm}$ ):	$92.00 + 5.00, - 1.50^{(1)}$
(1): No vibratory mode in the vertical direction will be allowed. Other vibratory modes will be allowed, if approved by the Engineer.	

Table 334-10 Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
0.00	50.00	50.00
0.05	51.38	51.67
0.10	52.76	53.33
0.15	54.15	55.00
0.20	55.54	56.67
0.25	56.95	58.33
0.30	58.37	60.00
0.35	59.80	61.67
0.40	61.26	63.33
0.45	62.74	65.00
0.50	64.25	66.67
0.55	65.80	68.33
0.60	67.39	70.00
0.65	69.03	71.67
0.70	70.73	73.33

Table 334-10 Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
0.75	72.50	75.00
0.80	74.36	76.67
0.85	76.33	78.33
0.90	78.45	80.00
0.95	80.75	81.67
1.00	83.33	83.33
1.05	86.34	85.00
1.10	90.16	86.67
1.15	97.13	88.33
1.20	100.00	90.00
1.25	100.00	91.67
1.30	100.00	93.33
1.35	100.00	95.00
1.40	100.00	96.67
1.45	100.00	98.33
1.50	100.00	100.00
1.55	100.00	100.00
1.60	100.00	100.00
1.65	100.00	100.00
1.70	100.00	100.00
1.75	100.00	100.00
1.80	100.00	100.00
1.85	100.00	100.00
1.90	100.00	100.00
1.95	100.00	100.00
2.00	100.00	100.00
2.05	100.00	100.00
2.10	100.00	100.00
2.15	100.00	100.00
2.20	100.00	100.00
2.25	100.00	100.00
2.30	100.00	100.00
2.35	100.00	100.00
2.40	100.00	100.00
2.45	100.00	100.00

Table 334-10 Percent Within Limits		
Quality Index	Percent within Limits for Selected Sample Size	
	n = 3	n = 4
2.50	100.00	100.00
2.55	100.00	100.00
2.60	100.00	100.00
2.65	100.00	100.00

**334-8.2.3.2 Pay Factors (PF):** Pay Factors will be calculated by using the following equation:

$$\text{Pay Factor} = (55 + 0.5 \times \text{PWL}) / 100$$

The PWL is determined from Step (8) of 334-8.2.3.1.

**334-8.3 Composite Pay Factor (CPF):** A CPF for the LOT will be calculated based on the individual PFs with the following weighting applied: 40% Density (D), 25% Air Voids ( $V_a$ ), 20% asphalt binder content ( $P_b$ ), 10% Passing No. 200 ( $P_{-200}$ ) and 5% Passing No. 8 ( $P_{-8}$ ). Calculate the CPF by using the following formula:

$$\text{CPF} = [(0.400 \times \text{PF } D) + (0.250 \times \text{PF } V_a) + (0.200 \times \text{PF } P_b) + (0.100 \times \text{PF } P_{-200}) + (0.050 \times \text{PF } P_{-8})]$$

Where the PF for each quality characteristic is determined in either 334-8.2.2 or 334-8.2.3, depending on the number of subplot tests. Note that the number after each multiplication will be rounded to the nearest 0.01.

The pay adjustment shall be computed by multiplying the CPF for the LOT by the bid price per ton.

**334-8.4 Payment:** Payment will be made under:

Item No. 334- 1- Superpave Asphaltic Concrete - per ton.

## SECTION 425

### INLETS, MANHOLES, AND JUNCTION BOXES

#### 425-1 Description.

Construct inlets, manholes, and junction boxes from reinforced concrete as shown in the Standard Plans and the Plans. Furnish and install the necessary metal frames and gratings. Construct yard drains from concrete meeting the requirements of Section 347. Adjust structures shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.

For precast structures, meet the requirements in 449-1.

#### 425-2 Composition and Proportioning.

**425-2.1 Concrete:** For inlets, manholes, and junction boxes, use Class II or IV concrete, as designated in the Plans and Standard Plans and as specified in Section 346. For concrete aprons and yard drains, use concrete as specified in Section 347.

**425-2.2 Mortar:** For brick masonry, make the mortar by mixing one-part cement to three parts sand. Miami Oolitic rock screenings may be substituted for the sand, provided the screenings meet the requirements of 902 except for gradation requirements. Use materials passing the No. 8 sieve that are well graded from coarse to fine. Submit documentation, from a Department approved mine or a Department approved concrete plant, confirming the sand or sand substitute meets the requirements of 902-3.2.

Preblended masonry cement mortar may be used in lieu of the above-specified mortar. Deliver the product in original and unopened packages properly identified by brand name of manufacturer, net weight of package, and type. Store the material in full compliance with the manufacturer's recommendations. Material must be used within manufacturer's recommended shelf life.

#### 425-3 Materials.

**425-3.1 General:** Meet the following requirements:

Sand (for mortar).....	Section 902
Portland Cement.....	Section 921
Water.....	Section 923
Reinforcing Steel .....	Sections 931 and 415
Liner Repair Systems .....	Section 948
Brick and Concrete Masonry Units.....	Section 949
Castings for Frames and Gratings.....	Section 962
Masonry Cement, Type M or S.....	ASTM C91
Preblended Dry Masonry Cement Mortar, Type M or S .....	ASTM C1714

**425-3.2 Gratings, Covers, and Frames:** Use gratings and frames fabricated from structural steel or cast iron as designated in the appropriate Standard Plans Index. When "Alt. G" grates are specified in the Plans, provide structural steel grates that are galvanized in accordance with the requirements of ASTM A123 and hardware galvanized in accordance with the requirements of ASTM A153.

Use rigid frames and covers either 24 inches or 36 inches or optional three-piece adjustable frames and covers as indicated in Standard Plans, Index 425-001.

For three-piece adjustable frames, the inner frame may include replaceable resilient seats to support the cover. In addition, the inner frame shall indicate it is adjustable, by clearly having the word “adjustable” imprinted into the exposed portion of the inner frame so “adjustable” is visible from the roadway after installation.

**425-3.3 Skimmer:** Include 1.5% by weight of carbon black with plastic skimmers on french drain systems.

#### **425-4 Forms.**

Design and construct wood or metal forms so that they may be removed without damaging the concrete. Build forms true to line and grade and brace them in a substantial and unyielding manner. Obtain the Engineer’s approval before filling them with concrete.

#### **425-5 Precast Inlets, Manholes, and Junction Boxes.**

Precast inlets, manholes, and junction boxes, designed and fabricated in accordance with the Plans, the Standard Plans and Section 449 may be substituted for cast-in-place units.

#### **425-6 Skimmers.**

Furnish and install skimmers in accordance with the Plans and Standard Plans.

#### **425-7 Construction Methods.**

**425-7.1 Excavation:** Excavate as specified in Section 125.

Where unsuitable material for foundations is encountered, excavate the unsuitable material and backfill with suitable material prior to constructing or setting inlets, manholes and junction boxes.

As an option to the above and with the Engineer’s approval, the Contractor may carry the walls down to a depth required for a satisfactory foundation, backfill to 8 inches below the flowline with clean sand and cast a non-reinforced 8 inch floor.

**425-7.2 Placing and Curing Concrete:** Place the concrete in the forms, to the depth shown in the Plans, and thoroughly vibrate it. After the concrete has hardened sufficiently, cover it with suitable material and keep it moist for a period of three days. Finish the traffic surface in accordance with 522-7.2, or with a simulated broom finish approved by the Engineer.

**425-7.3 Setting Manhole Castings:** After curing the concrete as specified above, set the frame of the casting in a full mortar bed composed of one-part portland cement to two parts of fine aggregate.

**425-7.3.1 Standard Castings:** Set manhole frames in a mortar bed and adjust to grade using brick or concrete grade rings, with a maximum 12 inch adjustment.

**425-7.3.2 Optional Adjustable Castings:** When using a three-piece adjustable frame and cover, install the frame and cover with brick or concrete grade rings to the base course height. Make adjustments using the inner frame in accordance with the manufacturer’s installation recommendations so the inner frame and cover meet the grade and slope of the pavement surface opened to traffic.

**425-7.4 Reinforcing Steel:** Follow the construction methods for the steel reinforcement as specified in Section 415.

**425-7.5 Laying Brick:** Brick masonry may be used if the structure is circular and constructed in place, or for adjustments of rectangular risers up to a maximum 12 inches in

height. Saturate all brick with water before laying. Bond the brick thoroughly into the mortar using the shove-joint method to lay the brick. Arrange headers and stretchers so as to bond the mass thoroughly. Finish the joints properly as the work progresses and ensure that they are not less than 1/4 inch or more than 3/4 inch in thickness. Do not use spalls or bats except for shaping around irregular openings or when unavoidable at corners.

**425-7.6 Backfilling:** Backfill as specified in Section 125, meeting the specific requirements for backfilling and compaction around inlets, manholes, and junction boxes detailed in 125-8.1 and 125-8.2. However; for outfall lines beyond the sidewalk or future sidewalk area, where no vehicular traffic will pass over the pipe, inlets, manholes, and junction boxes, compact backfill as required in 125-9.2.2.

**425-7.7 Adjusting Structures:** Adjust existing manholes, catch basins, inlets, valve boxes, etc., within the limits of the proposed work, to meet the finished grade of the proposed pavement, or if outside of the proposed pavement area, to the finished grade designated in the Plans for such structures. Adjust structures prior to placement of final asphalt pavement surface layer. Adjust structures to match final pavement surface cross-slope. Use materials and construction methods which meet the requirements specified above to adjust the existing structures.

The Contractor may extend manholes needing to be raised using adjustable extension rings of the type which do not require the removal of the existing manhole frame. Use an extension device that provides positive locking action and permits adjustment in height as well as diameter and meets the approval of the Engineer. When adjusting structures in flexible pavement, restore final road surface in accordance with Standard Plans, Index 125-001.

#### **425-8 Method of Measurement.**

The quantities to be paid for will be the number of inlets, manholes, junction boxes, and yard drains, completed and accepted; and the number of structures of these types (including also valve boxes) satisfactorily adjusted. Performance Turf will be paid in accordance with Section 570.

#### **425-9 Basis of Payment.**

**425-9.1 New Structures:** Price and payment will be full compensation for furnishing all materials and completing all work described herein or shown in the Plans, including all clearing and grubbing outside the limits of clearing and grubbing as shown in the Plans, all excavation except the volume included in the measurement designated to be paid for under the items for the grading work on the project, all backfilling around the structures, the disposal of surplus material, and the furnishing and placing of all aprons, gratings, frames, covers, and any other necessary fittings.

**425-9.2 Adjusted Structures:** When an item of payment for adjusting manholes, valve boxes, or inlets is provided in the proposal, price and payment will be full compensation for the number of such structures designated to be paid for under such separate items, and which are satisfactorily adjusted, at the Contract unit prices each for adjusting inlets, adjusting manholes, and adjusting valve boxes.

For any of such types of these structures required to be adjusted but for which no separate item of payment is shown in the proposal for the specific type, payment will be made under the item of adjusting miscellaneous structures.

**425-9.3 Payment Items:** Payment will be made under:

- |                   |  |
|-------------------|--|
| Item No.425- 1-   | Inlets - each.                             |
| Item No.425- 2-   | Manholes - each.                           |
| Item No.425- 3-   | Junction Boxes - each.                     |
| Item No.425- 4-   | Adjusting Inlets - each.                   |
| Item No.425- 5-   | Adjusting Manholes - each.                 |
| Item No.425- 6-   | Adjusting Valve Boxes - each.              |
| Item No.425- 8-   | Adjusting Miscellaneous Structures - each. |
| Item No.425- 10-  | Yard Drains - each.                        |
| Item No. 425- 17- | Back of Sidewalk Endwall - each.           |

## SECTION 520 CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC SEPARATOR

### 520-1 Description.

Construct portland cement concrete curb. Curb will include concrete curb and gutter, concrete traffic separator, valley gutter, special concrete gutter, curb for sidewalk curb ramps and driveways, and any other types of concrete curb not specified in other Sections.

### 520-2 Materials.

**520-2.1 Concrete:** Use concrete meeting the requirements of Section 347.

**520-2.2 Reinforcement:** For all steel reinforcement required by the Plans, meet the requirements of Section 415.

**520-2.3 Joint Materials:** Meet the requirements of Section 932.

**520-2.4 Toll Header Curb Concrete:** Use concrete meeting the requirements of Section 346, Class II.

### 520-3 Forms.

**520-3.1 Form Materials:** Construct forms for this work of either wood or metal. Provide forms that are straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without deviation from line and grade. For all items constructed on a radius, use flexible forms.

**520-3.2 Depth of Forms:** Ensure that forms have a depth equal to the plan dimensions for the depth of concrete being deposited against them.

**520-3.3 Machine Placement:** The Contractor may place these items by machine methods with the approval of the Engineer provided that the Contractor consistently produces an acceptable finished product, true to line, grade, and cross section.

### 520-4 Excavation.

Excavate to the required depth, and compact the foundation material upon which these items are to be placed as specified in 120-9.

### 520-5 Placing Concrete.

Place the concrete in the forms, and tamp and spade it to prevent honeycombing, and until the top of the structure can be floated smooth and the edges rounded to the radius shown in the Plans.

### 520-6 Joints.

**520-6.1 Contraction Joints:** Except for machine placed items, the Contractor may form joints by using dummy joints (either formed or sawed) or by using sheet metal templates. If using sheet metal templates, ensure that they are of the dimensions, and are set to the lines, shown in the Plans. Hold templates firmly while placing the concrete. Leave templates in place until the concrete has set sufficiently to hold its shape, but remove them while the forms are still in place.

Saw contraction joints, for machine placed items, unless the Engineer approves an alternate method. Saw the joints as soon as the concrete has hardened to the degree that excessive raveling will not occur and before uncontrolled shrinkage cracking begins.

Space contraction joints at intervals of 10 feet except where closure requires a lesser interval, but do not allow any section to be less than 4 feet in length.

**520-6.2 Expansion Joints:** Construct expansion joints at all inlets, at all radius points, and at other locations indicated in the Plans. Locate them at intervals of 500 feet between other expansion joints or ends of a run. Ensure that the joint is 1/2 inch in width.

## **520-7 Finishing.**

**520-7.1 Repair of Minor Defects:** Remove the forms within 24 hours after placing the concrete, and then fill minor defects with mortar composed of one part portland cement and two parts fine aggregate. The Engineer will not allow plastering on the face of the curb. Remove and replace any rejected curb, curb and gutter, or valley gutter without additional compensation.

**520-7.2 Final Finish:** Finish all exposed surfaces while the concrete is still green. In general, the Engineer will only require a brush finish. For any surface areas, however, which are too rough or where other surface defects make additional finishing necessary, the Engineer may require the Contractor to rub the curb to a smooth surface with a soft brick or wood block, using water liberally. Also, if necessary to provide a suitable surface, the Engineer may require the Contractor to rub further, using thin grout or mortar.

**520-7.3 Imprinted Concrete:** Install imprinted concrete as shown in the Plans.

## **520-8 Curing.**

**520-8.1 General:** Continuously cure the concrete for a period of at least 72 hours. Commence curing after completely finishing and as soon as the concrete has hardened sufficiently to permit application of the curing material without marring the surface. Immediately replace any curing material removed or damaged during the 72 hour period.

After removing the forms, cure the surfaces exposed by placing a berm of moist earth against them or by any of the methods described below, for the remainder of the 72 hour curing period.

**520-8.2 Wet Burlap Method:** Place burlap, as specified in 925-1, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the burlap securely in place such that it will be in continuous contact with the concrete at all times, and do not allow any earth between the burlap surfaces at laps or between the burlap and the concrete. Saturate the burlap with water before placing it, and keep it thoroughly wet throughout the curing period.

**520-8.3 Membrane Curing Compound Method:** Apply clear membrane curing compound or white pigmented curing compound, as specified in 925-2, by a hand sprayer meeting the requirements of 350-3.10, in a single coat continuous film at a uniform coverage of at least one gallon per 200 square feet. Immediately recoat any cracks, checks, or other defects appearing in the coating. Thoroughly agitate the curing compound in the drum prior to application, and during application as necessary to prevent settlement of the pigment.

**520-8.4 Polyethylene Sheeting Method:** Place polyethylene sheeting, as specified in 925-3, over the entire exposed surface of the concrete, with sufficient extension beyond each side to ensure complete coverage. Overlap adjacent strips a minimum of 6 inches. Hold the sheeting securely in place and in continuous contact with the concrete at all times.

## **520-9 Backfilling and Compaction.**

After the concrete has set sufficiently, but not later than three days after pouring, refill the spaces in front and back of the curb to the required elevation with suitable material. Place and thoroughly compact the material in layers not thicker than 6 inches.

## **520-10 Surface Requirements.**

**520-10.1 Straightedge:** Test the gutter section of curb and gutter with a 10 foot straightedge laid parallel to the centerline of the roadway and while the concrete is still plastic. Perform straightedging along the edge of the gutter adjacent to the pavement or along other lines on the gutter cross-section, as directed by the Engineer. Immediately correct irregularities in excess of 1/4 inch.

**520-10.2 Elevation and Cross Slope:** Place curb and gutter so the calculated actual roadway or shoulder cross slope to be placed within the curb and gutter is within +/- 0.2% of the calculated design cross slope for that location. Once per 500 feet, check the elevation of lip of curb and gutter and calculate actual cross slope between curb and gutter on each side of a lane or set of adjacent lanes. Perform these checks prior to placement of the curb and gutter and adjust to ensure cross slope tolerance is met. After placement and curing of curb and gutter, perform the above checks again. Correct any curb and gutter found to be outside the cross slope tolerance described above.

## **520-11 Method of Measurement.**

For curb or curb and gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb or curb and gutter. Curb for sidewalk curb ramps or driveways will be paid at the Contract unit price for the adjacent curb type.

For valley gutter or shoulder gutter, the quantity to be paid will be the plan quantity, in feet, measured along the gutter line of the completed and accepted valley gutter or shoulder gutter.

For concrete traffic separator of constant width, meeting the requirements of Standard Plans, Index 520-020, the quantity to be paid will be the plan quantity, in feet, measured along the center of its width, completed and accepted, including the length of the nose.

For concrete traffic separator of nonstandard or varying width, the quantity to be paid will be the plan quantity, in square yards, completed and accepted.

For curb of any type next to concrete pavement, the curb-pavement joint quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb.

## **520-12 Basis of Payment.**

**520-12.1 Concrete Gutter, Curb Elements, and Traffic Separator:** Price and payment will be full compensation for all work specified in this Section, including reinforcement steel, dowels, asphalt pavement and base under traffic separator, joint materials and asphalt curb pad.

**520-12.2 Excavation:** Excavation for new installations will be paid for as roadway excavation in accordance with 120-13.2.

**520-12.3 Payment Items:** Payment will be made under:

- |                  |                                      |
|------------------|--------------------------------------|
| Item No. 520- 1- | Concrete Curb and Gutter - per foot. |
| Item No. 520- 2- | Concrete Curb - per foot.            |
| Item No. 520- 3- | Concrete Valley Gutter - per foot.   |

Item No. 520- 4-	Curb-Concrete Pavement Joint - per foot.
Item No. 520- 5-	Concrete Traffic Separator - per foot.
Item No. 520- 6-	Concrete Shoulder Gutter - per foot.
Item No. 520- 70-	Concrete Traffic Separator - per square yard.

## SECTION 570 PERFORMANCE TURF

### 570-1 Description.

Establish a growing, healthy turf over all areas designated in the Plans. Use sod in areas designated in the Plans to be sodded. Use seed, hydroseed, bonded fiber matrix, or sod in all other areas. Maintain performance turf areas until final acceptance of all Contract work in accordance with Section 5-11 and the establishment requirements of 570-4 have been met.

### 570-2 Materials.

Meet the following requirements:

Turf Materials .....	Section 981
Fertilizer .....	Section 982
Water .....	Section 983

### 570-3 Construction Methods.

**570-3.1 General:** Remove all construction debris in performance turf areas. Install performance turf at the earliest practical time for erosion control and establishment.

Shape the areas to be planted to the plan typical sections and lines and grade shown in the Plans.

Except in areas where the Contract Documents requires specific types of turf to match adjoining private property, any species of turf designated in Section 981 may be used. All of the permanent performance turf material shall be in place prior to final acceptance.

The Department will only pay for replanting as necessary due to factors determined by the Engineer to be beyond control of the Contractor.

Install all performance turf on shoulder areas prior to the placement of the friction course on adjacent pavement.

**570-3.2 Seeding:** At the Contractor's option, wildflower seed may be included in the performance turf seeding operation or performed separately from the performance turf seeding. Seed must produce visible seedlings within 45 days of planting.

Use of compost meeting the requirements of Section 987 as mulch is acceptable unless otherwise specified.

**570-3.3 Sod:** Place the sod on the prepared surface, with edges in close contact. Do not use sod which has been cut for more than 48 hours.

Place the sod to the edge of all landscape areas as shown in the Plans and the Standard Plans.

Place rolled sod parallel with the roadway and cut any exposed netting even with the sod edge.

Monitor placed sod for growth of exotic or invasive pest plants and noxious weeds. If exotic or invasive pest plants and/or noxious weeds manifest themselves within 30 days of placement of the sod during the months April through October, within 60 days of placement of the sod during the months of November through March treat affected areas by means acceptable to the Department at no expense to the Department. If pest plants and/or noxious weeds manifest themselves after the time frames described above from date of placement of sod, the Engineer, at his sole option, will determine if treatment is required and

whether or not the Contractor will be compensated for such treatment. If compensation is provided, payment will be made as Unforeseeable Work as described in 4-4.

Remove and replace any sod as directed by the Engineer.

**570-3.4 Hydroseeding:** Use equipment specifically designed for mixing the mulch, seed, fertilizer, tackifier and dye, and applying the slurry uniformly over the areas to be hydroseeded.

Use mulch that does not contain reprocessed wood or paper fibers. Ensure that 50% of the fibers will be retained on a twenty-five mesh screen.

Mix fertilizer as required into the hydroseeding slurry.

Ensure that the dye does not contain growth or germination inhibiting chemicals.

When polyacrylamide is used as part of hydroseeding mix, only anionic polymer formulation with free acrylamide monomer residual content of less than 0.05% is allowed. Cationic polyacrylamide shall not be used in any concentration. Do not spray polyacrylamide containing mixtures onto pavement. These may include tackifiers, flocculants or moisture-holding compounds.

**570-3.5 Bonded Fiber Matrix (BFM):** Meet the minimum physical and performance criteria of this Specification for use of BFM in hydroseeding operations or temporary non-vegetative erosion and sediment control methods.

Provide evidence of product performance testing, manufacturer's certification of training and material samples to the Engineer at least 7 calendar days prior to installation.

Provide documentation to the Engineer of manufacturer's testing at an independent laboratory, demonstrating superior performance of BFM as measured by reduced water runoff, reduced soil loss and faster seed germination in comparison to erosion control blankets.

Use only BFMs that contain all components pre-packaged by the manufacturer to assure material performance. Deliver materials in UV and weather resistant factory labeled packaging. Store and handle products in strict compliance with the manufacturer's directions.

When polyacrylamide is used as part of hydroseeding mix, only anionic polymer formulation with free acrylamide monomer residual content of less than 0.05% is allowed. Cationic polyacrylamide shall not be used in any concentration. Do not spray polyacrylamide containing mixtures onto pavement. These may include tackifiers, flocculants or moisture-holding compounds.

Meet the following requirements after application of the formed matrix:

Ensure that the tackifier does not dissolve or disperse upon re-wetting.

Ensure that the matrix has no gaps between the product and the soil and that it provides 100% coverage of all disturbed soil areas after application.

Ensure that the matrix has no germination or growth inhibiting properties and does not form a water-repelling crust.

Ensure that the matrix is comprised of materials which are 100% biodegradable and 100% beneficial to plant growth.

Mix and apply the BFM in strict compliance with the manufacturer's recommendations.

Apply the BFM to geotechnically stable slopes at the manufacturer's recommended rates.

Degradation of BFM will occur naturally as a result of chemical and biological hydrolysis, UV exposure and temperature fluctuations. Re-application, as determined by the

Engineer, will be required if BFM-treated soils are disturbed or water quality or turbidity tests show the need for an additional application.

**570-3.6 Watering:** Water all performance turf areas as necessary to produce a healthy and vigorous stand of turf. Ensure that the water used for turf irrigation meets the requirements of Section 983.

**570-3.7 Fertilizing:** Fertilize as necessary to promote turf growth and establishment based on soil testing. Refer to Section 982 for fertilizer rates.

For bid purposes, base estimated quantities on an initial application of 265 lb/acre and one subsequent application of 135 lb/acre of 16-0-8.

**570-3.8 Shoulder Treatment:** Provide soil for shoulder treatment in accordance with Standard Plans, Index 570-010. Soil needed for these purposes will be included in the corresponding Pay Item.

#### **570-4 Turf Establishment.**

Perform all work necessary, including watering and fertilizing, to sustain an established turf, free of noxious weeds, at no additional expense to the Department. Provide the filling, leveling, and repairing of any washed or eroded areas, as necessary.

Established turf is defined as follows:

1. An established root system (leaf blades break before seedlings or sod can be pulled from the soil by hand).
2. No bare spots larger than one square foot.
3. No continuous sod seams running perpendicular to the face of the slope.
4. No bare areas comprising more than 1% of any given 1,000 square foot area.
5. No deformation of the performance turf areas caused by mowing or other Contractor equipment.
6. No exposed sod netting.
7. No competing vegetation, exotic or invasive pest plants or noxious weeds.

Monitor turf areas and remove all competing vegetation, exotic or invasive pest plants, and noxious weeds (as listed by the Florida Exotic Pest Plant Council, Category I “List of Invasive Species”, Current Edition, <https://www.fleppc.org>). Remove such vegetation regularly by manual, mechanical, or chemical control means, as necessary. When selecting herbicides, pay particular attention to ensure use of chemicals that will not harm desired turf or wildflower species. Use herbicides in accordance with 7-1.7.

If at the time that all other work on the project is completed, but all turf areas have not met the requirements for established turf set forth in 570-4, continuously maintain all turf areas until the requirements for established turf set forth in 570-4 have been met.

During establishment and until the performance turf is established in accordance with this Section, continue the inspection, maintenance, and documentation of erosion and sedimentation control items in accordance with Section 104. Remove and dispose of all erosion and sedimentation control items after the performance turf has been established.

Notify the Engineer, with a minimum of seven calendar days advance notice, to conduct inspections of the performance turf at approximate 90-day intervals during the establishment period to determine establishment. Results of such inspections will be made available to the Contractor within seven calendar days of the date of inspection. Determination of an established turf will be based on the entire project and not in sections.

Upon the determination by the Engineer that the requirements of 570-4 have been met and an established turf has been achieved and all erosion and sedimentation control items have

been removed, the Engineer will release the Contractor from any further responsibility provided for in this Specification.

