

CONTRACT SPECIFICATIONS

MIAMI-DADE COUNTY
DEPARTMENT OF SOLID WASTE MANAGEMENT

BID DOCUMENTS

ROOF AND STRUCTURAL REPAIRS FOR 40
YEAR RECERTIFICATION OF BUILDINGS 3 & 4
AT SOUTH DADE LANDFILL

CONTRACT No. CICC 7360 PLAN

RPQ No. 18599-24

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

February 6, 2025



RPQ No. 18599-24

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 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. Please note: Dedicated Allowance is not applicable for this solicitation.
8. Bidders are required to list all 10 subcontractors on the Subcontracting Form. Please see list of additional Sub-Contractors in the "Comments" section of the RPQ Form.
9. 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.
10. Method of Award: The method of award will be the lowest responsive and responsible bidder. The prospective lowest bidder will be determined by adding the Total from Lines 1 through 28 on the Bid Form to arrive at the "Total Base Bid" sum. Calculations is as follows: Total Base Bid (Lines 1 through 28) plus (+) Contingency Allowance (10% of Total Base Bid) = Grand Total Bid Amount.
11. 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.

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, 19th 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 10th 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

MIAMI-DADE

ADMINISTRATIVE SERVICES

305-375-3111

BID DOCUMENTS - TABLE OF CONTENTS

PROJECT NAME: ROOF AND STRUCTURAL REPAIRS FOR 40 YEAR RECERTIFICATION OF BUILDINGS 3 & 4 AT SOUTH DADE LANDFILL

RPQ NO: 18599-24

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
- Confirmation of Addendums *(if applicable) (to be completed by Bidder)*
- All Addendum(s) *(if applicable) (must be signed by Bidder)*
- Bid Submittal Checklist Questionnaire Appendix "D"
- Bidder's List of Business References *(References provided must show experience/qualifications for similar services requested in this solicitation)*
- Subcontracting From
- Firm's Responsibility Combined Affidavit
- Contracting with Entities of Foreign Countries of Concern Prohibited Affidavit
- SBD Requirement - Certificate of Assurance (COA) *(For 100.00% SBE-Services Measure)*

CONTRACT FORMS (CONDITION OF AWARD)

- Surety Performance and Payment Bond
- Non-Collusion Affidavit
- Kidnapping, Custody Offenses, Human Trafficking and Related Offenses Affidavit
- Contractor's Due Diligence Affidavit *(Signed and Notarized)*
- Certificate(s) of Insurance *(to be submitted by Bidder)*

ADDITIONAL CONTRACT DOCUMENTS

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

SPECIFICATIONS

- Technical Specifications
- Additional Information
- 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: 18599-24

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 3/7/2025 at 02:00 PM. If you have any questions, contact Gibsy Nunez Davila 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:	3/7/2025	Time Due:	02:00 PM	Submitted Via:	Sealed Envelopes		
Estimated Value:	\$2,297,182 (excluding Contingencies and Dedicated Allowances)						
Project Name:	Roof and Structural Repairs for 40 Year Recertification of Buildings 3 and 4 at South Dade Landfill						
Project Location:	23707 SW 97th Avenue, Homestead, FL 33032						
License Requirements:	Primary:	General Building Contractor; Building Contractor					
	Sub:	Roofing Contractor; Concrete Work; Electrical Contractor; Plumber, Master; Structural Steel Erection					
Scope of Work:	(Contractor must obtain and submit all permits prior to performing any work). INSTRUCTIONS TO ALL BIDDERS: - Only Bidders that attend the mandatory scheduled pre-bid/site visit meeting are eligible to submit a bid for the solicitation. - 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. VENDOR REGISTRATION: Due to the new Vendor Registration procedures of the Internal Service Department, Procurement Management Division, updated definitions along with the "Affirmation of Vendor Affidavits" has been added to the Bid Submittal Package. - 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 or call 305-375-3111. - 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. - 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. - 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. - Please note: Dedicated Allowance is not applicable for this solicitation. - Bidders are required to list all 10 subcontractors on the Subcontracting Form. Please see list of additional Sub-Contractors in the "Comments" section of the RPQ Form. PURPOSE: Under Section 8-11(f) of the Miami-Dade County Code, buildings must be recertified for occupancy after the first thirty years of existence and every ten years afterward. Structural and electrical conditions that require repair were identified in the building as a result of the recertification inspection. The purpose of this project is to implement the identified repairs. SCOPE OF WORK: The Project is for the South Dade Landfill, for Roof and Structural Repairs for 40-Year Recertification of Buildings 3 & 4, located at 23707 SW 97th Ave, Homestead, Florida 33032. Please note that the new roofing system, metal deck, metal roofing panels, skylights, roof hatches, and any other building components must be approved by Miami-Dade County Product Control and have a valid Notice of Acceptance (NOA). All work under this Contract consists of furnishing the labor, materials, tools and equipment necessary to perform the work including the partial demolition of Building 3, as outlined in the construction drawings, the replacement of the remaining membrane roofing system and insulation at both buildings; the construction of a new metal fascia at the remaining façade (South) of Building 3; the repairs to the enclosure of the existing stairs to the offices at Building 3; the repair/replacement of metal roofing panels at Building 4; the repair of concrete cracks, spalling and rebar corrosion at both buildings (in response to deficiencies cited in the 40-Year Recertification Reports prepared by Cueto Engineering). The work will include, but is not necessarily limited to, the following: Building 3: - Complete demolition, removal and disposal of the portion of Building 3, from gridline D to K, between gridlines 1 to 11. However, the existing perimeter concrete walls and columns will be cut and will remain to a height of 6'-0" above the Tipping Floor elevation (+23'-0"), and the Tipping Floor concrete slabs will remain as is. - Remove and dispose of the existing modified bitumen roofing system and insulation at the flat roof between gridlines A and D and between gridlines 1 and 2; the flat roof between gridlines A and D and between gridlines 10 and 11 has been recently replaced and will remain. - Remove loose paint from the structure to remain and prepare to receive new paint. Please note that the existing paint is considered lead-based paint under the Occupational Safety and Health Administration (OSHA) regulations but not under the United States Environmental Protection						

		Agency (EPA) regulations (work must be done using personal protection but debris will be disposed of as construction debris). 4. At flat roof area to remain and have the roofing replaced, remove and dispose of existing pitch pans and penetration flashings. 5. At flat roof area to remain and have the roofing replaced, remove and dispose of existing roof drain strainers and clamping rings. 6. At flat roof area to remain and have the roofing replaced, remove and dispose of existing wood blocking above the flat surface of the roof. 7. Furnish and install a new cover board and roof insulation system at flat roof area to remain and have the roofing replaced, to increase efficiency and to improve drainage. New insulation system shall be sloped ¼-inch per foot to the nearest drains. Crickets, saddles, and drain sumps shall have a minimum finished slope of ¼-inch per foot. 8. Furnish and install a modified bituminous membrane roofing system over the cover board at the flat roof area to be reroofed. 9. Furnish and install flashings in accordance with the roofing manufacturer's recommendations. 10. Furnish and install new ES-1 compliant metal flashings to create a watertight roof system. 11. Furnish and install new rust-inhibitive paint on the entire steel structural system to remain. 12. Perform structural repairs to the concrete structural system at locations and using methods in strict compliance with the Structural drawings. 13. Pressure wash stucco and concrete walls as indicated in the Construction Drawings. 14. Perform mold remediation in accordance with Indoor Air Quality (IAQ) Report issued by AirQuest Laboratories. 15. Furnish and install any miscellaneous items, as specified herein or required for a complete functional installation. Building 4: 1. Remove and dispose of existing roofing system and insulation at the flat roof. 2. Remove and dispose of sections of the sloped metal roofing as directed in the Structural drawings. 3. Remove and dispose of existing pitch pans and penetration flashings. 4. Remove and dispose of existing roof drain strainers and clamping rings. 5. Remove and dispose of the existing wood blocking above the flat surface of the roof. 6. Remove all loose paint from the existing steel structure and prepare to receive new paint. Please note that the existing paint is considered lead-based paint under OSHA regulations but not under EPA regulations (work must be done using personal protection but debris will be disposed of as construction debris). However, the blue paint on the metal pit walls is considered lead-based paint by both OSHA and EPA and must be abated under containment and using personal protective equipment, and the debris must be tested to determine the proper disposal method. 7. Furnish and install a new cover board and roof insulation system at all flat Roof Areas, to increase efficiency and to improve drainage. New insulation system shall be sloped ¼-inch per foot to the nearest drains. Crickets, saddles, and drain sumps shall have a minimum finished slope of ¼-inch per foot. 8. Furnish and install a modified bituminous membrane roofing system over the cover board at all flat Roof Areas. 9. Furnish and install flashings in accordance with the roofing manufacturer's recommendations. 10. Furnish and install new ES-1 compliant metal flashings to create a watertight roof system. 11. Furnish and install new rust-inhibitive paint on the entire steel structural system and new metal roofing. 12. Perform structural repairs to the concrete structural system at locations and using methods in strict compliance with the Structural drawings. 13. Pressure wash concrete walls as indicated in the Construction Drawings. 14. Furnish and install any miscellaneous items, as specified herein or required for a complete functional installation.					
Document Pickup:	Contact:	Gibsy Nunez Davila	Phone No:	305-514-6024	Date:	3/7/2025	
	Location:	Will be sent via E-Mail					
Pre-Bid Meeting::	YES	Mandatory:	YES	Date:	2/12/2025	Time:	11:00 AM
	Location:	23707 SW 97th Avenue, Homestead, FL 33032					
Site Meeting:	YES	Mandatory:	YES	Date:	2/12/2025	Time:	12:00 PM
	Location:	23707 SW 97th Avenue, Homestead, FL 33032					
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:	\$1,000,000.00			
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:	0.00%				
SBE-G Requirements	NO	Percentage:	0.00%				
Liquidated Damages:	YES	\$\$ Per Day:	\$400.00				
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:	5/12/2025			Calendar Days for Project Completion:	296		

Comments:	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. 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). 1. Submit Request for Information (RFI's) to gibsby.nunezdavila@miamidadade.gov, primo@miamidadade.gov, emilio.lopez@miamidadade.gov and copy clerkbcc@miamidadade.gov . **DEADLINE FOR RECEIPT OF RFI QUESTIONS: Close of Business, 02/21/2025** 2. This Request for Price Quotation (RPQ) is for a Miscellaneous Construction Contract. 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 in an effort 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. 4. All terms and conditions of the MCC Program are part of this contract and will be enforced. 5 Refer to Article 2.14 below of the MCC Program to further clarify the license requirements: 2.14 LICENSE QUALIFICATIONS OF CONTACTORS: 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 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. 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. 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. ADDITIONAL SUBCONTRACTORS REQUIRED FOR THIS SOLICITATION: - Hauling Contractor (For 100.00% SBE-Services Measure) - Mold Remediation Contractor - Miscellaneous Metals Contractor - Lead-Based Paint Removal Contractor - Painting Contractor 8. Retainage may/may not be held with each payment. //////////////////////////////////// SBD recommends the following goal: SERVICE SET-ASIDE in the following recommended commodities/services: The SERVICE SET-ASIDE measure would be for (HAULING SERVICES -NIGP 962 39) The service set aside is for any and all hauling services required to complete the project scope of work.

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 \$1,000,000 per occurrence, and \$2,000,000 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 \$1,000,000 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 is highly preferred to have the following:

- Highly preferred to have a minimum of five (5) years of experience in the successful repair and rehabilitation of steel framing members in facilities of similar scope, size, materials, and environmental exposures.

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. Any prior experience of the Prime Contractor's key personnel will also be considered in meeting such minimum experience specifications.



RPQ BID FORM-ATTACHMENT 5A

**Project Name: ROOF AND STRUCTURAL REPAIRS FOR 40 YEAR RECERTIFICATION OF BUILDINGS 3 & 4
AT SOUTH DADE LANDFILL**

RPQ No.: 18599-24

GRAND TOTAL BID AMOUNT: \$_____

(Total 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.

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:** _____

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.

**ROOF AND STRUCTURAL REPAIRS FOR 40 YEAR RECERTIFICATION OF BUILDINGS 3 & 4 AT
SOUTH DADE LANDFILL
RPQ No. 18599-24**

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 AND DEMOBILIZATION	LS	1	\$	\$
2	GENERAL CONDITIONS (OTHER THAN MOBILIZATION AND DEMOBILIZATION)	LS	1	\$	\$
3	SITework	LS	1	\$	\$
4	REPAIR CONCRETE CRACKS BY EPOXY INJECTION (TYPE 3A)	LF	440	\$	\$
5	REPAIR CONCRETE CRACKS BY PENETRANT SEALER (TYPE 3B)	SF	165	\$	\$
6	REPAIR SPALLED CONCRETE-NO EXPOSED REBARS (TYPE 4A)	CF	15	\$	\$
7	REPAIRS SPALLED CONCRETE EXPOSED REBARS (TYPE 4A)	CF	13	\$	\$
8	REPAIR TO CLOSE OPENINGS IN CONCRETE SLAB AT ROOF OF EXISTING STAIRS TO OFFICES IN BUILDING 3	LS	1	\$	\$
9	NEW CONCRETE ROOF SLAB, BEAMS, AND FOOTINGS, NEW 8" CMU WALLS, AND ALL OTHER COMPONENTS FOR A NEW ENCLOSURE FOR THE EXISTING STAIRS AT THE LOWER LEVEL (+13'-0") AT BUILDING 3	LS	1	\$	\$
10	REPAIR/REBUILD CONCRETE AT STEEL RAIL POSTS (TYPE 5)	EA	21	\$	\$
11	REPAIR TO CLOSE EXISTING SLAB OPENING (TYPE 6) (BUILDING 4)	CF	32	\$	\$
12	MISC. CONCRETE REPAIRS (TYPE 7-MOISTURE, ETC.)	LS	1	\$	\$
13	PROVIDE NEW STEEL BEAMS AND/OR CHANNELS AT GRIDLINE D/BUILDING 3, INCLUDING ALL BRACKETS, ANCHORS AND OTHER COMPONENTS	LS	1	\$	\$
14	REPLACE DAMAGED EXISTING CORRUGATED STEEL ROOF PANELS (BUILDINGS 4)	EA	8	\$	\$
15	REPLACE CORRODED EXISTING STEEL BEAM (BUILDING 4)	LF	28	\$	\$
16	OTHER MISCELLANEOUS STRUCTURAL STEEL ITEMS OR REPAIRS (BUILDINGS 3 & 4)	LS	1	\$	\$
17	REPAIRS TO CORRODED METAL- BUILDINGS 3 & 4	LS	1	\$	\$
18	NEW STEEL LADDERS WITH SAFETY CAGES- BUILDINGS 3 & 4	EA	2	\$	\$
19	NEW STEEL LADDERS WITHOUT SAFETY CAGES- BUILDINGS 3 & 4	EA	2	\$	\$
20	NEW ROOF ACCESS HATCHES- BUILDINGS 3 & 4	EA	2	\$	\$
21	OTHER MISCELLANEOUS METAL ITEMS OR REPAIRS- BUILDINGS 3 & 4	LS	1	\$	\$
22	INSTALLATION AND/OR REPAIR OF STEEL RAILINGS- BUILDINGS 3 & 4	LS	1	\$	\$
23	ROUGH CARPENTRY- BUILDINGS 3 & 4	LS	1	\$	\$

24	REPLACE INSULATION AND ROOFING – BUILDINGS 3 & 4	LS	1	\$	\$
25	FINISHES (BUILDINGS 3 & 4)	LS	1	\$	\$
26	MECHANICAL (PLUMBING & FIRE PROTECTION) WORK – (BUILDING 3)	LS	1	\$	\$
27	ELECTRICAL WORK – (BUILDING 3)	LS	1	\$	\$
28	MOLD REMEDIATION (BUILDING 3)	LS	1	\$	\$
TOTAL BASE BID					\$

DESCRIPTION	TOTAL
ALLOWANCE ACCOUNT FOR UNFORESEEN CHANGES, 10 % OF BASE BID	\$

(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.)

GRAND TOTAL BID AMOUNT:

\$

GRAND TOTAL BID AMOUNT SHALL BE INCLUSIVE OF BASE BID TOTAL PLUS 10% CONTINGENCY ALLOWANCE FOR UNFORESEEN CHANGES.

GRAND TOTAL BID AMOUNT for THE SUM OF:

_____ Dollars and/ _____ Cents.
(PRINT DOLLAR AMOUNT)

**** 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 Roof and Structural Repairs for 40 Year Recertification of Buildings 3 and 4 at South Dade Landfill, Contract No. MCC 7360, RPQ No. 18599-24, (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 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: ROOF AND STRUCTURAL REPAIRS FOR 40 YEAR
RECERTIFICATION OF BUILDINGS 3 & 4 AT SOUTH DADE LANDFILL**

RPQ No.: 18599-24

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, PLEASE PROVIDE THE INFORMATION LISTED BELOW

#	QUESTION	ANSWER
1	Have you carefully read the Instruction to Prospective Contractors?	☐ YES ☐ NO
2	Have you carefully reviewed the entire Contract Documents as identified within the Instruction to Prospective Contractors?	☐ YES ☐ NO
3	If identified in the Contract Documents, have you carefully inspected the site of the work?	☐ YES ☐ NO ☐ N/A
4	Have you requested, in writing, of the contact person identified in the Advertisement, any RFI's necessary to submit a responsive proposal?	☐ YES ☐ NO
	Have you received a written response of clarification?	☐ YES ☐ NO ☐ 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: _____	☐ YES ☐ NO
6	Are you registered with Miami-Dade County Strategic Procurement Department (SPD)?	☐ YES ☐ NO
7	Are you registered in the Miscellaneous Construction Contracts (MCC) Program managed by Small Business Development (SBD)?	☐ YES ☐ NO
8	Have you made any changes or written any codicils to the Contract Proposal?	☐ YES ☐ NO
9	How many previous Contracts with Miami-Dade County in the past five (5) years?	_____
10	Total dollar value of Contracts with Miami-Dade County in the past five (5) years?	_____
11	How many years has your Company been in business with the same Principals?	_____
12	Applicable Federal Requirement Certifications	☐ YES ☐ NO ☐ N/A

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. Please note: this project requires that the Contractor provide 5 references.

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

SUBCONTRACTING FORM

Solicitation/RPQ Number 18599-24

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

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 Section 287.138, F.S.	
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: Roof and Structural Repairs for 40-Year Recertification of Buildings 3 & 4, South Dade Landfill Received Date: 1/8/2025
Project/Contract No: RPQ No. 18599-24 Funding Source: Other
Department: Solid Waste Management
Estimated Cost of Project/Bid: \$2,526,900.37
Description of Project/Bid: The Project is for the South Dade Landfill, for Roof and Structural Repairs for 40-Year Recertification of Buildings 3 & 4, located at 23700 SW 97th Ave, Homestead, Florida 33190.

Contract Measures		
Measure	Program	Goal Percent
Services Set-Aside	SBE - Services	100.00%

Reasons for Recommendation	
SMALL BUSINESS ENTERPRISE- GOODS & SERVICES (SBE-G&S). SBD reviewed this project pursuant to Implementing Order 3-41 for SBE-G&S measures. Project information analyzed included the project's scope of services, estimated project cost, minimum requirements/qualifications and funding source. These indicate an SBE-Services (SBE-Services) Set Aside measure is appropriate for this contract in the following recommended commodity and or service: Hauling Services, (NIGP 96239). NAICS 238910 Demolition contractor, NAICS 236220 Commercial and Institutional Building Construction, NAICS 238320 Painting and Wall Covering Contractors, NAICS 238120 Structural Steel and Precast Concrete Contractors, NAICS 238160 Roofing Contractors, NIGP 96239 Hauling Services.	

Small Business Contract Measure Recommendation	
<u>Subtrade</u> Hauling Services	<u>Category</u> SBE-Services

Living Wages: YES ☐ NO ☒ Highway: YES ☐ NO ☒ Heavy Construction: YES ☐ NO ☒
Responsible Wages: YES ☐ NO ☒ Building: YES ☐ NO ☒

County Mayor (Aviation Only)

SBD Director

Date
1-21-25

Date



**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.: 18599-24

Project Title: Roof & Structural Repairs for 40 Year Recertification of Bldgs 3&4, South Dade Landfill

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, N Trade Set-aside SBE-Con, _____ % SBE-G, and/or 100.00 % 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:

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 Roof and Structural Repairs for 40 Year Recertification of Buildings 3 and 4 at South Dade Landfill Contract No. MCC 7360, RPQ No. 18599-24 (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 recommended awarded bidder for final initials.

1.

2.

3.

TO BE INITIALED AND DATED BY AWARDED 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
- Special Provisions
- Indemnification and Insurance
- Attachments A through F

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

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 filing 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 or visit 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. 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_ordinancesSection 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 base bid total for the Work. It is understood that any unspent portion of the contingency allowance account is to remain with the COUNTY.

B. *Dedicated Allowance* - A Dedicated Allowance is not applicable for this solicitation.

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 296 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 \$400.00, 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; 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 and responsive 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 (**when applicable**).

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 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, 2525 NW 62nd ST, 5th 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. Pollution Liability insurance, in an amount not less than \$1,000,000 covering third party claims, remediation expenses, and legal defense expenses arising from on-site and off-site loss, or expense or claim related to the release or threatened release of Hazardous Materials that result in contamination or degradation of the environment and surrounding ecosystems, and/or cause injury to humans and their economic interest.

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 1st 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

- Technical Specifications
- Additional Information
- Drawings

**ROOF AND STRUCTURAL REPAIRS FOR 40-YEAR
RECERTIFICATION OF BUILDINGS 3 & 4**

SOUTH DADE LANDFILL

23707 SW 97th Avenue, Homestead, Florida 33032

PROJECT NUMBER: EDP-SW-18577-24



PROJECT MANUAL

December 10, 2024

Prepared For:

Miami-Dade County Department of Solid Waste Management
2525 NW 62nd St.
Miami, Florida 33147

By:

Ojito & Associates, Inc.
11952 SW 134 Court
Miami, Florida 33186



Botas Engineering, Inc.
8935 NW 35 Lane, Suite 202
Doral, Florida 33172



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**SECTION 00 72 13
GENERAL CONDITIONS**

PART 1 GENERAL

1.01 GENERAL

- A. The General Conditions of the Contract for Construction, with Supplementary Conditions, American Institute of Architects Document A201, 2017 Edition, shall apply to and form a part of all Sections of these Specifications, as though fully contained in the Project Manual.
- B. The Contractor is hereby directed, as a condition of the Contract, to acquaint itself with the Articles contained therein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract, or individuals or agencies engaged on the work, as to its contents.
- C. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint itself, and other parties to the contract, with the conditions of this Document.

END OF SECTION 007213

**SECTION 01 01 00
SUMMARY OF WORK****PART 1 - GENERAL****1.01 WORK COVERED BY CONTRACT DOCUMENTS:**

- A. The Owner is the Miami-Dade County Department of Solid Waste Management. The Project is for the South Dade Landfill, for Roof and Structural Repairs for 40-Yr Recertification of Buildings 3 & 4. Please note that the new roofing system, metal deck, metal roofing panels, roof hatches, and any other building components have to be approved by Miami-Dade County Product Control and have a valid NOA.
- B. Work under this Contract consists of furnishing all labor, materials, tools and equipment necessary to perform the partial demolition of Building 3, as outlined in the construction drawings; the replacement of the remaining membrane roofing system and insulation at both buildings; the construction of a new metal fascia at the remaining façade (South) of Building 3; the repairs to the enclosure of the existing stairs to the offices at Building 3; the repair/replacement of metal roofing panels at Building 4; the repair of concrete cracks, spalling and rebar corrosion at both buildings (in response to deficiencies cited in the 40-Year Recertification Reports prepared by Cueto Engineering). The work will include, but is not necessarily limited to, the following:

Building 3:

1. Complete demolition, removal and disposal of the portion of Building 3, from gridline D to K, between gridlines 1 to 11. However, the existing perimeter concrete walls and columns will be cut and will remain to a height of 6'-0" above the Tipping Floor elevation (+23'-0"), and the Tipping Floor concrete slabs will remain as is.
2. Remove and dispose of the existing modified bitumen roofing system and insulation at the flat roof between gridlines A and D and between gridlines 1 and 2; the flat roof between gridlines A and D and between gridlines 10 and 11 has been recently replaced and will remain.
3. Remove loose paint from the structure to remain and prepare to receive new paint. Please note that the existing paint is considered lead-based paint under OSHA regulations but not under EPA regulations (work must be done using personal protection but debris will be disposed of as construction debris).
4. At flat roof area to remain and have the roofing replaced, remove and dispose of existing pitch pans and penetration flashings.
5. At flat roof area to remain and have the roofing replaced, remove and dispose of existing roof drain strainers and clamping rings.
6. At flat roof area to remain and have the roofing replaced, remove and dispose of existing wood blocking above the flat surface of the roof.
7. Furnish and install a new cover board and roof insulation system at flat roof area to remain and have the roofing replaced, to increase efficiency and to improve drainage. New insulation system shall be sloped 1/4-inch per foot to the nearest drains. Crickets, saddles, and drain sumps shall have a minimum finished slope of 1/4-inch per foot.
8. Furnish and install a modified bituminous membrane roofing system over the cover board at the flat roof area to be reroofed.
9. Furnish and install flashings in accordance with the roofing manufacturer's recommendations.
10. Furnish and install new ES-1 compliant metal flashings to create a watertight roof system.
11. Furnish and install new rust-inhibitive paint on the entire steel structural system to remain.

12. Perform structural repairs to the concrete structural system at locations and using methods in strict compliance with the Structural drawings.
13. Pressure wash stucco and concrete walls as indicated in the Construction Drawings.
14. Perform mold remediation in accordance with IAQ Report issued by AirQuest Laboratories.
15. Furnish and install any miscellaneous items, as specified herein or required for a complete functional installation.

Building 4:

1. Remove and dispose of existing roofing system and insulation at the flat roof.
2. Remove and dispose of sections of the sloped metal roofing as directed in the Structural drawings.
3. Remove and dispose of existing pitch pans and penetration flashings.
4. Remove and dispose of existing roof drain strainers and clamping rings.
5. Remove and dispose of the existing wood blocking above the flat surface of the roof.
6. Remove all loose paint from the existing steel structure and prepare to receive new paint. Please note that the existing paint is considered lead-based paint under OSHA regulations but not under EPA regulations (work must be done using personal protection but debris will be disposed of as construction debris). However, the blue paint on the metal pit walls is considered lead-based paint by both OSHA and EPA and must be abated under containment and using personal protective equipment, and the debris must be tested to determine the proper disposal method..
7. Furnish and install a new cover board and roof insulation system at all flat Roof Areas, to increase efficiency and to improve drainage. New insulation system shall be sloped 1/4-inch per foot to the nearest drains. Crickets, saddles, and drain sumps shall have a minimum finished slope of 1/4-inch per foot.
8. Furnish and install a modified bituminous membrane roofing system over the cover board at all flat Roof Areas.
9. Furnish and install flashings in accordance with the roofing manufacturer's recommendations.
10. Furnish and install new ES-1 compliant metal flashings to create a watertight roof system.
11. Furnish and install new rust-inhibitive paint on the entire steel structural system and new metal roofing.
12. Perform structural repairs to the concrete structural system at locations and using methods in strict compliance with the Structural drawings.
13. Pressure wash concrete walls as indicated in the Construction Drawings.
14. Furnish and install any miscellaneous items, as specified herein or required for a complete functional installation.

1.02 DESCRIPTION OF THE EXISTING ROOF SYSTEM:

- A. Information in this Section is provided only to establish general description. The Contractor is responsible for visiting the site and satisfying himself as to the existing conditions, size of roof areas, etc. before submitting the Bid.

- B. The existing roof assemblies are composed of the following:

Building 3:

1. Main Roof – Flat roof:
 - (a) Modified Bituminous Roofing
 - (b) Bituminous interplies
 - (c) 1" fiber board
 - (d) Flat ribbed metal deck on long-span steel joists.
2. Sloped Roof: (Not part of this Contract)
 - (a) Sloped (4:12) Ribbed metal roofing on steel framing.

Building 4:

1. Main Roof – Flat roof:
 - (a) Modified Bituminous Roofing
 - (b) Bituminous interplies
 - (c) Tapered insulation board
 - (d) Flat concrete slab
2. Sloped Roof:
 - (a) Sloped (4:12) Ribbed metal roofing on steel framing.

- C. The existing paint at the bottom of the metal roof decks and on the steel structures at both buildings has been tested for lead content. The test results are not considered to be lead-based paint under EPA regulations but are considered lead-based paint according to OSHA 1926.62, Lead in Construction Standard. The removal work on those paints needs to follow methods and safety protections specified in the 1926.62 regulation. But the debris from the removal of such paint can be disposed of as regular construction debris.

However, at Building 4, paint on 6 wood doors and one metal frame, as well as on 600 sf. of blue paint on the existing pit walls, were found to be lead-based paint under EPA regulations. Consequently, the removal work needs to comply with OSHA 1926.62 and the debris from paint removal of those elements needs to be segregated and tested prior to disposal, to determine the required disposal method and location. Refer to specification Section 02 83 19 for lead-based paint removal requirements.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION:

Not used.

END OF SECTION 010100

SECTION 01 02 70

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

- A. Procedures for preparation and submittal of Application for Payment.

1.02 RELATED REQUIREMENTS

- A. General Conditions of the Contract for Construction (AIA A201).
- B. Section 017010 – Contract Closeout Procedures.

1.03 FORMAT

- A. Miami-Dade County Department of Solid Waste Management approved format.
- B. Submittals shall be made in electronic format (digital).

1.04 PREPARATION OF APPLICATION

- A. Type required information.
- B. Execute certification by signature of authorized officer.
- C. Use data on Bid Form and approved Schedule of Values. Provide dollar value in each column for each line item for portion of Work performed and for stored products.
- D. List each authorized Change Order and an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.
- E. Prepare Application for Final Payment as required in General Conditions.

1.05 SUBMITTAL PROCEDURES

- A. Submit each Application for Payment in electronic format (digital), at time stipulated in Agreement.
- B. Submit under transmittal letter.

Ojito & Associates, Inc.

Roof and Structural Repairs For 40-Yr
Recertification of Buildings 3 & 4
South Dade Landfill

Project No.: EDP-SW-18577-24

1.06 SUBSTANTIATING DATA

- A. When Architect/Engineer or Department of Solid Waste Management Project Manager require substantiating information, submit data justifying line-item amounts in question.
- B. Provide data in electronic format (digital) with a cover letter for each copy of submittal. Show Application number and date, and line item by number and description.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 010270

SECTION 01 04 00

COORDINATION

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Coordination of Work of the Contract.

1.02 RELATED REQUIREMENTS

- A. Section 010450 - Cutting and Patching.
- B. Section 012000 - Project Meetings.
- C. Section 016000 - Materials and Equipment
- D. Section 017010 - Contract Closeout Procedures

1.03 DESCRIPTION

- A. Coordinate scheduling, submittals, and work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.

1.04 MEETINGS

- A. In addition to progress meetings specified in Section 012000 hold coordination meetings and pre-installation conferences with personnel and subcontractors to assure coordination of Work.

1.05 COORDINATION OF SUBMITTALS

- A. Schedule and coordinate submittals.
- B. Coordinate the work of various Sections having interdependent responsibilities for installing, connecting to and placing in service various equipment.
- C. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other Sections.

1.06 COORDINATION OF SPACE

- A. Coordinate use of Project space and sequence of re-installation of mechanical and electrical work that may be required due to demolition and removal of portion of Building 3 as indicated in the drawings. Follow any indicated routings for pipes and conduits as closely as practicable, with due allowance for available physical space; make runs parallel with lines of building. Utilize space efficiently to maximize accessibility for other installations, for

maintenance and for repairs.

- B. Coordinate concrete repair work as outlined in the Structural Drawings, to minimize disruption of normal Department of Solid Waste Management operations. Complete the work in each building during the established project schedule.

1.07 COORDINATION OF CONTRACT CLOSEOUT

- A. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion of each Phase.
- B. After Owner occupancy of premises at completion of project, coordinate access to site by various sections for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities. Obtain Owner's written approval of such access plans.
- C. Assemble and coordinate closeout submittals specified in Section 017010.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 010400

SECTION 01045

CUTTING AND PATCHING

PART 1. GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Requirements and limitations for cutting and patching.

1.02 RELATED REQUIREMENTS

- A. Section 007213- General Conditions
- B. Section 010100 -Summary of Work
- C. Section 013300 -Submittal Procedures
- D. Section 016000- Materials and Equipment
- E. Individual Special Provision Sections including details regarding:
 - 1. Cutting and Patching incidental to the work of this Section.
 - 2. Advanced notification to other Sections of openings required in work of those Sections
 - 3. Limitations on cutting or alteration of structural members.
 - 4. Do not cut or drill into any prestressed concrete member.

1.03 SUBMITTALS

- A. Submit written requests in advance of cutting or alteration which affects:
 - 1. Structural integrity of any element of the Project.
 - 2. Integrity of weather-exposed or moisture-resistant element.
 - 3. Efficiency, maintenance, or safety of any operational element.
 - 4. Visual qualities of sight exposed element.
 - 5. Work of Owner or separate contractor.
- B. Include in written request described above:
 - 1. Identification of Project.
 - 2. Location and description of affected work.
 - 3. Necessity for cutting or alteration.

Project No.: EDP-SW-18577-24

4. Description of proposed work and products to be used.
5. Alternatives to cutting and patching.
6. Effect of work on Owner and separate contractors.
7. Written permission of affected separate contractor.
8. Date and time work will be executed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials to be of the same type and quality of the original installation.
- B. Any change in materials must be included in request for substitution as described in Section - General Conditions and Section 013300 – Submittal Procedures.

PART 3 - EXECUTION

3.01 GENERAL

- A. Execute cutting, fitting and patching to complete the Work and to:
 1. Fit the several parts together and to integrate with other work.
 2. Uncover the work to install ill timed work.
 3. Remove and replace defective and nonconforming work.
 4. Remove samples of installed work for testing.
 5. Provide openings in elements of the Work for penetrations of mechanical and electrical work.
- B. Execute cutting, fitting and patching of concrete cracks and spalling in strict conformance with the provisions of the Structural Drawings.
- C. Execute cutting, fitting and welding of steel structural members in strict conformance with the provisions of the Structural Drawings.

3.02 INSPECTION

- A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- B. After uncovering, inspect conditions affecting performance of work.
- C. Beginning of cutting and patching means acceptance of existing conditions.

3.03 PREPARATION

- A. Provide support to assure structural integrity of surroundings, devices and methods to protect other portions of the Project from damage.

- B. Provide protection from the elements for areas which may be exposed by uncovering work.

3.04 PERFORMANCE

- A. Execute work by methods to avoid damage to other work and in a manner which will provide proper surfaces to receive patching and finishing.
- B. Cut rigid materials using tools suited for the intended purpose. Power actuated tools are not allowed without prior approval.
- C. Restore work with new products in accordance with requirements of the Contract Document.
- D. Fit work watertight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- E. At penetrations of fire rated wall, ceiling or floor construction, completely seal voids with fire-rated materials, full thickness of the construction element.
- F. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly; refinish entire unit.

END OF SECTION 010450

SECTION 01 20 00

PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor participation in pre-construction conference.
- B. Contractor administration of progress meetings and pre-installation conferences.

1.02 RELATED REQUIREMENTS

- A. Section 010400 - Coordination
- B. Section 013300 - Submittal Procedures
- C. Section 013400 - Shop Drawings, Product Data & Samples.
- D. Section 017010 - Contract Closeout Procedures

1.03 PRE-CONSTRUCTION CONFERENCE

- A. The Department of Solid Waste Management Project Manager will hold a pre-construction conference. (See General Conditions.)

1.04 PROGRESS MEETINGS

- A. Schedule and administer Project meetings throughout progress of the work at bi-weekly intervals as well as any called meeting for a specific purpose.
- B. Attendance: Job superintendent, major subcontractors and suppliers; Owner, and Architect/Engineer as appropriate to agenda topics for each meeting.
- C. Agenda will include review of Work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions and other items affecting progress or work.

Ojito & Associates, Inc.

Project No.: EDP-SW-18577-24

Roof and Structural Repairs For 40-Yr
Recertification of Buildings 3 & 4
South Dade Landfill

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 012000

**SECTION 01 22 00
MEASUREMENT AND PAYMENT**

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. General requirements applicable to all bid/pay items.
 - 2. General provisions on unit prices and quantities.
 - 3. General provisions on lump sum prices.
 - 4. Listing of the bid/pay items in the Project, together with criteria for measuring Unit Price Work for payment.
- B. Related Requirements, including but not necessarily limited to:
 - 1. Section 013700 – Schedule of Values

1.02 REQUIREMENTS APPLICABLE TO ALL BID/PAY ITEMS

- A. The term “bid item”, “pay item”, “bid/pay item”, “Item” followed by a number designation, all have the same meaning and refer to one or more specific elements of the Contract established for pricing and payment, as indicated in the Bid form and in the Agreement (or exhibit to the Agreement) at the time the Contract was signed by the parties.
- B. This Article applies to all bid/pay items in the Contract.
- C. It is the intent of the Department of Solid Waste Management to obtain a complete and working installation under this Contract, and any items of labor, equipment or 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.
- D. Prices – General:
 - 1. The bid/pay items listed starting with Article 1.05 of this Section refer to and are the same bid/items listed in the Bid Form and included in the Contract and constitute all bid/pay items for the Work at the time the Contract was signed by all parties.
- E. Contract Price, Payment Procedures and Related Matters:
 - 1. Contract Price: The Contract Price, as apportioned among bid/pay items in the Contract, is indicated in the Agreement and any associated exhibits thereto and may be modified only by Change Order.
 - 2. Payments to the Contractor: Refer to the General Conditions (as may be modified by the Supplementary Conditions), the Agreement (including provisions for retainage).

3. Schedule of Values: Refer to the General Conditions (as may be modified by the Supplementary Conditions) and Section 013700 (Schedule of Values) of these Specifications.
4. Procedures for Changes in the Contract Price: Refer to the General Conditions (as may be modified by the Supplementary Conditions).
5. Defective Work is not eligible for payment.

1.03 GENERAL PROVISIONS FOR UNIT PRICES AND QUANTITIES:

A. Quantities:

1. Quantities of Unit Price Work indicated in the Bid Form and in the Contract (at the time the Agreement was signed by the parties) are estimates for purpose of pricing and comparison of Bids.
2. No direct or separate payment will be made, outside of the bid/pay items in the Contract, for the following: providing miscellaneous temporary or accessory materials and equipment, temporary works, temporary construction facilities, Contractor's project management, superintendence, and similar costs for Subcontractors or Suppliers; bonds and insurance; schedules and schedule updates; coordination with Owner's and facility manager's other contractors, utility owners, owners of transportation facilities, adjacent property owners and occupants, authorities having jurisdiction, Subcontractors and Suppliers, and others with whom Contractor is to coordinate the Work; information technology systems required by the Contract Documents; Submittals; photographic documentation; Project meetings; Contractor's hazard communication program; Contractor's compliance with environmental procedures for Constituents of Concern (including contaminant containment, spill control and countermeasures plans and implementation); professional services (required for Contractor's means and methods of construction and for delegated designs required by the Contract Documents); obtaining and complying with permits and licenses; temporary utilities (including electric power, water supply and disposal, fuel, and communications); temporary lighting; temporary fire protection; temporary enclosures; temporary sanitary facilities; temporary first-aid facilities and services; Contractor's field offices and sheds, temporary vehicular access and parking (including access to the Site, temporary access roads and parking, on-site traffic controls for construction traffic; traffic control of non-construction vehicular and pedestrian traffic; temporary controls (including temporary erosion and sediment controls, noise control, control of stormwater, surface water, and groundwater), pollution controls (including solid waste control, water pollution control and control of atmospheric pollution), dust control, pest and rodent controls, odor controls, and other temporary controls required by the Contract Documents; temporary security for the Work; temporary barriers; delivering, handling and storing materials and equipment to be incorporated into or necessary for performing the Work; layouts and surveys for the Work; construction equipment, machinery, tools and vehicles; safety protection; Site maintenance during construction; cleaning and removal and disposal of waste and debris; checkout and startup; testing and other quality control activities required by the Contract Documents; record documents, operations and maintenance data; warranties; spare parts and extra materials required by the Contract Documents; instruction of facility personnel as required by the Contract Documents; Contractor's correction period, Contractor's general warranty

and guarantee; Contractor's indemnification obligations; any other labor, cost, or effort required by the General Conditions and Supplementary Conditions, Division 01 Specifications, and all other requirements of the Contract Documents.

3. Price Escalation:
 - a. Unless expressly indicated otherwise in the Contract Documents, Owner is not obligated to change the stipulated prices (including lump sums, unit prices and allowances) that are all or part of the Contract Price because of escalation of costs when there is no corresponding change in the Contract Time.
 - b. Changes in the Contract Time do not necessarily entitle the Contractor to a change in the Contract Price due to escalation.
4. Compensation for all services, labor, materials and equipment shall be included in prices stipulated for the lump sum and unit price bid/pay items in the Bid Form and the Contract.
5. Each lump sum and unit price in the Bid Form and the Contract shall be an amount considered by the Contractor as sufficient for all overhead and profit for each separately identified bid/pay item.
6. Owner does not represent, either expressly or by implication, or agree that the nature of materials encountered or in concealed areas, or actual quantities of Unit Price Work required, will correspond with the quantities in the Contract at the time the Agreement was signed by the parties. Owner reserves the right to increase or decrease quantities, and to eliminate quantities, as Owner may deem necessary or as may be necessary due to Site conditions encountered.
7. Adjustment of Unit Prices Due to Variation in Quantities:
 - a. Provisions, if any, regarding adjustment of unit prices due to variations in actual quantities (eligible for payment) from the estimated quantities in the Bid Form and in the Contract (including quantities at the time the Agreement was signed by the parties and as subsequently modified by Change Order) are in the Agreement's General Conditions.
 1. Owner or Owner's Representative's review for possible unit price adjustment, when provision for such adjustment is expressly indicated in the Contract, will be at a time Owner or Owner's Representative deems reasonable and proper.
8. Quantities eligible for payment will be actual quantities furnished and installed (as applicable) in accordance with the Contract Documents, within the pay limits shown or indicated, as measured by Owner or Owner's Representative (or other entity so empowered in the Contract Documents) and recommended for payment by Owner or Owner's Representative.
9. At Contractor's expense, Contractor shall independently verify quantities measured for review and verified by Owner or Owner's Representative for payment.
10. Quantity Overruns: When the quantity of a pay item of Unit Price Work eligible for payment exceeds the pay item's quantity included in the Contract, the Owner will pay for quantities that exceed those in the Contract only while the estimated total payments to Contractor under the Contract will not exceed the Contract Price. Otherwise, a Change Order is required to modify the associated quantity in the Contract, thus changing the Contract Price.
11. Except as may be established elsewhere in the Contract Documents, Contractor shall make no claim for anticipated profit, loss of profit, damages, or additional compensation arising from difference between

quantities of Unit Price Work eligible for payment and the estimated quantities in the Contract.

- B. Measurement for Payment:
1. Documentation of Measurements: Contractor shall provide measuring equipment, labor, and survey personnel necessary to measure quantities eligible for payment and provide visual and numeric quantity information to the Owner or Owner's Representative for review.
 2. Unless expressly indicated otherwise in the Contract Documents, measurements will be in United States standard measurements.
 3. Unless indicated otherwise elsewhere in the Contract Documents, quantities of Unit Price Work eligible for payment will be rounded to the nearest whole number.
 4. Quantities eligible for payment can be adjusted by Owner or Owner's Representative to correct quantities included in Contractor's prior payment requests, and for incomplete or defective Unit Price Work. Such corrections are at Owner or Owner's Representative's sole discretion.

1.04 GENERAL PROVISION FOR LUMP SUM ITEMS

- A. Progress Payments for Work paid on a Lump Sum basis will be based on Contractor's estimate of the Work (in accordance with the Contract Documents) performed through the end of the associated pay period, in accordance with the Schedule of Values accepted by the Owner or Owner's Representative, in accordance with the Contract Documents.
- B. At its sole discretion, the Owner or Owner's Representative may correct amounts of the Lump Sum Work included in prior payment requests, based on improved data or information available to the Owner or Owner's Representative or based on the Owner or Owner's Representative's knowledge or reasonable belief that Work is incomplete or defective.
- C. Compensation for all services, labor, materials and equipment shall be included in prices stipulated for the lump sum bid/pay items in the Bid Form and the Contract.
- D. Each lump sum in the Bid Form and the Contract shall include an amount considered by the Contractor as sufficient for all overhead and profit for each separately identified bid/pay item.

1.05 BID/PAY ITEMS – GENERAL CONTRACT

- A. Item 1 (Lump Sum) – General Conditions & Mobilization and Demobilization:
1. Item 1a – Mobilization and Demobilization
 - a. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work, and as further specified in Paragraph 1.04 above.
 - b. Item includes:
 - 1) Work and activities indicated in this provision are intended as illustrative purposes of scope and payment and do not represent a

complete list of all preconstruction activities and Submittals, or all Work or activities required by the Contract for mobilization and demobilization.

2) Mobilization Work paid under this item will include (but not necessarily limited to):

- a. Furnishing any required performance bond and payment bond.
- b. Furnishing required insurance and associated documentation.
- c. Obtaining Owner's acceptance of proposed Subcontractors and Suppliers and entering into subcontracts and purchase orders needed to start the Work.
- d. Preparing and obtaining Owner's or Owner's Representative's acceptance of schedules, including Progress Schedule, Schedule of Submittals and Schedule of Values.
- e. Preconstruction conference(s) required by the Contract Documents.
- f. Preconstruction photographic documents.
- g. Establishing Contractor's site-specific health and safety plan, preconstruction activities to start implementing Contractor's safety program, and verifying status of training of construction workers and personnel, and condition of construction equipment, machinery and tools.
- h. Submitting acceptable emergency contact information.
- i. Obtaining required permits needed to start Work.
- j. Establishing construction equipment, machinery and tools at the Site.

3) Demobilization Work paid under this item shall include:

- a. Removal of excess materials and equipment from the Site and adjacent areas.
- b. Removal temporary controls, temporary facilities, temporary barriers and similar materials and equipment.
- c. Removal of all storage areas, staging and laydown areas, and other areas and activities needed to perform the Work and for restoration of such areas.
- d. Removal from the Site of all construction machinery, equipment and tools, Contractor's containers, temporary fuel storage tanks, and similar items.
- e. Closeout of permits on which Contractor is a permittee or co-permittee.
- f. Final cleaning.
- g. Furnishing required closeout documents.
- h. Other costs and effort by Contractor for demobilization.

4) Other costs and Work are under other bid/pay items in the Contract.

- c. Payment: Lump Sum priced for this item shall be full compensation for all mobilization and demobilization required and needed for the Contract and not included under other bid/pay items or contracts. Note that 20% of the cost of this item will be paid after the Contractor has fully demobilized and fulfilled all their obligations under this Contract. Refer to Section 015050 "Mobilization" of these Specifications.

2. Item 1b (Lump Sum) – General Conditions (Other than Mobilization and Demobilization):
 - a. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work, and as further specified in Paragraph 1.04 above.
 - b. Item includes:
 - 1) General Costs, including but not limited to, Project Manager and Superintendent costs, temporary utilities, field office, dumpsters, portable toilets, testing costs, survey costs, equipment rentals, and other general costs.
 - c. Payment: Lump Sum price for this item shall be full compensation for all General Conditions costs required and needed for the Contract and not included under other bid/pay items or contracts.
- B. Item 2 (Lump Sum) – Sitework:
 1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work. and as further specified in Paragraph 1.04 above.
 2. Item includes:
 - a. Complete Demolition of that portion of Building 3 between gridlines D to K and between gridlines 1 to 11, except the existing stairs to the offices, as detailed in the Construction Drawings. The concrete walls at the perimeter of the area to be demolished and the concrete columns shall be cut and removed to a height of 6'-0" above the Tipping Floor level (+23'-0") and the Tipping Floor shall remain as is. Refer to the Architectural Drawings.
 - b. Any incidental paving and drainage Work, to repair any damages resulting from construction activities, or as necessary to complete the Project Work.
 - c. New traffic guardrails as indicated on sheets G-104 and G-501 to G-503 of the Construction Drawings.
 - d. Removal and disposal of lead-based paint from Buildings 3 and 4, as indicated in the Construction Drawings and as needed prior to repainting and/or to effect any structural repairs identified in the Structural Drawings, and in compliance with Section 028319 "Removal of Lead-Based Paint". Included in this Pay Item are all the preparations, removal equipment and materials, isolation containments, safety measures, personal protection, testing, disposal and all other activities required to comply with OSHA and EPA regulations.
 3. Payment: Lump Sum price for this item shall be full compensation for all Sitework costs outlined above and any other sitework required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.

C. Item 3 (Unit Price) – Concrete Work and Structural Concrete Repairs – Buildings 3 & 4:

1. Measurement: In accordance with the Bid Form unit price units (linear feet, square feet, cubic feet or Lump Sum) and the quantities actually completed, as applicable to the specific item.
2. Item includes:
 - a. Repair of concrete cracks by epoxy injection at Buildings 3 & 4, as indicated in the Structural Drawings – Repair Type 3a (Lineal Feet).
 - b. Repair of concrete cracks by penetrant sealer at Buildings 3 & 4, as indicated in the Structural Drawings – Repair Type 3b (Square Feet).
 - c. Repair of spalled concrete areas with no exposed rebars at Buildings 3 & 4, as indicated in the Structural Drawings – Repair Type 4a (Cubic Feet).
 - d. Repair of spalled concrete areas with exposed rebars at Buildings 3 & 4, as indicated in the Structural Drawings – Repair Type 4b (Cubic Feet).
 - e. Repair to close existing openings in the concrete slab at the roof of the existing stairs to the offices in Building 3, as indicated in the Structural Drawings. (Lump Sum).
 - f. New concrete roof slab, beams, and footings, as well as new 8" CMU walls, railings, lighting and any other elements for a complete construction, at the new enclosure for the existing stairs at the lower level (+13'-0") in Building 3, as indicated in the Structural Drawings. (Lump Sum).
 - g. Repair/rebuild of concrete anchorage of steel rail posts, as indicated in the Structural Drawings – Repair Type 5 (Per Post).
 - h. Repair to close existing slab openings in Building 4, as indicated in the Structural Drawings – Repair Type 6 (Cubic Feet).
 - i. Other miscellaneous repairs as outlined in the Structural Drawings, including, but not limited to, Repair Type 7 (Moisture), and all other miscellaneous repairs required for a complete project, whether stated or implied. (Lump Sum).
3. Payment: The Unit Prices for these items times the actual quantities determined shall be full compensation for the Work, including all related costs, such as labor, materials, tools, equipment, and other necessary components for a complete installation, and shall include Overhead and Profit. Payment quantities shall be based upon physical survey performed by the CONTRACTOR and submitted to the OWNER for review with each pay application.

D. Item 4 (Unit Price) – Metals - Structural Steel Repairs – Buildings 3 & 4:

1. Measurement: In accordance with the Bid Form unit price units (linear feet, Lump Sum or each) and the quantities actually completed, as applicable to the specific item.
2. Item includes:
 - a. Provide new steel beams and/or channels at gridline D, as shown in the Structural drawings. Provide all anchorage, brackets and other supports as shown in the drawings or needed for a complete installation. (Lump Sum)

- b. Replace damaged existing corrugated steel roof panels (Building 4) as indicated in the Structural Drawings, sheet S-404. (Each).
 - c. Replace corroded existing steel beam (Building 4) where indicated in the Structural Drawings, sheet S-404. (Per Lineal Feet of Beam).
 - d. Other miscellaneous repairs that may become apparent during the work and that are necessary for a complete, safe installation. (Lump Sum).
 - 3. Payment: The Unit Prices for these items times the actual quantities determined shall be full compensation for the Work, including all related costs, such as labor, materials, tools, equipment, and other necessary components for a complete installation, and shall include Overhead and Profit. Payment quantities shall be based upon physical survey performed by the CONTRACTOR and submitted to the OWNER for review with each pay application.
- E. Item 5 (Unit Price) – Miscellaneous Metal Items and Repairs – Buildings 3 & 4:
- 1. Measurement: In accordance with the Bid Form unit price units (Each or Lump Sum) and the quantities actually completed, as applicable to the specific item.
 - 2. Item includes:
 - a. Repairs to corroded metals, as indicated in the Structural Drawings, (Repair Type 2). (Lump Sum)
 - b. New steel ladders with safety cages, for roof access at Buildings 3 & 4, complete, including removal of any existing ladder if applicable. Provide new ladder safety devices as needed, all brackets, anchors, and all installation activities for a complete installation. (Each)
 - c. New steel ladders without safety cages, for roof access at Buildings 3 & 4, complete, including removal of any existing ladder if applicable. Provide new ladder safety devices as needed, all brackets, anchors, and all installation activities for a complete installation. (Each)
 - d. New roof access hatches at Buildings 3 & 4, complete, including removal of existing roof hatches if applicable, new flashing and counterflashing, wood blocking as needed to adjust height of hatch, and all other work necessary for a complete installation. (Each)
 - e. Any other miscellaneous metal items or repairs, as shown in the Contract Documents or as necessary to complete the Work. (Lump Sum)
 - f. Installation and/or repair of sections of steel railing, replacing damaged rails or installing new complete railing including rails, posts, and anchorage, in accordance with the construction drawings. (Lump Sum).
 - 3. Payment: The Unit Prices for these items times the actual quantities determined shall be full compensation for the Work, including all related costs, such as labor, materials, tools, equipment, and other necessary components for a complete installation, and shall include Overhead and Profit. Payment quantities shall be based upon physical survey performed by the CONTRACTOR and submitted to the OWNER for review with each pay application.

F. Item 6 (Lump Sum) – Rough Carpentry – Buildings 3 & 4:

1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.
2. Item includes: Installation of wood blocking, plywood and any other wood members for curbs and parapets in the areas to be reroofed, as well as any incidental rough carpentry needed throughout the project for a complete installation.
3. Payment: Lump Sum price for this item shall be full compensation for all Rough Carpentry costs outlined above and any other carpentry work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.

G. Item 7 (Lump Sum) – Replace Insulation and Roofing – Buildings 3 & 4:

1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.
2. Item includes:
 - a. Removal and disposal of existing roofing, insulation, cants, flashings roof drains, and any other roofing accessories or components in Buildings 3 & 4, as delineated on sheets A-102 and A-111 of the Construction Documents and not included in the complete demolition of the designated portion of Building 3.
 - b. Installation of new tapered roof insulation, new modified bitumen roofing, new roof cants, new flashings and counterflashings, new roof curbs, new roof drains, rough carpentry as required for installation of parapets, cants, and flashings, and any other component or accessories for a complete roofing installation at Buildings 3 and 4, as delineated on sheets A-103 and A-112 of the Construction Documents.
 - c. Note: The substrate in Building 3 is an existing steel deck between gridlines 1 & 2 and gridlines A and B, an existing concrete slab at the existing stair roof, and a new concrete slab at the new roof of the lower portion of the stairs. The substrate in Building 4 is an existing concrete slab.
3. Payment: Lump Sum price for this item shall be full compensation for all Insulation and Roofing costs outlined above, as well as any other insulation and roofing work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.

H. Item 8 (Lump Sum) – Finishes (Buildings 3 & 4):

1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.

2. Item includes:
 - a. Pressure washing of existing exterior and semi-exterior (covered but exposed to ambient air) surfaces, including but not limited to stucco finish on walls, concrete walls and exterior and semi-exterior metal doors, in Building 3 and 4.
 - b. Sealing and Painting exterior and semi-exterior stucco surfaces (Building 3) and exterior and semi-exterior metal doors (Buildings 3 and 4).
 - c. Pressure Washing, Sealing and Painting of structural steel joists and other structural members after structural repairs and/or removal of corrosion, as indicated in the Construction Documents or necessary for a complete Work (Buildings 3 and 4).
 3. Payment: Lump Sum price for this item shall be full compensation for all Finish Work costs outlined above, as well as any other finish work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.
- I. Item 9 (Lump Sum) – Mechanical (Plumbing & Fire Protection) Work (Bldg.3):
1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.
 2. Item includes:
 - a. Removal and reinstallation of storm drainage lines after demolition of portion of Building 3 and other structural repairs, installation of a new gutter at gridline D, and any new downspouts and connections to existing drainage structures.
 - b. Removal and reinstallation of main storm drainage line after demolition of portion of Building 3.
 - c. Removal and reinstallation of any fire sprinkler heads and main supply piping after demolition of portion of Building 3 and other structural repairs.
 - d. Any other incidental Plumbing or Fire Protection Work necessary to accomplish the complete construction of the Work in the Project.
 3. Payment: Lump Sum price for this item shall be full compensation for all Plumbing and Fire Protection Work costs outlined above, as well as any other related work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.
- J. Item 10 (Lump Sum) – Electrical Work (Bldg.3):
1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.

2. Item includes:
 - a. Miscellaneous Electrical Work (de-energizing, disconnections, capping and other incidental work) to ensure the safe demolition of the portion of Building 3 to be completely demolished.
 - b. Installation of new light fixtures at the new enclosure for existing stairs at the lower level (+13'-0") in Building 3, complete, including conduits, wiring and connections to available circuit in an existing electrical panel.
 - c. Removal and reinstallation of any electrical conduits, wiring, and any light fixtures after demolition of portion of Building 3 and other structural repairs.
3. Payment: Lump Sum price for this item shall be full compensation for all Electrical Work costs outlined above, as well as any other related work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.

K. Item 11 (Lump Sum) – Mold Remediation (Bldg.3):

1. Measurement: In accordance with the Contract's provisions on the Schedule of Values and progress payments for Lump Sum Work and as further specified in Paragraph 1.04 above.
2. Item includes: Mold remediation from walls and ceilings on the interior of offices, storage and mechanical rooms and other rooms, as delineated in an air quality report prepared by AirQuest Laboratories, dated January 16, 2024. Remove mold from, and clean, walls, floors, equipment, furnishings and any other affected surfaces. Affected acoustical ceiling tiles shall be removed and replaced.
3. Payment: Lump Sum price for this item shall be full compensation for all Mold Remediation Work costs outlined above, including any environmental or personal protection required, as well as any other related work required and needed to complete the Contract Work. Lump Sum price shall include Contractor's Overhead and Profit for this Work.

1.06 CONTINGENCY RESERVE

1. A Contingency Reserve shall be included, in the amount of 10% of the Cost, after totaling all costs of the Bid/Pay Items.
2. The sum of all Bid/Pay Items and the Contingency Reserve shall constitute the Contract Price and shall be the Basis for the selection of the Lowest Bid Price.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 012200

**SECTION 01 25 00
SUBSTITUTION PROCEDURES**

PART 1 GENERAL

1.01 WORK INCLUDED: Section includes administrative and procedural requirements for substitutions.

1.02 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required to meet other Project requirements but may offer advantage to Contractor or Owner.

1.03 ACTION SUBMITTALS:

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Substitution Request Form: Use Contractor's letterhead
 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time.

- k. If a specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - l. Cost information, including a proposal of change, if any, in the Contract Sum.
 - m. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - n. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect/Engineer's Action: If necessary, A/E will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. A/E will notify Contractor of acceptance or rejection of proposed substitution within 7 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance: Change Order, Construction Change Directive, or Engineers Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect/Engineer does not issue a decision on use of a proposed substitution within time allocated.

1.04 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. The Contractor shall be responsible for ensuring that any substitutions are compatible with other products or materials that may be impacted by said substitutions.

1.05 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 PRODUCTS

2.01 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 7 days prior to time required for preparation and review of related submittals.
 - 1. Conditions: Architect/Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.

- c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: The Department of Solid Waste Management Project Manager and Architect/Engineer will consider requests for Substitution for Convenience only if received up to 10 days before the receipt of Bids.
 - 1. Conditions: Bidder's request for substitution will be considered only when the following conditions are satisfied. If the following conditions are not satisfied, A/E will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to A/E for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - b. Requested substitution does not require extensive revisions to the Contract Documents.
 - c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - d. Requested substitution provides similar sustainable design characteristics that specified product provided.
 - e. Substitution request is fully documented and properly submitted.
 - f. Requested substitution will not adversely affect Contractor's construction schedule.
 - g. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - h. Requested substitution is compatible with other portions of the Work.
 - i. Requested substitution has been coordinated with other portions of the Work.
 - j. Requested substitution provides specified warranty.
 - k. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 EXECUTION

Not Used

END OF SECTION 012500

SECTION 01 31 00
CONSTRUCTION SCHEDULES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

Procedures for preparation and submittal of Construction Progress Schedules and periodic updating.