The Contractor's establishment obligations of this specification will not apply to deficiencies due to the following factors, if found by the Engineer to be beyond the control of the Contractor, his subcontractors, vendors or suppliers:

1. Determination that the deficiency was due to the failure of other features of the Contract.
2. Determination that the deficiency was the responsibility of a third party performing work not included in the Contract or its actions.

The Department will only pay for replanting as necessary due to factors determined by the Department to be beyond the control of the Contractor.

#### **570-5 Responsible Party.**

For the purposes of this Specification, the Contractor shall be the responsible party throughout construction and establishment periods.

Upon final acceptance of the Contract in accordance with 5-11, the Contractor's responsibility for maintenance of all the work or facilities within the project limits of the Contract will terminate in accordance with 5-11; with the sole exception that the facilities damaged due to lack of established turf and the obligations set forth in this Specification-for performance turf shall continue thereafter to be responsibility of the Contractor as otherwise provided in this Section.

#### **570-6 Statewide Disputes Review Board.**

The Statewide Disputes Review Board in effect for this Contract will resolve any and all disputes that may arise involving administration and enforcement of this Specification related to the remedial work performed during the warranty period. The Responsible Party and the Department acknowledge that use of the Statewide Disputes Review Board is required, and the determinations of the Statewide Disputes Review Board for disputes arising out of this Specification will be binding on both the Responsible Party and the Department, with no right of appeal by either party. Meet the requirements of 8-3.

#### **570-7 Failure to Perform.**

Should the Contractor fail to timely submit any dispute to the Statewide Disputes Review Board, refuse to submit any dispute to the Statewide Disputes Review Board, fail to provide an established turf in accordance with 570-4 within six months of final acceptance of the Contract in accordance with 5-11, or fail to compensate the Department for any remedial work performed by the Department in establishing a turf and other remedial work associated with lack of an established turf, including but not limited to, repair of shoulder or other areas due to erosion and removal of sediments deposited in roadside ditches and streams, as determined by the Statewide Disputes Review Board to be the Contractor's responsibility, the Department shall suspend, revoke or deny the Contractor's certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, until the Contractor provides an established turf or makes full and complete payment for the remedial work performed by the Department. In no case shall the period of suspension, revocation, or denial of the Contractor's certificate of qualification be less than six months. Should the Contractor choose to challenge the Department's notification of intent for suspension, revocation or denial of qualification and the Department's action is upheld,

the Contractor shall have its qualification suspended for a minimum of six months or until the remedial action is satisfactorily performed, whichever is longer.

**570-8 Method of Measurement.**

The quantities to be paid for will be plan quantity in square yards based on the area shown in the Plans, completed and accepted.

**570-9 Basis of Payment.**

Prices and payments will be full compensation for all work and materials specified in this Section.

Payment will be made under:

Item No. 570- 1- Performance Turf - per square yard.

## SIGNING, PAVEMENT MARKING, AND LIGHTING

### SECTION 700 HIGHWAY SIGNING

#### 700-1 Description.

Furnish and install roadway signs in accordance with the details in the Standard Plans and as shown in the Plans.

Erect ground traffic signs as signs on the shoulders, slopes, or medians. Signs are classified as single column(post), multi-column, or In-Street signs.

Erect overhead traffic signs partially or completely over the traveled roadway or mounted on bridges. Overhead traffic signs are classified as span wire mounted, mast arm mounted, overhead cantilever structure, or overhead span structure traffic signs.

The sign face(s) may be a single or combination of static sign panels, illuminated sign panels, dynamic message signs, or electronic display signs.

Fabricate standard sign panel messages in accordance with details included in the Standard Highway Signs (SHS) manual published by the U.S. Department of Transportation, the Plans, or Standard Plans. Submit shop drawings to the Department for approval, as specified in Section 5.

All Traffic Control Signals and Devices must meet the requirements of Section 603.

#### 700-2 Materials.

##### 700-2.1 General Requirements: Meet the following requirements:

Flowable Fill for precast foundation.....	Section 121
Structural Concrete .....	Section 346
Non-Structural Concrete .....	Section 347
Reinforcing Steel .....	Section 415
Structural Steel Welding .....	Section 460
Repair of Galvanized Surfaces.....	Section 562
Transformer Base.....	Section 965
Structural Steel and Miscellaneous Metal Items (other than aluminum).....	Section 962
Aluminum Items .....	Section 965
Retroreflective Sign Sheeting* .....	Section 994
Sign Panel Fabrication .....	Section 994
Internally Illuminated Signs* .....	Section 995-14
Highlighted Signs* .....	Section 995-15
Dynamic Message Signs* .....	Section 995-16
Electronic Display Signs (ERS, ESFS, BOS)* .....	Section 995-17
Sign Beacon* .....	Section 995-18
In-street Sign* .....	Section 995-19

\*Use products listed on the Department's Approved Products List (APL).

##### 700-2.2 Static Sign Assembly Requirements:

**700-2.2.1 Static Sign Panels:** Provide aluminum sheets for sign panels meeting the requirements of Section 965 and Section 994. Meet the minimum thickness requirements of Table 700-1.

For flip signs, use continuous hinges constructed of ANSI grade 316 stainless steel.

For In-Street signs, see 700-7.

Table 700-1 Static Sign Panel Requirements	
Type	Minimum Thickness
Single column ground sign	0.08 inch
All other sign panels	0.125 inch

**700-2.2.2 Sign Panel Mounting Hardware:** Provide aluminum materials (plates, bars, shapes, bolts, nuts, and washers) in accordance with Section 965. Stainless steel mounting hardware meeting Table 962-6 (ASTM F593 for bolts and ASTM F594 for nuts) may be substituted. Steel plates, shapes and hardware must meet Section 962.

**700-2.2.3 Retroreflective Sign Sheeting:** Sign sheeting must meet the requirements of Section 994 and Table 700-2.

Table 700-2 Retroreflective Sign Sheeting*		
Application	Sheeting System Type	Notes
All signs and retroreflective strips, except as otherwise noted below	Type XI	
School: S1-1, S3-1, S3-2, S4-5, S4-5a, S5-1 (SCHOOL portion) Bicycle: W11-1 Pedestrian: R1 6, R1 6a, R1 6b, R1 6c, R1 9, R1 9a, R10 15, W11 2 Shared Use Path (trail): W11 15, W11 15a	Type XI fluorescent yellow green sheeting**	Includes supplemental panels
* All digitally printed signs and red silkscreen inks require a clear overlay for UV protection. **Do not mix signs having fluorescent yellow green sheeting with signs having yellow retroreflective sheeting.		

**700-2.3 Galvanized Bolt Assemblies (Bolts, Nuts, Washers):** Provide galvanized bolt assemblies meeting Section 962 for high-strength steel fastener assemblies. Provide galvanized anchor rods, plate washers, U-bolts, and shims meeting the requirements of Section 962 for hardware not designated as high strength.

#### **700-2.4 Sign Support Structure:**

**700-2.4.1 Single Column Ground Signs and Single Post Barrier Mounted Signs:** Use aluminum tubing meeting the requirements of Section 965. For top-mounted single post barrier mounted signs use galvanized steel pipe meeting the requirements of Section 962. Steel shapes and welding must meet 962-10.

**700-2.4.2 Multi-Column Ground Signs:** Multi-column signs must be galvanized steel W or S beams steel columns meeting Section 962.

**700-2.4.3 Overhead Signs:** Obtain overhead sign structures from a facility that is listed on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105.

Meet the requirements for overhead signs in accordance with Section 962.

Repair galvanized surfaces in accordance with Section 562. Galvanizing materials used for repair must meet the requirements of Section 975.

**700-2.4.4 Enhanced Highway Sign Assemblies:** Use aluminum pedestal posts, transformer bases, anchors, caps, and shims meeting the requirements of Section 646.

**700-2.5 Storage, Handling and Labeling:** If signs are stored prior to installation, store them in accordance with the manufacturer's recommendations. Properly package signs to protect them during storage, shipment and handling to prevent damage to the sign face and panel.

Install a label on all permanent roadway signs on the back bottom edge with the date of installation, APL number of the base sheeting, and Name of Fabricator. Make the labels unobtrusive, but legible enough to be easily read by an observer on the ground when the sign is in its final position. Apply the label in a manner that is at least as durable as the sign face.

#### **700-2.6 Acceptance of Signs:**

**700-2.6.1 Sign Inspection:** Submit certification that the sign assembly meets the material and installation requirements of the Contract Documents. The Engineer will inspect the signs upon delivery to the storage or project site and again at the final construction inspection. Repair and replace damaged signs at no expense to the Department.

**700-2.6.2 Imperfections and Repairs:** Repair or replace signs containing imperfections or damage regardless of the kind, type, or cause of the imperfections or damage. For sign panels exceeding 30 square feet, the Contractor may make one patch, if necessary, to each sign panel not to exceed two square inches. Make repairs according to the manufacturer's recommendations. Ensure that completed repairs provide a level of quality necessary to maintain the service life of the sign and are satisfactory in appearance to the Engineer.

### **700-3 Static Signs.**

**700-3.1 Single Column and Multi-Column Ground Sign Assemblies:** Furnish and install single column and multi-column ground signs in accordance with the Plans and Standard Plans, Indexes 700-010, 700-011, and 700-020.

**700-3.1.1 Foundation:** Construct foundations in accordance with the applicable Standard Plans. The Contractor may use precast foundations in augured or excavated holes a minimum of 12 inches larger than each axis dimension of the precast foundation. Obtain precast foundations from a plant that is currently on the Department's Production Facility Listing. Producers seeking inclusion on the list shall meet the requirements of Section 105. The holes must be clean and without loose material. Temporary casing will be required if the soil is unstable. Fill the void around the precast foundation with flowable fill meeting the requirements of Section 121 or use clean sand placed using hydraulic methods.

#### **700-3.1.2 Breakaway Support Mechanisms for Ground Traffic Signs:**

**700-3.1.2.1 Frangible Supports:** Provide support posts for all frangible sign assemblies consisting of aluminum tubes up to 3-1/2 inches outside diameter with 3/16-inch wall thickness in accordance with the requirements in the Standard Plans.

**700-3.1.2.2 Slip Bases:** Slip base assemblies for single column signs will use aluminum sleeves and base plates. The slip base stub (the lower base plate assembly) may be galvanized steel in accordance with the Standard Plans.

Slip base assemblies for multi-column signs will use galvanized steel bases. All slip bases must be fabricated in accordance with the requirements of the Standard Plans.

**700-3.1.3 Fabrication:** Fabricate the supports and wind beams in accordance with the Standard Plans. Weld joints in accordance with Section 460.

Drill or sub-punch and ream holes in multi-column fuse plates and hinge plates.

Hot dip galvanize after fabrication. Remove all drips, runs or beads on base plate within washer contact areas (including saw cuts).

**700-3.1.4 Installation:** Verify the length of the column supports in the field prior to fabrication to permit the appropriate sign mounting height. Columns must be plumb and panels must be level with the proper orientation.

**700-3.1.5 Retroreflective Strips for Signs:** Use with static Wrong-Way Signs in accordance with Standard Plans, Index 700-101 and on other signs where retroreflective strip is called for in the Plans. The retroreflective strip must be 2 inches in width and 5 feet in height for all signs, except for signs mounted at a height of 4 feet, then use a retroreflective strip 2 feet in height. For the back of Railroad Crossbuck signs, the retroreflective strip will be 2 inches wide for the full length of the blade. Match the color of the retroreflective strip to the background color of the sign (per the SHS), except for YIELD signs and DO NOT ENTER signs, where the color must be red. Install retroreflective strips directly to a panel attached to the column in accordance with the manufacturer's instructions. Use a 0.040-inch minimum aluminum plate or other material approved by the sheeting manufacturer. Use stainless steel attachment hardware for the installation. Install retroreflective strips in a manner that does not require drilling holes through the column (post). A set screw no larger than 1/4 inch may be used with band attachments

**700-3.1.6 Flip Signs:** Install in accordance with the Plans and Standard Plans Index 700-010.

**700-3.2 Single Post Barrier Mounted Signs:** Meet the requirements of the Standard Plans, Indexes 700-012 and 700-013. Snap-in post cap is UV and weather-resistant glass-filled polyester cap.

**700-3.3 Overhead Signs:** Meet the requirements of the Plans and Standard Plans for overhead sign structures, including those for walk-in dynamic message signs (DMS).

**700-3.3.1 Fabrication:** Weld joints in accordance with Section 460.

Structural bolt hole diameters: Bolt diameter plus 1/16 inch.

Anchor bolt hole diameters: Bolt diameter plus 1/2 inch.

Upright splices are not allowed. Sign trusses may be fabricated in sections that fit into available galvanizing vats. Provide magnetic particle testing on 100% of upright fillet welds after galvanizing.

Shop assemble the entire structure after galvanizing to validate proper fit for all bolted connections. Complete necessary repairs prior to shipping. Assemblies may be separated for shipment.

**700-3.3.2 Foundations:** Meet the requirements of Section 455. Use Class IV concrete for spread footings and IV (Drilled Shaft) for drilled shaft foundations.

**700-3.3.3 Installation:** Install nuts on anchor bolts in accordance with Section 649 with the following exception. For cantilever overhead sign structures, after placement of the upright and prior to installation of the truss, adjust the leveling nuts beneath the

base plate to achieve the back rake shown on the Camber Diagram. If the top surface of the base plate has a slope that exceeds 1:40, use beveled washers under the top nuts. Split-lock washers are not permitted.

Install screens or grout pads in accordance with the Standard Plans, and as required by Section 649.

Install ASTM F3125, Grade A325 bolt, nut and washer assemblies in accordance with 460-5, except that 460-5.4.2 Preparation of Faying Surfaces is not required.

**700-3.3.4 Erection of Signs and Sign Supports:** Do not erect overhead sign supports until the concrete strength in the support footing is at least 2,500 psi. Determine concrete strength from tests on a minimum of two test cylinders sampled and tested in accordance with ASTM C31 and ASTM C39 and verifying test results have been submitted to the Engineer.

Erect the signs and sign structures in accordance with the details shown in the Plans. Re-galvanize damaged parts as specified in Section 562. Record the as-built anchor locations and submit to the Engineer prior to erecting the sign supports. Place backfill above spread footings prior to installation of the sign panels. Do not remove or reduce backfill without prior approval of the Engineer.

## **700-4 Enhanced Highway Sign Assemblies.**

**700-4.1 Description:** Furnish and install enhanced highway sign assemblies in accordance with the Plans and Standard Plans, Index 700-120.

**700-4.2 Materials:** Use flashing beacons, highlighted signs, electronic display signs (EDS), and associated mounting hardware that meet the requirements of Section 995 and are listed on the APL. EDS are specialized electronic signs that include dynamic display components. The term EDS refers to a general category of electronically enhanced road signs (ERS) with warning regulatory, or guide legends; electronic speed feedback signs (ESFS); and blank-out signs (BOS).

For new roadside sign assemblies, provide support structure in accordance with Section 646. Meet all static sign requirements for the static portion of the highlighted sign (i.e., sign panel, reflective sheeting, etc.).

**700-4.2.1 Warranty:** Ensure that beacons, highlighted signs, and EDS have a manufacturer's warranty covering defects for three years from the date of final acceptance by the Engineer in accordance with 5-11 and Section 608.

**700-4.3 Foundations:** Construct foundations in accordance with the Standard Plans and Specification 646.

**700-4.4 Installation:** Install sign assemblies based on Alpha-Numeric Type designation shown in the Plans. Assembly Type is based on Power Configuration "Alpha" Identification and Numerical Identification shown in Standard Plans, Index 700-120. Install sign panel and wind beam meeting the requirements of this Section and Standard Plans, Index 700-110. For roadside sign assemblies, construct foundation and install support structure in accordance with 646-3 and the Standard Plans, Index 700-120. Install enhanced highway sign assembly components in accordance with the manufacturer's recommendations.

## **700-5 Internally Illuminated Signs.**

**700-5.1 Description:** Furnish and install internally illuminated signs in accordance with the details specified in the Contract Documents.

**700-5.2 Materials:** Use internally illuminated signs and associated mounting hardware listed on the Department's Approved Product List (APL).

Use clamp-on cantilever arms for internally illuminated signs which meet all design and wind loading requirements as specified in the Contract Documents. Ensure the clamp is adjustable to accommodate various size poles.

**700-5.2.1 Acceptance of Internally Illuminated Signs:** Certify that signs and clamp-on cantilever arms provided meet the criteria in this Section and Section 995.

**700-5.2.2 Warranty:** Ensure that internally illuminated signs have a manufacturer's warranty covering defects for five years from the date of final acceptance by the Engineer in accordance with 5-11 and Section 608.

**700-5.3 Installation of Internally Illuminated Signs:** Secure the brackets to the sign housing in accordance with the manufacturer's instructions.

**700-5.3.1 Double Sided Sign Assembly:** Use a free swinging mounting method.

**700-5.3.2 Two Point Support Assembly:** Use a two point support assembly when the sign assembly is attached to a mast arm that is perpendicular to the street on which the sign is viewed.

Use a two point mast arm mounting assembly consisting of the following:

1. Stainless steel band or cable type clamp,
2. Clevis,
3. Span wire adapter,
4. Tri-stud hanger body.

Ensure one of the hangers has a mechanism for the horizontal adjustment of the sign.

**700-5.3.3 One Point Support Assembly:** Use a one point support assembly consisting of an articulated horizontal stainless steel band or cable type mast arm clamp, sign bracket and mounting hardware, when the sign assembly is attached to a mast arm that is diagonal to the street on which the sign is viewed. Do not use a one point support assembly for internally illuminated sign assemblies exceeding four feet in width.

Ensure the band or cable clamp is capable of horizontal rotation of 360 degrees.

**700-5.3.4 Clamp-On Cantilever Arm:** Attach the arm perpendicular to the street on which the sign assembly is viewed. Use a clamp and arm that are galvanized in accordance with ASTM A123 unless otherwise shown in the Plans. Ensure the arm has a cap secured in place.

**700-5.3.5 Electrical Wiring:** Unless otherwise shown in the Plans, install dedicated 14 AWG conductors to supply power to the sign and connect the conductors to a dedicated 15 amp circuit breaker located either inside the controller cabinet or inside the electrical service disconnect. Using the same conduit system for both signal cables and internally illuminated sign conductors is permitted, unless otherwise shown in the Plans.

Install conductors in such a manner as to prevent damage to conductors or conductor insulation. Remove and replace all damaged conductors /insulation at no additional cost to the Department.

Ensure drilled holes through which conductors pass through are fitted with a weather tight rubber grommet fitting.

Install continuous lengths of conductors between the dedicated circuit breaker and internally illuminated signs.

Do not splice conductors unless otherwise shown in the Plans.

Provide one photoelectric cell for all internally illuminated signs at each intersection. Use an L bracket to mount the photoelectric cell as specified in the Contract Documents. Connect the photoelectric cell to a contactor assembly inside the controller cabinet to provide switching of the internally illuminated signs.

## **700-6 Dynamic Message Signs.**

**700-6.1 General:** Provide monochrome, tri-color, or full-color signs as shown in the Plans.

**700-6.2 Sign Housing Requirements for all DMS:** Ensure that the sign housing design and appearance is approved by the Engineer.

**700-6.3 Characters, Fonts, and Color:** Submit a list of the character fonts to the Engineer for approval.

**700-6.4 Main Power Supply and Energy Distribution Specifications:** Provide Type XHHW power cables sized as required by the NEC for acceptable voltage drops while supplying alternating current to the sign.

**700-6.5 Uninterruptible Power Supply (UPS):** The UPS system must be capable of displaying the current messages on a sign when a power outage occurs. Signs with an UPS must be able to operate on battery power and display text messages for a minimum of two hours.

**700-6.6 Operational Support Supplies:** Furnish the operational support supplies listed in Table 700-3. Promptly replace any of the supplies used to perform a warranty repair prior to final acceptance.

For every group of 10 or fewer DMSs provided or required, provide one set of supplies as follows:

Table 700-3 DMS Operational Support Supplies	
1 each	Sign controller and I/O board(s)
1 per DMS	LED display modules
1 each	Display power supply
1 each	Uninterruptible power supply
2 each	Surge suppression sets
1 each	Fan assembly

**700-6.7 Message and Status Monitoring:** Ensure that the sign can perform the following functions:

1. Control Selection – Ensure that local or remote sign control can be selected.
2. Message Selection – Ensure that the sign controller can select a blank message or any one of the messages stored in the sign controller's nonvolatile memory when the control mode is set to local.
3. Message Implementation – Ensure that the sign controller can activate the selected message.

Ensure that each font may be customized, and modifications to a font may be downloaded to the sign controller from the TMC or a laptop computer at any time without any software or hardware modifications.

Ensure that there is no perceivable flicker or ghosting of the pixels during sign erasure and writing periods.

**700-6.8 TMC Communication Specification for all DMS:**

Provide communications line circuits that are point-to-point or multipoint, and that provide full duplex asynchronous data transmissions at the rate shown in the Contract Documents or directed by the Engineer.

Assign each sign controller a unique address.

**700-6.9 Sign Control Software:** Ensure that the laptop computer and sign can communicate when connected directly by an EIA-232 cable and via Ethernet. Ensure that the software allows communication between multiple users and multiple signs across the same communication network.

**700-6.10 Sign Support Structure:** Meet the requirements of 700-2.3.

**700-6.11 Installation Requirements:** Provide a walk-in DMS for locations over interstate travel lanes. Verify that any ventilation system incorporated within the sign is operational per the manufacturer's recommendations.

Install the DMS in accordance with the manufacturer's recommendations and Standard Plans, Index 700-090.

Ensure that the location of the lifting eyebolts, left in place or removed, is sealed to prevent water entry after installation.

Load the initial message libraries on both the sign control software and the sign controller. The Engineer will furnish the messages to be placed in these libraries.

**700-6.12 Documentation:** Submit documentation for electronic equipment in accordance with 603-6.

**700-6.13 Licensing:** Ensure that the manufacturer grants the Department a license that allows the Department to use and internally distribute any and all sign communications protocols, operating systems, drivers, and documentation.

**700-6.14 Technical Assistance:** Ensure that a manufacturer's representative is available to assist the Contractor's technical personnel during pre-installation testing and installation.

Do not provide initial power to the signs without the permission of the manufacturer's representative.

**700-6.15 Pre-installation Field Testing:** Conduct pre-installation tests on all units at a Contractor-provided facility within the appropriate District. Perform the tests on each unit supplied to verify that no damage was done to any sign during the shipment and delivery process. Notify the Engineer a minimum of 10 calendar days before the start of any tests. Conduct all tests according to the approved test procedures detailed in this Section. Each DMS must pass the individual tests detailed below prior to installation.

**700-6.15.1 Material Inspection:** Examine each DMS carefully to verify that the materials, design, construction, markings, and workmanship comply with all applicable standards, specifications, and requirements.

**700-6.15.2 Operational Test:** Operate each DMS long enough to permit equipment temperature stabilization, and to check and record an adequate number of performance characteristics to ensure compliance with applicable standards, specifications, and requirements.

**700-6.15.3 Pre-Installation Test Failure Consequence:** If any unit fails, the unit shall be corrected or another unit substituted in its place and the test repeated.

If a unit has been modified as a result of a failure, a report shall be prepared and submitted to the Engineer. The report shall describe the nature of the failure and the corrective action taken.

If a failure pattern develops, the Engineer may direct that design and construction modifications be made to all units without additional cost to the Department or an extension of the Contract Time.

**700-6.16 Installed Site Tests:** Conduct Intelligent Transportation System Device Installation testing in accordance with Section 611.

**700-6.17 System Testing:** Conduct Intelligent Transportation System Device Installation testing in accordance with Section 611.

## **700-7 In-Street Sign Assemblies.**

**700-7.1 Description:** In-Street signs consist of the R1-6a or R1-6c In-Street Pedestrian Crossing Sign assemblies including the sign base.

**700-7.2 Fabrication of Panel Messages:** Fabricate standard sign panel messages in accordance with the Standard Plans. Sign panels of 9 inches in width x 27 inches in height or 12 inches x 36 inches are acceptable. See Standard Plans Section 700-102.

**700-7.3 Installation:** Install a fixed base connection in accordance with the manufacturer's instructions. Install portable base connections only for temporary applications at school crossings where a crossing guard is present during school arrival and departure times or when children are present.

## **700-8 Warranty.**

Refer to Section 608 for Contractor Requirements. Transfer all warranties from the Manufacturer to the Department.

## **700-9 Method of Measurement.**

**700-9.1 Single Column Ground Sign Assembly:** Measurement will be made per each and will consist of all signs mounted on a single column (post). Area measurement for an assembly will include the total sheeting area, excluding any reflective sign strips.

**700-9.2 Multi-Column Ground Sign Assembly:** Measurement will be made per each and will consist of all sign panels and columns for a multi-column ground sign. Area measurement for an assembly will include the total sheeting area, excluding any reflective sign strips.

**700-9.3 Sign Panel:** Measurement for each sign panel will be the width times height of the sheeting area. No separate payment will be made for any panels on a new sign assembly.

**700-9.4 Overhead Static Sign Structure:** Sign panels will be paid separately from the overhead static support structures. For signs mounted on a span wire or mast arm, payment for the structure will be paid under the applicable items in Section 634 or Section 649. Measurement for all other overhead static sign structures will be made per each.

**700-9.5 Enhanced Highway Sign Assembly:** Measurement for Enhanced Highway Sign Assembly will be made per each.

**700-9.5.1 Sign Beacon:** No separate measurement will be made for a sign beacon mounted on a new Enhanced Sign Assembly. Separate measurement for retrofit, per each sign beacon, will be made for installation on an existing sign panel or sign assembly.

Separate payment for removal will be made only when the sign panel or sign assembly is to remain.

**700-9.5.2 Highlighted Signs:** No separate measurement will be made for a highlighted sign as part of a new Enhanced Sign Assembly. Separate measurement for retrofit, per each highlighted sign, will be made for installation on an existing post or other structure. Measurement for Highlighted Sign will be made per each sign completed.

**700-9.5.3 Electronic Display Sign:** No separate measurement will be made for an EDS as part of a new Enhanced Sign Assembly. Separate measurement for retrofit, per each EDS, will be made for installation on an existing post or other structure. Measurement for EDS will be made per each sign completed.

**700-9.6 Internally Illuminated Signs:** Measurement for Internally Illuminated Sign will be made per each completed sign, regardless of whether the sign has one or more illuminated faces.

**700-9.7 Embedded Dynamic Message Sign:** Measurement for Embedded Dynamic Message Sign will be made for each completed sign, regardless of the number of embedded sign messages or housings mounted on a single or multi-post foundation.

**700-9.8 Front Access Dynamic Message Sign:** Measurement for Front Access Dynamic Message Sign will be made for each completed sign, regardless of the number of sign messages or housings mounted on a single or multi-post foundation.

**700-9.9 Walk-in Dynamic Message Sign:** Measurement for Embedded Dynamic Message Sign will be made for each completed sign.

**700-9.10 Dynamic Message Sign Support Structure:** Measurement for Dynamic Message Sign Support Structure will be made for each completed sign structure, regardless of the number of static and/or dynamic message signs supported.