1.02 RELATED REQUIREMENTS

- A. Section 010100 - Summary of work.
- B. Section 010270 - Applications for Payment.
- C. Section 013300 - Submittal Procedures
- D. Section 013400 - Shop Drawings, Product Data & Samples
- E. Section 013700 - Schedule of Values

1.03 FORMAT

Prepare the progress schedule in the form of a Gantt Chart, showing progress milestones, critical path activities, progress percentage and material lead times.

1.04 CONTENT

- A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.
- B. Identify each item by major Specification section number.
- C. Provide activity code identity for each stage of Work identified in Section 010100.
- D. Show accumulated percentage of completion of each item, and total percentage of work completed, as of the first day of each month.
- E. Provide schedule of Shop Drawings submittals within 30 days from the Notice to Proceed.
- F. Provide submittal dates for shop drawings, product data and samples, and dates reviewed submittals will be required from Consultant.
- G. Show total monetary value for each work activity by trade. Amounts to be consistent with the unit bid price items and the approved Schedule of Values.
- H. Coordinate content with Section 013700 - Schedule of Values.
- I. Changes in scope requiring a Change Order or Work Order must be identified in the schedule by an activity code approved by the Owner.

1.05 REVISIONS TO SCHEDULES

- A. Indicate, schedule and quantify progress of each activity to date of submittal and projected completion date of each activity.
- B. Identify activities modified since previous submittal, major changes in scope and other identifiable modifications.
- C. Provide narrative report to define problem areas, anticipated delays and impact on schedule. Report corrective action taken or proposed, and its effect including the effect of changes on schedules of separate contracts, if any.
- D. Free floats in the approved construction progress schedules are owned by the Owner.

1.06 PROCEDURES

- A. Follow submittal procedures outlined in Section 013300 – Submittal Procedures.
- B. Contractor is solely responsible for the preparation, revision and updating of the overall project schedule and the near-term schedule in the form and content prescribed herein.
- C. The timely execution or performance of all construction related activities and the duration and sequencing of those activities in accordance with the approved project schedule(s) is the Contractor's responsibility.
- E. Submit revised progress schedules with each partial payment certificate.
- G. Submit the Progress Schedules in electronic digital form, to the Architect/Engineer and Owner.

1.07 DISTRIBUTION

- A. Distribute copies of reviewed schedules to job site file, subcontractors, suppliers and other concerned entities.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in Schedules.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 013100

**SECTION 01 33 00
SUBMITTAL PROCEDURES**

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Construction Progress Schedules.
- B. Schedule of Values.
- C. Shop Drawings.
- D. Product Data.
- E. Warranties
- F. Samples.
- G. Manufacturers' Instructions.
- H. Manufacturers' Certificates.

1.02 RELATED REQUIREMENTS

- A. Section 007213- General Conditions
- B. Section 010270 - Applications for Payment.
- C. Section 013100 - Construction Schedules
- D. Section 013400 - Shop Drawings, Product Data & Samples.
- E. Section 013700 - Schedule of Values.
- F. Section 014050 - Contract Quality Control.
- G. Section 016000 - Materials and Equipment.
- H. Section 017010 - Project Closeout Procedures.

1.03 PROCEDURES

- A. Deliver submittals to the Owner's Project Manager.
- B. Identify Project, Project Number, dates of previous submittals, Contractor, subcontractors, suppliers; identify pertinent drawings by sheet and detail number, and Specification Section number, as appropriate, Identify deviations from Contract Documents. Provide space for Contractor and Architect/Engineer review stamps.

- C. Before commencing any work, prepare and submit to the Owner's Project Manager the initial Progress Schedule and Schedule of Values in triplicate. After review by Architect/Engineer revise and resubmit as required for approval by the Architect/Engineer and the Owner. Submit revised Progress Schedule with each application for partial payment, reflecting changes since previous submittal.
- D. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- E. After Architect/Engineer review of submittal, revise and resubmit as required, identifying changes made since previous submittal.
- F. Distribute copies of reviewed submittals to concerned parties. Instruct recipients to promptly report any inability to comply with provisions.
- G. No partial payment will be processed without a current approved Progress Schedule and an approved Schedule of Values.

1.04 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit progress schedule in the form and procedure accepted by the Owner and the A/E.
- B. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. Show projected percentage of completion for each item of work as of time of each Application for Progress Payment.
- C. Show submittal dates required for shop drawings, product data and samples and product delivery dates, including those furnished by Owner.

1.05 SCHEDULE OF VALUES

- A. Submit typed preliminary Schedule of Values on Owner provided forms or Owner approved forms.
- B. Submit typed Schedule of Values on Owner provided forms or Owner approved forms.
- C. Format: Identify each line item with number and title of the major Specification Sections or major components of this item.
- D. Include specified Allowances, if any, in each line-item amount.
- E. Include in each line item a directly proportional amount of Contractor's overhead and profit.
- F. Revise Schedule of Values to list Change Orders and Work Orders, for each Application of Partial Payment.

1.06 SHOP DRAWINGS

- A. Prior to the submission of any shop drawing, but not later than 30 days from the effective date of the Notice to Proceed, the Contractor shall prepare and submit to the Owner, a Schedule of Shop Drawing submittals stating when each shop drawing or sample will be provided to the Owner's Project Manager and A/E for review.
- B. The Contractor shall be responsible for the preparation of detailed shop drawings necessary for the fabrication, erection, and construction of all parts of the work in conformity with the requirements of the Contract Documents.
- C. Submit shop drawings per the schedule of shop drawing submittals, inserted in one loose leaf binder, with tabs and index, to the Owner's Project Manager. All individual submittal sheets inserted in said binder must be clearly marked and referenced to proper paragraph and subparagraph of specifications. Cross out any items on sheets which constitute information not pertaining to equipment specified. Clearly mark all components that are provided as "optional" by manufacturer. Shop drawings shall be approved by Contractor prior to submittal to the Project Manager and A/E. Shop drawings will be reviewed by the Architect/Engineer. After Architect-Engineer approval, reproduce and distribute in accordance with requirements in Section 013400.
- D. All submissions of shop drawings, brochures and catalog cuts shall be accompanied by a transmittal letter listing the drawings submitted by number and title.
- E. When professional calculations and/or certification of performance criteria of materials, systems, and/or equipment is required, the Architect/Engineer is entitled to rely upon the accuracy and completeness of such calculations and certifications submitted by Contractor. Calculations, when required, shall be submitted in a neat, clear and in an easy-to-follow format. Such calculations and/or certifications shall be signed and sealed by a Professional Engineer registered in the State of Florida.
- F. Failure to comply with any of the above may result in the rejection of shop drawings.

1.07 PRODUCT DATA

- A. Submit not less than four copies, as approved by the Owner's Project Manager and required in Section 013400. Mark each copy to identify applicable products, models, options and other data; supplement manufacturers' standard data to provide information unique to the work.

1.08 MANUFACTURER'S INSTRUCTIONS

- A. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing, in quantities specified for product data.

1.09 SAMPLES

- A. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.
- B. Include identification on each sample, giving full information.
- D. Submit the number specified in respective Specification section; one will be retained by Architect/Engineer. Reviewed samples which may be used in the work are indicated in the Specification Section.

1.10 FIELD SAMPLES

- A. Provide field samples of finishes at project as required by individual Specifications section. Install sample complete and finished. Acceptable samples in place may be retained in completed work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 013300

SECTION 01 34 00

SHOP DRAWINGS, PRODUCT DATA & SAMPLES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Procedures for submittal.

1.02 RELATED REQUIREMENTS

- A. Section 007213- General Conditions
- B. Section 010400- Coordination.
- C. Section 012500- Substitution Procedures
- D. Section 013300- Submittal Procedures
- E. Section 016000- Materials and Equipment

1.03 SHOP DRAWINGS

- A. "Shop Drawings" are defined as drawings, diagrams, illustrations, schedules, catalog cuts, performance charts, brochures, and other data prepared by the Contractor or any subcontractor, manufacturer, supplier or distributor, which illustrates how specific portions of the work shall be fabricated and/or installed.
- B. Shop drawings provided by the Contractor with each submittal shall be original drawings, sharp, clear and distinct, suitable for reproductions.
- C. Each shop drawing shall be clear, thoroughly detailed, and shall have listed on it all Contract references, drawing number(s), specification section number(s), plus shop drawing numbers of related work by subcontractors, if applicable.
- D. Identify field dimensions; show relation to adjacent or critical features or work or products.
- E. Minimum Sheet Size: 8 ½" x 11" for catalogs and written data; 11" x 17" for drawings and details.
- F. Where it is difficult to provide shop drawings, such as "catalog cuts", "brochures" or "photographs", the Contractor shall submit a minimum of four (4) copies of such "cuts", "brochures" or "photographs". Additional copies shall be supplied when required by the Owner.
- G. Shop drawings shall be complete in every detail, including a location plan relating the work to space identification such as station, offset, and column numbers, floor level, etc. Materials, gauges, method of fastening, size and spacing of fastenings, connections with other work, cutting, fitting, drilling, and any and all other necessary

information per usual trade practice or as required for any specific purpose must be clearly shown.

H. Each shop drawing shall contain a title block with the following information provided:

- (1) Number and title of drawing, including Contract title and Number;
- (2) Date of drawing and revisions;
- (3) Name of Contractor and Subcontractor (if any) submitting drawings;
- (4) Name of Project, Building or Facility;
- (5) Specification Section title and number;
- (6) Contractor's Stamp of approval, signed by the Contractor or his checker;
- (7) Space above the title block for Architect/Engineer's action stamp;
- (8) Submittal or resubmittal number (whether first, second, third, etc.);
- (9) Date of submittal.

The Contractor, when requested by the Field Representative in writing, shall submit such additional shop drawings as may be required by the Architect/Engineer.

1.04 PRODUCT DATA

- A. Submit only pages that are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.
- B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information not applicable.
- C. Identify work of separate stages and other logically grouped activities.

1.05 SAMPLES

- A. Submit samples to illustrate functional characteristics of products, including parts and attachments.
- B. Approved samples which may be used in the work are indicated in the Specification section.
- C. Label each sample with identification required for transmittal letter.
- D. Provide field samples of finishes at Project, at location acceptable to the Owner's Project Manager, as required by individual Specifications section. Install each sample complete and finished. Acceptable samples in place may be retained in completed work.

1.06 CONTRACTOR REVIEW

- A. The Contractor shall check and approve all shop drawings to make sure that they conform to the Plans, Technical Specifications, and other Contract requirements, and shall correct all shop drawings found to be inaccurate or otherwise in error, prior to submittal to the Owner & A/E. The Contractor shall verify all field dimensions and criteria and shall be responsible for the coordination of work by all Subcontractors. The Contractor, by approving and submitting shop drawings, represents that he has determined and verified the accuracy of all field measurements and quantities, field construction criteria, materials, catalog numbers, and similar data, and that he has reviewed and coordinated the information in the shop drawings with the requirements of the work and the Contract Documents.
- B. Review manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.
- C. Coordinate submittals with requirements of work and Contract Documents.
- D. The Contractor or the Contractor's checker shall sign, in the proper block, each sheet of shop drawings and data, and each sample label to certify compliance with requirements of Contract Documents. Shop drawings submitted without such stamp and signature of approval will be returned to the Contractor unchecked and will require a re-submission. In such event, it will be deemed that the Contractor has not complied with the requirements of this Section and shall bear the risks of delays as if no drawings or details had been submitted.
- E. Notify Architect/Engineer through the Owner's Project Manager in writing at time of submittal, of any deviation(s) from requirements of Contract Documents.
- F. Do not order material, fabricate products or begin work that requires submittals until return of submittal with Architect/Engineer acceptance.

1.07**SUBMITTAL REQUIREMENTS**

- A. Transmit submittals in accordance with approved Progress Schedule and in such sequence so as to avoid delay in the work or work of other contracts. Submit copy of shop drawings transmittal letter and requests for substitutions, if any, to the Owner's Project Manager.
- B. Provide space on each submittal for Contractor and Architect/Engineer action stamps.
- C. Apply Contractor's approval stamp, signed or initialed, certifying to review, verification of products, field dimensions and field construction criteria and coordination of information with requirements of work and Contract Documents.
- D. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
 - (1) Finishes that involve Architect/Engineer's selection of color, textures or patterns.
 - (2) Associated items that require correlation for efficient function or for installation.

- E. Submit four copies of blue or black line reproductions of shop drawings.
- F. Submit number of copies of product data and manufacturer's instructions Contractor requires, plus four (4) copies that will be retained by Architect/Engineer, Project Manager, and Owner.
- G. Submit number of samples specified in individual Specification sections.
- H. Submit Contractor's approved transmittal letter. Identify project by contract title and number. Identify work and product by Specifications section and Article number.

1.08 RESUBMITTALS

- A. Make resubmittals under procedures specified for initial submittals; clearly identify changes made since previous submittal.

1.09 ARCHITECT/ENGINEER AND OWNER'S PROJECT MANAGER

- A. The Architect/Engineer will review shop drawings and samples and indicate whatever action he/she is taking, within 14 calendar days from the date of its receipt at the Architect/Engineer's office, so as to minimize delay. The Architect/Engineer's review will be only for conformance with the design concept of the Contract and with the information given in the Contract Documents. The Architect/Engineer's approval of a separate item shall not constitute approval of an assembly in which the item functions. The Owner's Project Manager will return the shop drawings (minus copies retained for the A/E and Owner's records) to the Contractor for his use and distribution.
- B. The Architect/Engineer's approval of shop drawings or samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Architect/Engineer through the Owner's Project Manager in writing of such deviation at the time of submission and the Architect/Engineer has given written approval to the specific deviation, nor shall the Architect/Engineer's approval relieve the Contractor from responsibility for errors or omissions in the shop drawings, product data sheets or samples.

1.10 DISTRIBUTION

- A. Duplicate and distribute reproductions of shop drawings, copies of product data and samples, which bear Architect/Engineer stamp of approval, to job site file, Record Documents file, sub-contractors, suppliers, other affected contractors and other entities requiring information.

Ojito & Associates, Inc.

Project No.: EDP-SW-18577-24

Roof and Structural Repairs For 40-Yr
Recertification of Buildings 3 & 4
South Dade Landfill

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 013400

SECTION 01 37 00

SCHEDULE OF VALUES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

- A. Procedures for preparation and submittal of Schedule of Values.

1.02 RELATED REQUIREMENTS

- A. Section 007213 - General Conditions
- B. Section 010270 - Applications for Payment.
- C. Section 013300 - Submittal Procedures

1.03 FORMAT

- A. Type Schedule on County provided forms or County approved format.
- B. Follow Table of Contents of Project Manual for listing component parts. Identify each line item by number and title of major Specifications section. Department of Solid Waste Management Project Manager will provide minimum requirements.

1.04 CONTENT

- A. List installed value of each major item of work and each subcontracted item of work as a separate line item to serve as a basis for computing values for Progress Payments. Round off values to nearest dollar.
- B. Coordinate listings with Progress Schedule.
- C. For items on which payments will be requested for stored products, list sub-values for cost of stored products with taxes paid.
- D. Submit a sub-schedule for each separate stage of work.
- E. The sum of values listed shall equal total Contract or lump sum price items.

1.05 SUBMITTALS

- A. Submit Preliminary Schedule of Values within fifteen (15) days after the tentative award of the Contract.
- B. Submit finalized Schedule of Values within ten (10) days from the approval date of the Overall Construction Progress Schedule.
- C. Submit three copies of the Schedule as required by the General Conditions. Additionally, submit the Schedule of Values in electronic format. Thereafter, periodic submittals of the Schedule of Values shall be only in electronic format.

- D. Transmit Schedule of Values using transmittal letter format accepted by the Owner's Project Manager. Identify project by title, and project number.

1.06 SUBSTANTIATING DATA

- A. When the Owner's Project Manager or the A/E requires substantiating information, submit data justifying line-item amounts in question.

1.07 ACTION

- A. No payment will be made for work performed on a lump sum contract or a lump sum item until the appropriate Schedule of Values is approved by the Owner
- B. The equitable value of work deleted from a lump sum contract or lump sum item shall be determined from the approved Schedule of Values.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 013700

**SECTION 01 40 50
CONTRACT QUALITY CONTROL**

PART 1 GENERAL

1.01 DESCRIPTION:

- A. Maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work in accordance with the Contract Documents and best Industry Standards.
- B. Provide Testing Laboratory Services from an independent Laboratory to effect the tests required by different sections of these Specifications.

1.02 QUALITY CONTROL – OWNER'S RIGHTS

- A. Roofing System cuts may be made to determine the quantity and quality of material and workmanship using the following procedures:
 - 1. Cuts will be made after all roofing plies are in place, but before final surfacing is accomplished.
 - 2. Cuts will be made across felts 4" x 40", at locations selected by the Architect/Engineer.
 - 3. No more than one cut for each 50 squares will be made, except that a cut may be made in any separate, well-defined area, regardless of size.
 - 4. Where possible, samples will be weighed and inspected at the site and replaced in openings.
- B. Work found in violation of the Specifications, or not in conformance with acceptable roofing practices/standards, shall be subject to rejection including removal and replacement with new materials at Contractor's expense.
- C. Failure of Owner or A/E to discover or reject defective work, or work not in accordance with the Contract, shall not be deemed an acceptance thereof, nor a waiver of Owner's rights to Contractor's compliance with the Contract or performance of the Work, or any part thereof. No partial or final payment, or partial or entire occupancy, by Owner shall be deemed to be an acceptance with the Contract, nor shall it be deemed a waiver by Owner or any of Owner's rights pursuant to this Contract or otherwise.
- D. Owner intends to conduct inspections of the work by in-house personnel and/or the Owner's representative on a full/part-time basis. Such work is in addition to the A/E's inspections which may be conducted to verify that work completed is comparable to contractor's monthly application for payment.

1.03 WORKMANSHIP

- A. Comply with industry standards of the region except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Provide suitably qualified personnel to produce work of specified quality.

- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration and racking.

1.04 MANUFACTURER'S INSTRUCTIONS

- A. Require compliance with instructions in full detail, including each step in a sequence.
- B. Should instructions conflict with Contract Documents, request written clarification from Architect/Engineer through the Owner's Project Manager before proceeding.

1.05 MANUFACTURER'S CERTIFICATES

- A. When required in individual Specifications sections, submit manufacturer's certificate, in duplicate, certifying that products meet or exceed specified requirements, executed by responsible officer of the manufacturer.

1.06 MANUFACTURER'S FIELD SERVICES

- A. When required in individual Specification section, have manufacturer or supplier provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of workmanship, and applications, and to make written report of observations and recommendations to the Owner's Project Manager.

1.07 TESTING LABORATORY SERVICES

- A. Engage the services of an independent Testing Laboratory certified to perform the material testing required by other sections of the Specifications, in accordance with the requirements of Section 014100.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION 014050

SECTION 01 41 00

PROJECT TESTING LABORATORY SERVICES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor provided Project Testing Laboratory Services.
- B. Contractor provided testing facilities for the Project Testing Laboratory's use.

1.02 RELATED REQUIREMENTS

- A. General Conditions - Inspections, testing and approvals.
- B. Section 014050 - Contract Quality Control
- C. Structural Drawings - Testing Requirements for Concrete and Steel Welds.

1.03 REFERENCES

- A. ASTM C1077 Standard Practice for Laboratories Testing Concrete and Concrete Aggregates and Criteria for Laboratory Evaluation.
- B. ASTM D3666 - Practice for Evaluating and Qualifying Agencies Testing and Inspecting Bituminous Paving Materials.
- C. ASTM D3740 - Practice for Evaluation of Agencies Engaged in testing and/or Inspection on Soil and Rock as used in Engineering Design and Construction.
- D. ASTM E329 - Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel and Bituminous Materials as used in Construction.

1.04 SELECTION AND PAYMENT

- A. Contractor will employ and pay for services of an independent testing laboratory (Project Testing Laboratory) to perform specified Quality Assurance testing.

1.05 LABORATORY REPORTS

- A. After each inspection and test the Project Testing Laboratory will forward copies of all reports directly to Owner, with copies to the Contractor.

1.06 LIMITS ON PROJECT TESTING LABORATORY AUTHORITY

- A. Project Testing Laboratory may not release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Project Testing Laboratory may not approve or accept any portion of the work.
- C. Project Testing Laboratory may not assume any duties of the Architect/Engineer, the Owner's Project Manager or the Contractor.
- C. Project Testing Laboratory has no authority to stop work.

1.07 CONTRACTOR RESPONSIBILITIES

- A. Make available to Project Testing Laboratory at designated location adequate samples of materials proposed to be used that require testing, together with proposed mix designs.
- B. Cooperate with laboratory personnel and provide access to work
- C. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at the site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.
- D. Notify the Field Representative, Owner and laboratory 48 hours prior to expected time for operations requiring inspection and testing services.
- E. Costs of all testing will be paid by the Contractor. Failed tests will be retested at Contractor's expense.

1.08 RETESTING

The Owner retains the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. Either the Architect/Engineer or the Owner's Project Manager shall have the right to reject material which, when retested, does not meet the requirements of the Contract Documents.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 014100

SECTION 01 50 50

MOBILIZATION

PART 1 GENERAL

1.01 DESCRIPTION

- A. The work specified in this Section shall consist of the preparatory work and operations in mobilizing for beginning work on the Project, including, but not limited to, the following:
 - (1) The costs of bonds and any required insurance, and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials;
 - (2) The costs of operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site; and
 - (3) The costs for the establishment of temporary offices, shops, buildings, construction identification signs, safety equipment and first aid supplies, sanitary and other facilities, as required by the Contract Documents, and any Federal, State and/or local laws and regulations.
- B. The Contractor shall prepare and submit to the Owner's Representative a detailed, itemized cost breakdown of this item, at the Preconstruction Conference.

1.02 SCHEDULE OF VALUES

- A. The Contractor shall include in the Schedule of Values a line item for "Mobilization".

1.03 PARTIAL PAYMENTS

- A. Partial Payments for Mobilization will be made in accordance with the following schedule, during the progress of construction on this project.

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for Mobilization*
5	30
25	60
50	80
100	100*

Partial payments for the item "Mobilization" shall be made in accordance with the above schedule and the sum total of all partial payments for the item "Mobilization" will be limited to 3% of the original Contract Amount for the Project.

* 20% of the Mobilization/Demobilization cost will be paid upon completion of Demobilization and fulfillment by the Contractor of all their obligations under this Contract.

The standard retainage, as specified in General Conditions, will be applied to these allowances. Partial payments made on this item shall in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

END OF SECTION 015050

SECTION 01 51 10
TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.01 DESCRIPTION:

- A. Contractor shall provide for temporary facilities and controls required for the performance of the project except as otherwise noted. Such items include, but are not necessarily limited to, utilities such as heat, water, electricity and telephone; sanitary facilities; contractor's facilities; and enclosures such as tarpaulins, barricades, and canopies.
- B. All equipment furnished by Contractor shall comply with all pertinent safety requirements.
- C. Ladders, planks, hoists, and all similar items furnished by individual trades in the execution of their own portions of the work are not part of this Section.
- D. All temporary facilities will be subject to the Owner's approval.

1.02 PRODUCT HANDLING:

- A. The Contractor shall exercise all means necessary to maintain temporary facilities and controls in proper and safe condition throughout the progress of the project.
- B. All required connections to existing utility systems shall be made with minimum disruption. If disruption of existing service is required, notice shall be given to the Owner and connections shall not be made without Owner's approval. If necessary, Contractor shall provide for alternate temporary service.
- C. If the required utility is not available from the Owner, the Contractor shall provide for alternate temporary service for the duration of the project.

1.03 MATERIAL STORAGE:

- A. Provide, as required, facilities to maintain specific storage conditions as described within this Specification and as recommended by the material's manufacturer for use in construction. Protect stored materials from physical damage and from the weather. Store any cementitious materials in such manner to prevent moisture intrusion.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 ELECTRICITY:

- A. Owner will furnish electricity to the Contractor during this project only at available electrical connections designated by the Owner's Project Manager. Any additional electrical requirements required by the Contractor shall be provided by the Contractor at no additional cost to the Owner.

- B. All wiring needed to facilitate construction of the project shall be temporary in nature and shall be furnished and installed by the Contractor at no additional cost to the Owner. Upon completion of the work of each Phase, the Contractor shall remove all such temporary wiring and restore service to its original condition at no additional cost to the Owner.

3.02 WATER: The Owner will furnish water required for construction through available hose bibs. Any additional water requirements by the Contractor shall be provided by the Contractor at no additional cost to the Owner.

3.03 TELEPHONE: The project Superintendent will be required to have a working mobile phone during the course of the work. Such costs shall be included in the Base Bid.

3.04 SANITARY FACILITIES: Contractor shall provide toilet and washroom facilities at the project site at no additional cost to the Owner. The use of the facility's toilet and/or washroom facilities is not approved, unless otherwise indicated in writing by the Owner's Project Manager.

3.05 ENCLOSURES:

- A. Contractor shall furnish, install and maintain for the duration of the project, all scaffolds, ladders, tarpaulins, barricades, air-tight enclosures (refer to Section 028319 – Removal of Lead-Based Paint) warning signs, platforms, bridges, canopies, steps, and other temporary construction required to properly facilitate completion of the project in compliance with all safety and other regulations.
- B. Contractor shall provide all necessary safeguards to warn and prevent Owner's personnel from being exposed to dangers or hazards created by this project.

3.06 SIGNS: No signs or advertising of any kind shall be allowed on the project site unless approved in advance by Owner.

3.07 CONSTRUCTION AIDS:

- A. A disposal chute shall be constructed by Contractor to prevent damage to buildings and grounds. Disposal chute shall be enclosed-type and shall be located such that demolition debris will be discharged from the roof at the designated staging area directly into disposal vehicles or containers.
- B. Contractor shall provide for debris removal services and containers. Placement and servicing of containers shall be coordinated with the Owner.
- C. Residue and debris from all operations shall not be allowed to accumulate on the project site. Debris shall be removed and properly disposed of daily in accordance with all Federal, state and local regulations.
- D. Dust, dirt and debris created by project construction shall be properly contained or controlled by the Contractor. Method(s) of control shall be approved by the Architect/Engineer and Owner.
- E. Any dust or debris associated with the removal of lead-based paint from the steel structures shall be in strict accordance with OSHA regulations.

3.08 ACCESS AND PARKING: Contractor's construction vehicles shall enter the project site and park in areas as directed by the Owner and in accordance with the Phasing drawings. The Contractor shall be responsible for coordination of traffic by his subcontractors, suppliers, etc., so as not to disrupt ongoing operations of the Owner.

3.09 FIELD OFFICE: The Contractor may provide his own Field Office. The location is subject to the approval of the Owner.

3.10 CONNECTS AND DISCONNECTS:

- A. Whenever it is necessary to disconnect any electrical wiring or connections, plumbing lines or other building services, notify the Owner. Contractor shall not disconnect or connect services unless authorized in writing by Owner.
- B. Disconnection, removal and re-installation of existing service piping, wiring, fire sprinkler lines and other utilities required in connection with the removal of the roof metal deck and the repairs or replacement of structural framing members shall be accomplished by the Contractor as part of this Contract.

END OF SECTION 015110

**SECTION 01 53 00
BARRIERS AND ENCLOSURES**

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Barriers and Barricades.
- B. Environmental Enclosures.
- C. Maintenance of Barriers and Enclosures
- D. Removal of Barriers and Enclosures
- E. Site Restoration

1.02 RELATED REQUIREMENTS

- A. Section 010100 - Summary of work.
- B. Section 024100 - Selective Demolition
- C. Section 028319 - Removal of Lead-Based Paint
- D. Construction Drawings - Phasing Plans

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

- A. May be new or used as may be dictated by all governing codes, adequate to the purpose, which will not create hazardous conditions.
- B. Barricades may be commercially available barriers, plastic netting, or other materials that can be secured in place to maintain required separation of areas.

2.02 ENCLOSURE MATERIALS

- A. Air-tight Enclosures: During removal of lead-based paint, maintain air-tight enclosure to prevent lead dust and fumes from contaminating the environment or exposing other contractors' or the Owner's workers to lead.
- B. Air-tight enclosures shall be composed of 2 layers of 6 mil. Polyethylene sheets supported by framing and or plywood. Adjacent sheets must be overlapped and sealed with duct tape. Access to the enclosure shall be through secured, overlapped flaps of poly sheeting to minimize air leakage during entrance or exit of personnel.

PART 3 EXECUTION

3.01 BARRIERS

- A. Provide barriers to demarcate Phase separation and allow Owner's use of portion of site outside of construction area.
- B. Pay costs of installation, maintenance, removal and restoration to existing or specified condition.
- C. Provide barriers or traffic demarcations at the access road to be shared with the Owner's vehicles.

3.02 MAINTENANCE OF BARRIERS AND ENCLOSURES

- A. Maintain during progress of work. Ensure fastenings remain secure and firm to maintain barrier or enclosure in place. At air-tight enclosures, ensure continuous airtightness, verifying seam seals and attachment of sheets.
- B. Relocate and/or extend during successive stages of construction.

3.03 REMOVAL OF BARRIERS AND ENCLOSURES

- A. Remove temporary materials, equipment and construction at Final Acceptance of each Phase.
- B. Remove and dispose of air-tight barriers at lead-removal areas in accordance with OSHA 1926.62 requirements.
- C. Repair any damage caused by installation or use of barricades and enclosures.

3.05 SITE RESTORATION

- A. Restore site and existing facilities used during construction to specified or original condition.

END OF SECTION 015300

SECTION 01 60 00

MATERIALS AND EQUIPMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Products.
- B. Transportation and Handling.
- C. Storage and Protection.
- D. Product Options/ Substitutions.

1.02 RELATED REQUIREMENTS

- A. Section 007213 - General Conditions.
- B. Section 014050 - Contract Quality Control.
- C. Section 017400 - Warranties and Guarantees.

1.03 PRODUCTS

- A. Products include material, equipment and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification section shall be the same and shall be interchangeable.
- D. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents or the Owner's Project Manager.

1.04 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage. Deliver materials to job site in manufacturer's original unopened containers clearly labeled with manufacturer's name, brand designation and reference specification.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage. Handle products in such a manner as to prevent breakage of containers and damage of any kind.
- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged. Damage sustained by products in transit to job site shall be repaired to the satisfaction of the Field Representative. If damage sustained while transporting products to job site is non-repairable, the products shall be replaced with new ones at no cost to Owner.

1.05 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Exposed metal surfaces, not provided with manufacturer specific storage instructions, shall be protected with a light oil or silicone coating to prevent rust while in storage. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged and are maintained under required conditions.

1.06 ENCLOSED STORAGE

- A. Store products, subject to damage by the elements, in substantial weather tight enclosures.
- B. Maintain temperature and humidity within ranges stated in manufacturer's instructions.
- C. Provide humidity control and ventilation for sensitive products as required by manufacturer's instructions.
- D. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.

1.07 MAINTENANCE OF STORAGE

- A. Periodically inspect stored products on a scheduled basis. Maintain a log of inspections, make available to Owner's Project Manager on request.
- B. Verify that storage facilities comply with manufacturer's product storage requirements.

1.08 PRODUCT OPTIONS/SUBSTITUTIONS

- A. Product Options/Substitutions shall be in accordance with the requirements of the General Conditions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 016000

SECTION 01 70 10
CONTRACT CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

- A. Administrative provisions for Substantial Completion and for Final Acceptance.

1.02 RELATED REQUIREMENTS

- A. Section 010100 - Summary of work.
- B. Section 010270 - Applications for Payment
- C. Section 017100 - Cleaning.
- C. Section 017200 - Project Record Documents.
- D. Section 017400 - Warranties and Guarantees.

1.03 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor Punchlist: Submit 5 days before Substantial Completion Inspection.

1.04 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.
- C. Field Report of Roof Inspection.
- D. Warranties: As required by Section 017400 of these Specifications.
- E. Project Record Documents: Prior to submittal of request for Final Payment, submit As-Built record documents in accordance with Section 017200 of these Specifications.

1.05 SUBSTANTIAL COMPLETION

- A. Refer to the General Conditions of the Contract.
- B. Contractor's Punchlist: Prepare and submit a list of items to be completed and/or corrected, indicating the value of each item and reasons why the Work is not complete.

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- C. Submit all documents shown herein under Action Submittals and Closeout Submittals a minimum of 5 days prior to requesting the Substantial Completion Inspection.
- D. Procedures Prior to Substantial Completion: Complete the following a minimum of 5 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
 - 1. Advise Owner of pending insurance changeover requirements as required.
 - 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 3. Perform preventive maintenance on equipment used prior to Substantial Completion.
 - 4. Participate with Owner in conducting inspection and walkthrough.
 - 5. Terminate and remove temporary facilities from Project site, along with construction tools, and similar elements.
 - 6. Complete final cleaning requirements, including touchup painting.
 - 7. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- E. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 5 days prior to date the work will be completed and ready for Final Inspection. On receipt of request, Architect/Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. A/E will prepare the Certificate of Substantial Completion after inspection, or will notify Contractor of items, either on Contractor's list or additional items identified by A/E, that must be completed or corrected before certificate will be issued.
 - 1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for final completion.

1.06**FINAL COMPLETION**

- A. Refer to the General Conditions of the Contract.
- B. Submittals Prior to Final Completion: Before requesting inspection for determining Final Completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 010270 "Applications for Payment" and Section 012200 "Measurement and Payment."
 - 2. Certified List of Incomplete Items: Submit certified copy of Architect/Engineer's Substantial Completion Inspection Punchlist of items to be completed or corrected, endorsed and dated by the Architect/Engineer. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
 - 4. Submit pest-control final inspection report.

- C. Final Inspection: Submit a written request for Final Inspection, to determine Final Acceptance, a minimum of 5 days prior to date the work will be completed and ready for inspection and tests. On receipt of request, Architect/Engineer will either proceed with the inspection or notify Contractor of unfulfilled requirements. A/E will prepare a Final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
- D. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete has been completed or corrected.

1.07 REINSPECTION FEES

- A. Should status of completion of work require reinspection by the Architect/Engineer and/or the Project Testing Laboratory, due to failure of work to comply with Contractor's claims on initial inspection, the Owner will deduct the amount of the Architect/Engineer and/or the Project Testing Laboratory compensation for reinspection services from final payment to Contractor.

1.08 CLOSEOUT SUBMITTALS

- A. Evidence of Compliance with Requirements of Governing Authorities:
 - 1. Certificate of Occupancy or Temporary Certificate of Occupancy at Substantial Completion.
 - 2. Certificates of Final Inspection required for mechanical and electrical and fire protection systems required at Substantial Completion.
- B. Project Record Documents: Under provisions of Section 017200 by Substantial Completion.
- C. Warranties and Guarantees: Under provisions of Section 017400 by Final Acceptance.
- D. Itemized List for Spare Parts and Extra Stock, Keys and Keying Schedule: Under provisions of Technical Specifications Section for finish hardware by Substantial Completion.
- E. Evidence of Payment and Release of Claims: In accordance with the General Conditions and Subcontractor's Affidavit(s) of Satisfaction and/or Consent of Surety to Final Payment.

1.09 STATEMENT OF ADJUSTMENT OF ACCOUNTS - CERTIFICATE OF FINAL ACCEPTANCE

- A. Owner will prepare Final Payment Certificate reflecting adjustment to Contract Amount indicating:
 - 1. Original Contract Amount.
 - 2. Change Orders.

3. Work Orders.
4. Deductions for uncorrected or deficient work.
5. Deductions for liquidated damages.
6. Additions for compensable excusable delays.
7. Deductions for reinspection fees.
8. Other adjustments to Contract Amount.
9. Total Contract Amount as adjusted.

- B. The Architect/Engineer will issue a final Change Order, if required, reflecting approved adjustments to Contract Amount not previously made by Change Orders.

1.10 APPLICATION FOR FINAL PAYMENT CERTIFICATE

- A. Submit application for Final Payment Certificate in accordance with provisions of General Conditions.
- B. Final Payment will not be made until the Contract Closeout Procedures have been completed and executed as specified above.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION 017010

**SECTION 01 71 00
CLEANING**

PART 1 GENERAL

1.01 SUMMARY

- A. This Section contains procedures to maintain the buildings and site in a clean condition throughout the duration of the project. The Contractor shall comply with all requirements for cleanliness described in other sections of these Specifications.

PART 2 PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. The Contractor shall provide all required manpower, materials and equipment to maintain the specified standard of cleanliness. Contractor shall use only those materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer or approved by the Architect/Engineer.

PART 3 EXECUTION

3.01 PROGRESS CLEANING

- A. Stored items shall be kept in an orderly arrangement allowing maximum access and shall not impede drainage or traffic.
- B. Scrap, debris, waste material and other items shall not be allowed to accumulate and shall be removed from the work area daily.
- C. Contractor shall protect new roofing membrane from dirt and debris during the demolition of the remainder of the roofing. Areas with new roofing membrane shall be kept clean and free of debris during the duration of the re-roofing.
- D. Contractor shall provide storage containers for all items awaiting removal from the site. Storage containers shall be approved by the Owner.
- E. The Contractor shall conduct daily inspections to ensure that the requirements for cleanliness are met.
- F. At locations where the Contractor accesses the site or designated staging areas, the Contractor shall maintain a clean site. The Contractor shall protect the Owners' building from damage.
- G. During the work, the Contractor or subcontractor shall not be allowed to stage materials on newly installed roofing. The Contractor shall phase work and stage necessary materials at existing roofing areas. Any damage to new membrane during construction shall result in repairs to the membrane at no additional cost to the Owner, and large areas shall result in the removal and replacement of new membrane at no additional cost to the Owner.
- H. Work may be stopped or delayed by the Owner should the Contractor fail to take appropriate measures to clean the site daily. Extensions to the project completion date for such delays will not be approved.

3.02 INSPECTION

- A. The Contractor shall inspect all arrangements of materials stored on the project site on a weekly basis, as a minimum, and shall service all arrangements in accordance with the requirements of Paragraph 3.01 of this section.

3.03 FINAL CLEANING

- A. All tools, equipment, materials, scrap, debris and waste shall be removed from the project site and a final progress cleaning conducted in accordance with this Section.
- B. Unless otherwise directed by the A/E, the Contractor shall clean work areas on the site and completely remove all resultant debris.
- C. The Contractor shall clean out all drainage structures of any debris prior to final acceptance by the Owner. Such work shall be performed at no additional cost to the Owner.
- D. Restore grass and/or planting at staging areas; restore any other planting around the building damaged by construction activities. Restore grass or planted areas by filling ruts, raking, seeding, planting, sodding, and fertilizing. Sweep paved areas clean.
- E. Prior to final inspection, the surface of the roof membrane shall be cleaned of all debris, dust, and foreign material. Contractor will be responsible for providing the necessary items to perform this task. Do not use any abrasive pads that can score the finish surface.

END OF SECTION 017100

**SECTION 01 72 00
PROJECT RECORD DOCUMENTS**

PART 1 GENERAL

1.01 SUMMARY: As the project progresses, note and record events and activities, to maintain an accurate record of the project throughout its duration. Items to be noted include, but are not necessarily limited to:

- A. Contract Documents
- B. Addenda
- C. Change Orders
- D. Field Orders and Instructions.
- E. Construction Schedules.
- F. Shop Drawings
- G. Product Samples
- H. Progress Reports
- I. As-Built Drawings

1.02 QUALITY ASSURANCE

- A. The Contractor shall delegate responsibility for maintenance of the record documents to one person on the Contractor's staff as approved by the Architect/Engineer and the Owner's Project Manager.
- B. All entries shall be made within 24 hours after receipt of information.

1.03 SUBMITTALS

- A. The Contractor shall submit the Final Record Documents to the Architect/Engineer for approval prior to submitting a request for Final Payment. Submit two copies of "As-Built" Documents to A/E with letter of transmittal indicating date, project title, Contractor's name and address, list of documents, and signature of Contractor.

1.04 DOCUMENT HANDLING

- A. Contractor shall take all necessary precautions to protect the record documents from deterioration, loss, or damage until completion of the work and transfer of the recorded data to the final record documents.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION 017200

SECTION 01 73 00 EXECUTION

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:
 - 1. Installation of the Work.
 - 2. Cutting and patching.
 - 3. Protection of installed construction.
- B. Related Requirements:
 - 1. Section 013300 - Submittal Procedures
 - 2. Section 017010 - Closeout Procedures
 - 3. Section 017200 - Project Record Documents
 - 4. Section 024100 - Selective Demolition

1.02 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other work.
- B. Patching: Fitting and repair work required to restore construction to original conditions after installation of other work.
- C. Structural Repairs: Specific repair work required to restore various steel and concrete structural elements to safe conditions and/or to prevent further deterioration of members. This work must be performed in strict accordance to the procedures, methods and materials specified in the Structural Drawings.

1.03 QUALITY ASSURANCE

- A. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.
 - 1. Structural Elements: Perform cutting and patching for repair of structural members in strict accordance with the methods and material specified in the Structural Drawings. When cutting and patching structural elements, notify Engineer of locations and details of cutting and await directions from Engineer before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or increase deflection.

2. Operational Elements: Do not cut and patch operating elements and related components unless specifically approved in writing by the Owner or A/E. If approved, do not cut and patch in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety. Operational elements include the following:
 - a. Primary operational systems and equipment.
 - b. Fire-suppression systems.
 - c. Mechanical systems piping and ducts.
 - d. Control systems.
 - e. Communication systems.
 - f. Fire-detection and -alarm systems.
 - g. Electrical wiring systems.
 3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in increased maintenance or decreased operational life or safety. Other construction elements include but are not limited to the following:
 - a. Water, moisture, or vapor barriers.
 - b. Membranes and flashings.
 - c. Equipment supports.
 - d. Piping, ductwork, vessels, and equipment.
 - e. Noise- and vibration-control elements and systems.
- B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of products and equipment.

PART 2 PRODUCTS

2.01 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. Existing (In-Place) Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
- C. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Department of Solid Waste Management Project Manager for the visual and functional performance of in-place materials.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present. Verify compliance with installation requirements, tolerances and other conditions affecting performance. Record observations.
 - 1. Examine wall openings and roofs for suitable conditions where products and systems are to be installed.
 - 2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes.
- B. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.02 PREPARATION

- A. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- B. Review of Contract Documents and Field Conditions: Prior to start of the work, review contract documents against field conditions. Immediately on discovery of the need for clarification of the Contract Documents, caused by differing field conditions outside the control of Contractor, submit a request for information to Engineer according to requirements in Section 013300 Submittal Procedures.

3.03 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1. Make vertical work plumb and make horizontal work level.
 - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging actions or loading in excess of that expected during normal conditions of occupancy.
- E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on site and placement in permanent locations.

- F. Templates: Obtain, and distribute to the parties involved, templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.
 - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by the Architect/Engineer.
 - 2. Allow for building movement, including thermal expansion and contraction.
 - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- I. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- J. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.04 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

END OF SECTION 017300

SECTION 01 74 00 WARRANTIES AND GUARANTEES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Preparation and submittal of warranties and guarantees.

1.02 RELATED REQUIREMENTS

- A. Contractor's Performance and Payment Bonds.
- B. Section 017010 - Contract Closeout Procedures.
- C. Individual Technical Specifications Sections: Warranties and Guarantees required for specific products or work.

1.03 FORM OF SUBMITTALS

- A. Submit to the Owner in electronic format (digital).
- B. Additionally, bind paper copies in commercial quality 8 ½ x 11 inch three-ring side binders, with hardback, cleanable, plastic covers.
- C. Label cover of each binder with typed or printed title 'WARRANTIES AND GUARANTEES', with Contract No. and Project Title, as well as name, address and telephone number of Contractor.
- D. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified and the name of the product or work item.
- D. Separate each warranty or guarantee with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheet as necessary. List subcontractor, supplier and manufacturer, with name, address and telephone number of responsible principal.
- F. Include a copy of the applicable warranty/guarantee in the O & M manuals.

1.04 WARRANTY PERIOD AND PREPARATION OF SUBMITTALS

- A. Obtain warranties and guarantees, executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten (10) days after completion of the applicable item of work. The date of beginning of time of warranty will be the date of Substantial Completion, or date of Beneficial Occupancy if equipment is put to use by the Owner at date of Beneficial Occupancy. No warranty shall start prior to equipment being put into operation. It is not necessary that all warranties shall start at the same time.

- B. Equipment warranty period: Manufacturer's standard warranty, minimum one year from above date of beginning of warranty, except as stated elsewhere.
- C. Concrete Restoration warranty period: The Manufacturer shall warrant the Equipment, Materials and Products specified in Section 037000. Concrete Restoration, against defective materials and workmanship for no less than five (5) years from the date of Substantial Completion. If the Manufacturer's standard warranty is less than 5 years, the Manufacturer shall provide an extended warranty or a Maintenance Bond, to extend the Manufacturer's warranty for the specified period.
- D. Full-service period: Installing contractor shall provide for full service and maintenance for a period of one year for the equipment/systems, except as stated elsewhere. If, within this period, any equipment proves defective, it shall be repaired or replaced at no additional cost to the Miami-Dade Department of Solid Waste Management.
 - (1) The service and maintenance shall include monthly inspections and adjustments, based on an Owner approved monthly service schedule.
 - (2) Each service and maintenance trip to the project shall be coordinated and reported to the Department of Solid Waste Management Maintenance and have a separate written report so an accurate log can be kept on the operation and problems of the installation.
 - (3) The monthly service schedule, showing tasks and service timetable, shall be submitted to Department of Solid Waste Management Maintenance (through the Project Manager), for review and approval prior to substantial completion.
 - (4) Coordination with Department of Solid Waste Management and distribution of monthly maintenance/service reports to Project Manager and Department of Solid Waste Management Maintenance shall be the responsibility of the General Contractor.
- E. Co-execute submittals when required.
- F. Retain warranties and guarantees until the time specified for submittal.

1.05 TIME OF SUBMITTALS

- A. Make submittals per Section 017010 and General Conditions.
- B. For items of work when acceptance is delayed beyond date of Substantial Completion, as stated in Section 017010, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty or guaranty period.

PART 2 PRODUCTS
Not Used

PART 3 EXECUTION
Not Used

END OF SECTION 017400

SECTION 02 41 00
SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to the work in this Section.

1.02 SECTION INCLUDES

- A. Work includes labor, materials, appliances, tools, equipment, transportation, and services necessary for, and incidental to, performing operations in connection with selective demolition shown and/or required to remove the portion of Building 3 between gridlines D and K, from gridlines 1 to 11, as well as selective removals to accommodate the roofing and insulation replacement, roof structural repairs and concrete repairs in Buildings 3 & 4, while meeting current building codes and manufacturer's latest printed instructions, complete, as shown on the construction drawings and/or specified herein.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.
- C. ANSI/ASSE A10.6 - Safety Requirements for Demolition for Construction and Demolition Operations.

1.04 SUBMITTALS

- A. Site Plan, showing:
 - 1. Areas for temporary construction and field offices.
 - 2. Areas for temporary and permanent placement of removed materials.
- B. Proposed schedule of operations, to be submitted prior to commencement of demolition, including, but not necessarily limited to, demolition sequence showing compliance with delineated sequence shown on the Structural drawings.
- D. Demolition Plan: Submit demolition plan as specified by OSHA and local authorities.
 - 1. Indicate extent of selective demolition, removal sequence, and location and construction of temporary railings, barricades, fences, or other opening protections.
 - 2. Identify demolition firm or contractor's qualified personnel and submit qualifications.
 - 3. Include a summary of safety procedures.
 - 4. Provide a report, including drawings, indicating the measures proposed for protecting individuals and property relative to environmental protection, dust control and noise control.
- E. Closeout Submittals: Submit Landfill records showing receipt and acceptance of Demolition materials and debris, including any hazardous wastes, if applicable. Hazardous wastes must be disposed of at a landfill facility licensed to accept hazardous materials.

1.05 FIELD CONDITIONS

- A. Conditions existing at the time of inspection for bidding purposes will be maintained by Owner as far as practical.
- C. Notify A/E of any discrepancies between existing conditions and the drawings before proceeding with the demolition work.
- D. On-site storage or sale of removed materials is prohibited. Demolition materials shall be removed from site and disposed of at a Landfill facility.
- E. Hazardous Materials: Asbestos materials in the roofing membrane and flashings were found to be below the level considered by EPA and OSHA to be regulated. Consequently, no Asbestos procedures are required.

However, although the levels of lead in the paint on the long-span steel joists, steel bridging, underside of the steel roof decks and other components at Buildings 3 & 4 were below the levels that EPA considers as lead-based paint, OSHA regulations define any measurable levels of lead as lead-based paint. Consequently, required removals of the existing paint will need to be performed using OSHA lead-based paint procedures and protections but the paint debris may be disposed of as regular construction debris and components to be removed whole, that contain such paint maybe also disposed as construction debris. Further, at Building 4, certain paints (see Lead-Based Paint Test Report) contained levels of lead considered by EPA as lead-based paint. Paint debris from those areas will need to be segregated and tested to determine disposal methods and locations.

1.06 PROCEDURES

- A. Coordination
 - 1. Miami-Dade County Department of Solid Waste Management will coordinate to the fullest extent possible in limiting their activities in the existing buildings, to allow contractor's demolition work; however, the Department shall reserve the right to temporarily limit activities that would disrupt, endanger or interfere with necessary Department activities or those of an unavoidable or emergency nature.
- B. Isolation
 - 1. The Contractor shall be responsible for all necessary methods and materials for the complete protection of the facility and personnel.
- C. Damages
 - 1. The Contractor shall promptly repair damages caused to adjacent materials, finishes or components by demolition operations, as directed by the Owner's Project Manager or the A/E and at no cost to the Owner.
- D. Demolition Materials
 - 1. Unless otherwise indicated, all demolition materials and waste shall become the property of the Contractor and shall be promptly removed from site and disposed of appropriately.

1.07 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: Demolition Subcontractor shall have personnel specializing in the type of work required, including removal of lead-based paint. Alternatively, the Painting Subcontractor shall have personnel qualified for removal of lead-based paint. See Section 028319 for more specific requirements.

PART 2 PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with EPA and OSHA Standards, the provisions of NFPA 241 and ANSI/ASSE A10.6.

PART 3 EXECUTION

3.01 SCOPE

- A. Remove all items indicated in the drawings or required to accommodate the new work. Do not remove items that may be structural in nature without expressed written permission of the A/E.

3.02 GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of existing structure and Owner's personnel.
 - 1. Obtain required permits.
 - 2. Comply with applicable requirements of NFPA 241 & OSHA 29 CFR 1926, including 1926.62 "Lead In Construction" and EPA regulations.
 - 3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 4. Provide, erect, and maintain temporary barriers and security devices. Demarcate and enclose areas of lead-based paint removal to ensure non-qualified workers do not accidentally enter the area and to prevent environmental contamination.
 - 5. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
- B. Do not begin removal until receipt of notification to proceed from Owner.
- C. Protect existing structures and other elements that are not to be removed.
 - 1. Provide bracing and shoring as necessary.
 - 2. Prevent movement or settlement of existing structure.
 - 3. Stop work immediately if any portion of the existing structure appears to be in danger.
- D. Utilize enclosures and air filtering equipment during lead-based paint operations to prevent contamination.

3.03 EXISTING UTILITIES

- A. Protect existing utilities and systems to remain from damage. Temporarily cap any conduits encountered that need to be removed to facilitate construction activities and reinstall and reconnect after completion of said activity, as directed by the Owner's Project Manager or the Architect/Engineer.
- B. Do not close, shut off, or disrupt existing life safety systems that are in use without at least 7 days prior written notification to Owner.
- C. Do not close, shut off, or disrupt existing utility branches or take-offs that are in use without at least 3 days prior written notification to Owner.

- D. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- E. Remove exposed piping, valves, meters, equipment, and supports of disconnected and abandoned utilities.

3.04 SELECTIVE DEMOLITION FOR SPECIFIC MATERIALS - GENERAL

- A. Drawings showing existing construction and utilities are based on casual field observation and existing record documents only.
 - 1. Verify that construction and utility arrangements are as indicated.
 - 2. Report discrepancies to A/E before disturbing existing installation.
 - 3. Beginning of demolition work constitutes acceptance of existing conditions that would be apparent upon examination prior to starting demolition.
- B. Remove existing work as indicated and as required to accomplish new work.
 - 1. Remove items indicated on drawings or necessary to accommodate the new work.
- C. Protect existing work to remain.
 - 1. Perform cutting to accomplish removals neatly and as specified for cutting new work.
 - 2. Repair adjacent construction and finishes damaged during removal work.

3.06 SELECTIVE DEMOLITION OF EXISTING MATERIALS – ROOFING

- A. Building 3 - Remove existing roofing, complete, including membrane felts, flashings, cants, insulation, metal decking, skylights, vents, curbs and any other components in the area designated for complete demolition (Gridlines D to K and 1 to 11). The flat roof area between gridlines A and D and between gridlines 1 and 2 shall have the roofing and insulation removed, but the existing metal deck shall remain. The flat roof area between gridlines A and D and between gridlines 10 and 11 shall remain as is. Existing sloped metal roof in Building 3 will remain intact and is not part of the scope of construction.
- B. Building 4 - Remove existing bituminous roofing, complete, including membrane felts, flashings, cants, insulation, curbs and any other components. Existing sloped metal roof in Building 4 will remain except as indicated on the Structural drawings.

3.07 DEBRIS AND WASTE REMOVAL

- A. Remove debris, junk, and trash promptly from site.
- B. Leave site in clean condition, ready for subsequent work.
- C. Clean up spillage and wind-blown debris from public and private lands.

END OF SECTION 024100

SECTION 02 83 19

REMOVAL OF LEAD-BASED PAINT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to the work in this Section.

1.02 SUMMARY

- A. This Section covers the removal of all loose paint in Buildings 3 & 4, where shown to contain detectable levels of lead (Refer to the Lead-Based Paint reports for each building, prepared by Gallagher-Bassett Services, Inc. The United States Environmental Protection Agency (EPA) defines lead-based paint as that containing equal or greater than 1.0 mg./cm² or 0.5%/Wt. of lead. However, the Occupational Safety and Health Administration (OSHA) considers any measurable amount of lead in paint as lead-based paint. The paint in this scope is lead paint under OSHA criteria, except that limited paint in Building 4 contains levels of lead as to be considered lead-based paint by EPA. Such paint will need to be segregated and tested in order to determine the proper method and location of disposal. Refer to the lead-based paint report prepared by Gallagher-Basset.
- B. Work includes the development of a lead-based paint removal plan and the removal of lead-based paint, in accordance with OSHA 1926.62 Lead Standard. Additionally, the removal of all loose paint from both Buildings 3 & 4, will be performed prior to repainting activities.
- C. Contractor must have an OSHA Competent Person for Lead-Based Paint Activities on site during execution of the work. Workers performing the Lead-Based Paint activities must be certified as having taken an 8-hour Lead-Based Paint training course. Additionally, workers must be medically monitored and be able to wear a filtered respirator.

1.03 REFERENCE STANDARDS

- A. 29 CFR 1926 - U.S. Occupational Safety and Health Standards; current edition.
- B. 29 CFR 1926.62 – Lead Standard
- C. NFPA 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations; 2013.
- D. ANSI/ASSE A10.6 - Safety Requirements for Demolition for Construction and Demolition Operations.

1.04 RELATED WORK

- A. Section 024100 - Selective Demolition
- B. Section 099000 - Painting & Coatings
- C. Structural Drawings - Steel Structural Repairs and Welding.

1.05 SUBMITTALS

- A. Contractor shall submit to the Miami-Dade Department of Solid Waste Management his qualifications and license to perform this type of work as part of the Bid submittal.
- B. Submit detailed product data for the equipment to be used for removal, including levels of lead dust generated, containment requirements, equipment components, and any other relevant information.
- C. Prior to start of lead-based paint removal operations, contractor shall submit the lead-based paint removal plan to the owner, including methods of removal, personal protective equipment for workers, demarcation of work areas and barricades, methods of preventing exposure to employees of other contractors, Department of Solid Waste Management staff, and the general public, and methods of preventing environmental contamination, in compliance with OSHA 1926.62 and local ordinances.

1.06 QUALITY ASSURANCE

- A. Contractor and employees involved in the removal of lead-base paint shall have current training certificates for the proper removal of such materials. Each employee's medical monitoring program shall be current in order to work on this project. Contractor shall provide copies of employee certificates to the owner prior to the start of this phase of the work.
- B. Contractor shall comply with current testing and monitoring protocols. Digital copies of the Initial Exposure Assessment and of Employee Blood Lead Tests shall be provided to the owner for review, prior to the start of lead-based paint removal.
- C. Contractor shall comply with the current requirements for handling and disposal of lead-based paint. Disposal materials from certain areas of Building 4, where the paint tested above EPA lead-paint levels, need to be tested by the Toxicity Characteristic Leaching Procedure (TCLP) method to determine the disposal method and location.

1.07 LEAD-BASED PAINT REMOVAL PROGRAM

- A. Contractor shall submit a lead-based paint removal program which describes the procedures that the Contractor shall use during this project. This program shall include, at a minimum, the following:
 - 1. Equipment to be used on this project, including but not limited to, nail guns, vacuum scrapers/sanders, sand or sponge blasting equipment, laser paint removal

equipment and any other tools or equipment for the removal of lead paint and containment of the lead dust created by removal operations.

2. Written description of procedures for scraping, cutting, sand or sponge blasting, laser paint removal, dust control, packaging, transporting, and disposal of lead-based paint and debris.
3. Written description of procedures for air monitoring and TCLP testing (by independent laboratory), project safety, and site access controls that will be in place during removal activities.
4. Documentation that workers are medically qualified for this type of work and that medical documentation is current in accordance with the regulations. This shall include the initial Blood Lead Test (prior to start of work), any periodic tests required by the regulations and a final test at the completion of the work. In addition, submit medical certification for each worker indicating they are able to use a P-100 respirator.
5. Valid, current training certificates for all workers on this project that show they meet the current requirements to perform the specified work

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 SCOPE

- A. Removal of lead-based paint containing long-span steel joists, steel lateral bracing angles and other steel components in the area designated for demolition in Building 3, removal of any steel structural elements and roof panels in Building 4, as well as removal of loose paint from steel components in both buildings shall follow OSHA and EPA regulations.
- B. After structural repairs are complete, remove all loose paint found to contain levels of lead from the steel framing and any other surfaces of Buildings 3 & 4, prior to repainting. Refer to Section 099000 Painting & Coatings.
- C. Contain, collect and dispose of lead-based paint dust and debris in accordance with OSHA 1926.62, EPA Lead in Construction Standards, and local regulations. Level of containment and disposal requirements may vary depending on the removal method used.

3.02 PREPARATION

- A. Shut down and protect any mechanical equipment located in the vicinity of the work area.

- B. Clearly demarcate the work area with warning tape and OSHA approved signs and install barricades and airtight enclosures to contain lead dust and debris and to prevent inadvertent entry by other contractors' personnel, Solid Waste Management staff or any other persons.
- C. Provide work area protection/isolation using two layers of 6 mil. Polyethylene sheeting supported by framing to ensure stable enclosures.
- D. Periodically check enclosures to prevent any breach of containments and potential environmental contamination.

3.03 SAFETY PROCEDURES

- A. At the start of each type of removal activity, conduct employee exposure assessment by taking full-shift personal samples of employees performing each different type of activity. Until said assessment shows that exposures are below the Permissible Exposure Limit, employees shall wear appropriate respiratory protection.
- B. Workers performing removal must always wear disposable clothing, P-100 respirators and eye protection.
- C. Air monitoring of the work area shall be conducted by an independent laboratory each working day during removal operations.

3.04 REMOVALS AND DISPOSALS

- A. Component Removal: Contractor shall remove and dispose of structural steel elements in the area designated for complete demolition, following OSHA and EPA regulations.
- B. Partial Removal: Contractor shall remove flaking, partially loose, or not fully adhered lead-based paint from all other painted steel and other surfaces in Buildings 3 & 4 to allow repainting. Removals shall be performed in accordance with the approved removal program and OSHA 1926.62 Standard. Any deviations from this program shall be submitted to the owner prior to proceeding.
- C. Contractor shall strive to contain removal dust at the point of contact by vacuum attachments or other approved equipment. Work protection shall remain in place until completion of removal activities and shall be cleaned at the end of each work shift.
- D. Dust and debris collected shall be disposed of in accordance with applicable regulations, based on the results of the TLP tests. (Note: the complete removal of paint at welds, if performed by laser equipment, vaporizes the paint and requires vacuum attachment at the point of removal to contain the vapors. In such case, there may be minimal dust or debris for disposal).