**700-9.11 Retroreflective Strip:** Measurement for the retroreflective sign strip will be per each.

**700-9.12 In Street Sign Assembly:** Measurement will be made per each.

**700-9.13 Removal and Relocation Operations:** Measurement for removal or relocation operations of single column and multi-column signs will be made per each. Measurement for overhead sign structure will be made per each.

Measurement, per each, for removal of sign panels will only be made for signs not on an assembly.

## **700-10 Basis of Payment.**

**700-10.1 Single Column Ground Sign Assembly:** The Contract unit price per each for single column ground mounted signs will include the sign panels, sheeting, support structure, foundation, hardware, and labor necessary for a complete and accepted installation. For flip-up signs, the assembly includes the hinge and any additional hardware.

**700-10.2 Multi-Column Ground Sign Assembly:** The Contract unit price per each for multi-column ground mounted signs will include the sign panels, support structure, foundation, hardware, and labor necessary for a complete and accepted installation.

**700-10.3 Sign Panel:** The Contract unit price per each sign panel will include the aluminum panel, sheeting, support structure, foundation, hardware, and labor necessary for a complete and accepted installation.

**700-10.4 Overhead Static Sign Structure:** The Contract unit price for each overhead static sign structure will include the support structure, foundation, hardware, and labor necessary for a complete and accepted installation.

**700-10.5 Enhanced Highway Sign Assembly:** The Contract unit price per each will include sign, electronics, cabinet, support structure, foundation, hardware, power system, and labor necessary for a complete and accepted installation.

**700-10.5.1 Sign Beacon:** The Contract unit price per each for sign beacon will consist of the flashing beacons, cabinet, housing, controller, hardware, and labor necessary for a complete and accepted installation. Signal cable from the cabinet to the signs will be paid separately under the applicable item for signal cable.

When solar power is specified in the Contract Documents, the Contract unit price will include the solar panel, auxiliary pole, batteries, and electronics.

**700-10.5.2 Highlighted Signs:** The Contract unit price per each for highlighted signs, furnished and installed, will include furnishing the sign, electronics, cabinet, support structure, foundation, hardware, and labor necessary for a complete and accepted installation. When solar power is specified in the Contract Documents, the Contract unit price will include the solar panel, auxiliary pole, batteries, and electronics.

Highlighted Signs used for Wrong Way sign installations do not include the Wrong Way Detection System; measurement and payment for the detection system will be made in accordance with Section 660.

**700-10.5.3 Electronic Display Sign:** The Contract unit price per each for electronic display sign will include static sign panels as required, electronic display, support structure, foundation, housing, cabinet, controller, speed detector, hardware, electrical connection, and labor necessary for a complete and accepted installation.

When the electronic display sign is ground mounted, the Contract price will include the support structure and foundation. All other mounting will include the hardware necessary to complete the attachment to the support structure; the span wire, monotube, or mast arm structure will be paid separately.

When solar power is specified in the Contract Documents, the Contract unit price will include the solar panel, auxiliary pole, and batteries.

**700-10.6 Internally Illuminated Signs:** The Contract unit price for each Internally Illuminated Sign will include the sign, housing, hardware, electrical connection, and labor necessary for a complete and accepted installation. All other mounting will include the hardware necessary to complete the attachment to the support structure; the span wire, monotube, or mast arm structure will be paid separately.

**700-10.7 Embedded Dynamic Message Sign:** The Contract unit price per each for Embedded DMS will include the sign, all hardware and software, testing, and warranty for a completed installation.

**700-10.8 Front Access Dynamic Message Sign:** The Contract unit price per each for Front Access DMS will include the sign, all hardware and software, testing, and warranty for a completed installation.

**700-10.9 Walk-in Dynamic Message Sign:** The Contract unit price per each for Walk-in DMS will include the sign, all hardware and software, testing, and warranty for a completed installation. When shown in the Contract Documents, payment for the Walk-in DMS will also include the Uninterruptible Power Supply.

**700-10.10 Dynamic Message Sign Support Structure:** The Contract unit price for each support structure will include posts and supports, catwalks, handrails, footings, foundation, excavation, site grounding, painting, and incidentals necessary for a complete and accepted installation.

**700-10.11 Retroreflective Sign Strip:** The Contract unit price per each will include the retroreflective sign strip, hardware, and labor necessary for a complete and accepted installation.

**700-10.12 In Street Sign Assembly:** The Contract unit price per each will include the vertical panel, retroreflective sign sheeting, rebounding boot support, and a base, for a complete and accepted installation.

**700-10.13 Removal and Relocation Operations:** The Contract unit price for removal of signs will include the removal of the support and footing. Restore the area to the condition of the adjacent area.

The Contract unit price for relocation of signs will consist of removing the existing sign assembly, including foundation removal and area restoration, and installing the sign at the new location shown in the Plans.

For the relocation of existing ground-mounted signs to be relocated or removed, after removing the sign panel from the assembly, remove supports and footings.

For the removal of overhead static sign structures, the Contract unit price will include the removal of the foundation: when partial foundation removal is called for, remove the support structure, and foundation to a minimum depth of four feet below existing grade; when complete foundation removal is called for, completely remove the support structure including the foundation.

**700-10.14 Payment Items:** Payment will be made under:

- |                   |  |
|-------------------|--|
| Item No. 700- 1-  | Single Column Ground Sign Assembly, each.      |
| Item No. 700- 2-  | Multi-Column Ground Sign Assembly, each.       |
| Item No. 700- 3-  | Sign Panel, each.                              |
| Item No. 700- 4-  | Overhead Static Sign Structure, each.          |
| Item No. 700- 5-  | Internally Illuminated Signs, each.            |
| Item No. 700- 7-  | Embedded Dynamic Message Sign - each.          |
| Item No. 700- 8-  | Front Access Dynamic Message Sign - each.      |
| Item No. 700- 9-  | Walk-in Dynamic Message Sign - each.           |
| Item No. 700- 10- | Dynamic Message Sign Support Structure - each. |
| Item No. 700- 13- | Retroreflective Sign Strip, each.              |
| Item No. 700- 14- | Enhanced Highway Sign Assembly, each.          |
| Item No. 700- 15- | In Street Sign Assembly, each.                 |

## **SECTION 706 RAISED PAVEMENT MARKERS AND MARKER ADHESIVE**

### **706-1 Description.**

Raised pavement markers (RPMs) and adhesive provide a positive guidance system to supplement other reflective pavement markings.

### **706-2 Materials.**

Use only Class B markers, except as follows:

For center line rumble strip installations where RPMs are in conflict with the grinding, install Class D RPMs with the first application of standard paint. Remove Class D RPMs prior to grinding, then install Class B RPMs in an unground area after grinding.

Install Class F RPMs only when shown in the plans.

Meet the requirements of Section 970.

**706-2.1 Product Acceptance on the Project:** Use only RPMs and adhesive that are listed on the Department's Approved Product List (APL). For Class F RPMs, provide a warranty assigned to the Department in accordance with Section 970.

### **706-3 Bituminous Adhesive Equipment.**

Use equipment having either thermostatically controlled double boiler type units utilizing heat transfer oil or thermostatically controlled electric heating pots to install hot applied bituminous adhesive. Use a melter/applicator unit suited for both melting and pumping the bituminous adhesive through heated applicator hoses.

Heat the bituminous adhesive to between 375°F and 425°F and apply directly to the bonding surface from the melter/applicator by either pumping or pouring. Maintain the application temperature between 375°F and 425°F. The bituminous adhesive may be reheated. However, do not exceed the manufacturer's recommendations for pot life at application temperatures.

### **706-4 Application.**

Install RPMs in accordance with the Plans and Standard Plans, Indexes 706-001 and 711-003, prior to opening the road to traffic.

Apply RPMs to the bonding surface using bituminous or epoxy adhesives in accordance with the manufacturer's instructions. Use epoxy adhesives when applying RPMs on concrete pavement.

For Class F RPMs, installation may include the removal of roadway surface material to recess a portion of the RPM housing.

Prior to application of adhesive, clean the portion of the bonding surface of any material which would adversely affect the adhesive.

Apply the adhesive to the bonding surface (not the RPM) so that 100% of the bonding area of the RPM will be covered, in accordance with adhesive manufacturer's recommendations. Apply sufficient adhesive to ensure that when the marker is pressed downward into the adhesive, adhesive will be forced out around the entire perimeter of the RPM.

Immediately remove excess adhesive from the bonding surface and exposed surfaces of the RPMs. Soft rags moistened with mineral spirits meeting Federal Specifications TT-T-291 or kerosene may be used to remove adhesive from exposed faces of the RPMs. Do not use any other

solvent. If any adhesive, pavement marking materials or other foreign matter adheres to the traffic face of the RPM, replace the RPM at no cost to the Department.

Restore any areas impacted by the installation of Class F RPMs to original condition.

Ensure that all final RPMs are in place prior to opening the road to traffic.

If more than 2% of the RPMs fail in adhesion or alignment within the first 45 days under traffic, replace all failed RPMs at no expense to the Department. If more than 5% of the RPMs fail in adhesion and or alignment during the initial 45 day period, the Engineer will extend the replacement period an additional 45 days from the date that all replacement RPMs have been installed. If, at the end of the additional 45 day period, more than 2% of all RPMs (initial installation and 45 day replacements combined) fail in adhesion or alignment, replace all failed RPMs at no expense to the Department.

#### **706-5 Contractor's Responsibility for Notification.**

Notify the Engineer prior to the placement of RPMs. At the time of notification, submit the APL number and the batch or LOT numbers of RPMs and adhesive to be used.

#### **706-6 Method of Measurement.**

The quantity of RPMs to be paid for under this Section will be the quantity per each, furnished and installed, completed and accepted.

#### **706-7 Basis of Payment.**

**706-7.1 Class B RPMs:** Price and payment for Class B RPMs will be full compensation for all work and materials in this Section.

**706-7.2 Class D RPMs:** Payment will be made in accordance with Section 102.

**706-7.3 Class F RPMs:** Price and payment for Class F RPMs will be full compensation for all work and materials in this Section.

**706-7.4 Payment Items:** Payment will be made under:

Item No. 706- 1-      Raised Pavement Marker - per each.

## SECTION 710 PAINTED PAVEMENT MARKINGS

### 710-1 Description.

Apply painted pavement markings, in accordance with the Contract Documents.

### 710-2 Materials.

Use only materials listed on the Department's Approved Product List (APL) meeting the following requirements:

Standard Paint ..... 971-1 and 971-3

Durable Paint ..... 971-1 and 971-4

Glass Spheres ..... 971-1 and 971-2

The Engineer will take random samples of all material in accordance with the Department's Sampling, Testing and Reporting Guide schedule.

### 710-3 Equipment.

Use equipment that will produce continuous uniform dimensions of pavement markings of varying widths and meet the following requirements:

1. Capable of traveling at a uniform, predetermined rate of speed, both uphill and downhill, in order to produce a uniform application of paint and capable of following straight lines and making normal curves in a true arc.

2. Capable of applying glass spheres to the surface of the completed line by an automatic sphere dispenser attached to the pavement marking machine such that the glass spheres are dispensed closely behind the installed line. Use a glass spheres dispenser equipped with an automatic cut-off control that is synchronized with the cut-off of the paint and applies the glass spheres in a manner such that the spheres appear uniform on the entire pavement markings surface.

3. Capable of spraying the paint to the required thickness and width without thinning of the paint. Equip the paint tank with nozzles equipped with cut-off valves, which will apply broken or skip lines automatically.

### 710-4 Application.

**710-4.1 General:** Remove existing pavement markings, such that scars or traces of removed markings will not conflict with new pavement markings, by a method approved by the Engineer.

Before applying pavement markings, remove any material that would adversely affect the bond of the pavement markings by a method approved by the Engineer.

Apply standard paint to dry surfaces only, and when the ambient air and surface temperature is at least 40°F and rising.

Apply durable paint to dry surfaces only. Do not apply durable paint when the ambient air and surface temperature is below 50°F, relative humidity is above 80% or when the dew point is within 5°F of the ambient air temperature.

Do not apply painted pavement markings when winds are sufficient to cause spray dust.

Apply painted pavement markings, having well defined edges, over existing pavement markings such that not more than 2 inches on either end and not more than 1 inch on

either side is visible. When stencils are used to apply symbols and messages, the areas covered by the stencil reinforcing will not be required to be painted.

Mix the paint thoroughly prior to pouring into the painting machine. Apply paint to the pavement by spray or other means approved by the Engineer.

Conduct field testing in accordance with FM 5-541 Part A. Remove and replace painted pavement markings not meeting the requirements of this Section at no additional cost to the Department.

Apply all pavement markings prior to opening the road to traffic.

**710-4.1.1 Painted Pavement Markings (Final Surface):** On concrete surfaces or newly constructed asphalt, the painted pavement markings (final surface) will include one application of standard paint applied to the final surface, except as noted herein.

For center line and edge line rumble strip installations where the pavement marking is placed within the grinding, apply a second application of standard paint within 24 hours of each day's grinding operation.

Do not apply final surface paint where preformed thermoplastic is required in 711-4.2.3.

Do not apply final surface paint where permanent tape will be applied.

**710-4.2 Thickness:** Apply standard paint to attain a minimum wet film thickness of 0.015 inches or 15 mils. Apply durable paint to attain a minimum wet film thickness of 0.025 inches or 25 mils. Measure, record, and certify on a Department approved form and submit to the Engineer, the thickness of white and yellow durable paint pavement markings in accordance with FM 5-541 Part A.

**710-4.3 Retroreflectivity:** Apply white and yellow standard paint that will attain an initial retroreflectance of not less than 300 mcd/m<sup>2</sup>/lx and not less than 250 mcd/m<sup>2</sup>/lx, respectively. Apply white and yellow durable paint that will attain an initial retroreflectance of not less than 450 mcd/m<sup>2</sup>/lx and not less than 300 mcd/m<sup>2</sup>/lx, respectively. Black pavement markings must have a retroreflectance of less than 20 mcd/m<sup>2</sup>/lx.

Measure, record and certify on a Department approved form and submit to the Engineer, the retroreflectivity of white and yellow pavement markings in accordance with FM 5--541 Part A.

The Department reserves the right to test the markings within three days of receipt of the Contractor's certification. Failure to afford the Department opportunity to test the markings will result in non-payment. The test readings should be representative of the Contractor's pavement marking performance. If the retroreflectivity values measure below values shown above, reapply the pavement marking at no additional cost to the Department.

For standard paint, ensure that the minimum retroreflectance of white and yellow pavement markings are not less than 150 mcd/m<sup>2</sup>/lx. If the retroreflectivity values for standard paint fall below the 150 mcd/m<sup>2</sup>/lx value within 180 days of initial application, the pavement marking will be reapplied at the Contractor's expense. If the retroreflectivity values for durable paint fall below the initial values of 450 mcd/m<sup>2</sup>/lx value for white and 300 mcd/m<sup>2</sup>/lx for yellow within 180 days of initial application, the pavement marking will be reapplied at the Contractor's expense.

**710-4.4 Color:** Use paint material that meets the requirements of 971-1.

**710-4.5 Glass Spheres:** Apply glass spheres on all pavement markings immediately and uniformly following the paint application. The rate of application shall be based on the manufacturer's recommendation.

For longitudinal durable paint markings, apply a double drop of Type 1 and Type 3 glass spheres. For transverse durable paint markings, apply a single drop of Type 3 glass spheres.

The rate of application shall be based on the manufacturer's recommendation.

## **710-5 Tolerances in Dimensions and in Alignment.**

Establish tack points at appropriate intervals for use in aligning pavement markings, and set a stringline from such points to achieve accuracy.

### **710-5.1 Dimensions:**

**710-5.1.1 Longitudinal Lines:** Apply painted skip line segments with no more than plus or minus 12 inches variance, so that over-tolerance and under-tolerance lengths between skip line and the gap will approximately balance. Apply longitudinal lines at least 2 inches from construction joints of portland cement concrete pavement.

**710-5.1.2 Transverse Markings, Gore Markings, Arrows, and Messages:** Apply paint in multiple passes when the marking cannot be completed in one pass, with an overall line width allowable tolerance of plus or minus 1 inch.

**710-5.1.3 Contrast Lines:** Use black paint to provide contrast on concrete or light asphalt pavement, when specified by the Engineer. Apply black paint in 10 foot segments following each longitudinal skip line.

**710-5.2 Alignment:** Apply painted pavement markings that will not deviate more than 1 inch from the stringline on tangents and curves one degree or less. Apply painted pavement markings that will not deviate more than 2 inches from the stringline on curves greater than one degree. Apply painted edge markings uniformly, not less than 2 inches or more than 4 inches from the edge of pavement, without noticeable breaks or deviations in alignment or width.

Remove and replace at no additional cost to the Department, pavement markings that deviate more than the above stated requirements.

**710-5.3 Correction Rates:** Make corrections of variations in width at a maximum rate of 10 feet for each 0.5 inch of correction. Make corrections of variations in alignment at a maximum rate of 25 feet for each 1 inch of correction, to return to the stringline.

## **710-6 Contractor's Responsibility for Notification.**

Notify the Engineer prior to the placement of the materials. At the time of notification, submit a certification to the Engineer with the APL number and the batch or Lot numbers of the paint and glass spheres to be used.

## **710-7 Protection of Newly Applied Pavement Markings.**

Do not allow traffic onto or permit vehicles to cross newly applied pavement markings until they are sufficiently dry. Remove and replace any portion of the pavement markings damaged by passing traffic or from any other cause, at no additional cost to the Department.

## **710-8 Corrections for Deficiencies to Applied Painted Pavement Markings.**

Reapply a 1.0 mile section, centered around any deficiency, at no additional cost to the Department.

## **710-9 Submittals.**

**710-9.1 Submittal Instructions:** Prepare a certification of quantities, using the Department's current approved form, for each project in the Contract. Submit the certification of

quantities and daily worksheets to the Engineer. For Lump Sum pay item 710-90, document the quantity as an estimated percentage (in decimal form) of the total lump sum amount on the daily worksheet. The Department will not pay for any disputed items until the Engineer approves the certification of quantities.

**710-9.2 Contractor's Certification of Quantities:** Request payment by submitting a certification of quantities no later than Twelve O'clock noon Monday after the estimate cut-off date or as directed by the Engineer, based on the amount of work done or completed. Ensure the certification of quantities consists of the following:

1. Contract Number, FPID Number, Certification Number, Certification Date and the period that the certification represents.
2. The basis for arriving at the amount of the progress certification, less payments previously made and less any amount previously retained or withheld. The basis will include a detailed breakdown provided on the certification of items of payment.

### **710-10 Method of Measurement.**

The quantities, authorized and acceptably applied, under this Section will be paid as follows:

1. The length, in gross miles, of solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, 2'-2' dotted, and 2'-4' dotted lines.
2. The length, in linear feet, of transverse lines, diagonal lines, chevrons, and parking spaces.
3. The number of pavement messages, symbols, and arrows. Each arrow is paid as a complete marking, regardless of the number of "points" or directions.
4. Lump Sum, as specified in 710-4.1.1 (final surface) and 710-9.1.
5. The area, in square feet, for removal of existing markings acceptably removed. Payment for removal of conflicting markings will be in accordance with 102-11.20. Payment for removal of non-conflicting markings will be paid separately.

The gross mile measurement will be taken as the distance from the beginning of the painted line to the end of the painted line and will include the unmarked gaps for skip and dotted lines. The gross mile measurement will not include designated unmarked lengths at intersections, turn lanes, etc. Final measurement will be determined by plan dimensions or stations, subject to 9-1.3.1.

### **710-11 Basis of Payment.**

**710-11.1 General:** Price and payment will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

**710-11.2 Painted Pavement Markings (Final Surface):** Price and payment for painted pavement markings (final surface) will be full compensation for all applications of painted pavement markings in accordance with 710-4.1.1 and 710-9.1.

**710-11.3 Payment Items:** Payment will be made under:

Item No. 710	Painted Pavement Markings.
	Solid - per gross mile.
	Solid - per linear foot.
	Skip - per gross mile.

Dotted - per gross mile.

Message or Symbol -each.

Arrows - each.

Yield Line - per linear foot.

Island Nose – per square foot

Item No. 710- 90      Painted Pavement Markings (Final Surface) - lump sum.

## SECTION 711 THERMOPLASTIC PAVEMENT MARKINGS

### 711-1 Description.

Apply new thermoplastic pavement markings, or refurbish existing thermoplastic pavement markings, in accordance with the Contract Documents.

### 711-2 Materials.

Use only materials listed on the Department's Approved Product List (APL) meeting the following requirements.

Hot-Applied Standard and Refurbishment Thermoplastic ....	971-1 and 971-5
Preformed Thermoplastic.....	971-1 and 971-6
Glass Spheres .....	971-1 and 971-2

The Engineer will take random samples of all material in accordance with the Department's Sampling, Testing and Reporting Guide schedule.

### 711-3 Equipment.

Use equipment capable of providing continuous, uniform heating of the pavement marking material to temperatures exceeding 390°F, mixing and agitation of the material in the reservoir to provide a homogeneous mixture without segregation. Use equipment that will maintain the pavement marking material in a plastic state, in all mixing and conveying parts, including the line dispensing device until applied. Use equipment which can produce varying line widths and which meets the following requirements:

1. Capable of traveling at a uniform, predetermined rate of speed, both uphill and downhill, to produce a uniform application of pavement marking material and capable of following straight lines and making normal curves in a true arc.
2. Capable of applying glass spheres to the surface of the completed pavement marking by a double drop application for standard thermoplastic pavement markings and a single drop application for recapping and refurbishment thermoplastic pavement markings. The bead dispenser for the first bead drop shall be attached to the pavement marking machine in such a manner that the beads are dispensed closely behind the installed line. The second bead dispenser bead shall be attached to the pavement marking machine in such a manner that the beads are dispensed immediately after the first bead drop application. Use glass spheres dispensers equipped with an automatic cut-off control that is synchronized with the cut-off of the thermoplastic material and applies the glass spheres uniformly on the entire pavement markings surface with 50 to 60% embedment.
3. Equipped with a special kettle for uniformly heating and melting the pavement marking material. The kettle must be equipped with an automatic temperature control device and material thermometer for positive temperature control and to prevent overheating or scorching of the thermoplastic material.
4. Meet the requirements of the National Fire Protection Association, state, and local authorities.

### 711-4 Application.

**711-4.1 General:** Remove existing thermoplastic pavement markings using a method approved by the Engineer such that pavement surface scars or traces of the removed

thermoplastic pavement markings will not conflict with new pavement markings. Do not use paint to blackout, hide, or disguise existing pavement markings.

Before applying pavement markings, remove any material that would adversely affect the bond of the pavement markings by a method approved by the Engineer.

Before applying pavement markings to any portland cement concrete surface, apply a primer, sealer, or surface preparation adhesive of the type recommended by the manufacturer. Offset longitudinal lines at least 2 inches from any longitudinal joints of portland cement concrete pavement.

Apply thermoplastic material thickness according to 711-4.2. Application on open graded friction surfaces may require more thermoplastic material to achieve the required thickness above the pavement surface.

Apply pavement markings to dry surfaces only, and when the ambient air and surface temperature is at least 50°F and rising for asphalt surfaces and 60°F and rising for concrete surfaces.

Apply pavement markings to the same tolerances in dimensions and in alignment specified in 710-5. When applying pavement markings over existing markings, ensure that no more than 2 inches on either end and not more than 1 inch on either side of the existing line is visible.

Apply thermoplastic material to the pavement by extrusion or other means approved by the Engineer.

When thermoplastic pavement markings are to be removed and replaced, apply new thermoplastic pavement markings prior to opening to traffic.

Conduct field tests in accordance with FM 5-541 Part A. Take test readings representative of the pavement marking performance. Remove and replace pavement markings not meeting the requirements of this Section at no additional cost to the Department.

With the exception of short-term raised rumble strips, wait at least 14 days after constructing the final asphalt surface course to place thermoplastic pavement markings. Installation of thermoplastic on concrete requires a clean, dry surface. Follow the manufacturer's recommendations for surface preparation for thermoplastic on concrete. Provide temporary pavement markings during the interim period prior to opening the road to traffic.

**711-4.1.1 Preformed Thermoplastic:** Apply markings to dry surfaces only and when ambient air temperature is at least 32°F. Prior to installation, follow the manufacturer's recommendations for pre-heating. For railroad dynamic envelopes, keep all equipment and personnel out of the foul area.

#### **711-4.2 Thickness:**

**711-4.2.1 Hot-Applied Standard Thermoplastic Markings:** Apply or recap standard thermoplastic pavement markings for longitudinal lines to attain a minimum thickness of 0.10 inch or 100 mils and a maximum thickness 0.15 inch or 150 mils when measured above the pavement surface.

Markings other than longitudinal lines, wherever located, will have a thickness of 0.09 inch or 90 mils to 0.12 inch or 120 mils when measured above the pavement surface.

Measure, record and certify on Department approved form and submit to the Engineer, the thickness of white and yellow pavement markings in accordance with FM 5-541.

The Engineer will verify the thickness of the pavement markings in accordance with FM 5-541 within 30 days of receipt of the Contractor's certification.

**711-4.2.2 Hot-Applied Refurbishment Thermoplastic Markings:** Apply a minimum of 0.06 inch or 60 mils of thermoplastic material. Ensure that the combination of the existing marking and the overlay after application of glass spheres does not exceed the maximum thickness of 0.150 inch or 150 mils for all lines.

Measure, record and certify on Department approved form and submit to the Engineer, the thickness of white and yellow pavement markings in accordance with FM 5-541 Part A.

The Engineer will verify the thickness of the pavement markings in accordance with FM 5-541 Part A within 30 days of receipt of the Contractor's certification.

**711-4.2.3 Preformed Thermoplastic Markings:** Apply 0.125 inch or 125 mils of preformed thermoplastic material.

Use preformed thermoplastic for bicycle markings, shared use path markings, 24-inch markings on special emphasis crosswalks, route shields, ramp exit numbers, railroad dynamic envelopes, white dotted lines (2'-4') with trailing black contrast, 12-inch transverse crosswalk lines with black contrast, 24-inch stop line with black contrast, and black contrast arrows, messages, and symbols.

Measure, record and certify on Department approved form and submit to the Engineer, the thickness of the pavement markings in accordance with FM 5-541 Part A.

#### **711-4.3 Retroreflectivity:**

**711-4.3.1 General:** Measure, record and certify on Department approved form and submit to the Engineer, the retroreflectivity of white and yellow pavement markings in accordance with FM 5-541 Part A.

**711-4.3.2 Longitudinal Lines:** Apply hot-applied standard and refurbishment thermoplastic pavement markings that will attain an initial retroreflectivity of not less than 450 mcd/m<sup>2</sup>/lx and not less than 350 mcd/m<sup>2</sup>/lx for white and yellow, respectively.

**711-4.3.3 Markings Other Than Longitudinal Lines:** Apply hot-applied standard and refurbishment thermoplastic markings that will attain an initial retroreflectivity of not less than 300 mcd/m<sup>2</sup>/lx and 250 mcd/m<sup>2</sup>/lx for white and yellow, respectively.

**711-4.3.4 Preformed Markings:** Apply white preformed thermoplastic markings that will attain an initial retroreflectivity of not less than 200 mcd/m<sup>2</sup>/lx. Black pavement markings must have a retroreflectance of less than 20 mcd/m<sup>2</sup>/lx.

#### **711-4.4 Glass Spheres:**

**711-4.4.1 Longitudinal Lines:** For hot-applied standard thermoplastic markings, apply the first drop of Type 4 or larger glass spheres immediately followed by the second drop of Type 1 glass spheres. For hot-applied refurbishment thermoplastic markings, apply a single drop of Type 3 glass spheres. Apply retroreflective glass spheres to all markings at the rates provided in the manufacturer's installation instructions.

**711-4.4.2 Markings Other Than Longitudinal Lines:** For hot-applied standard and refurbishment thermoplastic markings, apply a single drop of Type 1 glass spheres and sharp silica sand at the rates provided in the manufacturer's installation instructions. Use sharp silica sand materials meeting the requirements of 971-5.4. For hot-applied high friction thermoplastic markings, apply retroreflective and friction elements at the rates provided in the manufacturer's installation instructions.

**711-4.4.3 Preformed Markings:** These markings are factory supplied with glass spheres and friction elements. Apply additional glass spheres and friction elements in accordance with the manufacturer's instructions.

#### **711-5 Contractor's Responsibility for Notification.**

Notify the Engineer prior to the placement of the materials. At the time of notification, submit a certification to the Engineer with the APL number and the batch or LOT numbers of the thermoplastic and glass spheres to be used. Packaging labels that contain the information required by 971-1.1 will be accepted in place of a certification.

#### **711-6 Protection of Newly Applied Thermoplastic Pavement Markings.**

Do not allow traffic onto or permit vehicles to cross newly applied pavement markings until they are sufficiently dry. Remove and replace any portion of the pavement markings damaged by passing traffic or from any other cause, at no additional cost to the Department.

#### **711-7 Observation Period.**

Longitudinal pavement markings are subject to a 180 day observation period under normal traffic. The observation period shall begin with the satisfactory completion and acceptance of the work.

The longitudinal pavement markings shall show no signs of failure due to blistering, excessive cracking, chipping, discoloration, poor adhesion to the pavement, loss of retroreflectivity or vehicular damage. The retroreflectivity shall meet the initial requirements of 711-4.3. The Department reserves the right to check the retroreflectivity any time prior to the end of the observation period.

Replace, at no additional expense to the Department, any longitudinal pavement markings that do not perform satisfactorily under traffic during the 180 day observation period.

#### **711-8 Corrections for Deficiencies.**

Recapping applies to conditions where additional pavement marking material is applied to new or refurbished pavement markings to correct a thickness deficiency. Correct deficiencies by recapping or removal and reapplication of a 1 mile section centered around the deficiency, as determined by the Engineer, at no additional cost to the Department.

#### **711-9 Method of Measurement.**

**711-9.1 Thermoplastic Pavement Markings:** The plan quantity, acceptably applied and subject to 9-1.3.2, under this Section will be paid as follows:

1. The length, in gross miles, of solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, 2'-2' dotted, and 2'-4' dotted lines.
2. The length, in linear feet, of transverse lines, diagonal lines, chevrons, parking spaces, special emphasis crosswalk markings, and railroad dynamic envelope markings.
3. The number of pavement messages, symbols, and arrows. Each arrow is paid as a complete marking, regardless of the number of "points" or directions.

The gross mile measurement will be taken as the distance from the beginning of the thermoplastic line to the end of the thermoplastic line and will include the unmarked gaps for skip and dotted lines. The gross mile measurement will not include designated unmarked lengths at intersections, turn lanes, etc.

**711-9.2 Removal of Existing Thermoplastic Markings:** The quantity for removal of existing thermoplastic pavement markings to be paid will be the area, in square feet, acceptably removed. Payment for removal of thermoplastic pavement markings will only be made for locations where the existing pavement surface is to remain.

### **711-10 Basis of Payment.**

Prices and payments will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Payment will be made under:

Item No. 711	Thermoplastic Pavement Markings
	Solid - per gross mile.
	Solid - per linear foot.
	Skip - per gross mile.
	Dotted - per gross mile.
	Message or Symbol - each.
	Arrows - each.
	Yield Line - per linear foot.
	Railroad Dynamic Envelope - per linear foot.
	Remove - per square foot.

MIAMI-DADE COUNTY  
DANIELLA LEVINE CAVA  
MAYOR

ANTHONY RODRIGUEZ  
CHAIRMAN

KIONNE L. MCGHEE  
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ANEISHA DANIEL  
DEPARTMENT OF SOLID WASTE MANAGEMENT DIRECTOR

INDEX OF SHEETS

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\* THESE SHEETS ARE IN THE INDEX OF SHEETS ONLY TO INDICATE THAT THEY ARE PART OF THE CONSTRUCTION PLANS. THESE SHEETS ARE CONTAINED IN A SEPARATE DIGITALLY SIGNED AND SEALED DOCUMENT

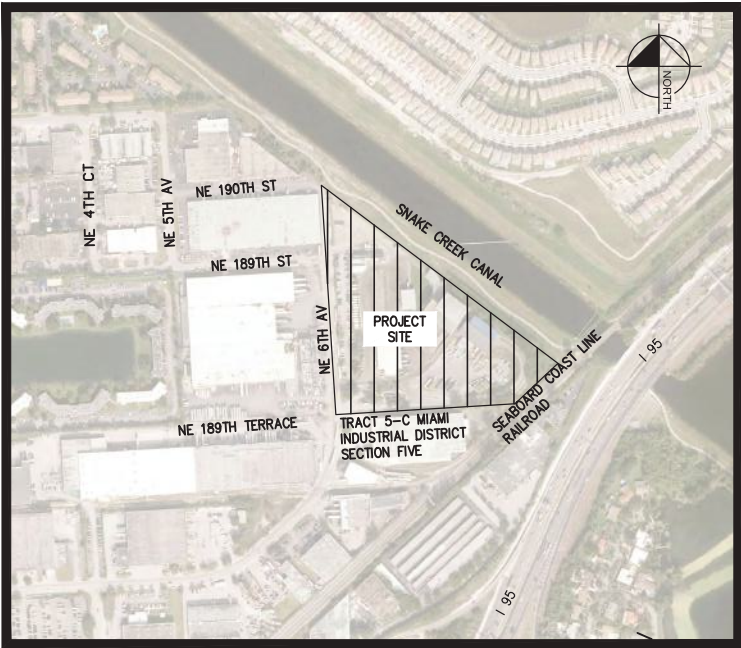
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS PARTS 1, 2 AND 3, THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS, THE FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AS AMENDED BY CONTRACT DOCUMENTS.



ASPHALTING AT VARIOUS DSWM LOCATIONS  
NORTHEAST TRANSFER STATION

18701 NE 6TH AVE, MIAMI, FL 33179

PROJECT No. EDP-SW-18470-22

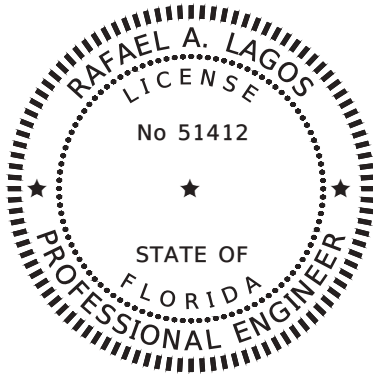


MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION

DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

NOTE:

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.



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ON THE DATE ADJACENT TO THE SEAL

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REVISIONS								MARLIN ENGINEERING RAFAEL LAGOS, P.E. No.: 51412 3363 W. COMMERCIAL Blvd, Ste. 1150T Lauderdale, FL 33309 (954) 970-5070 C.A. No. 6104	DESIGNED BY CHECKED BY SUPERVISED BY	NAME M.E.G. R.L.	DATE	DRAWN BY CHECKED BY	NAME M.E.G. R.L.	DATE	DEPARTMENT OF SOLID WASTE MANAGEMENT TECHNICAL SERVICES DIVISION MIAMI-DADE COUNTY	DR. MARTIN LUTHER KING OFFICE PLAZA 2525 NW 62ND STREET, 5TH FLOOR, MIAMI, FL 33147	COVER SHEET
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION									

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL NOTES

1. ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) AND REFERENCE THE FOLLOWING BENCHMARKS:  
N-505: A SQUARE CUT IN A CONCRETE WALL ON SOUTH SIDE OF A BIKE PATH, 3' ABOVE PATH; LOCATED WITHIN THE SNAKE CREEK CANAL RIGHT OF WAY, ON THE SOUTHWEST BANK, JUST WEST OF THE RAILROAD, 60' NORTHWEST OF THE NORTHWEST RAIL, 20' SOUTHEAST OF THE CENTERLINE OF TELEPHONE DUCTS CROSSING. ELEVATION 8.69 (NGVD 1929)

N-3090: A PK NAIL AND BRASS WASHER IN THE CONCRETE RIM OF A STORM DRAIN, LOCATED 18' NORTH OF THE CENTERLINE OF NE 185TH STREET, 390'± EAST OF THE CENTERLINE OF NE 4TH COURT, EAST SIDE OF THE BUILDING AT ADDRESS #475 NE 185TH STREET. ELEVATION 6.38 (NGVD 1929)

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL UTILITIES, AND MODIFICATIONS OF THE SUNSHINE ONE CALL 1-800-432-4770 48 HOURS IN ADVANCE OF CONSTRUCTION.

3. SITE CONDITIONS MAY HAVE CHANGED SINCE SURVEY WAS PERFORMED. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION.

4. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND ARE BASED UPON AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY AND ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING OF, AND PAYMENT FOR, SUCH TESTS THAT MAY BE DEEMED NECESSARY BY THE ENGINEER, AND AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL BE REQUIRED TO STABILIZE SLOPED AREAS. THE CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS TO ORIGINAL GRADE AND SOD THE AREA WITH THE PROVISION THAT HE SHALL MAINTAIN THE SODDED AREA AS REQUIRED UNTIL SUCH A TIME THAT THERE IS SUITABLE GROWTH TO PROTECT THE EMBANKMENT.

7. DIMENSIONS AND GRADING OF THIS SITE ARE BASED UPON AVAILABLE INFORMATION AT TIME OF LAYOUT. DEVIATIONS MAY BE NECESSARY IN THE FIELD. ANY SUCH CHANGES OR CONFLICTS BETWEEN THIS PLAN AND FIELD CONDITIONS ARE TO BE REPORTED TO THE ENGINEER PRIOR TO STARTING CONSTRUCTION.

8. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO APPLICABLE STATE, COUNTY, OR LOCAL CODES.

9. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES, AND UTILITIES WHICH MAY NOT BE SHOWN ON PLANS. ANY EXISTING STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL SIDEWALKS, DRIVEWAYS, LANDSCAPE, FENCES AND GRASS AREAS DISTURBED DURING CONSTRUCTION MUST BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER.

10. EXISTING TREES SHALL BE REMOVED ONLY IF REQUIRED FOR CONSTRUCTION. THOSE TREES NOT INTERFERING WITH CONSTRUCTION SHALL BE PROTECTED IN PLACE. THE CONTRACTOR IS ADVISED THAT A TREE PERMIT MAY BE REQUIRED FOR TREE REMOVAL. CONTRACTOR SHALL NOTIFY DERM PRIOR TO REMOVING ANY TREES.

11. ALL EXCAVATED MATERIAL REMOVED FROM THIS PROJECT SHALL BE DISPOSED OF PROPERLY BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

12. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN FOR APPROVAL BY THE OWNER AND THE ENGINEER.

13. THE CONTRACTOR SHALL NOT CHANGE THE EXISTING LAYOUT (DIRECTION AND LENGTH) OF THE EXISTING TRUCK PARKING SPACES.

14. ANY SURVEY REQUIRED BY THE CONTRACTOR SHALL BE AT NO ADDITIONAL COST TO THE COUNTY.

- DETAILS 1 THROUGH 5A ARE SHOWN ON THE SPECIAL DETAILS SHEET 11 OF 19.

– DETAILS 6 AND 7 ARE SHOWN ON THE SPECIAL DETAILS SHEET 12 OF 19.

– DETAILS 8 THROUGH 12 ARE SHOWN ON THE SIGNING AND PAVEMENT MARKING DETAILS SHEET 19 OF 19.

15. THE CONTRACTOR SHALL RESTORE ALL AFFECTED AREAS TO THE PRE-EXISTING CONDITION OR BETTER.

16. NO CHANGE IN THE DESIGN SHALL BE ACCEPTED WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD AND THE COUNTY.

17. THE CONTRACTOR, BY VIRTUE OF SIGNING THE RPQ, ACKNOWLEDGES THAT HE AND ALL OF HIS SUBCONTRACTORS ARE FAMILIAR WITH THE LOCAL WEATHER CONDITIONS. IN THE EVENT OF INCLEMENT WEATHER, THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO TIE DOWN LOOSE MATERIAL AND EQUIPMENT, OR SHALL REMOVE THEM FROM THE PROJECT SITE, AT NO COST TO THE COUNTY.

18. IN THE EVENT OF A HURRICANE WATCH, THE CONTRACTOR SHALL BE REQUIRED TO REMOVE FROM THE PROJECT SITE, OR SECURE TO THE ENGINEER'S SATISFACTION, ALL LOOSE CONSTRUCTION MATERIALS AND EQUIPMENT AND THE CONTRACTOR SHALL PROTECT STRUCTURES UNDER CONSTRUCTION. THE CONTRACTOR SHALL ALSO, COOPERATE IN THIS REGARD WITH COUNTY PERSONNEL IN PROTECTING OTHER STRUCTURES WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF THE DEPARTMENT OF SOLID WASTE MANAGEMENT'S HURRICANE PLAN.

19. WORK SHALL BE COORDINATED AT ALL TIMES WITH THE COUNTY ENGINEER, AND THE TRANSFER STATION SUPERINTENDENT. THE CONTRACTOR SHALL BECOME FAMILIAR WITH OPERATION'S TRAFFIC FLOW. THE FACILITY SHALL REMAIN OPERATIONAL AT ALL TIMES. TRAFFIC FLOW SHALL NOT BE INTERRUPTED AND IT SHALL BE COORDINATED WITH THE TRANSFER STATION SUPERINTENDENT.

20. ROUTES FOR USE BY THE CONTRACTOR FOR ACCESS TO THE SITE WILL BE ESTABLISHED DURING THE PRE-CONSTRUCTION MEETING AND THE CONTRACTOR SHALL STRICTLY ADHERE TO THE LIMITATIONS IMPOSED. ACCESS TO THE SITE SHALL BE LIMITED TO THE WORK HOURS OF 9:00 P.M. TO 5:30 A.M. ON MONDAYS, TUESDAYS, THURSDAYS AND FRIDAYS. FROM 6:00 P.M. TO 5:30 A.M. ON WEDNESDAYS; AND FROM 6 P.M. ON SATURDAYS TO 5:30 A.M. ON MONDAYS.

21. CONTRACTOR SHALL BE RESPONSIBLE FOR THE STORAGE OF HIS MATERIALS AND EQUIPMENT. THE COUNTY SHALL NOT BE RESPONSIBLE FOR ANY STOLEN OR DAMAGED EQUIPMENT/MATERIALS. STORAGE/STAGING AREAS SHALL BE APPROVED AND AUTHORIZED BY THE COUNTY ENGINEER AND THE TRANSFER STATION SUPERVISOR.

22. CONTRACTOR SHALL COORDINATE THE CONCRETE TESTING. CONTRACTOR SHALL COORDINATE CONCRETE POURING WITH THE COUNTY PROJECT MANAGER AND GIVE 48 HRS PRIOR NOTICE. CONTRACTOR WILL PAY FOR THE FIRST CONCRETE TESTS. CONTRACTOR WILL BE SOLELY FINANCIALLY RESPONSIBLE FOR ANY ADDITIONAL CONCRETE TESTS UNTIL COMPLIANCE WITH REQUIRED STRENGTH IS DEMONSTRATED.

23. THE CONTRACTOR SHALL FURNISH SATISFACTORY MATERIALS, AND THE COUNTY ENGINEER RESERVES THE RIGHT TO REJECT ANY MATERIAL AT ANY TIME BEFORE FINAL ACCEPTANCE OF THE WORK WHEN, IN THE OPINION OF THE COUNTY ENGINEER, THE MATERIAL AND/OR WORKMANSHIP DO NOT CONFORM TO THE DRAWINGS AND SPECIFICATIONS.

24. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AND PROTECT THE PUBLIC FROM ALL DAMAGE TO PERSONS AND PROPERTY WITHIN THE PROJECT SITE, IN ACCORDANCE WITH CONTRACT DOCUMENTS AND ALL APPLICABLE STATE, CITY AND LOCAL REGULATIONS. SUITABLE SIGNS, BARRICADES, RAILINGS AND OTHER RELATED ITEMS SHALL BE ERECTED AND THE WORK SHALL BE OUTLINED BY ADEQUATE LIGHTING AT NIGHT. DANGER LIGHTS SHALL BE PROVIDED AS MAY BE NECESSARY FOR THE PROTECTION OF TRAFFIC.

25. FOR THE TREE PROTECTION BARRICADES REFER TO FDOT STANDARD PLAN INDEX 110-100 TREE PROTECTION AND PRESERVATION.

26. THE PROPOSED SPEED HUMP SHALL BE UNIMAT TRAFFIC – HEAVY DUTY RUBBER SPEED HUMP – 21.50' LONG, AND THE INSTALLATION WILL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

27. ALL EXITING INLETS ARE TO REMAIN UNLESS NOTED OTHERWISE

ENVIRONMENTAL NOTES

1. ALL EXCAVATED SOIL SHALL BE TREATED AS CONTAMINATED AND SHALL BE SEGREGATED AND PROPERLY DISPOSED OF AT A PERMITTED LANDFILL.

2. IN THE EVENT OF IMPORTING FILL, IT SHALL BE FROM A DERM APPROVED QUARRY.

3. WORK SHALL FOLLOW ALL APPLICABLE SAFETY REQUIREMENTS (E.G., OSHA, ETC.) AND NOTIFICATION SHALL BE PROVIDED TO THE APPROPRIATE AGENCIES.  
MAINTENANCE OF TRAFFIC NOTES AND CONSTRUCTION SEQUENCE

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MAINTENANCE OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL UTILITIES, AND MODIFICATIONS OF THE SUNSHINE ONE CALL 1-800-432-4770 48 HOURS IN ADVANCE OF CONSTRUCTION.

2. SITE CONDITIONS MAY HAVE CHANGED SINCE SURVEY WAS PERFORMED. CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO STARTING CONSTRUCTION.

3. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND ARE BASED UPON AVAILABLE INFORMATION. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. ANY AND ALL CONFLICTS WITH EXISTING UTILITIES SHALL BE REPORTED TO THE ENGINEER. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

4. THE CONTRACTOR IS LIMITED TO THE FOLLOWING WORKING HOURS: FROM 9:00 P.M. TO 5:30 A.M. ON MONDAYS, TUESDAYS, THURSDAYS AND FRIDAYS. FROM 6:00 P.M. TO 5:30 A.M. ON WEDNESDAYS; AND FROM 6 P.M. ON SATURDAYS TO 5:30 A.M. ON MONDAYS.

5. WHEN WORK IS PERFORMED ADJACENT TO NE 6TH AVENUE, THE CONTRACTOR SHALL USE FDOT STANDARD PLANS INDEX 102-602 (1 OF 2) FOR TRAFFIC CONTROL PURPOSES ON NE 6<sup>TH</sup> AVENUE.

CONSTRUCTION SEQUENCE:

PHASE 1 – TRAFFIC SEPARATOR RECONSTRUCTION.

REMOVE PORTION OF THE EXISTING TRAFFIC SEPARATOR TO BE RECONSTRUCTED AS SHOWN IN THE PLANS.

RECONSTRUCTION THE PROPOSED TRAFFIC SEPARATOR AND MAINTAIN FREE OF LOADING FOR 72 HOURS TO ALLOW FOR CURING OF THE CONCRETE.

PHASE 2 – FLEXIBLE PAVEMENT RECONSTRUCTION.

REMOVE AND RECONSTRUCT THE FLEXIBLE PAVEMENT IN THE AREAS INDICATED IN THE PLANS.

REPLACE SPEED HUMP AS INDICATED IN THE PLANS.

ADJUST UTILITY VALVES AND MANHOLES AS INDICATED IN THE PLANS.

THE CONTRACTOR SHALL FILL WITH SUITABLE MATERIAL THE AREAS WHERE THE PROPOSED PAVEMENT RECONSTRUCTION IF NOT FULLY RECONSTRUCTED AT THE END OF THE CONSTRUCTION DAY, NOT TO DISRUPT THE FACILITY OPERATIONS.

PHASE 3 – MILL, RESURFACE AND OVERBUILD – PAVEMENT MARKING AND SIGNAGE – WHEEL STOPS.

REMOVE AND RESET THE EXISTING WHEEL STOPS AS REQUIRED TO PERFORM THE MILLING AND RESURFACING OPERATIONS.

MILL, RESURFACE AND OVERBUILD AS INDICATED IN THE PLANS.

PLACE PAVEMENT PAINTED PAVEMENT MARKINGS, REMOVE, REPLACE AND PROVIDE SIGNAGE AS INDICATED IN THE PLANS.

PHASE 4 – THERMOPLASTIC PAVEMENT MARKING

PLACE THERMOPLASTIC PAVEMENT MARKINGS.

ADA NOTES:

1. THESE CONSTRUCTION DOCUMENTS ARE COMPLIANT WITH THE ADA ACCESSIBILITY GUIDELINES (ADAAG) AND UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS), WHERE APPLICABLE.

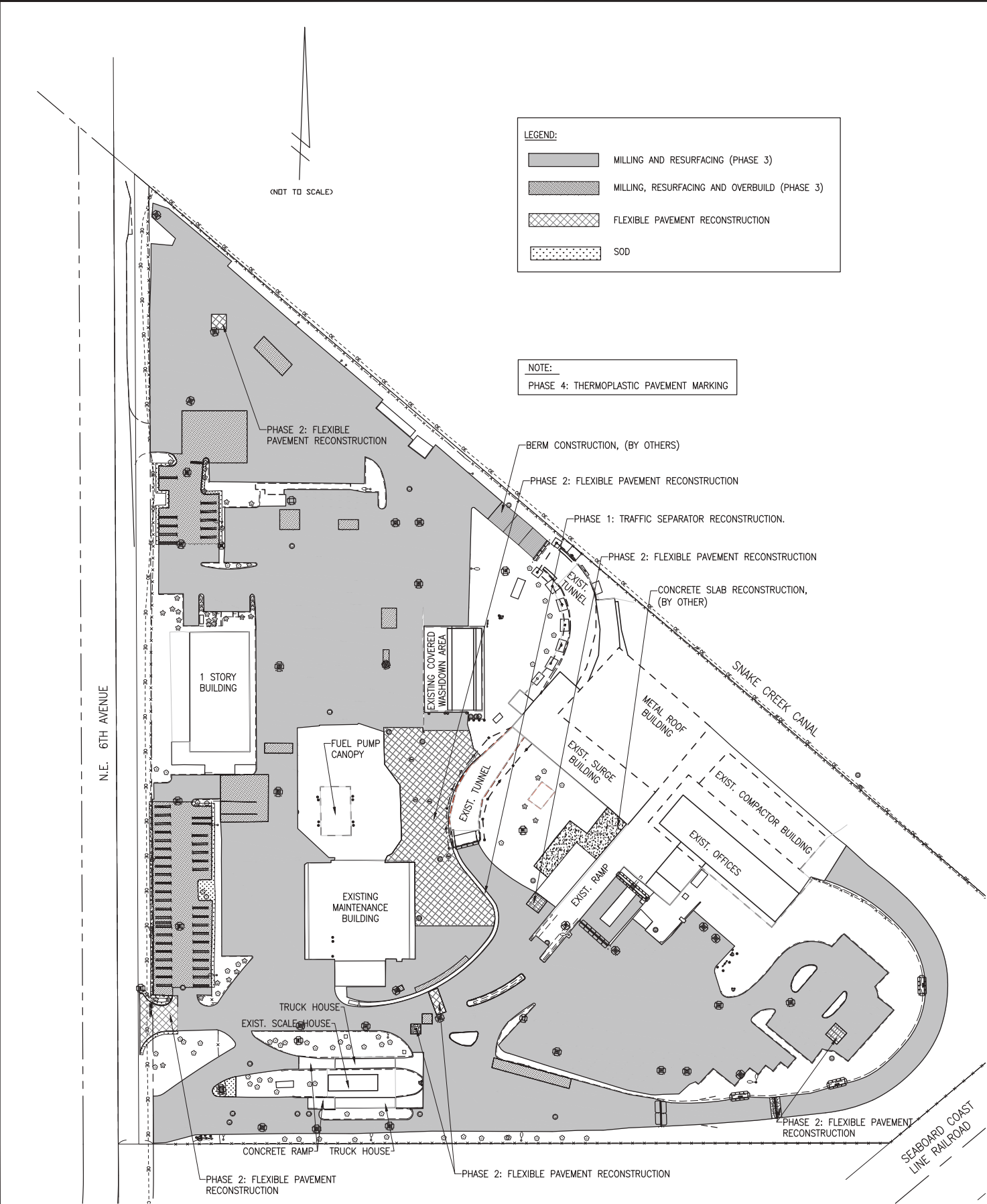
2. ACCESSIBLE PARKING SPACES AND AISLES SHALL HAVE A SLOPE NO GREATER THAN 1:48 (2%) – FBCA 502.4.

3. ACCESSIBLE ROUTE SLOPE SHALL NOT EXCEED 1:20 AND CROSS SLOPE SHALL NOT EXCEED 1:48 – FBCA 403.3.

4. ACCESSIBLE ROUTE SHALL BE PROVIDED FROM ACCESSIBLE PARKING SPACES TO THE ACCESSIBLE BUILDING OR FACILITY ENTRANCES THEY SERVE – FBCA 206.2.1.