END OF SECTION 028319

SECTION 03 20 00

CONCRETE REINFORCEMENT

PART 1. GENERAL

1.01 SCOPE:

- A. Summary of Work: The CONTRACTOR shall furnish all labor, materials and equipment to provide and properly place all concrete reinforcement steel, welded wire fabric, couplers, and concrete inserts for use in the reinforced concrete and masonry construction and all appurtenant work, including all the wires, clips, supports, chairs, spacers, and other accessories as shown on the Drawings and as specified herein.
- B. Related Work Specified Elsewhere:
 - 1. SECTION 013300 – Submittals Procedures
 - 2. SECTION 033000 - Cast-In-Place Concrete
 - 3. SECTION 036000 – Structural Grout

1.02 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards of the organizations listed below in effect at the time of the advertisement for bids form a part of this specification to the extent referenced. See the various paragraphs for the specified standard. In the case of a conflict between the requirements of this SECTION and those of the listed document, the requirements of this SECTION shall prevail.
 - 1. American Concrete Institute (ACI):
 - a. 318 - Building Code Requirements for Reinforced Concrete
 - b. SP-66 - Detailing Manual
 - 2. American Society of Testing and Materials (ASTM):
 - a. A82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
 - b. A185 - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.

1.03 SUBMITTALS: Submittals shall be in accordance with SECTION 013300. The CONTRACTOR shall submit the following:

- A. Mill Certifications of Grade 60 reinforcing steel or stainless steel, as required
- B. Complete bar schedule, bar details and erection drawings in conformance with ACI SP-66.

1.04 QUALIFICATIONS: (Not Applicable)

1.05 RESPONSIBILITIES:

FACTORY TESTING: If requested by the Miami Dade Department of Solid Waste Management, the CONTRACTOR shall provide samples from each heat of reinforcement steel delivered in adequate quantity for testing. The CONTRACTOR shall pay costs of additional tests due to material failing tests.

1.06 CERTIFICATIONS:

- B. International Code Council Evaluation Service (ICC-ES) Certifications for mechanical couplers, if allowed
- C. Mill Certifications of Grade 60 reinforcing steel

1.07 INSPECTION COORDINATION: The CONTRACTOR shall provide sufficient notice and opportunity to the Miami Dade Department of Solid Waste Management to review the placement of the reinforcing steel before the concrete is placed. The CONTRACTOR shall provide access to the WORK for the Miami Dade Department of Solid Waste Management as requested for inspection. The CONTRACTOR shall provide 48 hours advance notice of its intention to begin new WORK activities.

1.08 WARRANTY: The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 Warranties and Guarantees.

PART 2. PRODUCTS**2.01 REINFORCING BARS:**

- A. Metal reinforcement shall be deformed type bars conforming to ASTM A615, Specifications for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement, Grade 60, unless otherwise specified. Reinforcing steel shall be fabricated for the shapes and dimensions indicated on the Drawings and in compliance with ACI 318. All bars shall be bent cold.
- B. Replace all reinforcement with bends and kinks not shown on fabrication Shop Drawings. Remove from job Site all such reinforcing and replace with new fabricated steel. Field bending of reinforcement at the work Site is prohibited.
- C. Welded wire fabric reinforcement shall conform to the requirements of ASTM A185, and the details indicated. Do not use fabric that has been rolled. Install flat sheets only.
- D. Spiral reinforcement shall be cold-drawn steel wire conforming to the requirements of ASTM A82.
- E. Epoxy coating for reinforcing and accessories, where indicated, shall conform to ASTM A775.
- F. Mechanical couplers shall be provided where indicated and where approved by the Miami Dade Department of Solid Waste Management. The couplers shall develop a tensile strength that exceeds 125 percent of the yield strength of the reinforcement bars being spliced at each splice. Where the type of coupler used is composed of more than one component, all components required for a complete splice shall be provided. This shall apply to all mechanical splices, including those splices intended for future connections. Reinforcement steel and coupler used shall be compatible for obtaining the required strength of the connection. Straight threaded type couplers shall require the use of the next larger size reinforcing bar or shall be used with reinforcing bars with specially forged ends which provide upset threads which do not decrease the basic cross section of the bar.
- G. Epoxy for grouting reinforcing bars shall be specifically formulated for such application, for the moisture condition, application temperature, and orientation of the hole to be filled. Epoxy grout shall meet the requirements in SECTION 036000.

Table 03200-1
Approved Stainless Steel Alloys for Reinforcing Bars

Common or Trade Name	Type 316, Low Carbon, Nitrogen Added	Type 2205 Duplex	Nitronic 50
AISI Type	316LN	2205	XM-19
UNS Designation	S31653	S31803	S20910
Required Minimum Tensile Strength	90 ksi	90 ksi	90 ksi
Required Minimum 0.2% Offset Yield Strength	60 ksi	60 ksi	60 ksi
Required Minimum Elongation in 2-inches	25%	25%	25%
Required Condition	As Rolled	As Rolled	As Rolled
Required Finish	Per ASTM A955, descaled and white pickled	Per ASTM A955, descaled and white pickled	Per ASTM A955, descaled and white pickled

2.02 ACCESSORIES: All chairs and bolsters shall conform to ACI SP-66 and the CRSI Manual of Standard Practices and shall have galvanized or plastic legs.

PART 3. EXECUTION

3.01 PLACEMENT AND ANCHORAGE:

- A. Bar supports shall be spaced in accordance with CRSI.
 1. Reinforcement steel shall be supported by concrete, plastic or metal supports, spacers or metal hangers that are strong and rigid enough to prevent any displacement of the reinforcement steel. Where concrete is to be placed on the ground, supporting concrete blocks (or dobies) shall be used in sufficient numbers to support the bars without settlement, but in no case shall such support be continuous. Concrete blocks used to support reinforcement steel shall be tied to the steel with wire ties that are embedded in the blocks. For concrete over formwork, the CONTRACTOR shall provide concrete, metal, plastic, or other acceptable bar chairs and spacers.
 2. Limitations on the use of bar support materials shall be as follows.
 - a. Concrete Dobies: permitted at all locations except where architectural finish is required.
 - b. Wire Bar Supports: permitted only at slabs over dry areas, interior non-hydraulic wall surfaces, and exterior wall surfaces.
 - c. Plastic Bar Supports: permitted at all locations except on grade.
- B. Reinforcement shall be accurately placed in accordance with the Drawings and shall be adequately secured in position with not less than 16-gauge annealed wire. The placement tolerances shall be in accordance with ACI 318, paragraph 7.5, Placing Reinforcement and the CRSI Manual of Standard Practices.
- C. Tie wires shall be bent away from the forms in order to provide the required concrete coverage.
- D. Bars additional to those indicated which may be found necessary or desirable by the CONTRACTOR for the purpose of securing reinforcement in position shall be provided by the CONTRACTOR at its own expense.

E. Additional reinforcement around openings:

1. Place an equivalent area of steel around pipe or opening and extend on each side and top and bottom sufficiently to develop bond in each bar.
2. Refer to details on Drawings for bar extension length on each side of opening.
3. Where welded wire fabrics are used, provide extra reinforcing using fabric or deformed bars.

F. Unless otherwise indicated, reinforcement placing tolerances shall be within the limits in Section 7.5 of ACI 318 except where in conflict with the requirements of the Building Code.

G. Bars may be moved as necessary to avoid interference with other reinforcement steel continuously across the entire width of the reinforcement mat, and shall support the reinforcement mat in the plane indicated.

H. Welded wire fabric placed over the ground shall be supported on wired concrete blocks (dobies) spaced not more than three (3) feet on centers in any direction. Welded wire fabric shall not be placed on the ground and hooked into place in the freshly placed concrete.

I. Welded wire fabric reinforcement placed over horizontal forms shall be supported on slab bolsters. Slab bolsters shall be spaced not more than 30-inches on center. The construction practice of placing welded wire fabric on the ground and hooking it into place in the freshly placed concrete shall not be used.

3.02 CONCRETE COVER: The concrete cover over reinforcement shall conform to ACI 318, paragraph 7.7, Concrete Protection for Reinforcement, unless otherwise indicated. Tie wires shall be bent away from the forms in order to provide the required concrete coverage.

3.03 SPLICING:

A. All lap splices of bar reinforcement shall be as indicated and conform to Chapter 12 of ACI 318 or as otherwise approved by the Miami Dade Department of Solid Waste Management. Unless otherwise indicated, dowels shall match the size and spacing of the spliced bar.

B. Laps of welded wire fabric shall be in accordance with ACI 318. Adjoining sheets shall be securely tied together with No. 14 tie wire, one tie for each two running feet. Wires shall be staggered and tied in such a manner that they cannot slip.

C. Splices in column spiral reinforcement, when necessary, shall be made by a lap of 1-1/2 turns.

D. Reinforcing shall not be straightened or bent in a manner which will injure the material. Bars shall be bent or straight as indicated. Do not use bends different from the bends indicated. Bars shall be bent cold, unless otherwise permitted by the Miami Dade Department of Solid Waste Management. No bars partially embedded in concrete shall be field-bent except as indicated or specifically permitted by the Miami Dade Department of Solid Waste Management.

E. Couplers which are located at a joint face shall be a type which can be set either flush or recessed from the face as indicated. The couplers shall be sealed during concrete placement to completely eliminate concrete or cement paste from entering. Couplers intended for future connections shall be recessed a minimum of 1/2-inch from the concrete surface. After the concrete is placed, the coupler shall be plugged with plastic plugs which have an O-ring seal and the recess filled with sealant to prevent any contact with water or other corrosive materials. Threaded couplers shall be plugged.

3.04 CLEANING AND PROTECTION:

A. Unless indicated otherwise, mechanical coupler spacing and capacity shall match the spacing and capacity of the reinforcing indicated for the adjacent section.

B. Reinforcement shall be free of all materials that will reduce bond.

- C. Reinforcement steel shall at all times be protected from conditions conducive to corrosion until concrete is placed around it.
- D. The surfaces of reinforcement steel and other metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed. Where there is delay in depositing concrete, reinforcement shall be re-inspected and, if necessary, re-cleaned or sandblasted.
- E. Properly cap all vertical reinforcement steel if area is subject to having workers above the reinforcement area.

3.05 INSTALLATION OF DRILLED REINFORCING STEEL DOWELS: For drilling and grouting information see SECTION 036000.

END OF SECTION 032000

SECTION 033000
CAST-IN-PLACE CONCRETE

PART 1. GENERAL

1.01 SCOPE:

- A. The WORK of this SECTION consists of furnishing all labor, equipment, supplies, and materials necessary for the proper placement, curing, finishing, protection, and repair of the cast-in-place concrete required by the Contract Documents.
- B. Related Work Specified Elsewhere:
 - 1. Section 013300 – Submittals Procedures
 - 2. Section 014100 – Project Testing laboratory services
 - 3. Section 032000 - Concrete Reinforcement
 - 4. Section 037000 – Concrete Restoration

1.02 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards of the organizations listed below in effect at the time of the advertisement for bids form a part of this specification to the extent referenced. See the various paragraphs for the specified standard. In the case of a conflict between the requirements of this SECTION and those of the listed document, the requirements of this Section shall prevail.
 - 1. American Concrete Institute (ACI)
 - a. 117 - Specification for Tolerances for Concrete Construction and Materials
 - b. 301 – Specifications for Structural Concrete for Buildings
 - c. 304.2R - Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete
 - d. 305 - Committee Report on Hot-Weather Concreting
 - e. 306 - Committee Report on Cold-Weather Concreting
 - f. 308 - Standard Practice for Curing Concrete
 - g. 309 – Guide for Consolidation of Concrete
 - h. 318 - Building Code Requirements for Reinforced Concrete
 - i. 350 – Code Requirements for Environmental Engineering Concrete Structures
 - 2. American Society for Testing and Materials (ASTM):
 - a. C31 - Making and Curing Concrete compression and Flexure Test Specimens in the Field
 - b. C33 – Standard Specification for Concrete Aggregates
 - c. C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 - d. C94 - Standard Specification for Ready-Mixed Concrete

- e. C127 – Standard Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate
 - f. C128 – Standard Test Method for Relative Density (Specific Gravity) and Absorption of Fine Aggregate
 - g. C136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
 - h. C143 – Standard Test Method for Slump of Hydraulic-Cement Concrete
 - i. C150 – Standard Specification for Portland Cement
 - j. C156 - Test Method for Water Retention by Concrete Curing Materials
 - k. C157 – Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete
 - l. C173 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
 - m. C231 - Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
 - n. C260 – Standard Specification for Air Entraining Admixtures for Concrete
 - o. C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
 - p. C494 - Standard Specification for Chemical Admixtures for Concrete
 - q. C566 – Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying
 - r. C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Concrete
 - s. C881 - Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
 - t. C1077 - Practice for Laboratories Testing Concrete and Concrete Aggregates for use in Construction and Criteria for Laboratory Evaluation
 - u. C1157 – Standard Performance Specification for Hydraulic Cements
 - v. C1240 - Standard Specification for Silica Fume for Use as a Mineral Admixture in Hydraulic-Cement Concrete, Mortar, and Grout
 - w. D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Non extruding and Resilient Bituminous Types)
 - x. D2419 – Standard Test Methods for Sand Equivalent Value of Soils and Fine Aggregate
 - y. E96 - Standard Test Methods for Water Vapor Transmission of Materials
 - z. E1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs
3. Federal Specifications
- a. UU-B-790A - Building Paper, Vegetable Fiber (Kraft, Waterproofed, Water Repellant and Fire Resistant)
4. Florida Building Code and Local Building Codes as appropriate
5. Florida Department of Transportation (FDOT)
- a. Standard Specifications for Road and Bridge Construction, latest edition.

1.03 SUBMITTALS:

- A. Submittals shall be in accordance with Section 013300.
- B. Mix Designs:

Laboratory tests for shrinkage require 35 days to complete. Depending on the schedule of the Project, you may want to require the CONTRACTOR to test more than one mix design when requiring shrinkage tests.

- 1. Prior to beginning the WORK and within **[14]** days after issuance of the Notice to Proceed, the CONTRACTOR shall submit preliminary concrete mix designs which shall show the proportions and gradations of all materials proposed for each class and type of concrete. Mix designs shall be tested by an independent testing laboratory acceptable to the Miami Dade Department of Solid Waste Management. All costs related to such testing shall be CONTRACTOR'S responsibility. Since laboratory trial batches require 35 calendar days to complete, the CONTRACTOR shall test a minimum of two mix designs for each class of concrete.
 - 2. Test data relating to the cement, aggregate, and admixtures shall be less than six months old. Furnish the submittals in accordance with ACI 301 for the following:
 - a. Mill tests for cement
 - b. Admixture certification. Chloride ion content shall be included.
 - c. Aggregate gradation test results and certification
 - 3. Where ready-mix concrete is used, the CONTRACTOR shall furnish delivery tickets at the time of delivery of each load of concrete. Each ticket shall show the state certified equipment used for measuring and the total quantities, by weight, of cement, sand, each class of aggregate, admixtures, and the amounts of water in the aggregate added at the batching plant, and the amount allowed to be added at the Site for the specific design mix. In addition, each ticket shall state the mix number, total yield in cubic yards, and the time of day, to the nearest minute, corresponding to the times when the batch was dispatched, when it left the plant, when it arrived at the Site, when unloading began, and when unloading was finished.
- C. Other
- 1. The CONTRACTOR shall submit materials and methods for curing.
 - 2. The CONTRACTOR shall submit product specifications, data, and installation instructions for all miscellaneous products called for in this specification.

1.04 QUALIFICATIONS: Truck mixers shall be equipped with electrically actuated counters by which the number of revolutions of the drum or blades may be readily verified. The counter shall be of the resettable, recording type, and shall be mounted in the driver's cab. The counters shall be actuated at the time of starting mixers at mixing speeds.

1.05 RESPONSIBILITIES: (Not Applicable)**1.06 CERTIFICATIONS AND TESTING:**

- A. General
 - 1. Concrete and other materials for testing shall be furnished by the CONTRACTOR, and the CONTRACTOR shall assist the Miami Dade Department of Solid Waste Management in obtaining samples, and disposal and cleanup of excess material.
 - 2. The testing laboratory will meet or exceed the requirements of ASTM C1077.

3. The cost of trial batch, laboratory, and shrinkage tests on cement, aggregates, and concrete, will be the CONTRACTOR'S responsibility.
- B. Trial Batch and Laboratory Tests
1. Tests for determining slump shall be in accordance with the requirements of ASTM C143.
 2. Testing for aggregate shall include sand equivalence, reactivity, organic impurities, abrasion resistance, and soundness, according to ASTM C33.
 3. A testing laboratory approved by the Miami Dade Department of Solid Waste Management shall prepare a trial batch of each class of concrete, based on the preliminary concrete mixes submitted by the CONTRACTOR. During the trial batch the aggregate proportions may be adjusted by the testing laboratory using the two coarse aggregate size ranges to obtain the required properties. If one size range produces an acceptable mix, a second size range need not be used. Such adjustments will be considered refinements to the mix design and will not be the basis for extra compensation to the CONTRACTOR. Concrete shall conform to the requirements of this Section, whether the aggregate proportions are from the CONTRACTOR'S preliminary mix design, or whether the proportions have been adjusted during the trial batch process. The trial batch shall be prepared using the aggregates, cement, and admixture proposed for the Project. The trial batch materials shall be of a quantity such that the testing laboratory can obtain 3 drying shrinkage, and 6 compression test specimens from each batch.
 4. The determination of compressive strength shall be made in accordance with ACI 318, Section 5.3.
 5. A sieve analysis of the combined aggregate for each trial batch shall be performed according to the requirements of ASTM C136. Values shall be given for percent passing each sieve.

Shrinkage Tests should be required for the concrete on hydraulic structures.

C. Shrinkage Tests:

1. Drying shrinkage tests shall be performed for the trial batches, the first placement of each class of structural concrete, and during construction to ensure continued compliance with these Specifications.
2. Drying shrinkage specimens shall be 4-inch by 4-inch by 11-inch prisms with an effective gauge length of 10-inches; fabricated, cured, dried, and measured in accordance with ASTM C157, modified as follows: specimens shall be removed from molds at an age of 23 plus or minus one (1) hours after trial batching, shall be placed immediately in water at 70 degrees F plus or minus three (3) degrees F for at least 30 minutes, and shall be measured within 30 minutes thereafter to determine original length and then submerged in saturated lime water at 73 degrees F plus or minus three (3) degrees F. Measurement to determine expansion expressed as a percentage of original length shall be made at age seven (7) days. This length at age seven (7) days shall be the base length for drying shrinkage calculations ("0" days drying age). Specimens then shall be stored immediately in a humidity control room maintained at 73 degrees F plus or minus three (3) degrees F and 50 percent plus or minus four (4) percent relative humidity for the remainder of the test. Measurements to determine shrinkage expressed as percentage of base length shall be made and reported separately for 7, 14, 21, and 28 days of drying after seven (7) days of moist curing.
3. The drying shrinkage deformation of each specimen shall be computed as the difference between the base length (at "0" days drying age) and the length after drying at each test age. The average drying shrinkage deformation of the specimens shall be computed to the nearest 0.0001 inch at each test age. If the drying shrinkage of any specimen departs from the average of that test age by more than 0.0004-inch, the results obtained from that specimen shall be disregarded. Results of the shrinkage test shall be reported to the nearest 0.001 percent of shrinkage. Compression test specimens shall be taken in each case from the same concrete used for preparing drying shrinkage specimens. These tests shall be considered a part of the normal compression tests for the Project.
4. The maximum concrete shrinkage for specimens cast in the laboratory from the trial batch, as measured at 21 day drying age or at 28 day drying age shall be 0.036 percent or 0.042 percent,

respectively. Standard deviation will not be considered. The CONTRACTOR shall only use a mix design for construction that has first met the trial batch shrinkage requirements. Shrinkage limitations apply only to structural concrete.

5. The maximum concrete shrinkage for specimens cast in the field shall not exceed the trial batch maximum shrinkage requirement by more than 25 percent.
6. If the required shrinkage limitation is not met during construction, the CONTRACTOR shall take any or all of the following actions to reestablish compliance. These actions may include changing the source of aggregates, cement and/or admixtures; reducing water/cement ratio; washing of coarse and/or fine aggregate to reduce fines; increasing the number of construction joints; modifying the curing requirements; or other actions designed to minimize shrinkage or the effects of shrinkage.

D. Field Tests

1. The responsibility to retain the services of an independent testing laboratory shall be as defined in Section 014100, Project Testing Laboratory Services.
 2. The CONTRACTOR shall pay the cost of any additional tests and investigation on WORK that does not meet the specifications.
 3. Tests on pumped concrete shall be taken at the point of final placement.
 4. Compressive Test: Compressive test specimens shall be taken during construction from the first placement of each class of concrete placed each day and for each 150 cubic yards or fraction thereof each day.
 - a. Each set of test specimens shall consist of five (5) cylinders. Specimens shall be made in accordance with ASTM C31. Specimens shall be 6-inch diameter by 12-inch high cylinders.
 - b. Compression tests shall be performed in accordance with ASTM C39. Two (2) cylinders shall be broken at seven (7) days and two (2) at 28 days, and the remaining cylinder shall be held to verify test results, if needed.
 - c. The acceptance of the test results shall be the average of the strengths of the two specimens tested at 28 days as per ACI 318. Evaluation and acceptance of the concrete shall be per ACI 318, Chapter 5.
 5. Slump Tests: One (1) slump test shall be taken per truckload in accordance with ASTM C143.
 6. Air Content: Air content shall be determined for each compressive test taken in accordance with ASTM C231 or by ASTM C173.
 7. Aggregate testing shall be made every 12 months during construction to insure continued compliance with these Specifications.
 8. Concrete that fails to meet the ACI requirements and these Specifications is subject to removal and replacement.
 9. Temperature: Concrete temperature shall be recorded in accordance with ASTM C1064.
- E. The conference shall be held at a mutually agreed upon time and place. The Miami Dade Department of Solid Waste Management shall be notified no less than five (5) days prior to the date of the conference.

1.07 WARRANTY: The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 Warranties and Guarantees.

PART 2 MATERIALS

2.01 GENERAL:

- A. All materials shall be classified as acceptable for potable water use according to NSF Standard 61.
- B. Cement for concrete that will contact potable water shall not be obtained from kilns that burn metal rich hazardous waste fuel.
- C. Materials shall be delivered, stored, and handled so as to prevent damage by water or breakage. Cement reclaimed from cleaning bags or leaking containers shall not be used. Cement shall be used in the sequence of receipt of shipments.
- D. Materials shall comply with the requirements of Sections 201, 203, and 204 of ACI 301, as applicable.
- E. Storage of materials shall conform to the requirements of Section 205 of ACI 301.

2.02 CEMENT:

- A. Cement shall be standard Portland Cement Type I conforming to ASTM C150 and C1157
- B. A minimum of 85 percent of cement by weight shall pass a 325 screen.
- C. A single brand of cement shall be used throughout the WORK, and prior to its use, the brand shall be accepted by the Miami Dade Department of Solid Waste Management.
- D. Sacked cement shall be stored in such a manner so as to permit access for inspection and sampling. Certified mill test reports, including fineness, for each shipment of cement to be used shall be submitted to the Miami Dade Department of Solid Waste Management, if requested, regarding compliance with these Specifications.

2.03 AGGREGATES:

- A. Aggregates shall be obtained from pits acceptable to the Miami Dade Department of Solid Waste Management, shall be non-reactive, and shall conform to the requirements of ASTM C33.
- B. When tested in accordance with ASTM C33, the loss resulting after five (5) cycles of the soundness test, shall not exceed ten (10) percent for fine aggregate and twelve (12) percent for coarse aggregate, when using sodium sulfate.
- C. When tested in accordance with ASTM C33, the ratio of silica released to reduction in alkalinity shall not exceed 1.0.
- D. Coarse Aggregates:
 - 1. Coarse aggregates shall be crushed stone, gravel or other approved inert material having clean, hard, durable, uncoated particles conforming to ASTM C33.
 - 2. The coarse aggregates shall be prepared and handled in two (2) or more size groups for combined aggregates with a maximum size greater than 3/4-inch. When the aggregates are proportioned for each batch of concrete, the 2 size groups shall be combined.
 - 3. When tested in accordance with ASTM C33, the coarse aggregate shall show a loss not exceeding 42 percent after 500 revolutions, or 10.5 percent after 100 revolutions.
- E. Fine Aggregates:
 - 1. Fine aggregates shall be clean sand conforming to ASTM C33.

2. When tested in accordance with ASTM D2419, the sand equivalency shall not be less than 75 percent for an average of three (3) samples, nor less than 70 percent for an individual test. Gradation of fine aggregate shall conform to ASTM C33 when tested in accordance with ASTM C136 for the fineness modulus of the sand used, including the optional grading in Section 6.2. The fineness modulus of sand used shall not be over 3.1.
3. When tested in accordance with ASTM C33, the fine aggregate shall produce a color in the supernatant liquid no darker than the reference standard color solution.

2.04 WATER:

- A. The water used in the concrete mix and for curing shall be clean, potable, and in accordance with ACI 318. Water shall be free from objectionable quantities of silty organic matter, alkali, salts, and other impurities.
- B. The water shall be considered potable, for the purposes of this Section only, if it meets the requirements of the local governmental agencies. Agricultural water with high total dissolved solids (over 1000 mg/l TDS) shall not be used.

2.05 ADMIXTURES:

- A. General: All admixtures shall be compatible and be furnished by a single MANUFACTURER capable of providing qualified field service representation. Admixtures shall be used in accordance with MANUFACTURER's recommendations. If the use of an admixture is producing an inferior end result, the CONTRACTOR shall discontinue use of the admixture. Admixtures shall not contain thiocyanates or more than 0.05 percent chloride ion, and shall be non-toxic after 30 days.
- B. Air Entraining Admixtures:
 1. Air entraining admixture shall conform to ASTM C260. Air content shall be tested at the point of placement.
 2. The air-entraining agent shall be added to the batch in a portion of the mixing water. The solution shall be batched by means of a mechanical batcher capable of accurate measurement.
- C. Set Controlling and Water Reducing Admixtures:
 1. Admixtures may be added at the CONTRACTOR'S option, subject to the Miami Dade Department of Solid Waste Management approval, to control the set, effect water reduction, and increase workability. The cost of adding an admixture shall be the CONTRACTOR'S responsibility. Concrete containing an admixture shall be first placed at a location determined by the Miami Dade Department of Solid Waste Management. Admixtures shall conform to the requirements of ASTM C494. The required quantity of cement shall be used in the mix regardless of whether or not an admixture is used.
 2. Concrete shall not contain more than one water-reducing admixture.
 3. Set retarding admixture may be either with or without water-reducing properties. Where the air temperature at the time of placement is expected to be consistently greater than 80 degrees F, a set retarding admixture shall be used. Set retarding admixture shall conform to ASTM C494 Type B or D.
 4. Set accelerating admixture may be either with or without water-reducing properties. Where the air temperature at the time of placement is expected to be consistently less than 40 degrees F, a non-corrosive set accelerating admixture shall be used. Set accelerating admixture shall conform to ASTM C494 Type C or E.
 5. Normal range water reducer shall conform to ASTM C494, Type A. The quantity of admixture used and the method of mixing shall be in accordance with the MANUFACTURER's instructions and recommendations.

6. High range water reducer shall conform to ASTM C494, Type F or G. High range water reducer shall be added to the concrete after all other ingredients have been mixed and initial slump has been verified. No more than fourteen (14) ounces of water reducer per sack of cement shall be used. Water reducer shall be considered as part of the mixing water when calculating the water/cement ratio.
 - a. If the high range water reducer is added to the concrete at the Site, it may be used in conjunction with the same water reducer added at the batch plant. Concrete shall have a slump of three (3) inches plus or minus 1/2-inch prior to adding the high range water reducing admixture at the Site. The high range water reducing admixture shall be accurately measured and pressure injected into the mixer as a single dose by an experienced technician. A standby system shall be provided and tested prior to each day's operation of the primary system.
 - b. Concrete shall be mixed at mixing speed for a minimum of 70 mixer revolutions or five (5) minutes after the addition of the high range water reducer, unless recommended otherwise by the MANUFACTURER.

D. Crystalline Capillary Waterproofing Admixture:

1. All concrete for water control structures that will be underwater shall have Crystalline Capillary Waterproofing (CCW) admixture in accordance with SECTION 03050.

- E. Anti-washout admixture may be used for concrete placed underwater. The admixture shall be added at the MANUFACTURER's recommended dosage rate. The admixture shall be an aqueous solution and the water in such solution shall be counted as mixing water for the purpose of determining the water cement ratio of the concrete. Trial batches shall be made to verify compatibility of the materials and mix design performance.

2.06 CURING MATERIALS:

- A. Curing compound shall conform to ASTM C309, Type I. Curing compound shall be white pigmented, resin based and compliant with local VOC requirements. When curing compound must be removed for finishes or grouting, it shall be of a dissipating type. Sodium silicate compounds shall not be allowed.
- B. Polyethylene sheet for use as concrete curing blanket shall be white and shall have a nominal thickness of 6 mils. The loss of moisture when determined in accordance with the requirements of ASTM C156, shall not exceed 0.055 grams per square centimeter of surface.
- C. Polyethylene-coated waterproof paper sheeting for use as concrete curing blanket shall consist of white polyethylene sheeting free of visible defects, uniform in appearance, have a minimum thickness of two (2) mils, and be permanently bonded to waterproof paper conforming to the requirements of Federal Specification UU-B-790A. The loss of moisture, when determined in accordance with the requirements of ASTM C156, shall not exceed 0.055 gram per square centimeter of surface.
- D. Polyethylene-coated burlap for use as concrete curing blanket shall be minimum 4-mil thick, white opaque polyethylene film impregnated or extruded into one side of the burlap. Burlap shall weigh not less than 9 ounces per square yard. The loss of moisture, when determined in accordance with the requirements of ASTM C156, shall not exceed 0.055 grams per square centimeter of surface.
- E. Curing mats for use in Curing Method 6 below, shall be heavy shag rugs or carpets or cotton mats quilted at 4-inches on center. Curing mats shall weigh a minimum of 12 ounces per square yard when dry.

2.07 MISCELLANEOUS MATERIALS:

- A. Damp proofing agent shall be an asphalt emulsion conforming to ASTM D1227, Type III, Class 1.