REVISIONS									<div>MARLIN ENGINEERING RAFAEL LAGOS, P.E. #P.E. No.: 51412 3363 W. COMMERCIAL Blvd, Ste. 1150T Lauderdale, FL 33309 (954) 870-5070 C.A. No. 6104</div>	<div>DESIGNED BY CHECKED BY SUPERVISED BY</div>						<div>NAME M.E.G. R.L.</div>						<div>DATE DRAWN BY CHECKED BY</div>	<div>NAME M.E.G. R.L.</div>	<div>DATE</div>								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION																								
										<div>MIAMI-DADE COUNTY</div>						<div>DEPARTMENT OF SOLID WASTE MANAGEMENT TECHNICAL SERVICES DIVISION</div>						<div>DR. MARTIN LUTHER KING OFFICE PLAZA 2525 NW 62ND STREET, 5TH FLOOR, MIAMI, FL 33147</div>						<div>GENERAL NOTES</div>				

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



CONSTRUCTION SEQUENCE PLAN

FDOT CODE / PAY ITEM	DESCRIPTION	UNIT	QUANTITY
ROADWAY ITEMS			
0101 1 / 1	MOBILIZATION	LS	1
0102 1 / 2	MAINTENANCE OF TRAFFIC	LS	1
0104 18 / 3	INLET PROTECTION SYSTEM	EA	46
0107 2 / 4	MOWING	AC	6.08
0110 1 1 / 5	CLEARING & GRUBBING	LS/AC	1/0.42
0110 21 / 6	TREE PROTECTION BARRIER	LF	2,392
0110 4 10 / 7	REMOVAL OF EXISTING CONCRETE	SY	105
0120 1 / 8	REGULAR EXCAVATION	CY	570.0
0120 6 / 9	EMBANKMENT	CY	25.2
0160 4 / 10	TYPE B STABILIZATION	SY	1,711
0285 708 / 11	OPTIONAL BASE, BASE GROUP 08	SY	1,711
0327 70 1 / 12	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	26,845
0334 1 13 / 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	1,902.4
0425 5 / 14	MANHOLE, ADJUST	EA	3
0425 5 1 / 15	MANHOLE, ADJUST, UTILITIES	EA	1
0425 6 / 16	VALVE BOXES, ADJUST	EA	1
0425 8 / 17	DRAINAGE STRUCTURES, MISCELLANEOUS, ADJUST	EA	5
0425 82 / 18	REPLACE GRATE	EA	3
0519 78 / 19	BOLLARD	EA	4
0520 5 11 / 20	TRAFFIC SEPARATOR CONCRETE-TYPE 1, 4' WIDE	LF	272
0520 2 4 / 21	CONCRETE CURB, TYPE D	LF	87
0542 70 / 22	BUMPER GUARDS, CONCRETEBUMPER GUARDS, CONCRETE (REGULAR)	EA	166
0542 70 / 23	BUMPER GUARDS, CONCRETEBUMPER GUARDS, CONCRETE (LARGE)	EA	45
0570 1 2 / 24	PERFORMANCE TURF, SOD	SY	318
P1-1 / 25	SPEED HUMPS	EA	1
SIGNING AND PAVEMENT MARKINGS			
0700 1111 / 26	SINGLE COLUMN GROUND SIGN ASSEMBLY, F&I GROUND MOUNT, LESS THAN 12 SF	EA	30
0700 1500 / 27	SINGLE COLUMN GROUND SIGN ASSEMBLY, RELOCATE	EA	1
0700 1600 / 28	SINGLE COLUMN GROUND SIGN ASSEMBLY, REMOVE	EA	31
0700 3101 / 29	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, UP TO 12 SF	EA	1
0700 3103 / 30	SIGN PANEL, FURNISH & INSTALL GROUND MOUNT, 21-30 SF	EA	1
0700 3603 / 31	SIGN PANEL, REMOVE, 21-30 SF	EA	1
0706 1 3 / 32	RAISED PAVEMENT MARKER, TYPE B	EA	103
0710 90 / 33	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1
0711 11124 / 34	THERMOPLASTIC, STANDARD, WHITE, SOLID, 18" FOR DIAGONALS AND CHEVRONS	LF	452
0711 11125 / 35	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	119
0711 11141 / 36	THERMOPLASTIC, STANDARD, WHITE, 2-4 DOTTED GUIDELINE / 6-10 GAP EXTENSION, 6"	GM	0.041
0711 11160 / 37	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	10
0711 11170 / 38	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	49
0711 11224 / 39	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	334
0711 11241 / 40	THERMOPLASTIC, STANDARD, YELLOW, 2-4 DOTTED GUIDE LINE /6-10 DOTTED EXTENSION LINE, 6"	GM	0.009
0711 11421 / 41	THERMOPLASTIC, STANDARD, BLUE, SOLID,6"	LF	199
0711 16101 / 42	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	1.199
0711 16102 / 43	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 8"	GM	0.169
0711 16201 / 44	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	1.024
0711 16231 / 45	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SKIP, 6"	GM	0.076

NOTE: THE REMOVAL OF ALL REGULAR (166) AND (47) LARGE WHEEL STOPS IS INCLUDED IN PAY ITEM 5 (CLEARING AND GRUBBING).

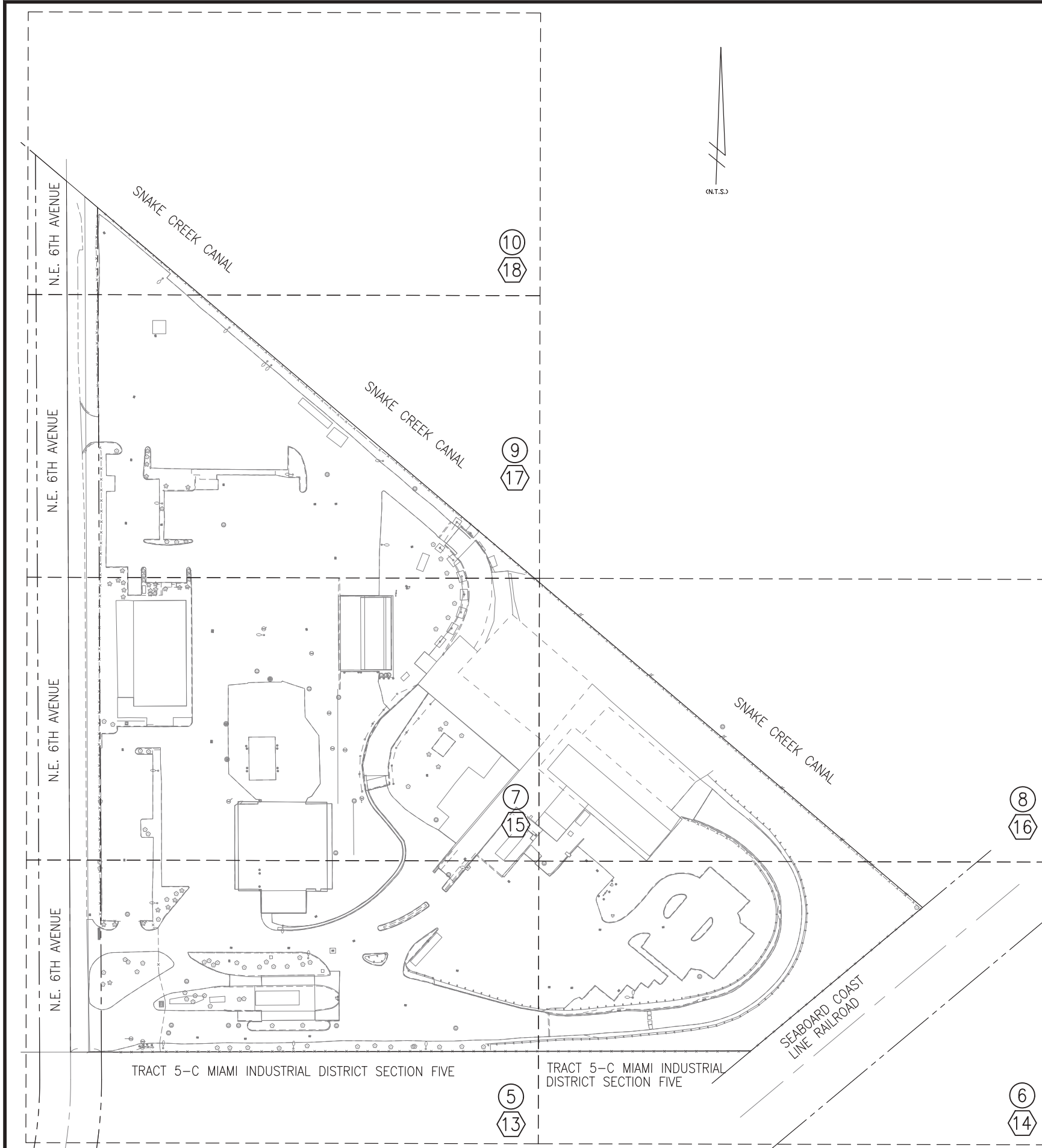
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RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL Blvd, Ste. 1150T Lauderdale, FL 33309  
(954) 670-5070 C.A. No. 6104

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY	M.E.G.		CHECKED BY	M.E.G.	
SUPERVISED BY	R.L.		SUPERVISED BY	R.L.	

**MIAMI-DADE COUNTY**  
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TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

SUMMARY OF QUANTITIES



LEGEND:

- (XX) SHEET NUMBER: PAVEMENT IMPROVEMENTS PLANS
- (XX) SHEET NUMBER: SIGNING AND PAVEMENT MARKING PLANS
- [ ] ROADWAY PLAN SHEET BORDER

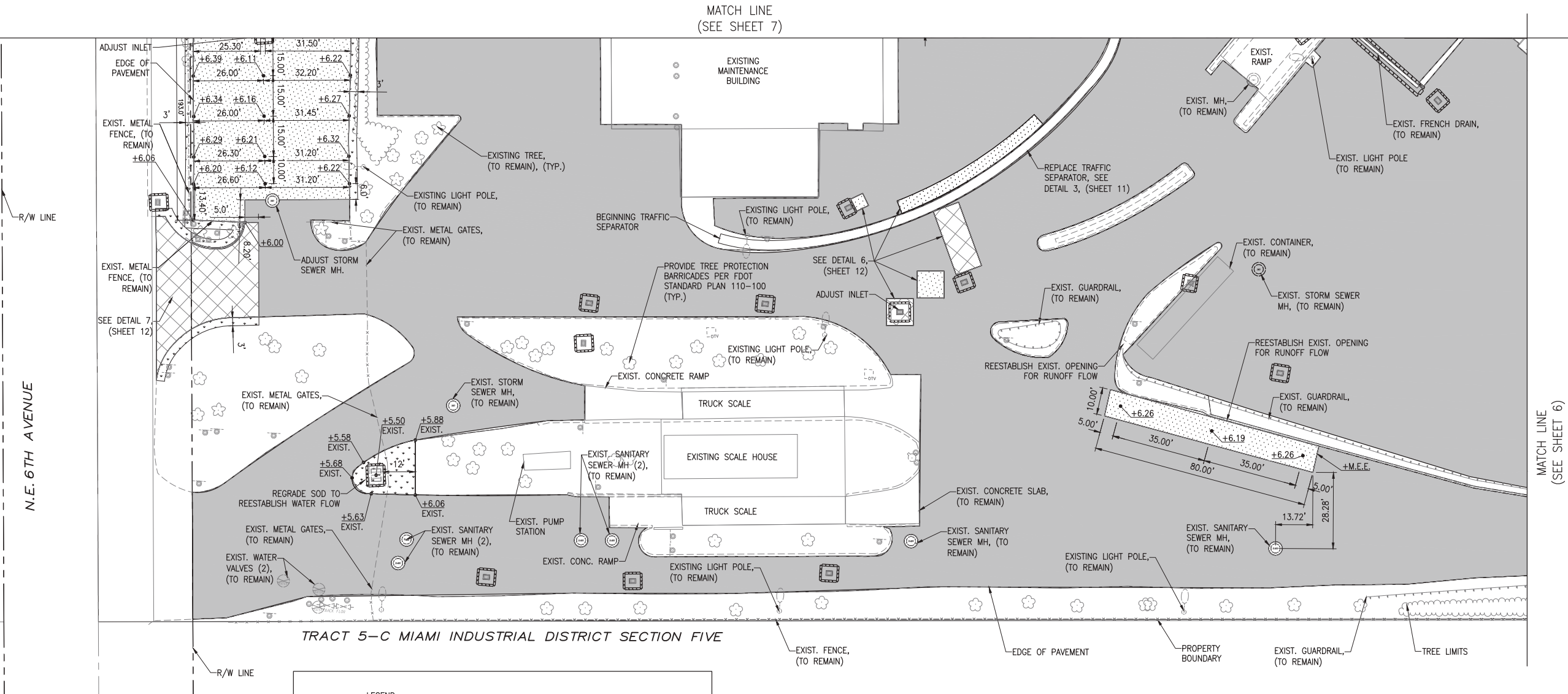
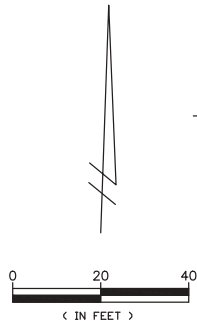
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PROJECT LAYOUT



**LEGEND:**

- MILLING AND RESURFACING (SEE DETAIL 1, SHEET 11)
- MILLING, RESURFACING AND OVERBUILD
- FLEXIBLE PAVEMENT RECONSTRUCTION (SEE DETAIL 2, SHEET 11)
- PROP. SOD
- EXIST. INLET
- MATCH EXIST. ELEVATION
- PROP. PAVEMENT ELEVATION

INLET PROTECTION SYSTEM (SEE DETAIL 4, SHEET 11)

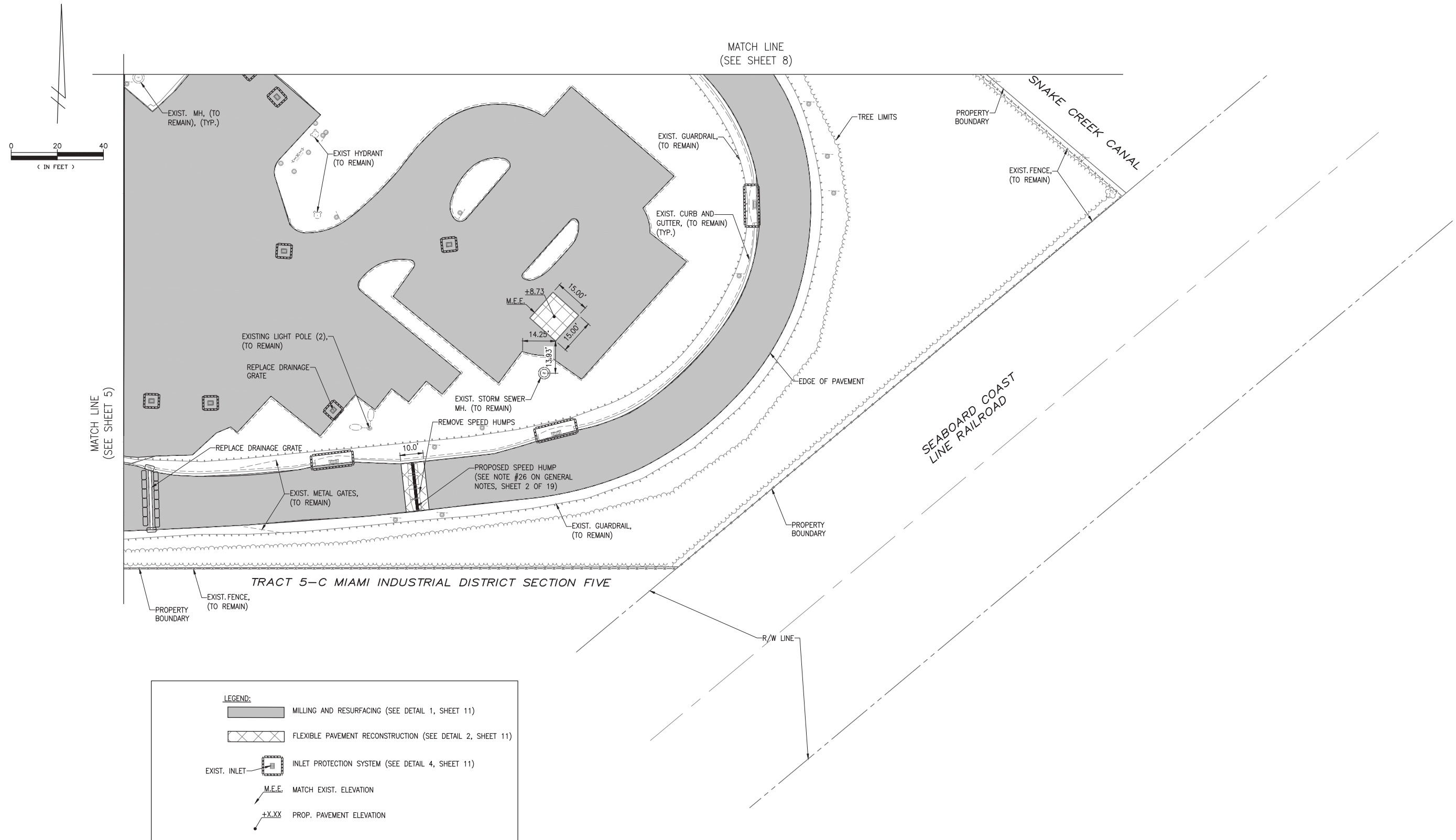
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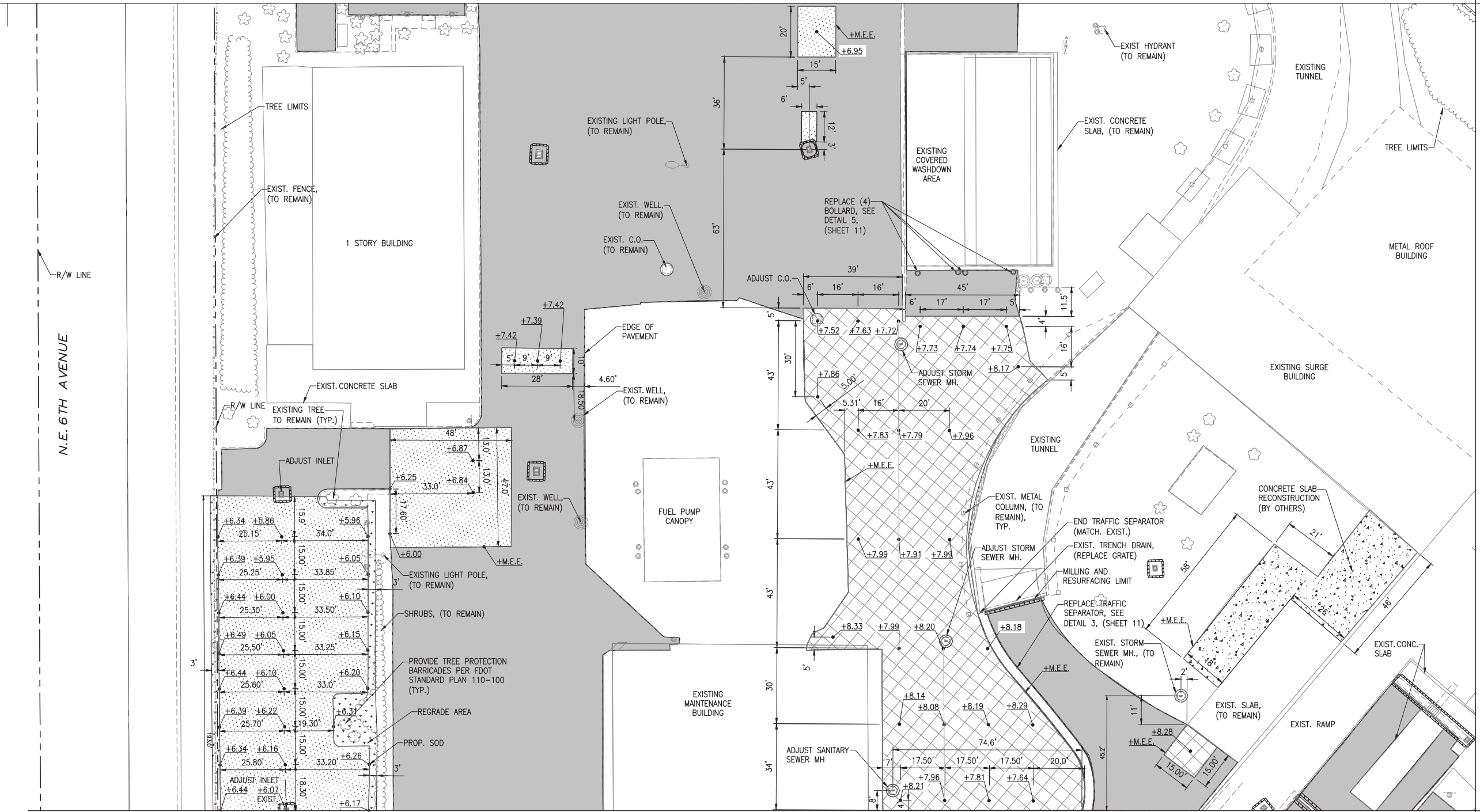
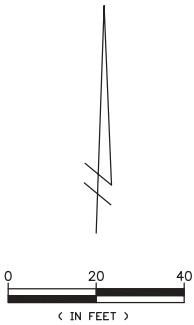
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2525 NW 62ND STREET, 5TH FLOOR,  
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PAVEMENT IMPROVEMENTS



REVISIONS									<div> MARLIN ENGINEERING</div> <div>RAFAEL LAGOS, P.E. M.P.E. No.: S1412 3363 W. COMMERCIAL Blvd, Ste. 1150 Miami Lakes, FL 33009 (305) 870-5070 Fax: (305) 870-6104</div>		NAME		DATE		NAME		DATE		<div> MIAMI-DADE COUNTY</div> <div>DEPARTMENT OF SOLID WASTE MANAGEMENT TECHNICAL SERVICES DIVISION</div> <div>DR. MARTIN LUTHER KING OFFICE PLAZA 2525 NW 60th STREET, 5TH FLOOR, MIAMI, FL 33147</div>		PAVEMENT IMPROVEMENTS	
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											CHECKED BY	R.L.	CHECKED BY	R.L.								
											SUPERVISED BY:											

MATCH LINE  
(SEE SHEET 9)



MATCH LINE  
(SEE SHEET 8)

MATCH LINE  
(SEE SHEET 5)

LEGEND:

- MILLING AND RESURFACING (SEE DETAIL 1, SHEET 11)
- MILLING, RESURFACING AND OVERBUILD
- FLEXIBLE PAVEMENT RECONSTRUCTION (SEE DETAIL 2, SHEET 11)
- CONCRETE SLAB RECONSTRUCTION (BY OTHERS)
- PROP. SOD

- EXIST. INLET
- M.E.E. MATCH EXIST. ELEVATION
- +X.XX PROP. PAVEMENT ELEVATION
- INLET PROTECTION SYSTEM (SEE DETAIL 4, SHEET 11)

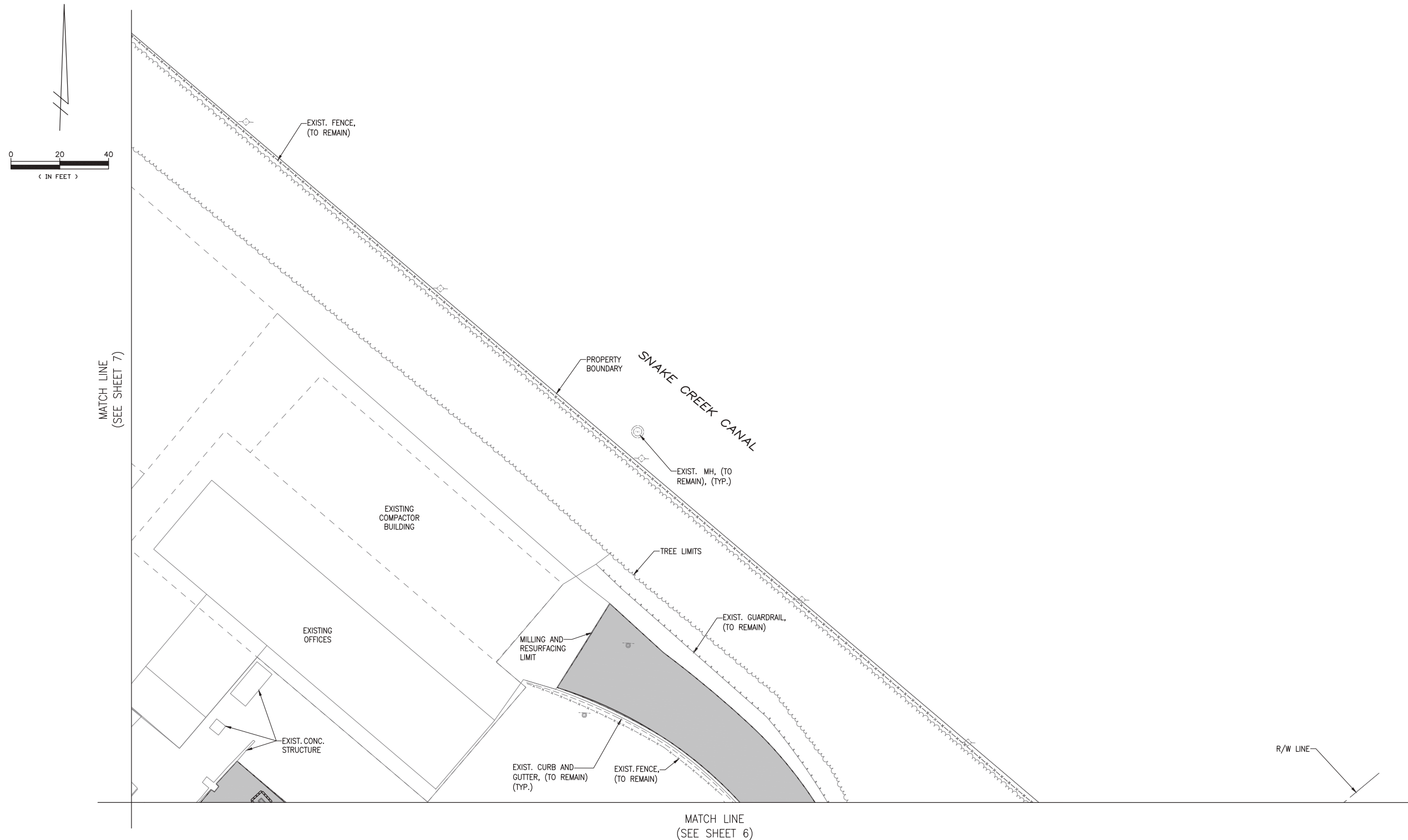
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**MIAMI-DADE COUNTY**  
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PAVEMENT IMPROVEMENTS



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MILLING AND RESURFACING (SEE DETAIL 1, SHEET 11)