- B. Evaporation retardant shall create a monomolecular film on the concrete. The retardant shall have no effect on cement hydration and shall meet local VOC requirements. Evaporation retardant shall not affect adhesion of curing compounds or other treatments and shall not affect the color of the concrete.
1. Surface hardener shall be system of integral hardening admixture, shake-on hardener, and surface applied liquid hardener acceptable for both indoor and outdoor applications.
 2. Integral hardening admixture shall be a non-chloride admixture that will produce high strength, durable, hard, non-dusting abrasive resistant concrete. Admixture shall react with the Portland cement to produce more complete hydration.
 3. Shake-on hardener shall be a ready to use, heavy-duty emery shake-on floor hardener. Aggregate shall consist of no less than 35% aluminum oxide. Hardener shall produce a hard, non-slip floor that will not rust.
 4. Surface applied liquid hardener shall be a water borne chemical hardener and dustproofed. Hardener shall meet local VOC requirements and shall be a solution of silicates and fluosilicates.
- C. Reinforcement shall be per Section 032000.
- D. Damp proofing agent shall be a waterborne emulsified-asphalt. Damp proofing shall be suitable for "green" or slightly damp surfaces and shall withstand normal expansion and contraction of the concrete. Damp proofing agent shall breath to allow vapors to escape. Damp proofing agent shall meet local VOC requirements.
- E. Bonding agents shall be 100% solids, epoxy adhesives conforming to the following:
1. For bonding freshly-mixed, plastic concrete to hardened concrete, bonding agent shall be a medium viscosity adhesive conforming to ASTM C881 Type II, Grade 2, Class C,
 2. For bonding hardened concrete or masonry to steel, bonding agent shall be a non-sagging gel adhesive conforming to ASTM C881 Type I or IV, Grade 3, Class C.
- F. Vapor Barrier:
1. Vapor Barrier shall consist of a composite of heavy kraft paper, asphalt, fiberglass reinforcement, and polyethylene film. The composite shall be laminated under heat and pressure.
 2. Vapor Barrier shall comply with federal specification UU-B-790A, Type I, Grade A, Style 4. Vapor Barrier shall have a water vapor permeance of less than 0.30 perms when tested per ASTM E96.
 3. Vapor Barrier shall be installed under concrete slabs of all habitable spaces. Barrier shall be installed per the MANUFACTURER recommendations and per ASTM E1643.
- G. Non-Waterstop Joint Material:
1. Preformed Joint Material: Preformed asphalt-impregnated fiber conforming to ASTM D1751.
 2. Bond Breaker: All bond breakers shall be roofing felt or 15 mils minimum dry film thickness of bituminous paint as indicated.

2.08 CONCRETE DESIGN REQUIREMENTS:

- A. General: Concrete shall be composed of cement, admixtures, aggregates, and water of the qualities indicated. The exact proportions in which these materials are to be used for different parts of the WORK will be determined during the trial batch process. In general, the mix shall be designed to produce a concrete capable of being deposited so as to obtain maximum density and minimum shrinkage, and, where deposited in forms, to have good consolidation properties and maximum smoothness of surface. The aggregate gradations shall be formulated to provide fresh concrete that will not promote rock pockets around reinforcing steel or embedded items. The proportions shall be changed whenever necessary or

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desirable to meet the required results. All changes shall be subject to review by the Miami Dade Department of Solid Waste Management.

B. Fine Aggregate Composition:

1. In mix designs for structural concrete, the percentage of fine aggregate in total aggregate by weight shall be as indicated in the following table.

Fine Aggregate	
Fineness Modulus	Maximum Percent
2.7 or less	41
2.7 to 2.8	42
2.8 to 2.9	43
2.9 to 3.1	44

2. For other concrete, the maximum percentage of fine aggregate of total aggregate, by weight, shall not exceed 50.

C. Duct bank concrete shall contain an integral red-oxide coloring pigment. Concrete shall be dyed red throughout. Surface treatment to color duct banks will not be acceptable.**D. Water/Cement Ratio and Compressive Strength:**

1. Water/cement ratio is given for aggregates in saturated-surface dry condition, and total moisture of all aggregates, calculated by ASTM C566, less the absorption of the aggregate as calculated by ASTM C127 and C128, shall represent total free moisture in the aggregate to determine the water/cement ratio. Total free moisture of aggregates shall be added to batch water to estimate water content of concrete. Concrete shall have the following minimum properties:

E. Concrete Proportions:

For structural concrete which may be prone to sulfate attack, as described in paragraph 2.02A, the water cement ratio should not exceed the recommended values indicated in Table 4.3.1 of ACI 350, Chapter 4.

Type of Work	Min 28-Day Compressive Strength (psi)	Maximum Size Aggregate (in)	* Cement Content per cubic yd (lbs)	* Maximum W/C Ratio (by weight)
Structural Concrete				
Roof, floor slabs, columns, walls, and all other concrete items not indicated elsewhere.	4,500	1	564 to 600	0.45
12-inch and thicker walls, slabs on grade, and footings (optional)	4,500	1-1/2	564 to 600	0.45

* The cement content and water cement ratio are based on total cementitious material including silica fume, slag or flyash.

NOTE: The CONTRACTOR is cautioned that the limiting parameters above are not a mix design. Admixtures may be required to achieve workability required by the CONTRACTOR'S construction

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methods and aggregates. The CONTRACTOR is responsible for providing concrete with the required workability and strength.

- F. Adjustments to Mix Design: The CONTRACTOR may elect to decrease the water/cement ratio to achieve the strength and shrinkage requirements and/or add water reducers, as required to achieve workability. The mixes shall be changed whenever such change is necessary or desirable to secure the required strength, density, workability, and surface finish, and the CONTRACTOR shall be entitled to no additional compensation because of such changes. Any changes to the accepted concrete mix design shall be submitted to the Miami Dade Department of Solid Waste Management for review and shall be tested again in accordance with these Specifications.
- G. When using a floor hardener, the water/cement ratio shall not be greater than specified by the hardener MANUFACTURER.

2.09 CONSISTENCY:

The quantity of water in a batch of concrete shall be just sufficient, with a normal mixing period, to produce a concrete which can be worked properly into place without segregation and which can be compacted by vibratory methods to give the desired density, impermeability, and smoothness of surface. The quantity of water shall be changed as necessary, with variations in the nature or moisture content of the aggregates, to maintain uniform production of a desired consistency. The consistency of the concrete in successive batches shall be determined by slump tests in accordance with ASTM C143. The slumps shall be as follows:

2.10 MEASUREMENT:

- A. The amount of cement and of each separate size of aggregate entering into each batch of concrete shall be determined by direct weighing equipment furnished by the CONTRACTOR and acceptable to the Miami Dade Department of Solid Waste Management.
- B. Weighing tolerances:

Material	Percent of Total Weight
Cement	1
Aggregates	3
Admixtures	3

- C. The quantity of water entering the mixer shall be measured by a suitable water meter or other measuring device of a type acceptable to the Miami Dade Department of Solid Waste Management and capable of measuring the water in variable amounts within a tolerance of one percent. The water feed control mechanism shall be capable of being locked in position so as to deliver constantly any required amount of water to each batch of concrete. A positive quick-acting valve shall be used for a cut-off in the water line to the mixer. The operating mechanism shall prevent leakage when the valves are closed.

PART 3 EXECUTION

3.01 PROPORTIONING AND MIXING:

- A. Proportioning of the mix shall conform to the requirements of Chapter 3 "Proportioning" of ACI 301.
- B. Mixing shall conform to the requirements of Chapter 7 of ACI 301.
- C. Slumps shall be as indicated herein.
- D. Retempering of concrete or mortar that has partially hardened shall not be permitted.

3.02 PREPARATION OF SURFACES FOR CONCRETING:

- A. General: Earth surfaces shall be thoroughly wetted by sprinkling prior to the placing of any concrete, and these surfaces shall be kept moist by frequent sprinkling up to the time of placing concrete thereon. The surface shall be free from standing water, mud, and debris at the time of placing concrete.
- B. Joints in Concrete:
1. All joints shall be installed where indicated on the Drawings or where otherwise approved by the Miami Dade Department of Solid Waste Management. The surface of the construction joint shall be rough and prior to placement shall be cleaned and moistened with water.
 2. Concrete surfaces upon or against which new concrete is to be placed, where the placement of the concrete has been stopped or interrupted so that, as determined by the Miami Dade Department of Solid Waste Management, the new concrete cannot be incorporated integrally with that previously placed, are defined as construction joints. The surfaces of horizontal joints shall be given a compacted, roughened surface for good bonding. Except where the Drawings call for joint surfaces to be coated, the joint surfaces shall be cleaned of all laitance, loose or defective concrete, foreign material, and be roughened to a minimum 1/4-inch amplitude. Such cleaning and roughening shall be accomplished by hydroblasting, sandblasting or chipping (exposing aggregate) followed by thorough washing. Pools of water shall be removed from the surface of construction joints before the new concrete is placed.
 3. After the surfaces have been prepared, all approximately horizontal construction joints shall be covered with a 6-inch lift of a pea gravel mix. The mix shall be placed and spread uniformly. Wall concrete shall follow immediately and shall be placed upon the fresh pea gravel mix. If high range water reducer is used in the wall concrete, then the pea gravel joint topping does not need to be used.
- C. Placing Interruptions: When placing of concrete is to be interrupted long enough for the concrete to take a set, the working face shall be given a shape by the use of forms or other means that will secure proper union with subsequent work; provided that construction joints shall be made only where acceptable to the DISTRICT.
- D. Embedded Items:
1. No concrete shall be placed until all formwork, installation of parts to be embedded, reinforcement steel, and preparation of surfaces involved in the placing have been completed and accepted by the Miami Dade Department of Solid Waste Management at least four (4) hours before placement of concrete. Surfaces of forms and embedded items that have become encrusted with dried grout from previous usage shall be cleaned before the surrounding or adjacent concrete is placed.
 2. Inserts or other embedded items shall conform to the requirements herein.
 3. Reinforcement, anchor bolts, sleeves, inserts, and similar items shall be set and secured in the forms at locations indicated on the Drawings or shown by Shop Drawings and shall be acceptable to the Miami Dade Department of Solid Waste Management before any concrete is placed. Accuracy of placement is the responsibility of the CONTRACTOR.
- E. Placing New Concrete Against Old: Where new concrete is to be placed against old concrete (any concrete which is greater than 60 days of age), the surface of the old concrete shall be thoroughly cleaned and roughened by hydroblasting, sandblasting or chipping to expose aggregate. The joint surface shall be coated with an epoxy bonding agent unless indicated otherwise by the Miami Dade Department of Solid Waste Management.
- F. No concrete shall be placed in any structure until all water entering the space to be filled with concrete has been properly cut off or has been diverted by pipes, or other means, and carried out of the forms, clear of the WORK. No concrete shall be deposited underwater nor shall the CONTRACTOR allow still water to rise on any concrete until the concrete has attained its initial set. Water shall not be permitted to flow over

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the surface of any concrete in such manner and at such velocity as will injure the surface finish of the concrete. Pumping or other necessary dewatering operations for removing ground water, if required, shall be the CONTRACTOR's responsibility and shall be subject to the review of the Miami Dade Department of Solid Waste Management.

- G. Corrosion Protection: Pipe, conduit, dowels, and other ferrous items required to be embedded in concrete construction shall be so positioned and supported prior to placement of concrete that there will be a minimum of 2-inches clearance between said items and any part of the concrete reinforcement. Securing such items in position by wiring or welding them to the reinforcement will not be permitted.
- H. Openings for pipes, inserts for pipe hangers and brackets, and anchors shall, where practicable, be provided during the placing of concrete.
- I. Anchor bolts shall be accurately set and shall be maintained in position by templates while being embedded in concrete.
- J. Cleaning: The surfaces of metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

3.03 CONVEYING:

- A. Concrete shall be conveyed from the mixer to the place of final deposit by methods that will prevent separation or loss of material.
- B. No aluminum materials shall be used in conveying any concrete.
- C. Ends of chutes, hopper gates, and all other points of concrete discharge throughout the CONTRACTOR'S conveying, hoisting, and placing system shall be designed and arranged so that concrete passing from them will not fall separated into whatever receptacle immediately receives it. Conveyor belts, if used, shall be of a type acceptable to the Miami Dade Department of Solid Waste Management. Chutes longer than 50 feet will not be permitted. Minimum slopes of chutes shall be such that concrete of the indicated consistency will readily flow in them. If a conveyor belt is used, it shall be wiped clean by a device operated in such a manner that none of the mortar adhering to the belt will be wasted. All conveyor belts and chutes shall be covered.
- D. Pumping:
 - 1. If the pumped concrete does not produce satisfactory end results, the CONTRACTOR shall discontinue the pumping operation and proceed with the placing of concrete using conventional methods.
 - 2. The pumping equipment shall have two (2) cylinders and be designed to operate with one cylinder in case the other one is not functioning. In lieu of this requirement, the CONTRACTOR may have a standby pump on the Site during pumping.
 - 3. The minimum diameter of the hose conduits shall be in accordance with ACI 304.
 - 4. Pumping equipment and hose conduits that are not functioning properly shall be replaced.
 - 5. Aluminum conduits for conveying the concrete shall not be permitted.
 - 6. Concrete samples for slump, air content, and test cylinders will be taken at the placement end of the hose.

3.04 DELIVERY:

- A. Ready-mixed concrete shall be batched, mixed, transported and delivered in accordance with these specifications and ASTM C94 including the following supplementary requirements.

1. Concrete shall be discharged within 1-1/2 hours from the time concrete was mixed, if centrally mixed, or from the time the original water was added, if transit-mixed, or before the drum has been revolved [300] revolutions, whichever is first.
2. Truck mixers and their operation shall be such that the concrete throughout the mixed batch as discharged is within acceptable limits of uniformity with respect to consistency, mix, and grading. If slump tests taken at approximately the 1/4 and 3/4 points of the load during discharge give slumps differing by more than one-inch when the required slump is 3-inches or less, or if they differ by more than 2-inches when the required slump is more than 3-inches, the mixer shall not be used on the WORK unless the causative condition is corrected and satisfactory performance is verified by additional slump tests. Mechanical details of the mixer, such as water measuring and discharge apparatus, condition of the blades, speed of rotation, general mechanical condition of the unit, and clearance of the drum, shall be checked before a further attempt to use the unit will be permitted.
3. The use of non-agitating equipment for transporting ready-mixed concrete will not be permitted. The quality and quantity of materials used in ready-mixed concrete and in batch aggregates shall be subject to continuous inspection at the batching plant by the Miami Dade Department of Solid Waste Management.
4. Each batch of concrete shall be mixed in a truck mixer for not less than 70 revolutions of the drum or blades at the rate of rotation designated by the MANUFACTURER of equipment. Additional mixing, if any, shall be at the speed designated by the MANUFACTURER of the equipment as agitating speed. All materials including mixing water shall be in the mixer drum before actuating the revolution counter for determining the number of revolutions of mixing.

3.05 PLACING:

- A. Non-Conforming Work or Materials: Concrete which during or before placing is found not to conform to the requirements indicated herein shall be rejected and immediately removed from the WORK. Concrete which is not placed in accordance with these Specifications, or which is of inferior quality, shall be removed and replaced.
- B. Unauthorized Placement: No concrete shall be placed except in the presence of a duly authorized representative of the Miami Dade Department of Solid Waste Management. The CONTRACTOR shall notify the Miami Dade Department of Solid Waste Management in writing at least 24 hours in advance of placement of any concrete.
- C. Concrete shall not be dropped more than four (4) feet without use of chutes or tremies. Concreting shall be a continuous operation until placement of the section is complete. All concrete shall be worked around reinforcement and embedded items. If vibrators are used, care shall be taken not to segregate concrete. Vibrators will not be allowed to move concrete within the form. All forms and subgrade shall be dampened prior to placement and excess water removed.
- D. Placing of concrete shall conform to the applicable requirements of Chapter 8 of ACI 301 and the requirements of this Section.
- E. Placement in Slabs: Concrete placed in sloping slabs shall proceed uniformly from the bottom of the slab to the top, for the full width of the placement. As the WORK progresses, the concrete shall be vibrated and carefully worked around the slab reinforcement, and the surface of the slab shall be screeded in an up-slope direction.
- F. Concrete shall not be dropped through reinforcement steel or into any deep form, nor shall concrete be placed in any form in such a manner as to leave accumulation of mortar on the form surfaces above the placed concrete. In such cases, means such as hoppers and, if necessary, vertical ducts of canvas, rubber, or metal shall be used for placing concrete in the forms in a manner that it may reach the place of final deposit without separation. Concrete shall be uniformly distributed during the process of depositing and in no case after depositing shall any portion be displaced in the forms more than 6-feet in horizontal direction. Concrete in wall forms shall be deposited in uniform horizontal layers not deeper than 2-feet; and care shall

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be taken to avoid inclined layers or inclined construction joints except where such are required for sloping members. Each layer shall be placed while the previous layer is still soft. The rate of placing concrete in wall forms shall not exceed 5-feet of vertical rise per hour. Sufficient illumination shall be provided in the interior of all forms so that the concrete at the places of deposit is visible from the deck or runway.

- G. Concrete with hardener shall be placed per the hardener MANUFACTURERs written recommendations.
- H. Placing New Concrete Against Old: Epoxy adhesive bonding agent shall be applied to the old surfaces according to the MANUFACTURER's written recommendations. This provision shall not apply to joints where waterstop is provided.
- I. Temperature of Concrete: The temperature of concrete when it is being placed shall be not more than 90 degrees F or less than 55 degrees F for sections less than 12-inches thick, nor less than 50 degrees for all other sections. The CONTRACTOR shall be entitled to no additional compensation on account of the temperature requirements.
- J. Hot Weather Placement
 - 1. Placement of concrete in hot weather shall conform to ACI 305 and the following:
 - 2. When the temperature of the concrete is 85 degrees F or above, the time between the introduction of the cement to the aggregates and discharge shall not exceed [60] minutes.
 - 3. If concrete is placed when the weather is such that the temperature of the concrete would exceed 90 degrees F, the CONTRACTOR shall employ effective means, such as pre-cooling of aggregates and mixing water using ice or placing at night, as necessary to maintain the temperature of the concrete below 90 degrees F as it is placed.
- K. Cold Weather Placement
 - 1. Placement of concrete in cold weather shall conform to ACI 306.1, and the following:
 - 2. Concrete ingredients shall not be heated to a temperature higher than that necessary to keep the temperature of the mixed concrete, as placed, from falling below the minimum temperature.
 - 3. Remove all ice and frost from the surfaces, including reinforcement, against which concrete is to be placed. Before beginning concrete placement, thaw the subgrade to a minimum depth of 6-inches. Reinforcement and embedded items shall be warmed to above 32 degrees F prior to concrete placement.
 - 4. Maintain the concrete temperature above 50 degrees F for at least 72 hours after placement.
- L. Order of Placing Concrete
 - 1. The order of placing concrete in all parts of the WORK shall be acceptable to the DSWM. In order to minimize the effects of shrinkage, the concrete shall be placed in units as bounded by construction joints at the indicated locations. The placing of units shall be done by placing alternate units in a manner such that each unit placed shall have cured at least five (5) days for hydraulic structures and two (2) days for all other structures before the contiguous unit or units are placed, except that the corner sections of vertical walls shall not be placed until the two (2) adjacent wall panels have cured at least ten (10) days for hydraulic structures and 4 days for all other structures.
 - 2. The surface of the concrete shall be level whenever a run of concrete is stopped. To ensure a level, straight joint on the exposed surface of walls, a wood strip at least 3/4-inch thick shall be tacked to the forms on these surfaces. The concrete shall be carried about 1/2-inch above the underside of the strip. About one hour after the concrete is placed, the strip shall be removed and any irregularities in the edge formed by the strip shall be leveled with a trowel and laitance shall be removed.

3.06 TAMPING AND VIBRATING:

- A. As concrete is placed in the forms or in excavations, it shall be thoroughly settled and compacted throughout the entire depth of the layer which is being consolidated, into a dense, homogeneous mass,

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filling all corners and angles, thoroughly embedding the reinforcement, eliminating rock pockets, and bringing only a slight excess of water to the exposed surface of concrete. Vibrators shall be Group 3 per ACI 309, high speed power vibrators (8,000 to 12,000 rpm) of an immersion type in sufficient number and with at least one standby unit as required. Group 2 vibrators may be used only at specific locations when accepted by the DSWM. Tremie concrete shall not be vibrated.

- B. Care shall be used in placing concrete around waterstops. The concrete shall be carefully worked by rodding and vibrating to make sure that all air and rock pockets have been eliminated. Where flat-strip type waterstops are placed horizontally, the concrete shall be worked under the waterstops by hand, making sure that air and rock pockets have been eliminated. Concrete surrounding the waterstops shall be given additional vibration over and above that used for adjacent concrete placement to assure complete embedment of the waterstops in the concrete.
- C. Concrete in walls shall be internally vibrated and at the same time rammed, stirred, or worked with suitable appliances, tamping bars, shovels, or forked tools until it completely fills the forms or excavations and closes snugly against all surfaces. Subsequent layers of concrete shall not be placed until the layers previously placed have been worked thoroughly. Vibrators shall be provided in sufficient numbers, with standby units as required, to accomplish the required results within 15 minutes after concrete of the prescribed consistency is placed in the forms. The vibrating head shall not contact the surfaces of the forms. Care shall be taken not to vibrate concrete excessively or to work it in any manner that causes segregation of its constituents.

3.07 CURING AND DAMPPROOFING: Concrete shall be cured for a minimum of five (5) days after placement in accordance with the methods indicated below for the different parts of the WORK.

Surface to be Cured or Dampproofed	Method
Unstripped forms	1
Wall sections with forms removed	6
Construction joints between footings and walls, and between floor slab and columns	2
Encasement and ductbank concrete and thrust blocks	3
All concrete surfaces not specifically indicated in this Paragraph	4
Floor slabs on grade in hydraulic structures	5
Slabs on grade to receive an adhered floor finish	6 (Omit curing compound)
Slabs not on grade	6
Concrete with hardener	Per manufacture's written recommendations

- A. Method 1: Wooden forms shall be wetted immediately after concrete has been placed and shall be kept wet with water until removal. If steel forms are used the exposed concrete surfaces shall be kept continuously wet until the forms are removed. If forms are removed within 7 days of placing the concrete, curing shall be continued in accordance with Method 6 below.
- B. Method 2: The surface shall be covered with burlap mats which shall be kept wet with water for the duration of the curing period, until the concrete in the walls has been placed. No curing compound shall be applied to surfaces cured under Method 2.
- C. Method 3: The surface shall be covered with moist earth not less than 4 hours or more than 24 hours after the concrete is placed. Earthwork operations that may damage the concrete shall not begin until at least 7 days after placement of concrete.
- D. Method 4: The surface shall be sprayed with a liquid curing compound.

1. It shall be applied in accordance with the MANUFACTURER's printed instructions at a maximum coverage rate of 200 square feet per gallon and in such a manner as to cover the surface with a uniform film that will seal thoroughly.
2. Where the curing compound method is used, care shall be exercised to avoid damage to the seal during the 7-day curing period. If the seal is damaged or broken before the expiration of the curing period, the break shall be repaired immediately by the application of additional curing compound over the damaged portion.
3. Wherever curing compound has been applied by mistake to surfaces against which concrete subsequently is to be placed and to which it is to adhere, compound shall be entirely removed by wet sandblasting just prior to the placing of new concrete.
4. Curing compound shall be applied as soon as the concrete has hardened enough to prevent marring on unformed surfaces and within two (2) hours after removal of forms. Repairs to formed surfaces shall be made within the two (2) hour period; provided, however, that any such repairs which cannot be made within the said two (2) hour period shall be delayed until after the curing compound has been applied. When repairs are to be made to an area on which curing compound has been applied, the area involved shall first be wet-sandblasted to remove the curing compound.
5. At locations where concrete is placed adjacent to a panel which has been coated with curing compound, the panel shall have curing compound reapplied to an area within 6-feet of the joint and to any other location where the curing membrane has been disturbed.
6. Prior to final acceptance of the WORK, all visible traces of curing compound shall be removed from all surfaces in such a manner that does not damage the surface finish.

E. Method 5:

1. Until the concrete surface is covered with curing compound, the entire surface shall be kept damp by applying water using nozzles that atomize the flow so that the surface is not marred or washed. The concrete shall be given a coat of curing compound in accordance with Method 4 above. Not less than one hour or more than four (4) hours after the curing compound has been applied, the surface shall be wetted with water delivered through a fog nozzle, and concrete-curing blankets shall be placed on the slabs. The curing blankets shall be polyethylene sheet, polyethylene-coated waterproof paper sheeting, or polyethylene-coated burlap. The blankets shall be laid with the edges butted together and with the joints between strips sealed with 2-inch wide strips of sealing tape or with edges lapped not less than 3-inches and fastened together with a waterproof cement to form a continuous watertight joint.
2. The curing blankets shall be left in place during the seven (7) day curing period and shall not be removed until after concrete for adjacent work has been placed. If the curing blankets become torn or otherwise ineffective, the CONTRACTOR shall replace damaged sections. During the first three (3) days of the curing period, no traffic of any nature and no depositing, temporary or otherwise, of any materials shall be permitted on the curing blankets. During the remainder of the curing period, foot traffic and temporary depositing of materials that impose light pressure will be permitted only on top of plywood sheets 5/8-inch minimum thickness, laid over the curing blanket. The CONTRACTOR shall add water under the curing blanket as often as necessary to maintain damp concrete surfaces at all times.

F. Method 6: This method applies to both walls and slabs.

1. The concrete shall be kept continuously wet by the application of water for a minimum period of at least seven (7) consecutive days beginning immediately after the concrete has reached final set or forms have been removed.
2. Until the concrete surface is covered with the curing medium, the entire surface shall be kept damp by applying water using nozzles that atomize the flow so that the surface is not marred or washed.
3. Heavy curing mats shall be used as a curing medium to retain the moisture during the curing period. The curing medium shall be weighted or otherwise held substantially in contact with the concrete

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surface to prevent being dislodged by wind or any other causes. Edges shall be continuously held in place.

4. The curing blankets and concrete shall be kept continuously wet by the use of sprinklers or other means both during and after normal working hours.
5. Immediately after the application of water has terminated at the end of the curing period, the curing medium shall be removed, the entire concrete surface shall be wetted, and curing compound shall be immediately applied to the entire surface in accordance with Method 4 above.
6. The CONTRACTOR shall dispose of excess water from the curing operation to avoid damage to the WORK.

G. Damp proofing

1. The exterior surfaces of backfilled dry well walls and buried roof slabs shall be damp proofed as follows.
2. Immediately after completion of curing the surface shall be sprayed with a damp proofing agent consisting of an asphalt emulsion. Application shall be in 2 coats. The first coat shall be diluted to one-half strength by the addition of water and shall be sprayed on so as to provide a maximum coverage rate of 100 square feet per gallon of dilute solution. The second coat shall consist of an application of the undiluted material, and shall be sprayed on so as to provide a maximum coverage rate of 100 square feet per gallon. Damp proofing material shall be as indicated above.
3. As soon as the material has taken an initial set, the entire area thus coated shall be coated with whitewash. Any formula for mixing the whitewash may be used if it produces a uniformly coated white surface and remains until placing of the backfill. If the whitewash fails to remain on the surface until the backfill is placed, the CONTRACTOR shall apply additional whitewash.

3.08 CONCRETE FINISHES:

- A. General: Surfaces shall be free from fins, bulges, ridges, offsets, honeycombing, or roughness of any kind, and shall present a finished, smooth, continuous hard surface. Allowable deviations from plumb or level and from the alignment, profiles, and dimensions indicated are defined as tolerances and are indicated herein. These tolerances are to be distinguished from irregularities in finish as described herein. Aluminum finishing tools shall not be used.
- B. Formed Surfaces:
 1. No treatment is required after form removal except for curing, repair of defective concrete, and treatment of surface defects. Where architectural finish is required, it shall be as indicated.
- C. Unformed Surfaces:

After proper and adequate vibration and tamping, unformed top surfaces of slabs, floors, walls, and curbs shall be brought to a uniform surface with suitable tools. Immediately after the concrete has been screeded, it shall be treated with a liquid evaporation retardant. The retardant shall be used again after each WORK operation as necessary to prevent drying shrinkage cracks. The classes of finish for unformed concrete surfaces are designated and defined as follows:	
Unformed Surface Finish Schedule	
Area	Finish
Grade slabs and foundations to be covered with concrete or fill material	U1
Floors to be covered with grouted tile or topping grout	U2
Water bearing slabs with slopes 10 percent and less	U3
Water bearing slabs with slopes greater than 10 percent	U4
Slabs not water bearing	U4

Slabs to be covered with built-up roofing	U2
Interior slabs and floors to receive architectural finish	U3
Top surface of walls subject to foot traffic	U4
Top surface of walls not subject to foot traffic	U3
Floors to receive surface hardener	U5

1. Finish U1 - Sufficient leveling and screeding to produce an even, uniform surface with surface irregularities not to exceed 3/8-inch. No further special finish is required.
2. Finish U2 - (Float Finish)
 - a. Compact, accurately screed and float to a true uniform surface.
 - b. Surfaces shall be floated with wood or metal floats or a finishing machine using float blades. Excessive floating of surfaces while the concrete is plastic and dusting of dry cement and sand on the concrete surface to absorb excess moisture will not be permitted.
 - c. Floating shall be the minimum necessary to produce a surface that is free from screed marks and is uniform in texture. Test surface with straightedge and eliminate high and low spots of more than 1/8-inch in ten (10) feet. Surface irregularities shall not exceed 1/4-inch.
 - d. Joints and edges shall be tooled where indicated or as determined by the Miami Dade Department of Solid Waste Management.
3. Finish U3 - (Hand-Troweled Finish)
 - a. Finish surface as in Finish U2 - Float Finish and after the surface has hardened sufficiently to prevent excess of fine material from being drawn to the surface, trowel with steel trowel to obtain a smooth dense finish after concrete has hardened to ring under the trowel.
 - b. The finish shall produce a smooth dense uniform surface free of all irregularities, blemishes, ripples, and trowel marks.
4. Finish U4 - (Nonskid Finish)
 - a. Trowel the Finish U3 - Hand-trowel Finish surface to remove local depressions or high points. In addition, the surface shall be given a light broom finish with brooming perpendicular to drainage unless otherwise indicated.
 - b. The resulting surface shall be rough enough to provide a nonskid finish.
5. Finish U5 - (Surface hardener)
 - a. Immediately after screeding, shake on hardener shall be applied per the MANUFACTURER's written recommendations.
 - b. Surface shall receive a minimum of two coats of a liquid hardener per the MANUFACTURER's written recommendations.
 - c. CONTRACTOR shall notify hardener MANUFACTURER three (3) working days prior to hardened concrete floor being placed.
 - d. Hardener MANUFACTURER shall provide continuous supervision of concrete and hardener placements, supplying DSWM with a report of each day's placement. Cost of supervision is to be borne by CONTRACTOR.