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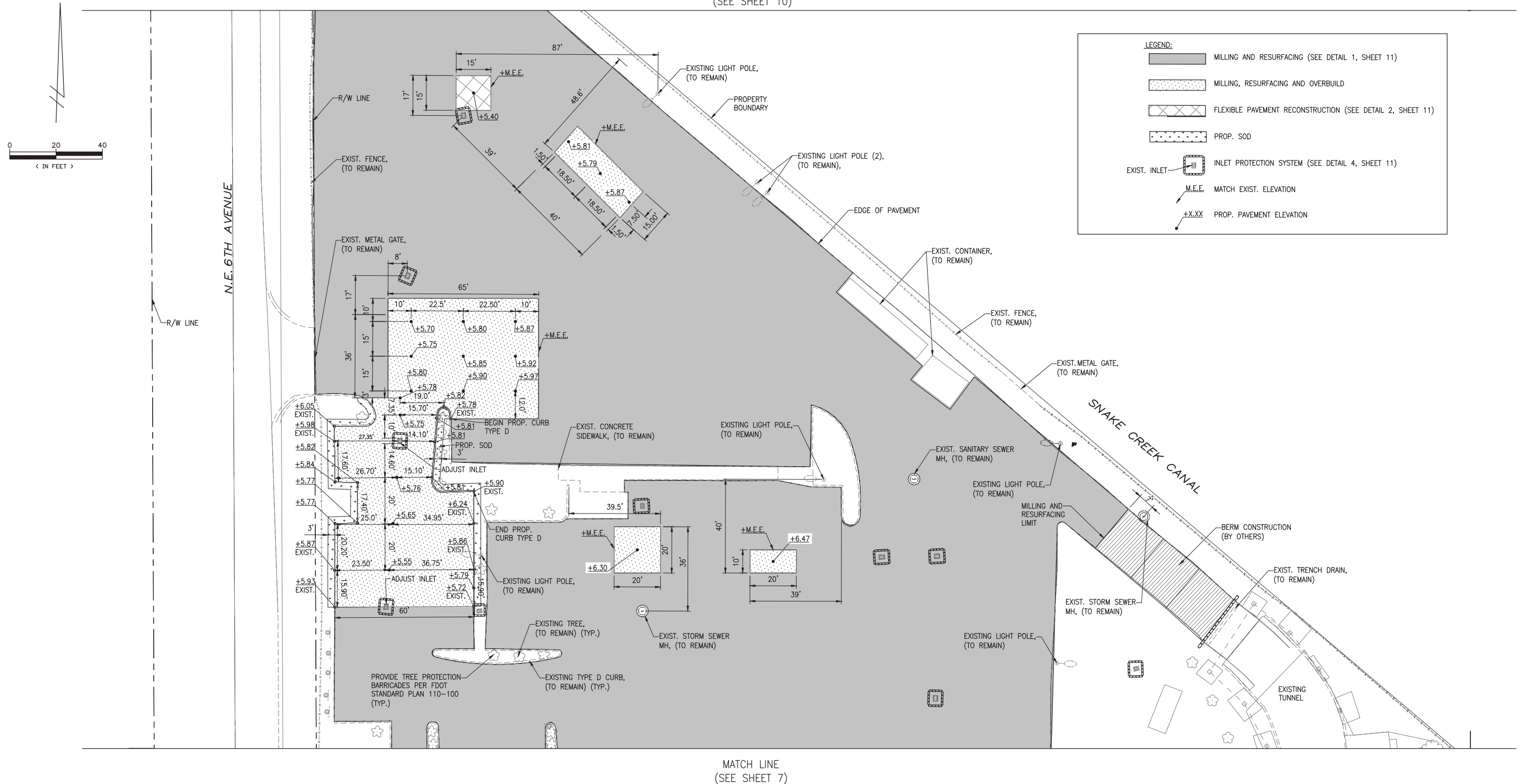
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MIAMI-DADE  
COUNTY

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MIAMI, FL 33147

PAVEMENT IMPROVEMENTS

MATCH LINE  
(SEE SHEET 10)



MATCH LINE  
(SEE SHEET 7)

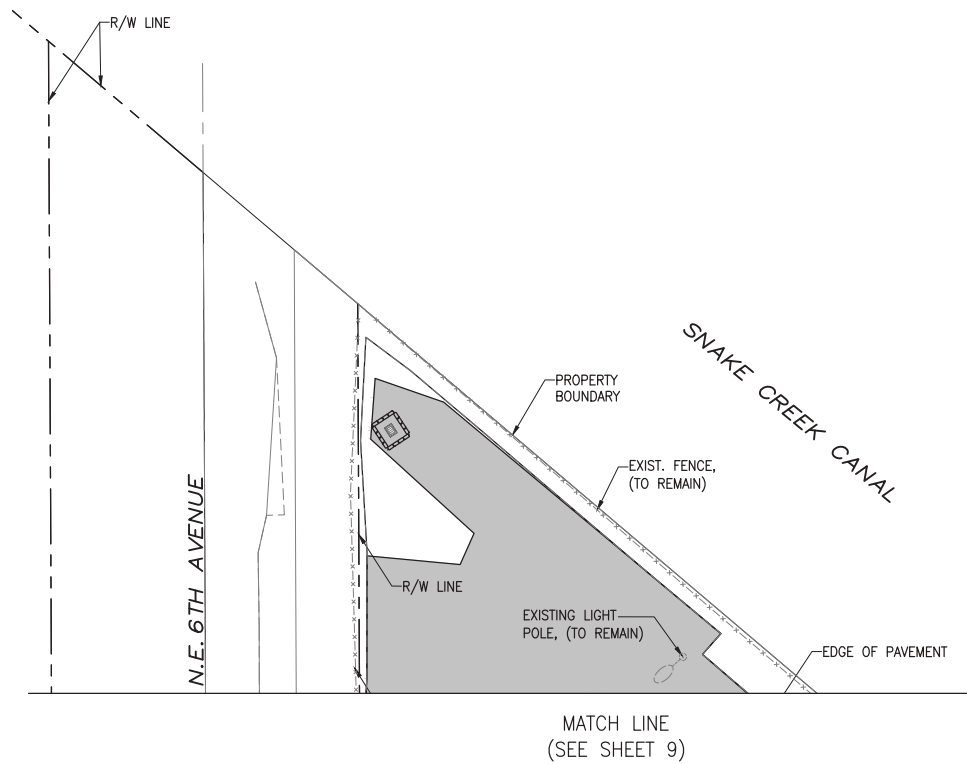
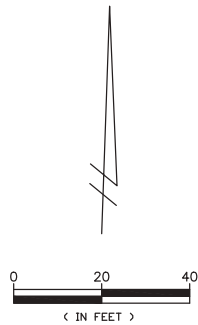
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DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY	M.E.G.		CHECKED BY	M.E.G.	
SUPERVISED BY	R.L.			R.L.	

MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33142

PAVEMENT IMPROVEMENTS



LEGEND:

MILLING AND RESURFACING (SEE DETAIL 1, SHEET 11)

INLET PROTECTION SYSTEM (SEE DETAIL 4, SHEET 11)

EXIST. INLET

MATCH EXIST. ELEVATION

PROP. PAVEMENT ELEVATION

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

**MARLIN**  
ENGINEERING

RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL Blvd, Ste. 1150T Lauderdale, FL 33309  
(954) 970-5070 C.A. No. 6104

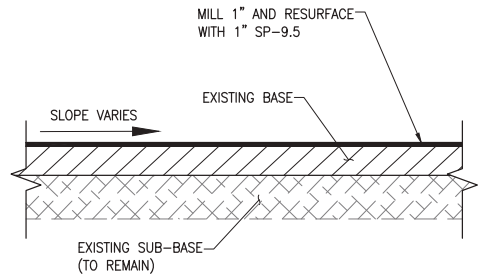
DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
CHECKED BY	M.E.G.		CHECKED BY	M.E.G.	
	R.L.			R.L.	
SUPERVISED BY:					

**MIAMI-DADE COUNTY**

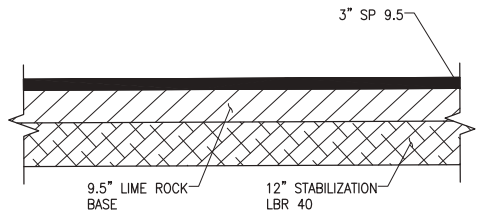
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION

DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

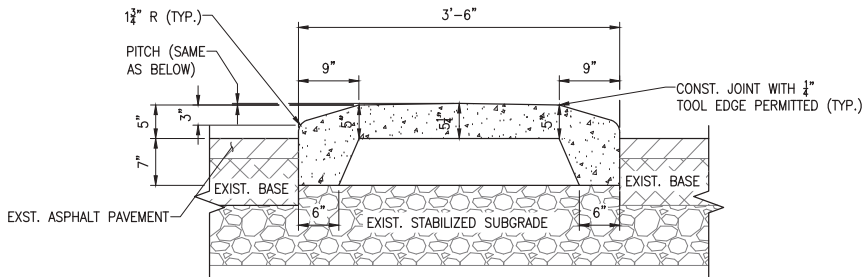
PAVEMENT IMPROVEMENTS



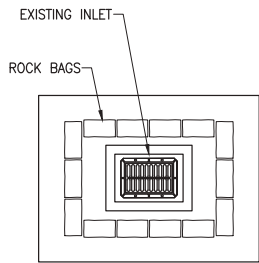
DETAIL 1. MILLING AND RESURFACING  
SCALE: N.T.S



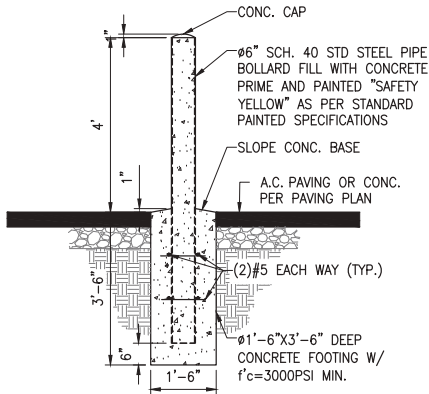
DETAIL 2. FLEXIBLE PAVEMENT RECONSTRUCTION  
SCALE: N.T.S



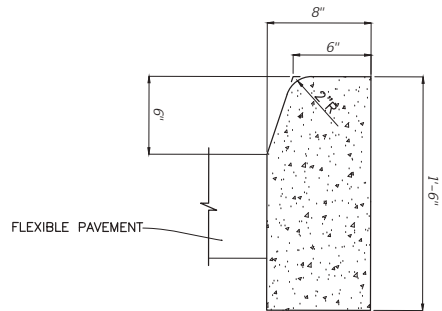
DETAIL 3. OPTION 1 TRAFFIC SEPARATOR  
SCALE: N.T.S



DETAIL 4. SWALE INLET PROTECTION  
SCALE: N.T.S



DETAIL 5. TYPICAL STEEL BOLLARD DETAIL  
SCALE: N.T.S



NOTE: FOR USE ADJACENT TO CONCRETE OR  
FLEXIBLE PAVEMENT, CONCRETE SHOWN.

DETAIL 5A. TYPE D CURB DETAIL  
SCALE: N.T.S

REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

**MARLIN**  
ENGINEERING

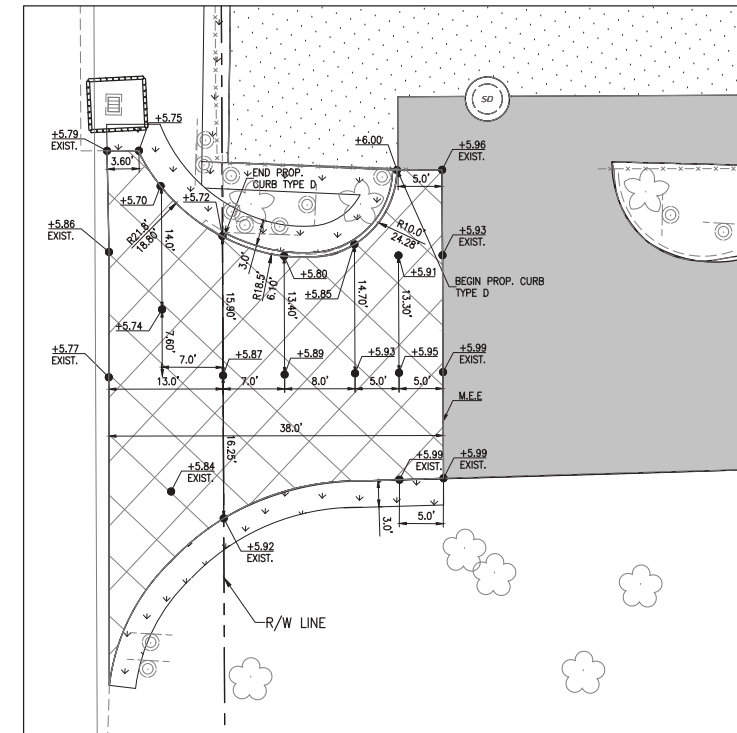
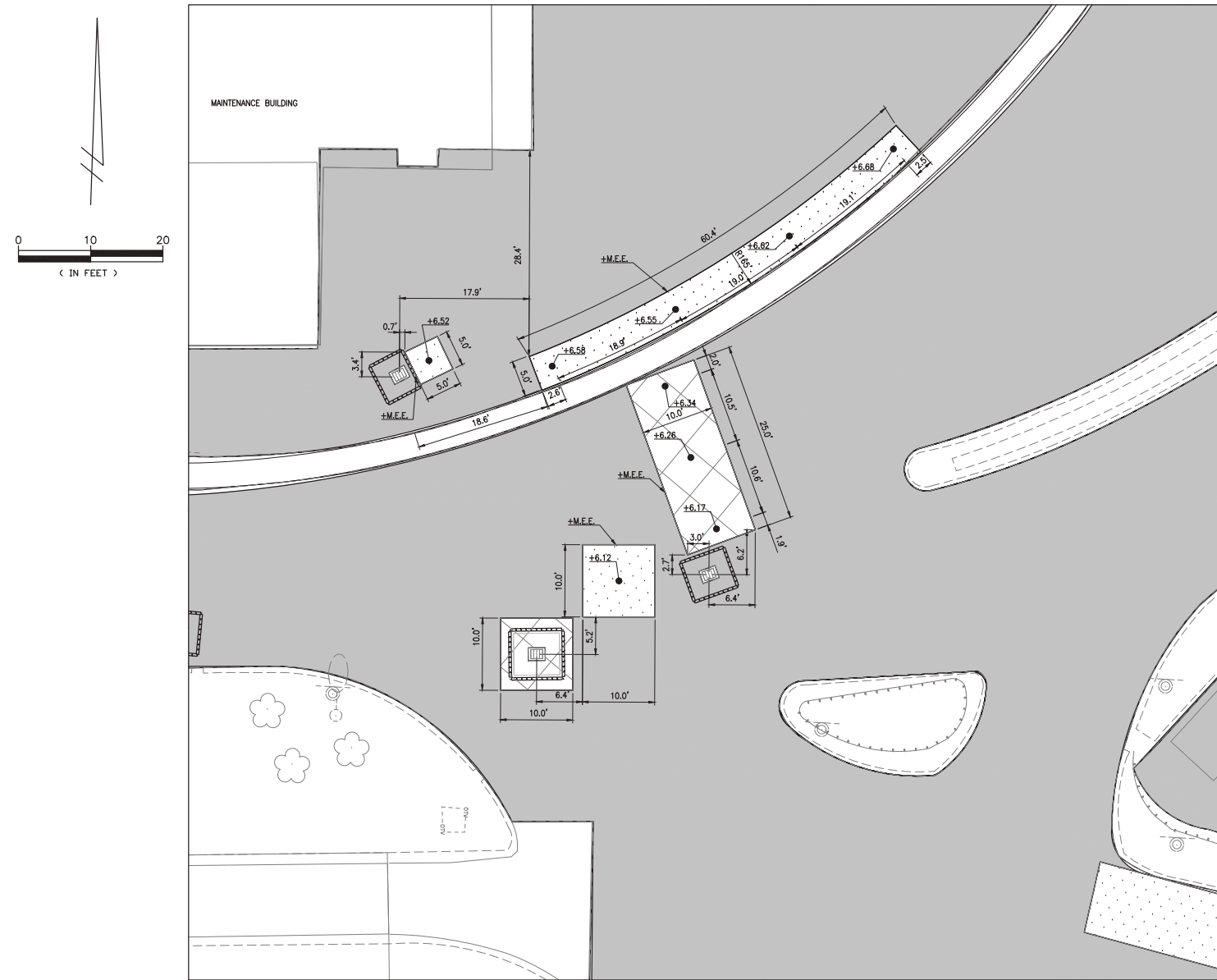
RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL Blvd, Ste. 1150T Lauderdale, FL 33309  
(954) 970-5070 C.A. No. 6104

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
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SUPERVISED BY:	R.L.			R.L.	

**MIAMI-DADE COUNTY**

DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

SPECIAL DETAILS



- LEGEND:
- MILLING AND RESURFACING, (SEE DETAIL 1, SHEET 11)
  - MILLING, RESURFACING AND OVERBUILD
  - FLEXIBLE PAVEMENT RECONSTRUCTION (SEE DETAIL 2, SHEET 11)
  - PROP. SOD
  - INLET PROTECTION SYSTEM, (SEE DETAIL 4, SHEET 11)
  - M.E.E. MATCH EXIST. ELEVATION
  - +X.XX PROP. PAVEMENT ELEVATION

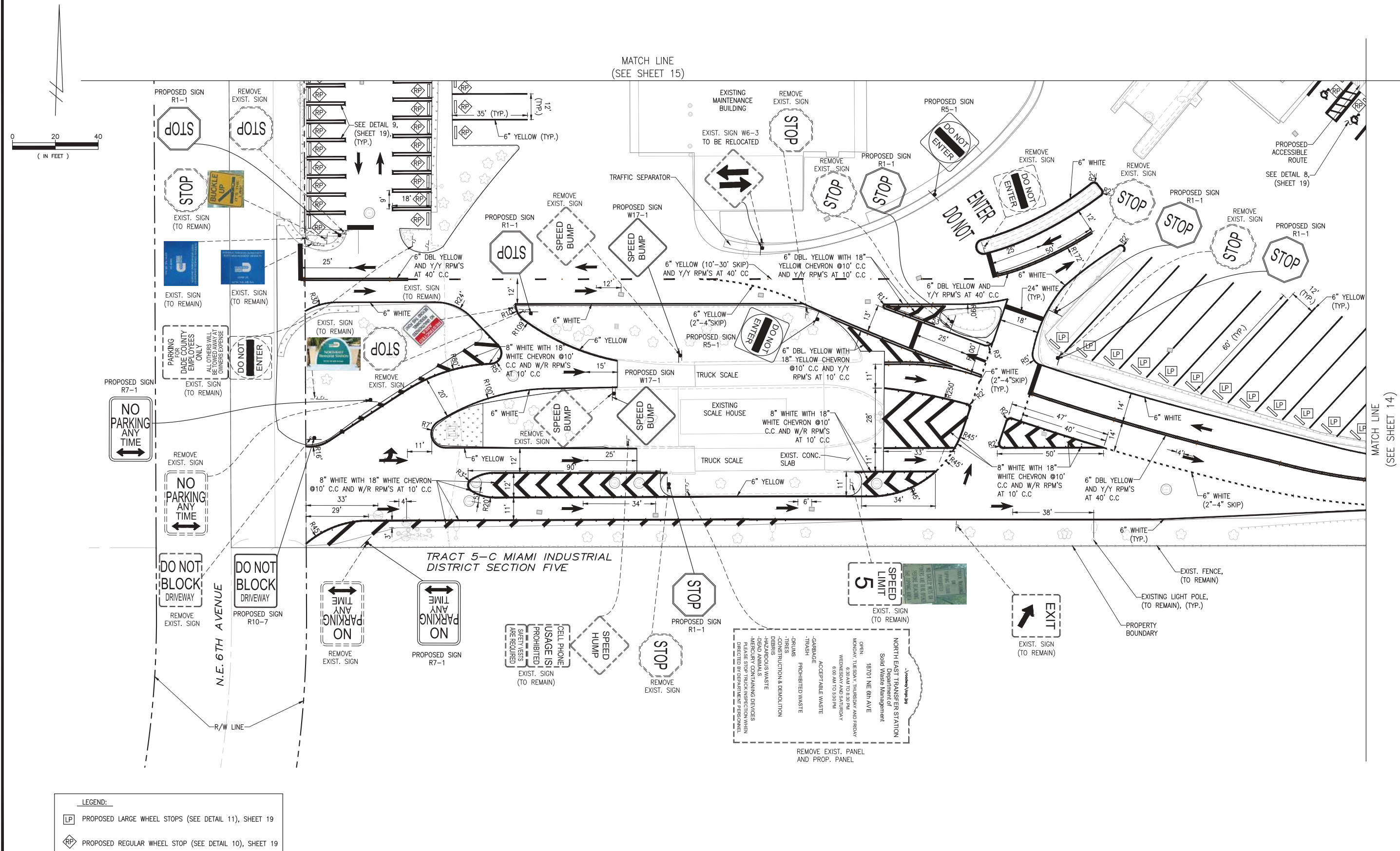
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**MARLIN**  
ENGINEERING  
RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL Blvd, Ste. 1100T Lauderdale, FL 33309  
(954) 975-5070 C.A. No. 6104

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
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SUPERVISED BY:	R.L.			R.L.	

MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

SPECIAL DETAILS



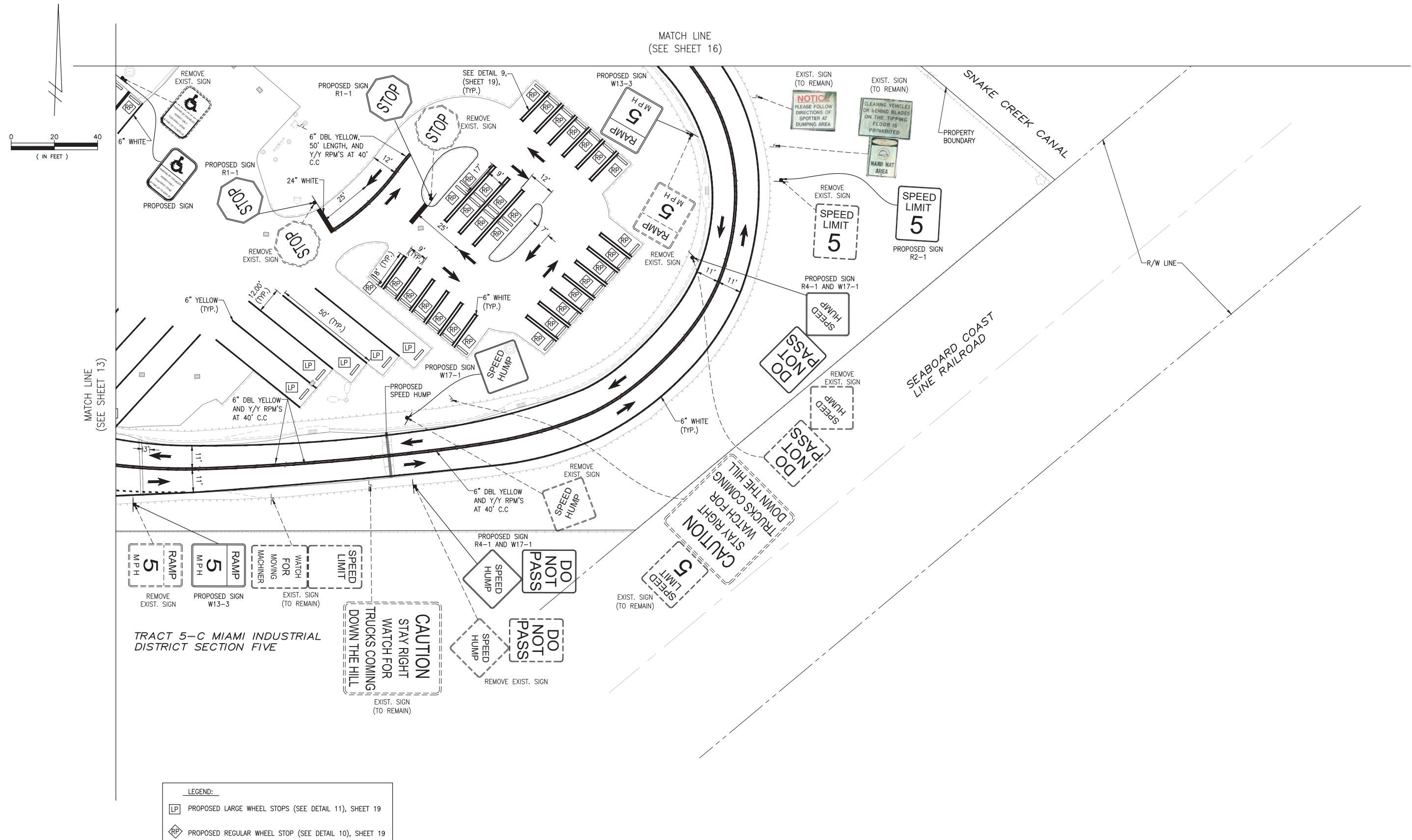
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**MARLIN**  
ENGINEERING  
RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL BLVD., STE. 1150T LAUDERDALE, FL 33309  
(954) 670-5070 C.A. No. 6104

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SUPERVISED BY	R.L.		SUPERVISED BY	R.L.	

MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33142

SIGNING AND PAVEMENT  
MARKING PLANS

[illegible]

**MARLIN**  
ENGINEERING

RAFAEL LAGOS, P.E. P.E. No.: 51412  
3363 W. COMMERCIAL Blvd, Ste. 1150 FT Lauderdale, FL 333  
(954) 870-5070 C.A. No. 6104

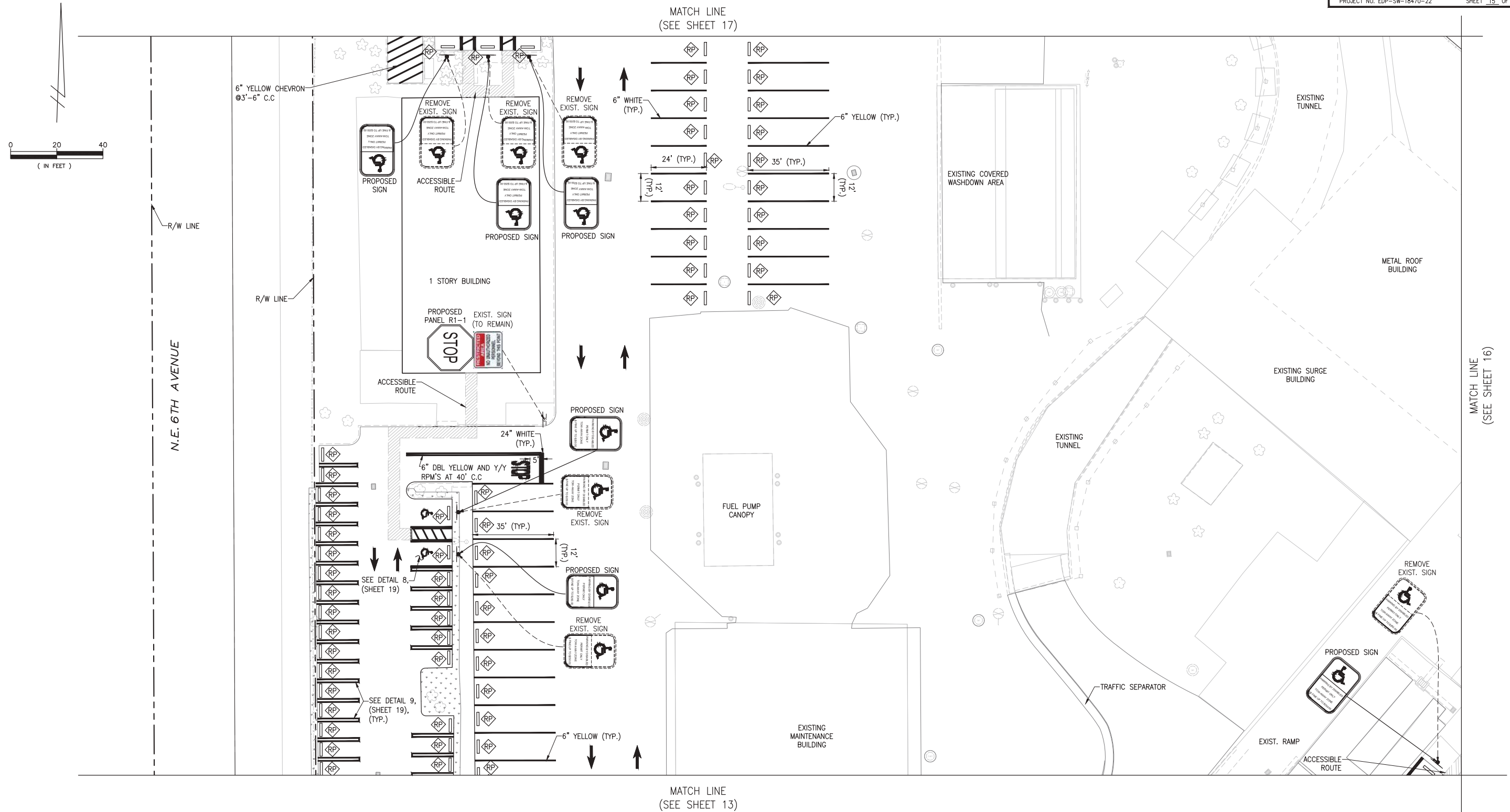
	NAME	DATE		NAME	DATE
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MIAMI-DADE  
COUNTY

DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION

DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

### SIGNING AND PAVEMENT MARKING PLANS



LEGEND:			
LP	PROPOSED LARGE WHEEL STOPS (SEE DETAIL 11), SHEET 19		
RP	PROPOSED REGULAR WHEEL STOP (SEE DETAIL 10), SHEET 19		

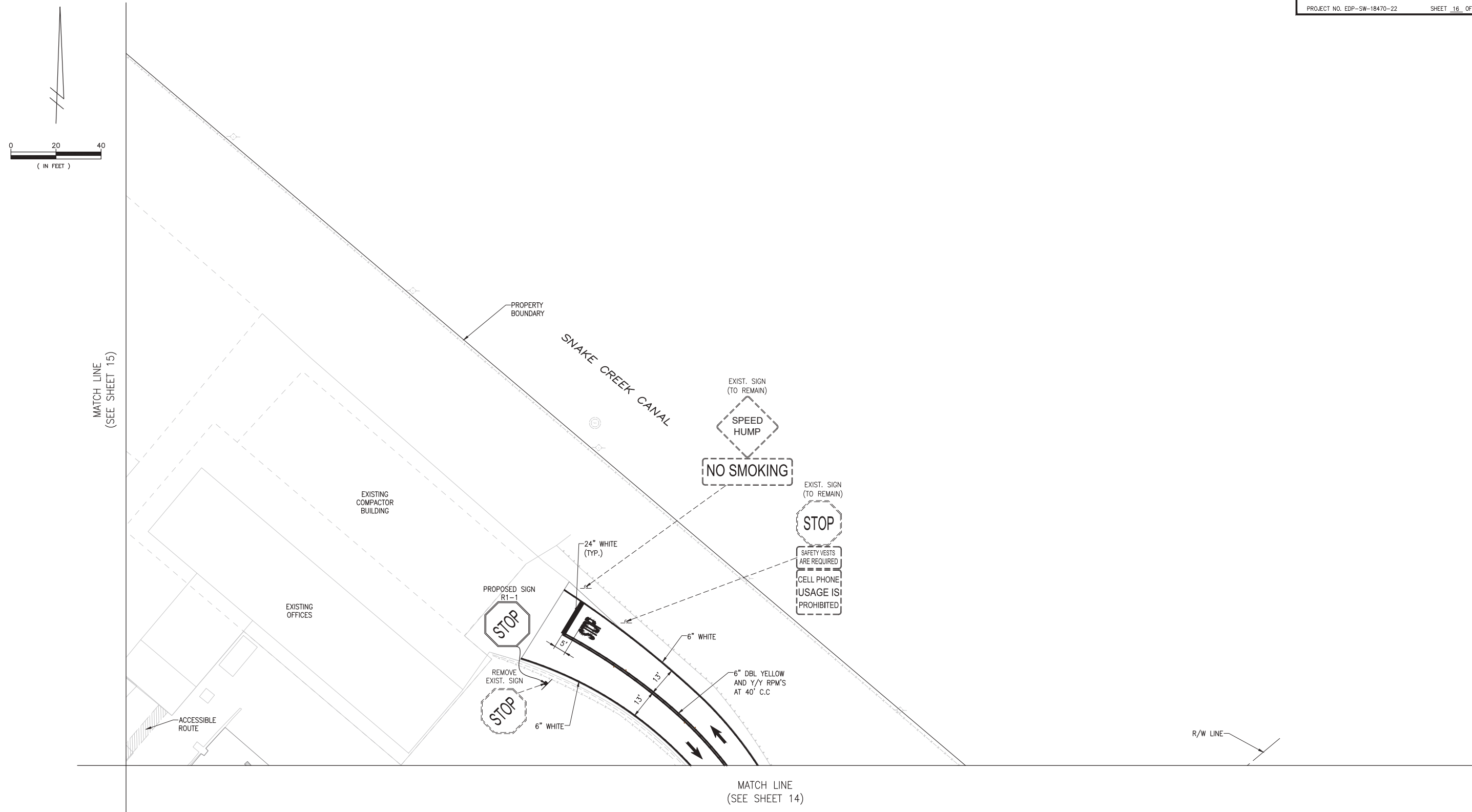
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**MARLIN**  
ENGINEERING  
RAFAEL LAGOS, P.E. No.: 51412  
3363 W. COMMERCIAL BLVD, Ste. 1150T, Lauderdale, FL 33309  
(954) 970-5070 C.A. No. 6104

DESIGNED BY	NAME	DATE	DRAWN BY	NAME	DATE
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SUPERVISED BY	R.L.			R.L.	

**MIAMI-DADE COUNTY**  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

SIGNING AND PAVEMENT  
MARKING PLANS



LEGEND:

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RP	PROPOSED REGULAR WHEEL STOP (SEE DETAIL 10), SHEET 19

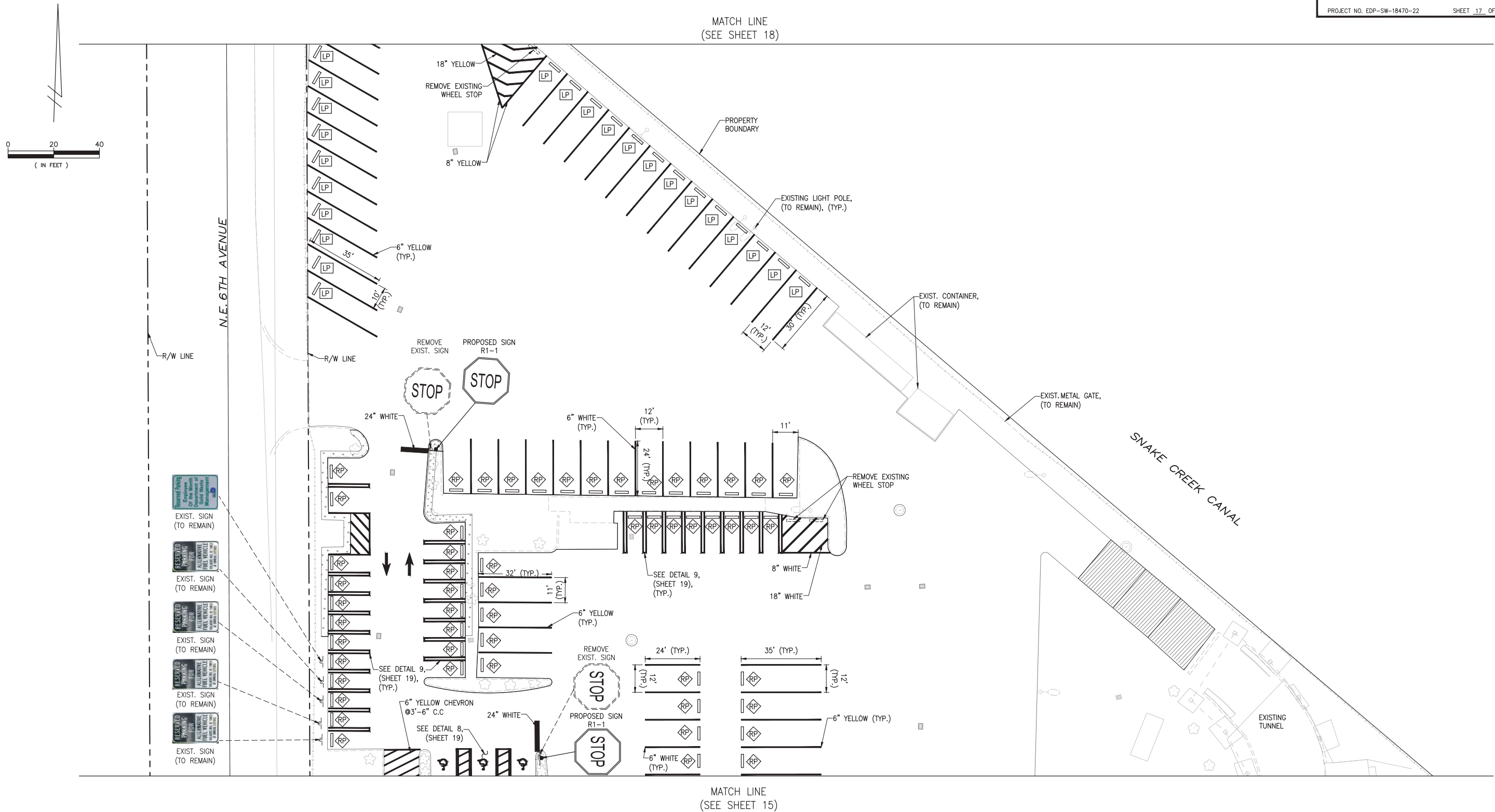
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**MARLIN**  
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RAFAEL LAGOS, P.E. No.: 51412  
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**MIAMI-DADE COUNTY**  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR  
MIAMI, FL 33147

SIGNING AND PAVEMENT MARKING PLANS



LEGEND:

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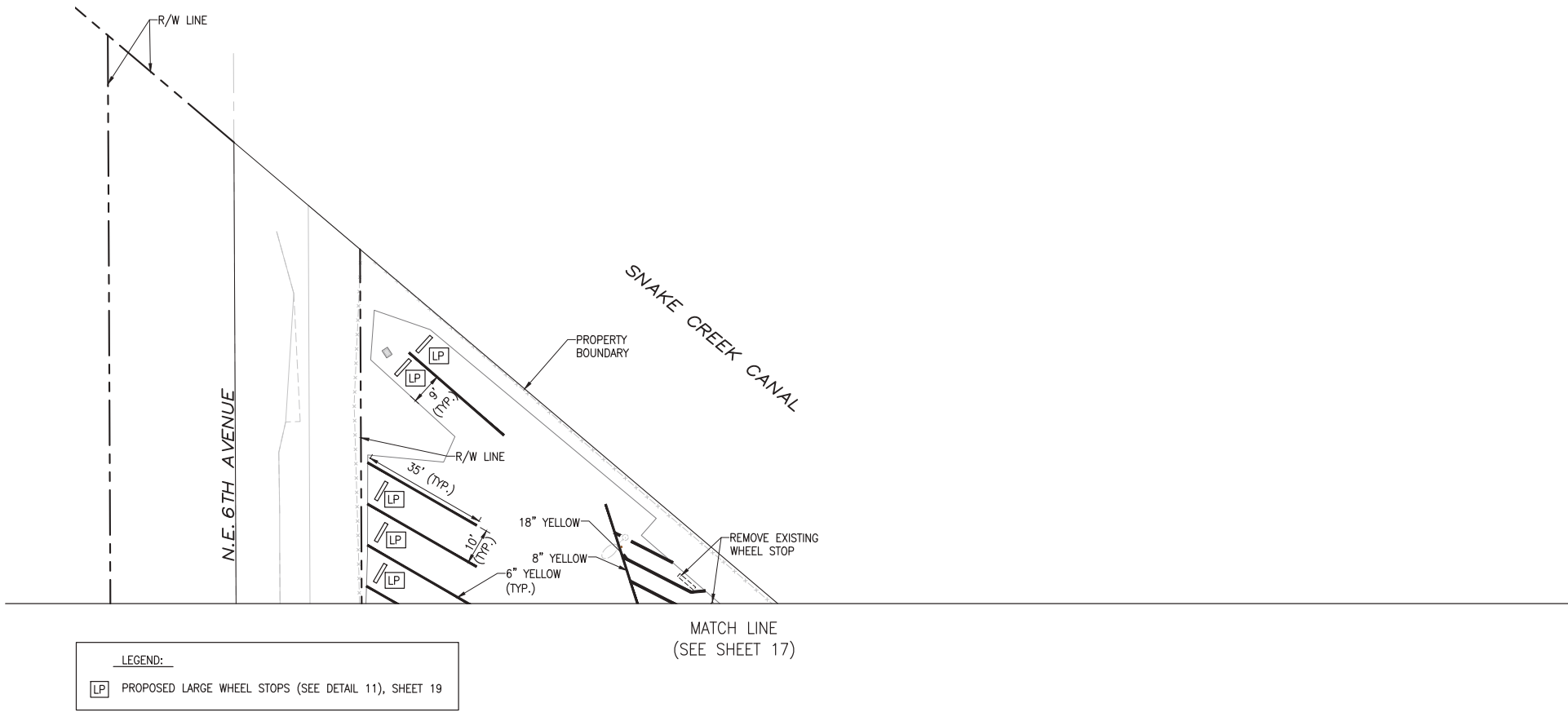
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**MIAMI-DADE COUNTY**  
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2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33147

SIGNING AND PAVEMENT  
MARKING PLANS



REVISIONS							
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY

**MARLIN**  
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3363 W. COMMERCIAL Blvd, Ste. 1150  
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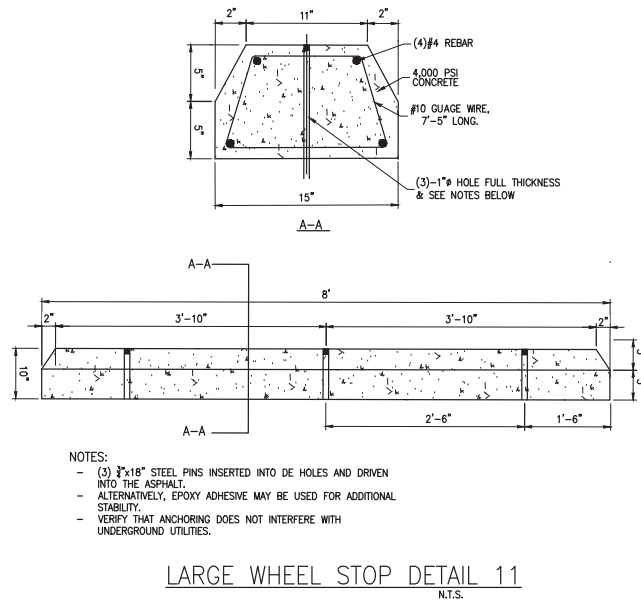
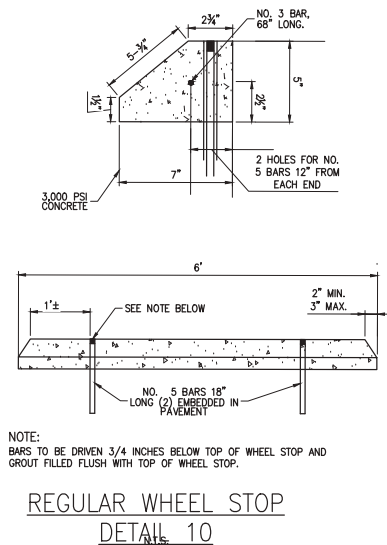
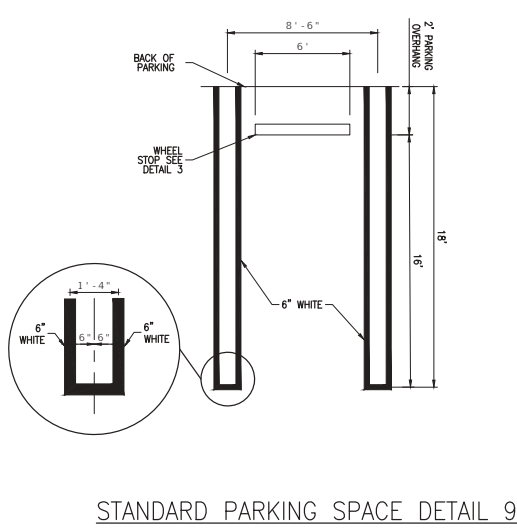
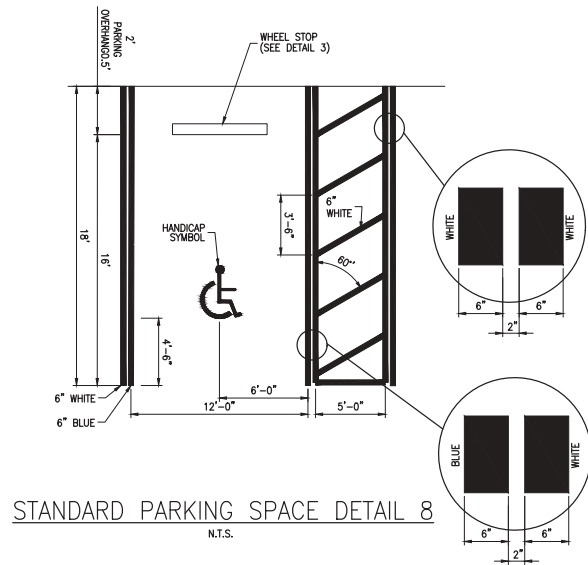
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SUPERVISED BY:					

**MIAMI-DADE**  
COUNTY

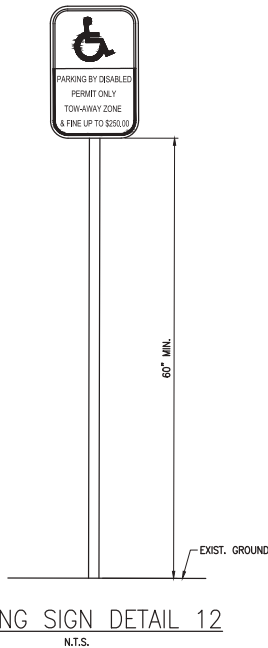
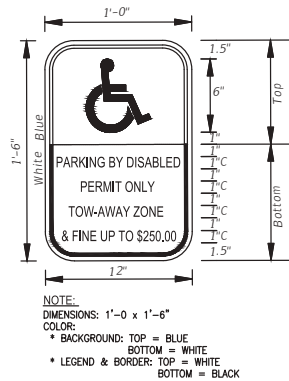
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR  
MIAMI, FL 33147

SIGNING AND PAVEMENT  
MARKING PLANS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



NOTE:  
1. ACCESSIBLE PARKING SIGNAGE (STRIPPING & SIGN) SHALL COMPLY WITH FBCA 502.6.



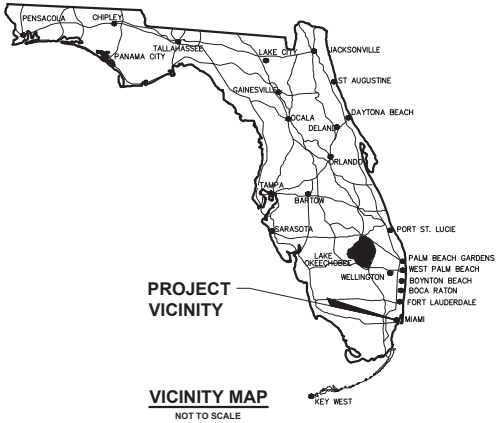
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RAFAEL LAGOS, P.E. No.: 51412  
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(954) 670-3070 C.A. No. 6104

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CHECKED BY	M.E.G.		CHECKED BY	M.E.G.	
SUPERVISED BY	R.L.		SUPERVISED BY	R.L.	

MIAMI-DADE COUNTY  
DEPARTMENT OF SOLID WASTE MANAGEMENT  
TECHNICAL SERVICES DIVISION  
DR. MARTIN LUTHER KING OFFICE PLAZA  
2525 NW 62ND STREET, 5TH FLOOR,  
MIAMI, FL 33142

SIGNING AND PAVEMENT  
MARKING DETAILS



# TOPOGRAPHIC SURVEY

NORTHEAST TRANSFER STATION  
18701 NE 6TH AVE, MIAMI, FL 33179  
MIAMI-DADE COUNTY, FLORIDA

## LEGAL DESCRIPTION: (SEE SURVEYOR'S NOTE 11)

DESCRIPTION OBTAINED FROM A PREVIOUS SURVEY PREPARED BY J. BONFILL & ASSOCIATES, INC., PROJECT NUMBER 01-0458, JOB NUMBER 06-0397, DATED 06-08-06:

ALL THAT PORTION OF THE SOUTH 1/2 (S 1/2) OF THE NORTHWEST 1/4 (NW 1/4) OF THE SOUTHEAST 1/4 (SE 1/4) OF SECTION 6, TOWNSHIP 52 SOUTH, RANGE 42 EAST, MIAMI-DADE COUNTY, FLORIDA, LYING SOUTHWESTERLY OF A LINE 205 FEET SOUTHWEST OF AND PARALLEL TO CENTERLINE OF SNAKE CREEK CANAL AND NORTHWESTERLY OF SEABOARD COAST LINE RAILROAD RIGHT-OF-WAY ALSO KNOWN AS N.E. INCINERATOR.

MIAMI-DADE COUNTY PROPERTY APPRAISER FOLIO NUMBERS: 30-2206-000-0121 AND FOLIO: 30-2206-000-0117

## REWRITTEN DESCRIPTION:

A PARCEL OF LAND SITUATED IN SECTION 6, TOWNSHIP 52 SOUTH, RANGE 42 EAST, MIAMI-DADE COUNTY FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF TRACT 5-C, MIAMI INDUSTRIAL DISTRICT SECTION FIVE, ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 80, PAGE 81 OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, SAID POINT BEING ON THE NORTH LINE OF THE SOUTHWEST ONE-QUARTER (SW 1/4) OF THE SOUTHEAST ONE-QUARTER (SE 1/4) OF SAID SECTION 6. THENCE ALONG THE WESTERLY PROLONGATION OF THE NORTH LINE OF SAID TRACT 5-C, NORTH 86°31'30" WEST, A DISTANCE OF 35.00 FEET TO A POINT ON THE WEST LINE OF THE NORTHWEST ONE-QUARTER (NW 1/4) OF THE SOUTHEAST ONE-QUARTER (SE 1/4) THE SAID SECTION 6, SAID POINT ALSO BEING ON THE CENTERLINE OF NE 6TH AVENUE, SAID POINT BEING THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL OF LAND.

THENCE ALONG SAID WEST LINE AND CENTERLINE, NORTH 06°37'08" WEST, A DISTANCE OF 986.00 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF THE SNAKE CREEK CANAL; THENCE ALONG SAID SOUTHERLY RIGHT OF WAY, SOUTH 53°02'24" EAST, A DISTANCE OF 1,270.86 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF THE SEABOARD COAST LINE RAILROAD; THENCE ALONG SAID NORTHERLY LINE, SOUTH 46°46'29" WEST, A DISTANCE OF 252.93 FEET TO THE NORTHEAST CORNER OF THE AFOREMENTIONED TRACT 5-C, MIAMI INDUSTRIAL DISTRICT SECTION FIVE; THENCE LONG THE NORTH LINE OF SAID TRACT 5-C, SOUTH 86°31'30" WEST, A DISTANCE OF 770.36 FEET TO THE POINT OF BEGINNING.

SAID PARCEL CONTAINING 538,158.3709 SQUARE FEET, OR 12.354± ACRES

## SURVEY NOTES:

- THE SURVEY DEPICTED HEREON IS CLASSIFIED AS A TOPOGRAPHIC SURVEY AS DEFINED IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE.
- COORDINATES SHOWN HEREON ARE RELATIVE TO STATE PLANE COORDINATES SYSTEM FLORIDA EAST ZONE, NAD 83 (2011) ADJUSTMENT.
- ELEVATIONS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29) AND REFERENCE THE FOLLOWING BENCHMARKS:  
N-505: A SQUARE CUT IN A CONCRETE WALL ON SOUTH SIDE OF A BIKE PATH, 3' ABOVE PATH; LOCATED WITHIN THE SNAKE CREEK CANAL RIGHT OF WAY, ON THE SOUTHWEST BANK, JUST WEST OF THE RAILROAD, 60' NORTHWEST OF THE NORTHWEST RAIL, 20' SOUTHEAST OF THE CENTERLINE OF TELEPHONE DUCTS CROSSING. ELEVATION 8.69 (NGVD 1929)  
N-3090: A PK NAIL AND BRASS WASHER IN THE CONCRETE RIM OF A STORM DRAIN, LOCATED 18' NORTH OF THE CENTERLINE OF NE 185TH STREET, 390'± EAST OF THE CENTERLINE OF NE 4TH COURT, EAST SIDE OF THE BUILDING AT ADDRESS #475 NE 185TH STREET. ELEVATION 6.38 (NGVD 1929)
- UNDERGROUND PORTIONS OF FOOTINGS, FOUNDATIONS OR OTHER IMPROVEMENTS WERE NOT LOCATED.
- ONLY VISIBLE AND ABOVE GROUND OF APPARENT USE OF FEATURES WERE LOCATED.
- ALL DIMENSIONS SHOWN HEREON ARE IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
- THIS IS AN ACCURATE AND COMPLETE DEPICTION OF THE RESULTS OF A FIELD SURVEY PERFORMED UNDER MY DIRECTION AND COMPLETED ON: 02-16-2024
- IT IS A VIOLATION OF RULE 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE TO ALTER THIS SURVEY WITHOUT THE WRITTEN CONSENT OF THE SURVEYOR. ADDITIONS AND/OR DELETIONS MADE TO THE FACE OF THIS SURVEY WILL MAKE THIS SURVEY INVALID.
- THIS MAP IS INTENDED TO BE DISPLAYED AT A SCALE OF 1/480 OR SMALLER.
- THIS SURVEY MAP OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OR A DIGITAL PDF SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OR OPINION OF TITLE. THE DESCRIPTION SHOWN HEREON WAS OBTAINED FROM A PREVIOUS SURVEY PREPARED BY J. BONFILL & ASSOCIATES, INC., PROJECT NUMBER 01-0458, JOB NUMBER 06-0397, DATED 06-08-06 AND WAS REWRITTEN BY THE SIGNING PROFESSIONAL SURVEYOR AND MAPPER FOR CLARITY.
- MARLIN ENGINEERING IS COVERED BY PROFESSIONAL LIABILITY INSURANCE.