3.09 ARCHITECTURAL FINISH:

- A. General: Architectural finishes shall be provided only where specifically indicated below. In all other locations, the paragraph entitled Concrete Finishes shall apply.
- B. Immediately after the forms have been stripped, the concrete surface shall be inspected and any poor joints, voids, rock pockets, or other defective areas shall be repaired and form-tie holes filled as indicated herein.
- C. Architectural finishes shall not be applied until the concrete surface has been repaired as required and the concrete has cured at least 14 days.
- D. Architecturally treated concrete surfaces shall conform to the accepted sample in texture, color, and quality. It shall be the CONTRACTOR'S responsibility to maintain and protect the concrete finish.

3.10 PROTECTION:

- A. The CONTRACTOR shall protect concrete against damage until final acceptance.
- B. Fresh concrete shall be protected from damage due to rain, hail, sleet, or snow. The CONTRACTOR shall provide such protection while the concrete is still plastic and whenever precipitation is imminent or occurring.

3.11 DEFECTIVE SURFACE TREATMENTS:

- A. Patching Concrete:
 - 1. Patch all tie holes, honeycombs or other defects with a Portland Cement and sand grout.
 - 2. Defective surfaces to be repaired shall be cut back from trueline a minimum depth of 1/2-inch over the entire area. Feathered edges will not be permitted. Where chipping or cutting tools are not required in order to deepen the area properly, the surface shall be prepared for bonding by the removal of all laitance or soft material, plus not less than 1/32-inch depth of the surface film from all hard portions by means of an efficient sandblast.
 - 3. After cutting and sandblasting, the surface shall be wetted sufficiently in advance of shooting with shotcrete or with cement mortar so that while the repair material is being applied, the surfaces underneath will remain moist but not so wet as to overcome the suction upon which a good bond depends.
 - 4. Holes left by tie-rod cones shall be reamed with suitable toothed reamers so as to leave the surfaces of the holes clean and rough. Holes then shall be repaired in an approved manner with dry-packed cement grout. Holes left by form-tying devices having a rectangular cross-section and other imperfections having a depth greater than their least surface dimension shall not be reamed but shall be repaired in an approved manner with dry-packed cement grout.
 - 5. The grout shall not be richer than one (1) part cement and three (3) parts sand with the amount of mixing water enough to produce a workable mix. For exposed walls, the cement shall contain such a proportion of white Portland cement as is required to make the color of the patch match the color of the surrounding concrete. The patch shall be finished in such a manner as to match the adjoining surfaces.
 - 6. Surfaces of repairs shall receive the same kind and amount of curing treatment as required for the concrete in the repaired section.
- B. Defective Concrete:
 - 1. Any concrete which is not formed as shown on the Drawings or does not conform to the Contract tolerances or shows defects which reduce its structural adequacy, shall be removed from the job by the CONTRACTOR at his expense unless the DSWM grants written permission to patch the defective area.

C. Exposed Concrete Surfaces:

1. As soon as forms are removed, exposed surfaces shall be carefully examined and all ridges, ribs and other imperfections shall be rubbed with an abrasive stone or ground in a satisfactory manner in order to secure a smooth, uniform and continuous surface. Plastering or coating of surfaces to be smoothed will not be permitted
2. No repairs shall be made until after inspection by the DSWM.
3. In no case will extensive patching of honeycombed concrete be permitted
4. Concrete containing minor voids, pinholes, honeycombing, or similar depression defects shall be repaired as indicated below.
5. Concrete containing extensive voids, holes, honeycombing, or similar depression defects shall be completely removed and replaced. Repairs and replacements shall be performed promptly.

3.12 REINFORCEMENT: Reinforcement shall be in accordance with Section 032000, of these Specifications. Concrete protection for the reinforcement shall conform to the requirements ACI 318, paragraph 7.7.1.

3.13 CONSTRUCTION TOLERANCES:

- A. The CONTRACTOR shall set and maintain concrete forms and perform finishing operations to ensure that the completed WORK is within tolerances. Surface defects and irregularities are defined as finishes and are to be distinguished from tolerances. Tolerance is the permissible variation from lines, grades, or dimensions indicated on the Drawings. Where tolerances are not stated in the specifications, permissible deviations will be in accordance with ACI 117.
- B. The following non-cumulative construction tolerances apply to finished walls and slab unless otherwise indicated:

Item	Tolerance
Variation of the constructed linear outline from the established position in plan.	In 10-feet: 1/4-inch; In 20-feet or more: 1/2-inch
Variation from the level or from the grades indicated.	In 10-feet: 1/4-inch; In 20-feet or more: 1/2-inch
Variation from plumb	In 10-feet: 1/4-inch; In 20-feet or more: 1/2-inch
Variation in the thickness of slabs and walls.	Minus 1/4-inch; Plus 1/2-inch
Variation in the locations and sizes of slabs and wall openings	Plus or minus 1/4-inch

3.14 CARE AND REPAIR OF CONCRETE: The CONTRACTOR shall protect concrete against injury or damage from excessive heat, lack of moisture, overstress, or any other cause until final acceptance. Particular care shall be taken to prevent the drying of concrete and to avoid roughening or otherwise damaging the surface. Any concrete found to be damaged, or which may have been originally defective, or which becomes defective at any time prior to the final acceptance of the completed WORK, or which departs from the established line or grade, or which, for any other reason, does not conform to the requirements of the Contract Documents, shall be satisfactorily repaired or removed and replaced with acceptable concrete.

END OF SECTION 033000

SECTION 036000

GROUT

PART 1 - GENERAL

1.01 SCOPE: The Work of this Section shall consist of furnishing the labor, materials, and equipment necessary for installation of prefabricated expansion joints as shown on the Drawings and as specified herein.

1.02 SUBMITTALS:

- A. Submittals shall be in accordance with Section 013300.
- B. MANUFACTURER's literature containing instructions and recommendations on the mixing, handling, placement, curing, and appropriate uses for each type of grout used in the WORK, and location of use.
- C. Name and telephone number of grout MANUFACTURER's representative, who will give on-site job service. The representative shall have at least one (1) year of experience with the chosen grouts.

1.03 QUALIFICATIONS:

- A. Pre-installation Demonstration and Training:
 - 1. The grout MANUFACTURER shall give a demonstration and training session for all the cement based non-shrink and epoxy grouts to be used on the Project, before any installation of grout is allowed.
 - 2. Training session shall use a minimum of five (5) bags of Cement Based Non-Shrink Class I Grout mixed to fluid consistency. Tests shall be conducted for flow cone and bleed tests. Six (6) cubes for testing at 1, 3, and 28 days shall be made. The remaining grout shall be placed, and curing initiated on actual project placements such as baseplates and tie holes to provide on-the-job training for the CONTRACTOR and Miami Dade Department of Waste Management (DSWM). The CONTRACTOR shall have the employees who will be doing the actual WORK participate in this training and demonstration session. The training session shall include methods for curing the grout.
 - 3. The MANUFACTURER shall mix enough Cement Based Non-Shrink Class II Grout for a minimum of 15 tie holes and shall train the CONTRACTOR's employees in how to perform the WORK and cure the grout. The CONTRACTOR shall have the employees assisting in the mixing and sealing of the tie holes.
 - 4. If the Project includes patching, through bolt holes, epoxy anchors, and/or Blockouts, the MANUFACTURER shall also train the CONTRACTOR's employees in the mixing and curing of the epoxy grouts for each of these applications.
 - 5. The CONTRACTOR shall transport the test cubes to an independent test laboratory, obtain the test reports, and report these demonstration and training test cube strengths to the DSWM.
- B. Adhesive anchor installers shall be trained and qualified at the Site by MANUFACTURER's representative before installing any adhesive anchors. Training and qualification for each installer shall include, but not be limited to:
 - 1. Anchors installed in both the vertical and horizontal positions in a mock-up concrete panel of adequate size and thickness. Anchors shall be tested in tension and shear loading. A minimum of three anchors shall be tested for each installation position.

2. Anchors shall be tested at two times the published allowable load in tension and in shear as indicated by the AISC Manual of Steel Construction.
3. If any of the three test bolts in any installation position fail to reach the test loads, the installer shall be re-tested with the same procedure. Re-testing is required only for the failed installation position.
4. An installer who has three consecutive successful bolt tests in the first or second trial is considered qualified for adhesive anchor installation for this Project. The MANUFACTURER's representative shall issue a certificate to the qualified installer, and a copy of the certificate shall be filed with the CONTRACTOR and be submitted to the DSWM.
5. The test anchor size shall be the maximum size adhesive anchor used on the Project. The embedment length shall be long enough to develop the allowable steel strength per AISC Manual of Steel Construction and ACI 318, Appendix D.
6. Each installer shall be re-qualified every six (6) months for the duration of the Project, by the same qualifying procedure.
7. The certification of each qualified installer shall be available for verification at the Special Inspector's request.
8. All defective anchors noted by the Special Inspector shall be replaced and re-installed by the CONTRACTOR without any additional compensation.

1.04 RESPONSIBILITIES:

- A. The CONTRACTOR shall assist the DSWM in obtaining specimens for testing and shall furnish all materials necessary for fabricating the test specimens.
- B. The cost of laboratory tests on grout will be paid by the DSWM except where test results show the grout to be defective. In such case, the CONTRACTOR shall pay for the tests, removal and replacement of defective WORK, and re-testing all at no increased cost to the DSWM.
- C. The MANUFACTURER of prepackaged grouts shall provide on-site technical assistance within 72 hours of request at no cost to the DSWM.

1.05 CERTIFICATIONS AND TESTING: The CONTRACTOR shall provide to the DSWM three (3) copies of certified test results for all tests required herein.

- A. Test results and service report from the field tests and the demonstration and training session verifying the requirements indicated herein.
- B. Certification that all grout used on the Project contains no chlorides or other chemicals that cause corrosion.
- C. MANUFACTURER's certification that their non-shrink grout does not contain aluminum, zinc, or magnesium powders, used as a method of expansion.
- D. ICC certifications for all adhesive anchors.

1.06 COORDINATION: All adhesive anchor installations shall have special inspections as recommended by the ICC report on the adhesive anchors and local codes.

1.07 WARRANTY: The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 – Warranties and guarantees.

PART 2 - PRODUCTS**2.01 APPLICATION:**

- A. Unless indicated otherwise, grouts shall be provided as listed below whether indicated on the Drawings or not:

TYPE OF GROUT	APPLICATION
Cement Grout	Surface repairs
Non-Shrink - Class I	All anchor bolts and reinforcing steel required to be set in grout in which the average working or operating temperature will be over 100 degrees F, or in high fire risk areas.
	Beam and column (1 or 2 story) base plates less than 16 inches in the least dimension.
	Storage tanks and other non-motorized equipment and machinery under 30 horsepower
	Filling blackout spaces for embedded items such as railing posts, gate guide frames, etc. (Where placement time is less than 20 min.)
	Repair of holes and defects in concrete members which are not water bearing and not in contact with soil or other fill material
	Any application not listed, where grout is called for on the Drawings
Non-Shrink - Class II	Column base plates (greater than 2 story or larger than sixteen (16) inches in the least dimension)
	Filling blackout spaces for embedded items such as railing posts, gate guide frames, etc. (where placement time exceeds 20min.)
	Under precast concrete elements
	Repair of holes and defects in concrete members which are water bearing or in contact with soil or other fill materials
Non-Shrink Epoxy	Machinery over 30 horsepower and equipment under 30 horsepower but subject to severe shock loads and high vibration
Epoxy Anchor Grout	All anchor bolts and reinforcing steel required to be set in grout that are not in high temperature or high fire risk areas.
Topping Grout	Toppings and concrete/grout fill less than three (3) inches thick
Structural Concrete per 03300	Toppings and concrete/grout fill greater than three (3) inches thick

2.02 MATERIALS:

- A. Cement Grout:

1. Cement grout shall be composed of one (1) part cement, three (3) parts sand, and the minimum amount of water necessary to obtain the desired consistency. Where needed to match the color of adjacent concrete, white portland cement shall be blended with regular cement as needed. The minimum compressive strength at 28 days shall be 4000 psi, unless indicated otherwise.
2. Cement grout materials shall be as indicated in SECTION 033000 – Cast-in-Place Concrete.

- B. Non-Shrink Grouts (Cement Based):

1. General:
 - a. Cement Based Non-shrink grout shall be a prepackaged, inorganic, fluid, non-gas-liberating, non-ferrous, grout, requiring only the addition of water.
 - a. MANUFACTURER's instructions shall be printed on each bag or other container in which the materials are packaged. The specific formulation for each class of non-shrink

grout indicated herein shall be that recommended by the MANUFACTURER for the particular application.

- b. Grout shall not contain chlorides or additives, which may contribute to corrosion.
- c. Grout shall be formulated to be used at any consistency from fluid to plastic.
- d. Non-Shrink grout shall have the following minimum properties when tested at a fluid consistency at 28 days:

Tensile Splitting Strength	ASTM C496	500 psi minimum
Flexural Strength	ASTM C580	1000 psi minimum
Bond Strength (concrete to grout)	ASTM C882 modified	1900 psi minimum

2. Class I Non-Shrink Grout:

- a. Class I Non-Shrink Grout shall have a minimum 28-day compressive strength of 5000 psi, when mixed at a fluid consistency.
- b. Class I Non-Shrink grout shall meet the requirements of ASTM C1107, Grade B or C, when mixed to fluid, flowable and plastic consistencies.
- c. Grout shall have a maximum early age height change of 4.0 percent expansion, and shall have no shrinkage (0.0 percent) in accordance with ASTM C827. The grout when tested shall not bleed or segregate at maximum allowed water.
- d. Grout shall have no shrinkage (0.0 percent) and a maximum of 0.3 percent expansion in the hardened state when tested in accordance with ASTM C1090.
- e. Provide certification together with independent test data that the expansion at 3 or 14 days does not exceed the 28-day expansion and that its non-shrink property is not based on gas production or gypsum expansion.

3. Class II Non-Shrink Grout:

- a. Class II Non-Shrink grout shall be a high precision, fluid, extended working time grout. The minimum 28-day compressive strength shall be 7500 psi, when mixed at a fluid consistency.
- b. Grout shall have a maximum early age height change of 4.0 percent expansion, and shall have no shrinkage (0.0 percent) in accordance with ASTM C827.
- c. Grout shall have no shrinkage (0.0 percent) and a maximum of 0.3 percent expansion in the hardened state when tested in accordance with ASTM C1090.
- d. Class II grout shall have an extended working time of 30 minutes minimum when mixed to a fluid consistency as defined in ASTM C827 at temperature extremes of 45 to 90 degrees F in accordance with ASTM C1107.
- e. Class II Non-Shrink grouts shall meet the requirements of ASTM C1107; Grade B or C when tested using the amount of water needed to achieve fluid consistency per ASTM C939.
- f. The grout when tested shall not bleed or segregate at maximum allowed water.
- g. Provide certification that its non-shrink property is not based on gas production or gypsum expansion.

C. Non-Shrink Epoxy Grout:

- 1. Non-Shrink Epoxy grout shall be a flowable, non-shrink, 100 percent solids system. The epoxy grout system shall have three components: resin, hardener, and specially blended aggregate, all premeasured and prepackaged. The resin component shall not contain any non-reactive

diluents. Resins containing butyl glycidyl ether (BGE) or other highly volatile and hazardous reactive diluents are not acceptable. Variation of component ratios is not permitted unless specifically recommended by the MANUFACTURER. MANUFACTURER's instructions shall be printed on each container in which the materials are packaged.

2. Epoxy grout shall have a maximum early age height change of 4.0 percent expansion, and shall have no shrinkage (0.0 percent) in accordance with ASTM C827, (modified for epoxy grouts by using an indicator ball with a specific gravity between 0.9 and 1.1).
3. Epoxy grout shall have a negligible (less than 0.0006 in/in) length change after hardening, and a coefficient of thermal expansion less than 0.00003 in/in F when tested according to ASTM C531.
4. The epoxy grout shall develop a minimum compressive strength of 9000 psi in 24 hours and 13,000 psi in seven days when tested in accordance with ASTM C579, method B.
5. The mixed epoxy grout shall have a minimum working life of 90 to 120 minutes at 70 degrees F.
6. The effective bearing area shall be a minimum of 95% EBA in accordance with ASTM C1339.
7. The chemical formulation of the epoxy grout shall be that recommended by the MANUFACTURER for the particular application. Do not reduce aggregate loading or add solvents to increase flowability.
8. Non-Shrink Epoxy grout shall have the following minimum properties when tested at seven (7) days:

Bond Strength to Concrete	ASTM C882 modified	3000 psi minimum
Bond Strength to Steel	ASTM C882 modified	1700 psi minimum
Flexural Strength	ASTM C580	2500 psi minimum
Tensile Strength	ASTM C307	2000 psi minimum

D. Epoxy Anchor Grout:

Class B - For use between 40 and 60 degrees F

Class C - for use above 60 degrees F

1. Epoxy anchor grout shall be a non-sag paste conforming to ASTM C881 Type IV, Class [B & C], Grade 3 with the exception of gel time.
2. Heat deflection temperature per ASTM D648 shall be a minimum 120 degrees F.
3. MANUFACTURER shall certify that the epoxy grout will maintain 90 percent of its strength up to a temperature of 125 degrees F.
4. Grout shall come in a two-chambered cartridge with a metering system that provides the proper ratio of hardener and resin. The grout shall also come with a static mixer nozzle to thoroughly mix the hardener and resin together.
5. Epoxy anchor grout shall be capable of being used in submersed applications once cured.
6. Compressive strength per ASTM D695 shall be 10,000-psi minimum.
7. In vertical and overhead locations, anchor seal plugs shall be used.
8. If the average working or operating temperature will be over 100° F or in a high fire risk area, use cement based non-shrink grout and oversized holes.
9. Embedment of adhesive anchors/rebar shall be deep enough to develop the anchor/rebar. Embedment shall not exceed 67% of the member depth.

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E. Topping Grout and Concrete/Grout Fill:

1. Where fill is thicker than three (3) inches, sitework concrete, as specified in Section 033000, may be used if approved by the DSWM.
2. Grout for topping of slabs and concrete/grout fill for built-up surfaces of tank, channel, and basin bottoms shall be composed of cement, fine aggregate, coarse aggregate, water, and admixtures proportioned and mixed as specified herein. All materials and procedures indicated for normal concrete in SECTION 033000, shall apply unless indicated otherwise.
3. Topping grout and concrete/grout fill shall contain a minimum of 564 pounds of cement per cubic yard with a maximum water cement ratio of 0.45.
4. Coarse aggregate shall be graded as follows:

U.S. STANDARD SIEVE SIZE	PERCENT BY WEIGHT PASSING
1/2"	100
3/8"	90-100
No. 4	20-55
No. 8	5-30
No. 16	0-10
No. 30	0

5. Final mix design shall be as determined by trial mix design as indicated in Section 033000, except that drying shrinkage tests are not required.
6. Strength: Minimum compressive strength of topping grout and concrete/grout fill at 28 days shall be 4000 psi.

2.03 CURING: Curing materials shall be as specified in Section 033000, and as recommended by the MANUFACTURER of prepackaged grouts.

2.04 CONSISTENCY:

- A. The consistency of grouts shall be that necessary to completely fill the space to be grouted for the particular application. Dry pack consistency is such that the grout is plastic and moldable but will not flow. Where "dry pack" is called for in the Contract Documents, it shall mean a grout of that consistency; the type of grout to be used shall be as indicated herein for the particular application.
- B. The slump for topping grout and concrete/grout fill shall be adjusted to match placement and finishing conditions but shall not exceed four (4) inches.

2.05 MEASUREMENT OF INGREDIENTS:

- A. Measurements for cement grout shall be made accurately by volume using containers. Shovel measurements shall not be allowed.
- B. Prepackaged grouts shall have ingredients measured by means recommended by the MANUFACTURER.

PART 3 - EXECUTION**3.01 GENERAL:**

- A. Grout shall not be placed until base concrete or masonry has attained its design strength, unless authorized otherwise by the DSWM.
- B. When cementitious grouts are used on concrete surfaces, the concrete surface shall be saturated with water for 24 hours prior to placement. Upon completion of saturation period excess water shall be

- removed with clean, oil free compressed air prior to grouting. Concrete substrate shall not be wet prior to placement of epoxy grouts.
- C. Surface preparation, curing, and protection of cement grout shall be in accordance with SECTION 03300. The finish of the grout surface shall match that of the adjacent concrete unless otherwise indicated.
 - D. All surfaces that will be in contact with grout shall be free of dirt, loose rust, oil, wax, grease, curing compounds, laitance, loose concrete or other deleterious materials.
 - E. Shade the WORK Sites from sunlight for at least 24 hours before and 48 hours after grouting.
 - F. Contact the grout MANUFACTURER's representative for assistance on hot and cold weather grouting techniques and precautions if applicable.

3.02 GROUTING PROCEDURES:

- A. General: All mixing, surface preparation, handling, placing, consolidation, curing, and other means of execution for prepackaged grouts shall be done according to the instructions and recommendations of the MANUFACTURER.
- B. All structural, equipment, tanks, and piping support bases shall be grouted, unless indicated otherwise.
 - 1. The original concrete shall be blocked out or finished off a sufficient distance below the plate to provide for a minimum one-inch thickness of grout, or a thickness as indicated on the Drawings.
 - 2. After the base plate has been set in position at the proper elevation by steel wedges or double nuts on the anchor bolts, the space between the bottom of the plate and the original pour of concrete shall be filled with non-shrink-type grout. The mixture shall be of a fluid consistency and poured continuously into the space between the plate and the base concrete. Forms for grout shall be tight against all surfaces, and joints shall be sealed as recommended by the grout MANUFACTURER to be liquid-tight. Forms shall be coated as recommended by the grout MANUFACTURER for easy form release. Where this method of placement is not practical or where required by the DSWM; alternate grouting methods shall be submitted for acceptance by the DSWM.
- C. Drilled anchors and Reinforcing Bars:
 - 1. General: Drilled anchors and reinforcing bars shall be installed in strict accordance with the MANUFACTURER's instructions. Holes shall be roughened with a brush on a power drill, and cleaned. Drilled anchors shall not be installed until the concrete has reached the required 28-day compressive strength. Anchors shall not be loaded until the grout has reached its indicated strength in accordance with the MANUFACTURER's instructions.
 - 2. Epoxy Adhesive Anchors:
 - a. Grout shall be proportioned and mixed with automatic equipment.
 - b. Unless otherwise indicated, embedment shall be sufficient to develop the ultimate tensile strength of the anchor or reinforcing bar per the AISC Manual of Steel Construction and ACI 318, Appendix D., but shall not be less than eight (8) diameters for threaded rod, or 12 diameters for reinforcing or smooth bars.
 - c. The hole diameter shall be as recommended by the epoxy MANUFACTURER but shall be no larger than 0.25 inch greater than the diameter of the outer surface of the bolt threads or the reinforcing bar deformations.
 - d. Holes shall be drilled by methods that do not interfere with the proper bonding of the epoxy.

- e. Existing reinforcing steel in the vicinity of the proposed holes shall be located prior to drilling. The location of holes shall be adjusted to avoid drilling through or nicking any existing reinforcing bars.
 - f. Holes shall be blown clean with clean, dry compressed air to remove all dust and loose particles. Holes shall be dry.
 - g. Reinforcing bars and anchors shall be installed per the MANUFACTURER's written installation instructions.
3. Cement Based Non-Shrink Grout:
- a. In places of high temperature or fire hazard, anchor bolts shall be grouted in using Cement Based Non-Shrink Grout, Class I.
 - b. Unless otherwise indicated, embedment shall be sufficient to develop the ultimate tensile strength of the anchor or reinforcing bar per the AISC Manual of Steel Construction and ACI 318, Appendix D., but shall not be less than 16 diameters for threaded rod, or 24 diameters for reinforcing or smooth bars.
 - c. When the bolt diameter is one (1) inch or less, the hole diameter should be a minimum of two inches. When the bolt's diameter is greater than one inch, the hole diameter should be at least twice the bolt diameter.
 - d. Drilled holes shall be saturated with water for not less than 24 hours before installation of anchor/rod/rebar.
 - e. The non-shrink grout should be placed in the holes in a non-sag (trowellable) consistency. The grout should be placed in the holes before the anchor and then the anchor inserted and vibrated to ensure proper coverage.
- D. Topping Grout and Concrete/Grout Fill:
- 1. All mechanical, electrical, and finish WORK shall be completed prior to placement of topping or concrete/grout fill. To ensure bonding to the base slab, the base slab shall be given an exposed aggregate finish. Alternatively, where accepted by the DSWM, the base slab shall be given a roughened textured surface by a close-spaced rake while the surface is green. After curing, high pressure washing shall expose the aggregates and produce not less than a 3/16-inch amplitude roughness. Jackhammers or chipping hammers shall not be used.
 - 2. The minimum thickness of grout topping and concrete/grout fill shall be one inch. Where the finished surface of concrete/grout fill is to form an intersecting angle of less than 45 degrees with the concrete surface it is to be placed against, a key shall be formed in the concrete surface at the intersection point. The key shall be a minimum of 3-1/2-inches wide by 1-1/2-inches deep.
 - 3. The base slab shall be thoroughly cleaned and wetted to saturated surface dry (SSD) condition per International Concrete Repair Institute Standards for Surface Preparations, prior to placing topping and fill. No topping concrete shall be placed until the slab is completely free from standing pools or ponds of water. A thin coat of neat cement grout shall be broomed into the surface of the slab just before topping or fill placement. The neat cement grout shall not be allowed to dry before topping placement. If it does dry, it must be immediately removed using wet stiff brooms and reapplied. The topping and fill shall be compacted by rolling or thorough tamping, brought to established grade, and floated. Grouted fill for tank and basin bottoms where scraping mechanisms are to be installed shall be screeded by blades attached to the revolving mechanism of the equipment in accordance with the procedures outlined by the equipment MANUFACTURER after the grout is brought to the established grade. Coat surface with evaporation retardant as needed to prevent plastic shrinkage cracks.
 - 4. Topping grout placed on sloping slabs shall proceed uniformly from the bottom of the slab to the top, for the full width of the placement.

5. The surface shall be tested with a straight edge to detect high and low spots, which shall be immediately eliminated. When the topping and/or fill have hardened sufficiently, it shall be steel troweled to a smooth surface free from pinholes and other imperfections. An approved type of mechanical trowel may be used as an assist in this operation, but the last pass over the surface shall be by hand troweling. During finishing, no water, dry cement, or mixture of dry cement and sand shall be applied to the surface.
6. As soon as topping or fill finishing is completed, coat surface with curing compound. After the topping is set and sufficiently hard in clarifiers and where required by the DSWM, the tank shall be filled with sufficient water to cover the entire floor for 14 days.

3.03 CONSOLIDATION: Grout shall be placed in such a manner, for the consistency necessary for each application, to assure that the space to be grouted is completely filled.

3.04 CURING: Cement based grouts shall be cured per Section 033000 and per the MANUFACTURER's recommendations.

3.05 FIELD TESTING:

- A. Compression test specimens will be taken during construction from the first placement of each type of grout, and at intervals thereafter as selected by the DSWM to ensure continued compliance with these specifications. The specimens will be made by the DSWM or its representative.
- B. Compression tests and fabrication of specimens for cement grout and cement based non-shrink grout will be performed in accordance with ASTM C109 (Using 2-in or 50 mm Cube Specimens), at intervals during construction selected by the DSWM. A set of three specimens will be made for testing at seven (7) days, 28 days, and each additional time period as appropriate.
- C. Compression tests and fabrication of specimens for topping grout, and concrete/grout fill will be performed as specified in Section 033000, at intervals during construction as selected by the DSWM.
- D. All material, already placed, which fails to meet the requirements of these specifications, is subject to removal and replacement at the cost of the CONTRACTOR.
- E. The cost of all laboratory tests on mortar and grout will be borne by the DSWM, but the CONTRACTOR shall assist the DSWM in obtaining specimens for testing. However, the CONTRACTOR shall be charged for the cost of any additional tests and investigation on WORK performed which does not meet the specifications. The CONTRACTOR shall provide all services necessary to conduct the compression tests.
- F. Compression tests and fabrication of specimens for epoxy grouts will be performed in accordance with ASTM C579, Method B, at intervals during construction as selected by the DSWM. A set of three specimens will be made for testing at seven (7) days, and each earlier time period as appropriate.

3.06 CONSTRUCTION TOLERANCES: Construction tolerances shall be as indicated in Section 033000, unless indicated otherwise.

END OF SECTION 036000

SECTION 036100

EPOXY SEAL AND INJECTION OF CRACKS

PART 1 - GENERAL

1.01 SUMMARY

- A. Scope is to thoroughly clean, seal and/or inject all cracks as indicated in the Construction Plans.

1.02 PERSONNEL QUALIFICATIONS

- A. The contractor shall be trained in performing injection work similar to that required for the project to carry out the epoxy injection of cracks in concrete. Provide an on-site supervisor for the epoxy injection work who is qualified by one of the following methods:
 - 1) Certified by the manufacturer of the epoxy injection material as having the necessary competence to accomplish the epoxy injection work in a satisfactory and safe manner in compliance with these Specifications.
 - 2) He can furnish documented evidence that he has a minimum of three years experience of on-site supervision of similar epoxy injection work and a list of five contracts in which similar epoxy injection was acceptably completed. Ensure that the listed experience in on-site supervision and completed contracts contains the project name and location, names of contracting parties, the owner's name, brief description of the work, and dates of completion of the epoxy injection work. Furnish written evidence showing personnel training and the on-site supervisor's qualification to the Miami Dade Department of Solid Waste Management (DSWM) Representative prior to beginning any epoxy injection work.

1.03 ACCEPTANCE

- A. Contractor shall drill three cores located in each day's work as directed by the Engineer. Take drilled core samples containing representative crack sizes. The Engineer will accept the epoxy injection work represented by the core samples when the core samples indicate that 90% of the crack void greater than 0.012 inch wide is filled with epoxy resin and the concrete of the core sample is bonded through the crack into a unit.
- B. Reinject epoxy injection work which does not satisfy the acceptance criteria, and correct it as necessary at no expense to the Owner. Install additional injection ports as required to achieve satisfactory reinjection of epoxy resin.
- C. After the epoxy injection work is completed and accepted, fill the core holes with an epoxy mortar consisting of one part by volume epoxy injection resin and four parts by volume clean, dry sand. Supply the sand in moisture proof bags. Do not use previously opened bags of sand for making epoxy mortar. The Contractor may use one part by volume epoxy material for sealing with one part by volume clean, dry sand in lieu of the above.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multicomponent materials.

- B. Store and handle materials in compliance with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.
- C. Epoxy materials which have been in storage for more than twelve months will not be accepted for use.