## CERTIFICATION:

I HEREBY CERTIFY THAT THIS TOPOGRAPHIC SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND TO THE BEST OF MY KNOWLEDGE AND BELIEF IS TRUE, CORRECT AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17-050, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

Kevin M Beck 2024.05.17 15:19:33 -04'00'

KEVIN M. BECK, P.S.M.  
PROFESSIONAL SURVEYOR AND MAPPER  
LICENSE NO. 6168  
STATE OF FLORIDA

- ### SYMBOL LEGEND
- BOLLARD
  - CABLE TV SERVICE BOX
  - CLEANOUT (SANITARY SEWER)
  - FIRE HYDRANT
  - FLOOD LIGHT
  - GUY ANCHOR
  - MAILBOX
  - MANHOLE (STORM WATER)
  - MANHOLE (ELECTRIC)
  - MANHOLE (SANITARY SEWER)
  - METER (UNKNOWN)
  - METER (WATER)
  - MONUMENT (IRON ROD AND CAP)
  - MONUMENT (METAL PIPE, ROD, BAR OR AXLE)
  - MONUMENT (PK NAIL, SPIKE NAIL OR PIN)
  - MONUMENT (WOODEN POST, STAKE, STAUB)
  - PEDESTRIAN SIGNAL HEAD
  - POLE STREET LIGHT
  - POST
  - POWER POLE
  - POWER POLE W/ TRANSFORMER
  - SERVICE CABINET (ELECTRIC OR TELEPHONE)
  - SIGN (SINGLE POLE SUPPORT)
  - TELEPHONE PEDESTAL
  - TRAFFIC SIGNAL HEAD
  - TRAFFIC SIGNAL POLE AND MAST ARM
  - TRANSFORMER
  - TREE (ORNAMENTAL)
  - TREE (PALM)
  - TREE (UNKNOWN)
  - TURN ARROW (LEFT)
  - VALVE COVER (UNKNOWN)
  - VALVE COVER (GAS)
  - VALVE COVER (SANITARY SEWER)
  - VALVE COVER (WATER)
  - WELL (WATER)
  - WIRE PULL BOX

- ADA DETECTOR STRIP
- BRICK
- CONCRETE
- ELECTRIC BOX

- ### LINETYPES
- OVERHEAD ELECTRIC
  - FENCE
  - LANE LINES
  - GUARD RAIL

## ABBREVIATIONS

- |              |                                      |
|--------------|--------------------------------------|
| AP           | ASPHALT                              |
| APPROX       | APPROXIMATE                          |
| BFP          | BACK-FLOW PREVENTION                 |
| BM           | BENCHMARK                            |
| CB           | CATCH BASIN                          |
| CL           | CENTERLINE                           |
| CONC         | CONCRETE                             |
| E            | EASTING                              |
| EL           | ELEVATION                            |
| FDC          | FIRE DEPARTMENT CONNECTION           |
| FND          | FOUND                                |
| IR           | IRON ROD                             |
| IRC          | IRON ROD AND CAP                     |
| LB           | LICENSED BUSINESS                    |
| MDC          | MIAMI-DADE COUNTY                    |
| MEI          | MARLIN ENGINEERING INCORPORATED      |
| N            | NORTHING                             |
| NL/DISK      | NAIL AND DISK                        |
| NO ID        | NO IDENTIFICATION                    |
| PB           | PLAT BOOK                            |
| PC           | PROPERTY CORNER                      |
| PG           | PAGE                                 |
| PNL          | PANEL                                |
| PRM          | PERMANENT REFERENCE MONUMENT         |
| RC (D)       | RAISED CURB (TYPE D)                 |
| S-#          | STRUCTURE                            |
| SHT          | SHEET                                |
| VG           | VALLEY GUTTER                        |
| X' FENCE     | FENCE THAT IS X FT TALL              |
| X' WALL      | WALL THAT IS X FT TALL               |
| XXX.X        | SOFT GND ELEVATION                   |
| XXX.XX       | HARD GND ELEVATION                   |
| SEC 03-52-42 | SECTION-TOWNSHIP-RANGE               |
| DDCVA        | DOUBLE DETECTOR CHECK VALVE ASSEMBLY |
| BLDG         | BUILDING                             |

## LOCATION SKETCH

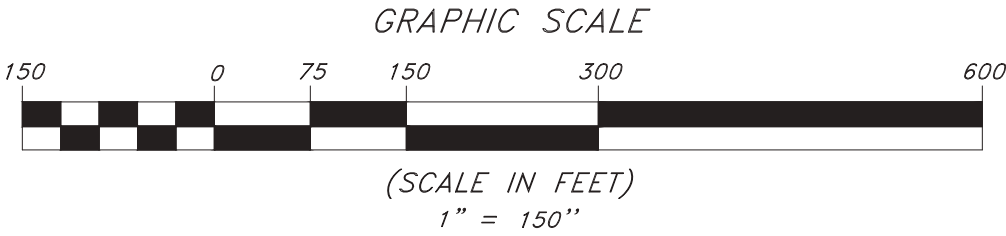
NOT TO SCALE  
SECTION 6, TOWNSHIP 52 S, RANGE 42 E

## SHEET INDEX

SHEET 1	COVER SHEET
SHEET 2	SHEET LOCATION MAP
SHEET 3-8	TOPOGRAPHIC SURVEY

TOPOGRAPHIC SURVEY

NORTHEAST TRANSFER STATION  
18701 NE 6TH AVE, MIAMI, FL 33179  
MIAMI-DADE COUNTY, FLORIDA



SHEET 3

SHEET 7

SHEET 8

SHEET 4

SHEET 5

SHEET 6

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
05/17/24	MW	MINOR TEXT EDITS			

MARLIN

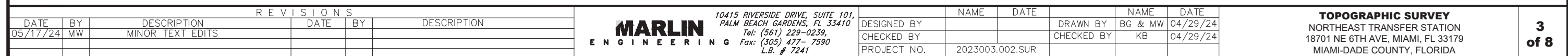
ENGINEERING

10415 RIVERSIDE DRIVE, SUITE 101,  
PALM BEACH GARDENS, FL 33410  
Tel: (561) 229-0239,  
Fax: (305) 477- 7590  
L.B. # 7241

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY	BG & MW	04/29/24
CHECKED BY			CHECKED BY	KB	04/29/24
PROJECT NO.	2023003.002.SUR				

TOPOGRAPHIC SURVEY  
NORTHEAST TRANSFER STATION  
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The site plan illustrates a property with several key features and boundaries:

- Boundaries:**
  - Left:** N.E. 6TH AVENUE 70' R/W. Boundary lines are defined by bearings and distances: N03°37'08"W 3280.16' (W LINE OF THE NW 1/4 OF THE SE 1/4 OF SEC 06-52-42) and N03°37'08"W 3280.16' (W LINE OF THE NW 1/4 OF THE SE 1/4 OF SEC 06-52-42).
  - Right:** SNAKE CREEK CANAL 415' R/W. Boundary line is defined by bearing and distance: S55°30'02"E 3280.16'.
- Buildings and Structures:**
  - 1-STORY BUILDING:** Located in the lower-left quadrant.
  - TWO STORY BUILDING:** Located in the lower-right quadrant.
  - 19'X14' SHED:** Located in the upper-right quadrant.
  - COVERED WASHDOWN AREA:** Adjacent to the two-story building.
  - COVERED ENTRANCE:** Adjacent to the two-story building.
  - COVERED DRIVE:** Adjacent to the two-story building.
  - COVERED BRICK PAVERS:** Located near the water valve assembly.
- Infrastructure and Features:**
  - WATER VALVE ASSEMBLY:** Located near the 1-story building.
  - CONEX BOX:** Located near the covered entrance.
  - ROOF SUPPORT FOOTER:** Located near the covered entrance.
  - DDCVA:** Located near the covered washdown area.
  - CONC. WALL:** Located near the covered washdown area.
  - ASPHALT:** Various areas throughout the site.
  - DIRT AND GRASS:** Various areas throughout the site.
  - GRASS:** Various areas throughout the site.
- Elevations and Spot Data:**
  - Spot Elevations:** Numerous elevations are marked throughout the plan, ranging from 5.41 to 8.65.
  - Property Data:**
    - 60005: NL/DISK NO ID CL, N: 587883.57, E: 922593.38, EL: 4.28
    - 60015: NL/DISK LB6632, N: 587845.15, E: 922535.81, EL: 3.90
    - 60014: NL/DISK NO ID, N: 587827.69, E: 922578.42, EL: 4.15
    - 500001: SET NL/DISK LB7241, N: 587803.00, E: 922577.12, EL: 5.74
    - 60013: NL/DISK NO ID, N: 587679.77, E: 922583.36, EL: 4.27
- Matchlines:**
  - Left Matchline:** MATCHLINE - SEE SHEET 5
  - Right Matchline:** MATCHLINE - SEE SHEET 7

R E V I S I O N S					
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05/17/24	MW	MINOR TEXT EDITS			

**MARLIN**  
ENGINEERING

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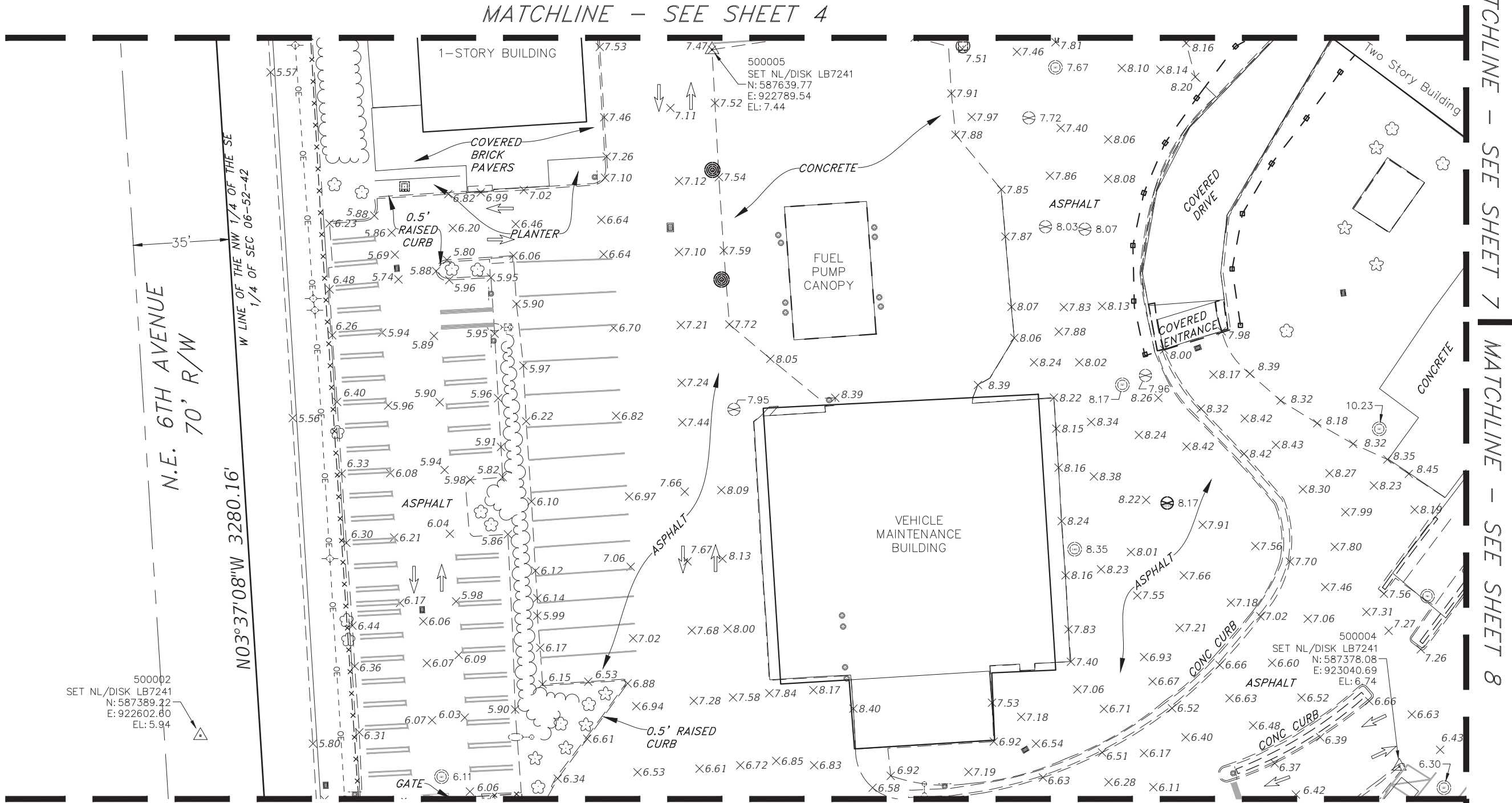
TOPOGRAPHIC SURVEY

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GRAPHIC SCALE



(SCALE IN FEET)  
1" = 40'



500002  
SET NL/DISK LB7241  
N: 587389.22  
E: 922602.60  
EL: 5.94

500004  
SET NL/DISK LB7241  
N: 587378.08  
E: 923040.69  
EL: 6.74

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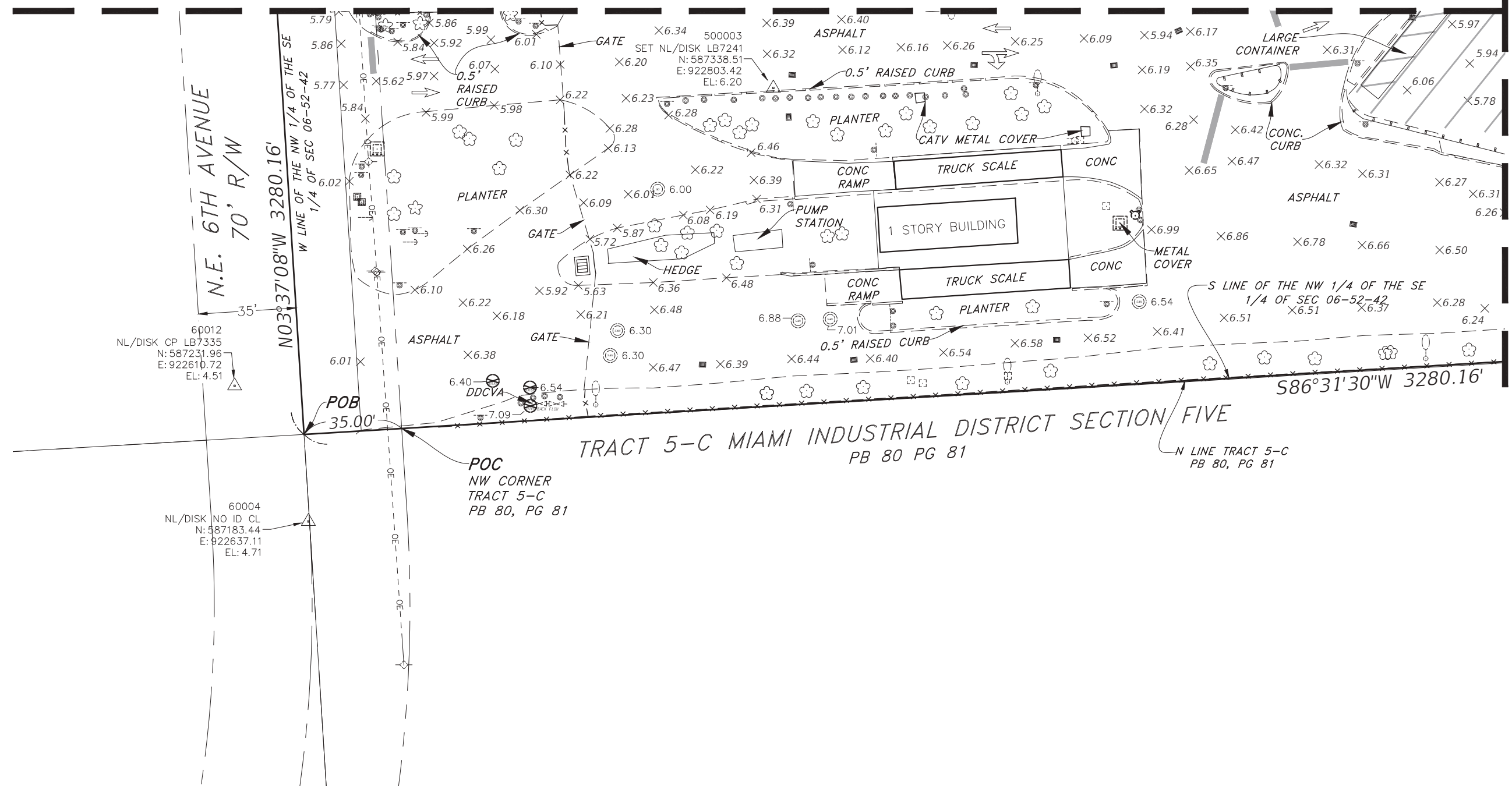
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MATCHLINE - SEE SHEET 8



R E V I S I O N S					
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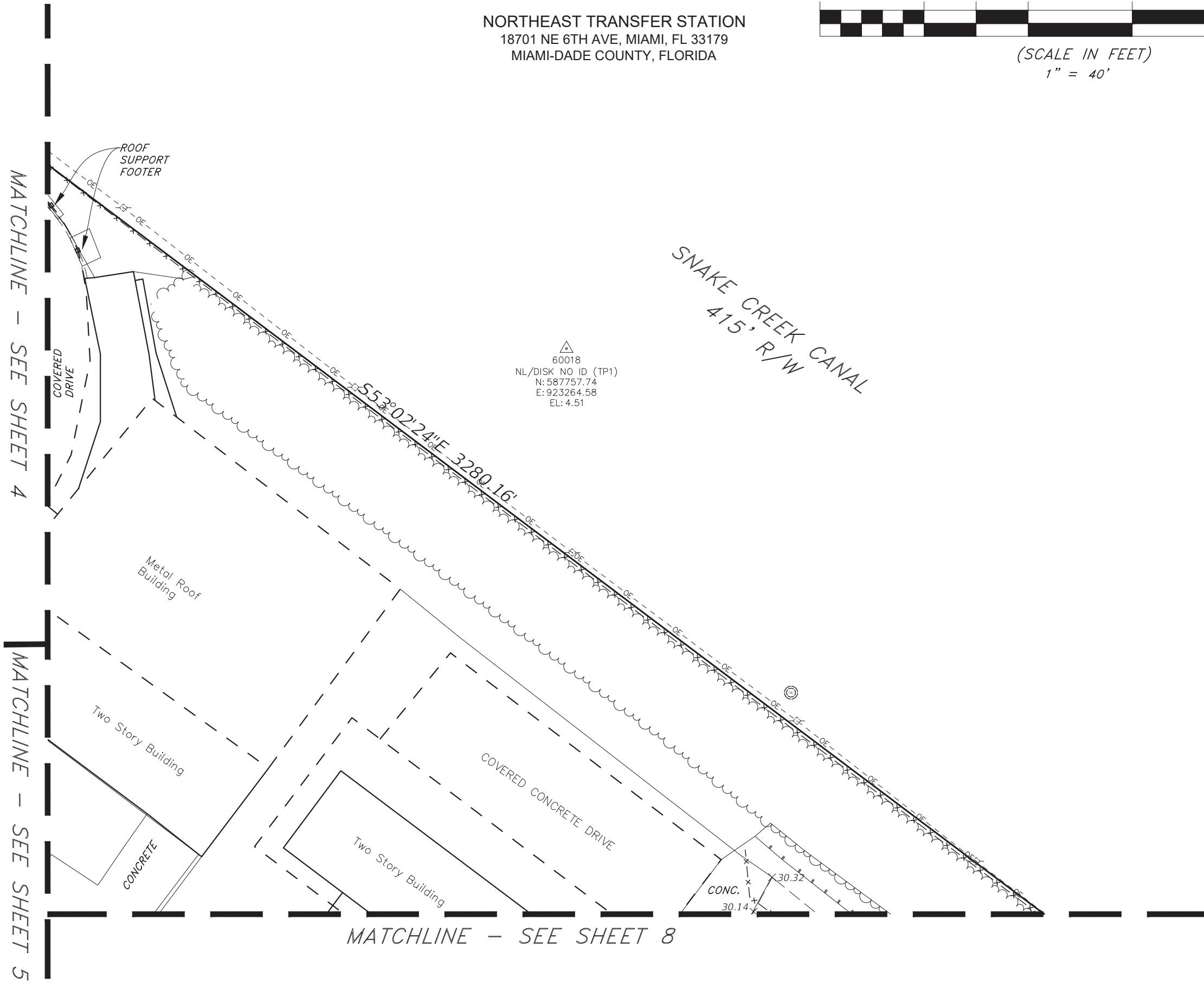
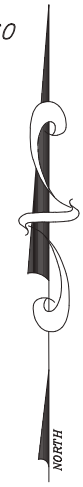
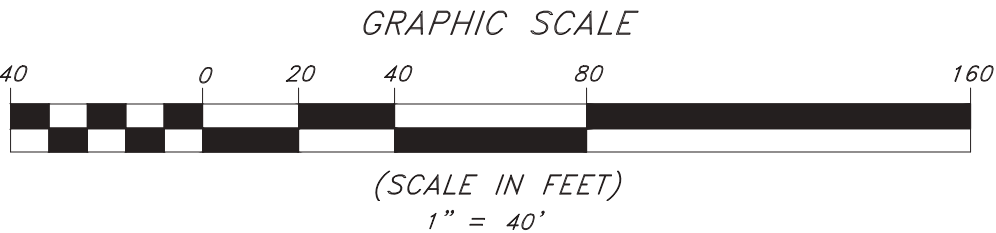
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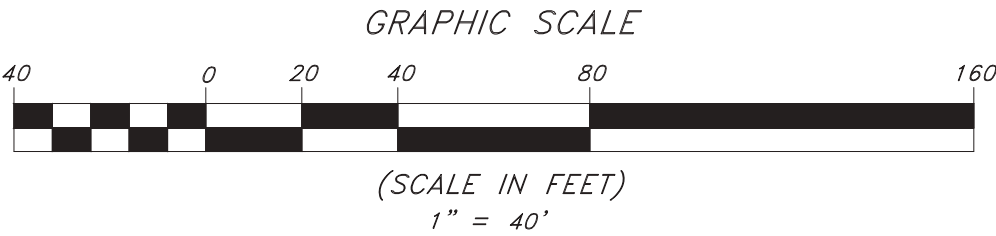
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MATCHLINE - SEE SHEET 7

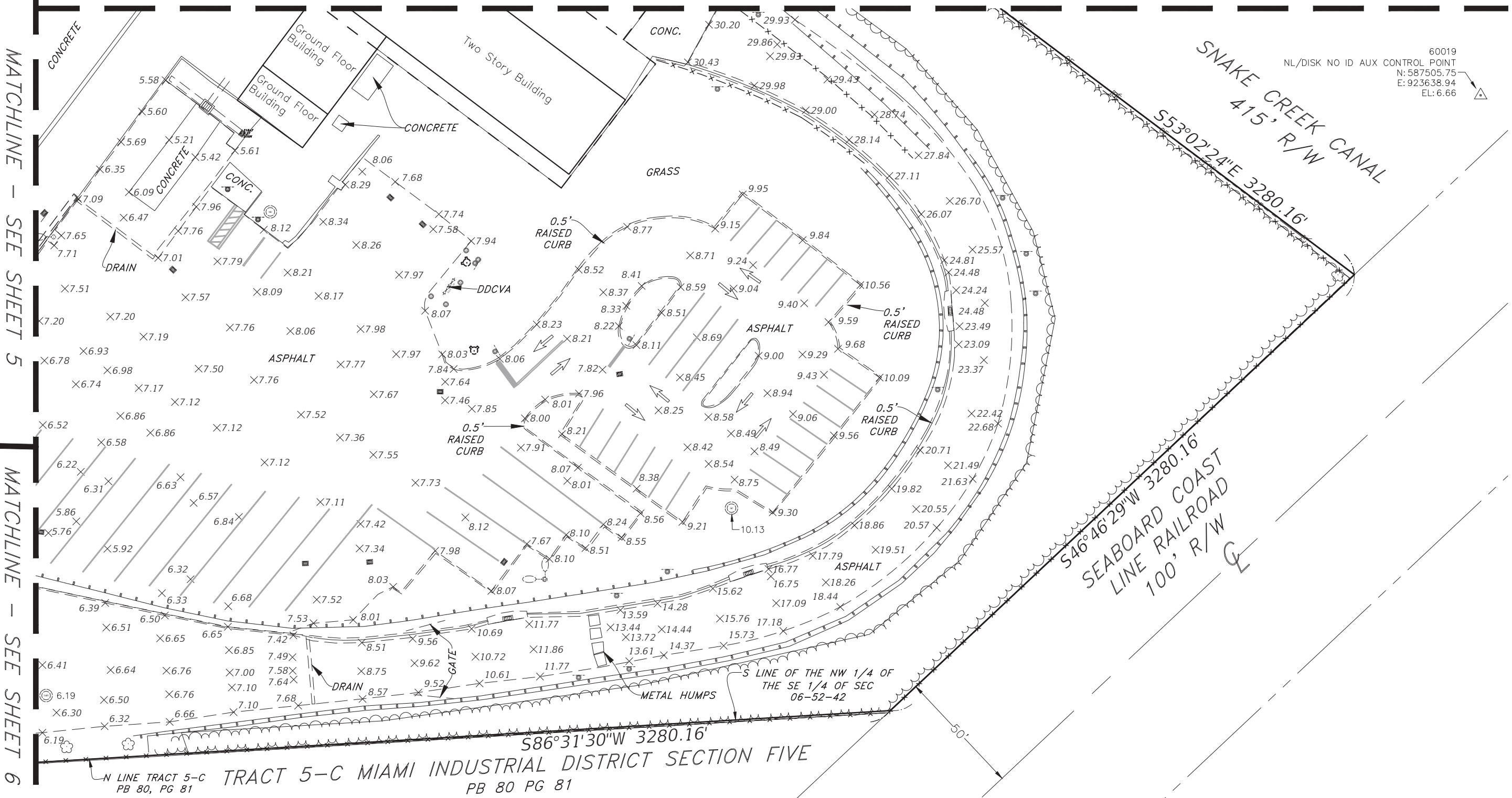
MATCHLINE - SEE SHEET 5

MATCHLINE - SEE SHEET 6

60019  
NL/DISK NO ID AUX CONTROL POINT  
N: 587505.75  
E: 923638.94  
EL: 6.66

SNAKE CREEK CANAL  
S53°02'24"E 415' R/W

S46°46'29"W 3280.16'  
SEABOARD COAST  
LINE RAILROAD  
100' R/W



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