1.05 PROJECT CONDITIONS

A. Site Preparation

- 1. Protect site and landscaping, by draping plastic or other suitable protection in the area you are working.
- 2. Protect area working from pedestrian traffic, by barricading off areas as per OSHA standards.

B. Environmental Limitations:

- 1. Do not proceed with crack injection or sealing of cracks when ambient and substrate temperature conditions are outside limits permitted by the manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Requirements:

- 1. Epoxy for crack injection shall be an epoxy resin adhesive for bonding hardened concrete to hardened concrete. Additionally, it shall meet the following requirements:
 - a) Viscosity five minutes after mixing 300 to 600 cps at 77F by ASTM D 2393
 - b) Wet bond strength to concrete, minimum 250 psi at seven days by Florida Method FM 5-518
- 2. Epoxy sealant shall be used for minor cracks (width less than 0.012 in.) and for sealing crack surfaces in preparation for injection. Shall be a trowelable low modulus, non-sagging gel epoxy compound capable of bonding to wet surfaces. Additionally, it shall meet the following requirements:
 - a) Color : Shall match gray color No. 36622 of Federal Standard No. 595a
 - b) Viscosity: Gel
 - c) Maximum sand loading: 2.25 parts sand to one part mixed epoxy by volume
 - d) Elongation in tension minimum : 10% by ASTM D 638, seven day cure
 - e) Wet bond to Steel and Concrete minimum: 250 psi by Florida Test Method FM 5-518

B. Products options and submissions:

- 1) Acceptable Products/Manufacturers:
 - a) Sikadur 35 Hi-Mod LV – For Crack Injection
 - b) Sikaflex Sealant – For Crack Sealant

PART 3 - EXECUTION

3.01 CRACK SURFACE PREPARATION AND CLEANING REQUIREMENTS

- A. Clean the area surrounding the cracks of all deteriorated concrete, efflorescence and other contaminants detrimental to the adhesion of the surface sealing epoxy compound. Clean the interiors of the cracks with air under sufficient pressure to remove loose materials entrapped within the crack including efflorescence.

3.02 EQUIPMENT

- A. For the equipment used to inject the epoxy, meet the recommendations of the epoxy injection material manufacturer and the following requirements:
 - 1) Use equipment that has the capacity to automatically proportion the material components within the mix ratio tolerances set by the epoxy materials manufacturer.
 - 2) Use equipment that has the capacity to automatically mix the epoxy component materials within the pump and injection apparatus. The Engineer will not allow batch mixing.
 - 3) Use equipment that has the capacity to inject the epoxy resin under controlled variable pressures up to 200 psi, with a pressure gauge mounted at or near the nozzle to indicate the actual working pressure.

3.03 SEALING CRACKS FOR EPOXY INJECTION

- A. After cleaning, drill injection port holes using a swivel drill chuck and hollow drill bits, including a vacuum attachment which will remove dust and debris generated during drilling. Determine the spacing of the injection port holes by the size of the crack and the depth of the crack in the concrete substrate. Generally, space the injection ports from 4 to 8 inches apart. Determine the actual spacing of injection ports by field trials. Drill the holes to a minimum depth of 5/8 inch, exercising care in aligning the hole along the plane of the crack so that the hole follows the crack for the full 5/8 inch depth.
- B. Insert the injection ports in the drilled holes approximately 1/2 inch, allowing for a small reservoir below the injection port.
- C. After cleaning the cracks and drilling the injection port holes, seal the crack surface and the injection ports with suitable epoxy.

3.04 EPOXY INJECTION

- A. Inject the epoxy in accordance with the epoxy manufacturer's instructions. Determine the actual injection procedures and pressures in field trials, based on crack widths and depth into the substrate and sufficiency of the results.

3.05 CLEANING AFTER EPOXY INJECTION

- A. Clean concrete surface areas of excess epoxy materials and injection ports after completing the epoxy injection work. Clean in a manner which will not damage the concrete by scraping, light sand blasting, grinding, use of solvents, or any other appropriate method approved by the Engineer. Clean excess materials so that no epoxy material or injection ports extend beyond the plane surface of the concrete.

END OF SECTION 036100

SECTION 037000
CONCRETE RESTORATION

PART 1 - GENERAL

1.01 SCOPE:

A. Summary of Work:

1. The CONTRACTOR shall provide all labor, materials and equipment to perform concrete restoration and repairs as indicated in the Contract Documents. The WORK may include, but not be limited to repairing spalled areas, sealing of cracks, replacement of corroded reinforcement steel and replacement of expansion joint materials.
2. All pipes which penetrate concrete members and which the Contract Documents require to be removed shall have the remaining holes repaired as specified herein.
3. All existing openings in concrete members, which the Contract Documents require to be filled, shall be repaired as specified herein.
4. All pipes and other items to be passed through and/or be embedded in concrete members shall be installed as specified herein.
5. All damage to concrete and concrete surfaces which results from the required removal of embedded items, from any construction activity required by the Contract Documents, from any other CONTRACTOR activities, or which existed previously in structures identified to be repaired by the Contract Documents shall be repaired as specified herein.
6. The following existing structures shall be repaired:
7. All cracks in below grade and/or water bearing members shall be repaired over their full length as indicated by the Miami Dade Department of Solid Waste Management and as specified herein at all new structures included in these Contract Documents and at the following existing structures:
8. Deteriorated Concrete:
 - a. All of the concrete surfaces which show signs of deterioration shall be repaired at the following existing structures.

B. Related Work Specified Elsewhere:

1. SECTION 013300 – Submittals Procedures

1.02 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards of the organizations listed below in effect at the time of the advertisement for bids form a part of this specification to the extent referenced. See the various paragraphs for the specified standard. In the case of a conflict between the requirements of this SECTION and those of the listed document, the requirements of this SECTION shall prevail.
1. American Concrete Institute (ACI)
 - a. 546R – Guide to Concrete Repair
 2. American Society of Testing and Materials (ASTM)
 - a. C109 – Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)

- b. C157 - Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete
- c. C881 – Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete
- d. C882 - Standard Test Method for Bond Strength of Epoxy-Resin Systems Used with Concrete by Slant Shear
- 3. American Welding Society (AWS)
 - a. D1.4 - Structural Welding Code - Reinforcing Steel
- 4. International Concrete Repair Institute (ICRI)
 - a. 03730 - Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting From Reinforcing Steel Corrosion

1.03 DEFINITIONS: (Not Applicable)

1.04 SUBMITTALS: The CONTRACTOR shall submit the following in accordance with SECTION 013300:

- A. Materials specification sheets including product information and recommended placement procedures and material safety data sheets shall be submitted for all products used for this Project.
- B. MANUFACTURER's warranty.
- C. If reinforcement steel is spliced by welding at any location, the CONTRACTOR shall submit mill test reports which shall contain the information necessary for the determination of the carbon equivalent per AWS D1.4. The CONTRACTOR shall submit a written welding procedure for each type of weld for each size of bar which is to be spliced by welding; merely a statement that AWS procedures will be followed is not acceptable.

1.05 QUALIFICATIONS:

- A. Applicators shall be licensed in the State of Florida for no less than five (5) years and shall be certified by the repair product MANUFACTURER.
- B. A pre-installation meeting shall be held with applicator, material supplier and the Miami Dade Department of Solid Waste Management prior to commencement of the WORK.
- C. If reinforcement steel is spliced by welding at any location, the CONTRACTOR shall submit certifications of procedure qualifications for each welding procedure and certification of welder qualifications, for each welding procedure, and for each welder performing the WORK.

1.06 RESPONSIBILITIES: (Not Applicable)

1.07 CERTIFICATIONS AND TESTING:

- A. Field Tests of Cement Based Grouts:
 - 1. Compression test specimens will be taken during construction from the first placement of each type of mortar or grout and at intervals thereafter as selected by the Miami Dade Department of Solid Waste Management to insure continued compliance with these specifications. The test specimens will be prepared by the Miami Dade Department of Solid Waste Management or its representative.
 - 2. Compression tests and fabrication of specimens for repair mortar and non-shrink grout will be performed as specified in ASTM C109. A set of three (3) specimens will be prepared for testing at seven (7) days, 28 days, and additional time periods as appropriate.

3. All material, already placed, which fails to meet the requirements of these specifications, is subject to removal and replacement at the cost of the CONTRACTOR.
4. The cost of all laboratory tests on mortar and grout will be borne by the CONTRACTOR. The CONTRACTOR shall obtain specimens for testing. The CONTRACTOR shall be charged for the cost of any additional tests and investigation on WORK performed which does not meet the specifications. The CONTRACTOR shall supply all materials necessary for fabricating the test specimens. Refer to Section 014100 for Testing Laboratory Services.
5. Repair concrete shall be tested as required in Section 033000.
6. Epoxy shall be tested as required in Section 036000.

1.08 INSPECTION COORDINATION: (Not Applicable)**1.09 WARRANTY:**

- A. The MANUFACTURER shall warrant the EQUIPMENT, MATERIALS and PRODUCTS specified in this SECTION against defective materials and workmanship with the MANUFACTURER's standard warranty, but for no less than five (5) years from the date of Substantial Completion, and as described in Section 017400 Warranties and Guarantees. If the MANUFACTURER's standard warranty is less than the stipulated period, the MANUFACTURER shall provide a special MANUFACTURER's extended warranty for the stipulated period, or provide a Maintenance Bond, to extend the MANUFACTURER's warranty period for the stipulated period.
- B. The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 Warranties and Guarantees.

PART 2 - MATERIALS**2.01 DELIVERY AND STORAGE:**

- A. All MANUFACTURER's materials shall be delivered in original packaging.
- B. Materials shall be stored in a covered, protected area away from moisture and damp surroundings.

2.02 CONCRETE MATERIALS:

- A. Cement: Type II Portland cement shall be used unless noted otherwise. Where repairs are made on wall surfaces open to view and above normal water surface elevations, white Portland cement shall be blended with the Type II cement as needed to match the color of the adjacent existing concrete surface.
- B. Repair Concrete: Repair concrete, where required, shall be structural concrete with one-inch maximum coarse aggregate meeting the requirements of SECTION 033000. The minimum repair thickness shall be two (2) inches.
- C. Cement Grout shall meet the requirements found in SECTION 036000. The minimum repair thickness shall be one (1) inch.
- D. Cement Based Non-Shrink Grout (Class I & II) shall meet the requirements found in SECTION 036000.
- E. Repair Mortar shall be a prepackaged cement based product specifically formulated for the repair of surface defects. Where the basic repair material has different formulations for application conditions such as overhead and shotcrete type application, the formulation recommended by the MANUFACTURER for the specific application conditions shall be used. The minimum repair thickness shall be 0.50-inch. The repair mortar shall have the following properties:

Physical Property	Value	ASTM Standard
Compressive Strength (min)		C109
at 1 day	4000 psi	
at 28 days	6000 psi	
Shrinkage (max)	0.0 percent	C157
at 28 days drying		
Bond Strength (min)		C882
at 1 day	1500 psi	
at 7 days	2500 psi	

2.03 EPOXY MATERIALS:

- A. Non-Shrink Epoxy Grout shall meet the requirements found in Section 036000.
- B. Epoxy used for crack injection shall be a low viscosity, moisture insensitive material specially formulated for that use. It shall have a minimum bond strength of 2,500 psi when tested per ASTM C882 at fourteen (14) days, moist cured.

2.04 MISCELLANEOUS MATERIALS:

- A. Bond breaker material shall be polyethylene tape, coated paper, metal foil, or similar type materials.
- B. Joint filler material shall be compressible, non-shrink, non-reactive with sealant, and non-absorptive material type such as extruded butyl or polychloroprene foam rubber.
- C. Reinforcement Steel and reinforcement couplers, where required, shall meet the requirements of SECTION 032000.
- D. Concrete sealer shall be a clear, penetrating, water-based silane sealer for concrete and masonry surfaces.

PART 3 - EXECUTION**3.01 GENERAL:**

- A. Where repairs are made on wall surfaces open to view and above normal water surface elevations, the installed repair material shall match the adjacent concrete surface in color and texture.
- B. Surface Preparation:
 - 1. The entire area to be repaired shall be cleaned of all laitance and foreign material by chipping using lightweight demolition hammers, not to exceed 15 pounds in weight, and/or a heavy sandblasting. All removals are to be performed in accordance with ICRI guidelines. The surface shall be further roughened as specified herein. Where non-shrink grout or repair mortar is used, any additional surface preparation steps recommended by the MANUFACTURER shall be performed.
 - 2. Where repair concrete, shotcrete, or cement grout is used or where the repair mortar or non-shrink grout MANUFACTURER recommends a wet or saturated surface, water shall be delivered to the surface continuously for a minimum of four (4) hours. Where large surface areas are to be repaired, fog spray nozzles mounted on stands shall be provided in sufficient numbers such that the entire surface to be repaired is in contact with the fog spray cloud. The concrete shall be prevented from drying until after the grouting operation is completed. Unrepaired surfaces shall be rewetted by water spray on at least a daily basis. Should more

than four (4) days elapse without rewetting the unrepaired surfaces, the original saturating procedure shall be repeated. All standing water in areas to be repaired shall be removed prior to placement of repair material. Means to remove excess water from the structure shall be provided.

3. Where the repair material MANUFACTURER recommends the use of an epoxy bonding agent, the recommendations of both the repair material and bonding agent MANUFACTURERS shall be followed.
- C. Care shall be taken to fully consolidate the repair material, completely filling all portions of the area to be filled.
- D. The repair surface shall be brought into alignment with the adjacent existing surfaces to provide a uniform, even surface. The repair surface shall match adjacent existing surfaces in texture and shall receive any coatings or surface treatments which had been provided for the existing surface.
- E. The CONTRACTOR shall halt WORK when weather conditions may detrimentally affect the quality of the repair. Follow MANUFACTURER's instructions for weather conditions and temperature ranges.
- F. Curing:
 1. Curing of repair mortar and non-shrink grout shall be in accordance with the MANUFACTURER's recommendations except that the minimum cure period shall be three (3) days.
 2. Curing of other materials shall be in accordance with Method 4 of SECTION 033000.
- G. All products are to be mixed following the specific guideline of each particular product.
- H. All products are to be applied by following the specified data sheets of each particular product.

3.02 TREATMENT OF SURFACE DEFECTS:

- A. Surface defects are depressions in a concrete surface which do not extend all the way through the member. The depressions can result from the removal of an embedded item, the removal of an intersecting concrete member, physical damage, unrepaired rock pockets created during original placement, or spalls from corroded reinforcing steel or other embeds.
- B. Preparation:
 1. All loose, damaged concrete shall be removed by chipping to sound material.
 2. Where existing reinforcing bars are exposed, concrete shall be removed to a minimum of one (1) inch all around the bars. If the existing bars are cut through, cracked, or the cross sectional area is reduced by more than 25 percent, the Miami Dade Department of Solid Waste Management shall be notified immediately.
 3. The perimeter of the damaged area shall be score cut to a minimum depth of 0.5-inch and a maximum depth so as to not cut any existing reinforcing steel. Existing concrete shall be chipped up to the score line so that the minimum thickness of repair mortar is 0.5-inch.
- C. Repair Material:
 1. Repair of surface defects in members which are normally in contact with water or soil or in the interior surfaces of enclosed chambers which contain water shall be made only with repair mortar.
 2. Repair of other surface defects may be by the application of repair mortar and repair concrete as appropriate.

3.03 PATCHING OF HOLES IN CONCRETE:**A. General:**

1. For the purposes of this Section, holes are defined as penetrations completely through the concrete member and with interior surfaces approximately perpendicular to the surface of the existing member. Any interior surface areas which are inclined and do not meet this criterion shall be chipped as needed to meet this requirement.
2. The perimeter of all holes at the surface shall form a regular shape composed of curved or straight-line segments. The minimum depth of placement for the material used shall be provided at all locations. The existing concrete shall be scored by saw cutting and chipped as needed to meet this requirement.
3. The interior surface of holes less than 12-inches in diameter shall be roughened to a minimum of 0.125-inch amplitude. Larger holes shall be roughened to a minimum of 0.25-inch amplitude.
4. At all holes which are not filled with repair mortar or non-shrink grout or where the repair material MANUFACTURER recommends it, the existing surface to be repaired shall be coated with an epoxy bonding agent.
5. Where a face of the member is exposed to view and the repair material cannot be adjusted to match the color of the existing concrete, the repair material shall be held back two (2) inches from the surface. The remaining two (2) inches shall be filled with a color adjusted cement grout.

B. Patching Small Holes:

1. Holes which are less than 12-inches in their least dimension and extend completely through concrete members, shall be filled with repair mortar or non-shrink grout.
2. All holes in members which are normally in contact with water or soil shall be filled with Class I non-shrink grout as required in Section 036000.

C. Patching Large Holes:

1. Holes which are larger than 12-inches in their least dimension shall be filled with repair concrete, repair mortar, or non-shrink grout.
2. Reinforcing steel shall be provided in layers matching existing reinforcement location except that concrete cover required in the contract documents for the service condition shall be provided.
3. For holes smaller than 48-inches, reinforcement shall be a minimum of #5 bars at 12-inches on center in each layer required. At all holes larger than 30-inches, the reinforcement shall be drilled and grouted into the existing concrete.
4. For holes larger than 48-inches, see the Drawings for reinforcement details.

3.04 PATCHING OF LINED HOLES:

- A. This SECTION applies to those openings that have embedded material over all or a portion of the inside edge. The requirements for repairing holes in concrete specified above shall apply as modified herein. The Miami Dade Department of Solid Waste Management will determine when the embedded material is allowed to remain.
- B. Where embedded material is allowed to remain, it shall be trimmed back a minimum of two (2) inches from the concrete surface. The embedded material shall be roughened or abraded to promote good bonding to the repair material. Any substance that interferes with good bonding shall be completely removed.

- C. Any embedded item that is not securely and permanently anchored into the concrete shall be completely removed.
- D. Embedded items which are larger than 12-inches in their least dimension shall be completely removed unless they are composed of a metal to which reinforcing steel can be welded. Where reinforcement is required, it shall be welded to the embedded metal.
- E. The following additional requirements apply to concrete members which are in contact with water or soil:
 - 1. Lined openings that are less than four (4) inches in their least dimension shall be filled with epoxy grout.
 - 2. Lined openings that are greater than four (4) inches but less than 12-inches in their least dimension shall be coated with an epoxy bonding agent prior to being filled with Class I non-shrink grout.
 - 3. Lined openings which are greater than 12-inches in their least dimension shall be coated with an epoxy bonding agent and shall have a Bentonite waterstop bonded to the interior of the opening with epoxy adhesive prior to being filled with any approved repair material.

3.05 GENERAL CRACK REPAIR:

- A. All cracks identified by the Miami Dade Department of Solid Waste Management as caused by shrinkage shall be repaired with sealant as specified herein. At the CONTRACTOR's option, these cracks may be repaired with chemical grout as specified herein.
- B. All cracks which are not caused by shrinkage shall be repaired as indicated by the Miami Dade Department of Solid Waste Management.

3.06 SEALANT CRACK REPAIR: All cracks that may have developed shall be "vee'd" and filled with sealant conforming to the requirements of Section 036100. This repair method shall be done on the water bearing face of members. Prior to backfilling new structures, faces of members in contact with fill, which are not covered with a waterproofing membrane, shall also have cracks repaired as specified herein.

3.07 CHEMICAL GROUT CRACK REPAIR:

- A. Chemical grout shall be injected into all cracks as indicated by the Miami Dade Department of Solid Waste Management in those structures included in the Scope of Work listed herein. Installation instructions and recommendations by the chemical grout MANUFACTURER shall be followed.
- B. Location of Injection Ports: Injection ports shall be spaced as recommended by the chemical grout MANUFACTURER and as needed to insure complete penetration of the joint or crack with the grout. Spacing of injection ports shall not exceed two (2) feet.
- C. Drilling Ports: Holes for injection ports shall be drilled to the depth needed for proper distribution of the chemical grout. Care shall be taken to not damage any reinforcing steel.
- D. Port preparation: Holes for injection ports shall be cleaned of all debris and fitted with an injection fitting as provided by the MANUFACTURER of the chemical grout. The injection fittings shall be installed as per the MANUFACTURER's instructions and will remain in place until chemical grout injection work has been completed at that area. Caps or valves will be installed at the injection ports to prevent back flow of the uncured chemical grout after it has been injected.
- E. Chemical Grout Injection:
 - 1. The CONTRACTOR shall follow the instructions of the chemical grout MANUFACTURER and their representatives for all mixing and injection procedures.

2. All cracks shall be sealed at the surface where needed to provide for complete penetration of the injected chemical grout and to prevent loss of material.
3. Prior to chemical grout injection, water shall be injected into the ports in order to provide water for the reaction process and to verify continuity between adjacent ports. Water shall be injected into each of the ports until it begins to flow from an adjacent or nearby port.
4. If the water injection procedure indicates the potential presence of voids within members or behind members resting against soil, the Miami Dade Department of Solid Waste Management shall be notified immediately.
5. Beginning at the lowest injection port, in the case of vertical or inclined cracks, inject the chemical grout until the grout begins to flow from an adjacent or nearby port. Repeat the process until the crack is completely filled. In general, the port to port travel of the injection process will be from low to high in a continuous operation.
6. If port to port continuity does not occur at locations where continuity was verified through water injection, mark location and notify the Miami Dade Department of Solid Waste Management.
7. Avoid sudden application of high pressures during the injection process.
8. After completion of the grouting operation, all ports and surface sealing materials shall be removed so as to leave an undamaged surface.

3.08 EPOXY CRACK REPAIR:

- A. Epoxy shall be injected into all cracks in damaged concrete as indicated by the Miami Dade Department of Solid Waste Management in those structures included in the Scope of Work listed herein. Installation instructions and recommendations by the epoxy MANUFACTURER shall be followed.
- B. Cracks shall be injected with sufficient pressure to ensure full penetration of the epoxy but without causing further damage.
- C. The location, drilling, and preparation of ports for injection shall be as required for chemical grout herein.
- D. Epoxy Injection:
 1. The CONTRACTOR shall follow the instructions of the epoxy MANUFACTURER and their representatives for all mixing and injection procedures.
 2. All cracks shall be sealed at the surface where needed to provide for complete penetration of the injected epoxy and to prevent loss of material.
 3. Beginning at the lowest injection port, in the case of vertical or inclined cracks, inject the epoxy until it begins to flow from an adjacent or nearby port. Repeat the process until the crack is completely filled.
 4. If port to port continuity does not occur, mark the location and notify the Miami Dade Department of Solid Waste Management.
 5. Avoid sudden application of high pressures during the injection process.
 6. After completion of the injection operation, all ports and surface sealing materials shall be removed so as to leave an undamaged surface.

3.09 REPAIR OF DETERIORATED CONCRETE:

- A. This SECTION pertains to concrete which has been damaged due to corrosion of reinforcing steel, physical damage due to abrasion, and damage due to chemical attack. The only material acceptable for

surface repair is repair mortar as specified herein. Where the repaired surface is to be subsequently covered with a PVC liner material, the finishing details shall be coordinated with the needs for installing the liner material.

B. Surface Preparation:

1. All loose, broken, softened, and acid contaminated concrete shall be removed by sandblasting and chipping down to sound, uncontaminated concrete.
2. When the removal of deteriorated concrete is completed, the CONTRACTOR shall notify the Miami Dade Department of Solid Waste Management. Two weeks shall be scheduled for the Miami Dade Department of Solid Waste Management to inspect the surface, perform testing for acid contamination, determine if additional concrete must be removed, and to develop any special repair details that may be needed. Should it be determined that additional concrete must be removed to reach sound, uncontaminated material, another two week period shall be scheduled for further evaluation after the end of the additional removal.
3. Additional surface preparation shall follow the recommendations of the repair mortar MANUFACTURER.

C. Repair Mortar Placement:

1. The procedures recommended by the MANUFACTURER for the mixing and placement of the repair mortar shall be followed.
2. After the initial mixing of the repair mortar, additional water shall not be added to change the consistency should the mix begin to stiffen.
3. Repair mortar shall be placed to a minimum thickness as recommended by the MANUFACTURER but not less than 0.50-inch. Should there be areas where less than the minimum repair mortar depth of concrete is removed, the CONTRACTOR may, at its option, remove additional concrete to attain the minimum repair mortar thickness or may place repair mortar so as to increase the original thickness of the member. In any case, repair mortar shall be added so that the minimum cover over existing reinforcing steel is two (2) inches. The CONTRACTOR shall not place repair mortar so as to create locally raised areas. Where there is a transition with wall surfaces which are not in need of repair, the repair mortar shall not be feathered at the transition. A score line shall be sawcut to not less than the minimum repair mortar depth and concrete chipped out to it to form the transition. Care shall be taken to not cut or otherwise damage any reinforcing steel.
4. The repair mortar shall be placed to an even, uniform plane to restore the member to its original surface. Tolerance for being out of plane shall be such that the gap between a 12-inch straight edge and the repair mortar surface does not exceed 0.125-inch and the gap between a 48-inch straight edge and the repair mortar surface does not exceed 0.25-inch. This shall apply to straight edges placed in any orientation at any location.

D. Finishing:

1. The repair mortar shall receive a smooth, steel trowel finish
2. When completed, there shall be no sharp edges. All exterior corners, such as at penetrations, shall be made with a one-inch radius. All interior corners shall be square except corners to receive PVC lining shall be made with a 2-inch repair mortar fillet.

- E. Curing: Curing shall be performed as recommended by the repair mortar MANUFACTURER, except that the cure period shall be at least 24 hours and shall be by means of a continuous fog spray. If the MANUFACTURER recommends the use of a curing compound, no material shall be used that would interfere with the bond of the adhesive used for placing PVC lining, where required.

END OF SECTION 037000

SECTION 04 20 00
UNIT MASONRY

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes all labor, materials, tools, equipment, and services necessary for and incidental to performing operations in connection with furnishing, delivery and installation of the work in this Section, meeting current codes and manufacturers' printed instructions, complete, as shown in the drawings and/or specified herein.

1.02 REFERENCED STANDARDS

- A. All masonry work shall comply with applicable ACI codes and standards.
 - 1. ACI 530 - Building Code Requirements for Masonry Structures.
 - 2. ASTM C270 – Mortar for Unit Masonry
 - 3. IMIAWC (HW) – Recommended Practices and Guide Specifications for Hot Weather Masonry Construction
- B. ASTM A641/A641M – Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire
- C. ASTM A1064/A1064M – Standard Specification for Carbon Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
- D. ASTM C90 – Standard Specification for Loadbearing Concrete Masonry Units
- E. ASTM C91/C91M -Standard Specification for Masonry Cement
- F. ASTM C129 – Standard Specification for Nonloadbearing Concrete Masonry Units
- G. ASTM C144 – Standard Specification for Aggregate for Masonry Mortar
- H. ASTM C150/C150M - Standard Specification for Portland Cement
- I. ASTM C270 Standard Specification for Mortar for Unit Masonry
- J. ASTM C476 - Standard Specification for Grout for Masonry

1.03 RELATED WORK

- A. Section 033000 – Cast in Place Concrete

1.04 SUBMITTALS

- A. Product Data: Provide data for masonry units, fabricated wire reinforcement, mortar and masonry accessories.

- B. Manufacturer's Certificate: Certify that masonry units meet or exceed specified requirements.
- C. Submit in accordance with Section 013300 of these Specifications.

1.05 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Company specializing in the manufacture of the type of products specified herein, with a minimum of five (5) years of documented experience.
- B. Installer Qualifications: Installer shall have a minimum of three (3) years of documented experience in the installation of unit masonry construction.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver, handle and store masonry units by means that will prevent mechanical damage and contamination by other materials.

PART 2 PRODUCTS

2.01 CONCRETE MASONRY UNITS

- A. Concrete Block: Comply with referenced standards and as follows:
 - 1. Size: Standard units with nominal face dimensions of 16 by 8 inches and nominal depths as indicated on the drawings for specific locations.
 - 2. Non-Loadbearing Units: ASTM C129. Hollow block as indicated.

2.02 MORTAR AND GROUT MATERIALS

- A. Masonry Cement: ASTM C91/C91M, Type N.
- B. Portland Cement: ASTM C150/C150M, Type I.
- C. Hydrated Lime: ASTM C207, Type S.
- D. Mortar Aggregate: ASTM C144.
- E. Grout Aggregate: ASTM C404.
- F. Water: Clean and potable.
- G. Packaged Dry Material for Mortar for Unit Masonry: Premixed Portland cement, hydrated lime, and sand; complying with ASTM C387/C387M and capable of producing mortar of the specified strength in accordance with ASTM C270 with the addition of water only.
 - 1. Type: Type N.

2.03 WIRE REINFORCEMENT

- A. Manufacturers:
 - 1. Blok-Lo Limited – www.blok-lok.com
 - 2. Hohmann & Barnard, Inc. – www.h-b.com/sle
 - 3. WIRE-BOND – www.wirebond.com
- B. Single Wythe Joint reinforcement: Truss or ladder type; ASTM A1064/A1064M steel wire, mill galvanized to ASTM A641/A641M, Class 3; 0.1483 inch side rods with 0.1483 inch cross rods; width as required to provide no more than 1 inch and not less than ½ inch of mortar coverage on each exposure.
- C. Flexible Anchors: 2-piece anchors that permit differential movement between masonry and building frame, sized to provide not more than 1 inch and not less than ½ inch of mortar coverage from masonry face.

2.04 MORTAR AND GROUT MIXES

- A. Mortar for Unit Masonry: ASTM C270. Interior, non-loadbearing masonry: Type O.
- B. Grout: ASTM C476; consistency required to fill completely volumes indicated for grouting; fine grout for spaces with smallest horizontal dimension of 2 inches or less; coarse grout for spaces with smallest horizontal dimension greater than 2 inches.
- C. Mixing: Use mechanical batch mixer and comply with referenced standards.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that related items provided under other sections are properly sized and located.
- B. Verify that built-in items are in proper location, and ready for roughing into masonry work.

3.02 PREPARATION

- A. Direct and coordinate placement of metal anchors supplied for installation under other sections.
- B. Provide temporary bracing during installation or repair of masonry work. Maintain in place until building structure provides permanent bracing.

3.03 HOT WEATHER REQUIREMENTS

- A. Comply with the requirements of TMS 402/602 or applicable building code, whichever is more stringent.

3.04 COURSING

- A. Establish lines, levels and coursing as indicated. Protect from displacement.
- B. Maintain masonry courses to uniform dimensions. Form vertical and horizontal joints of uniform thicknesses.
- C. Concrete Masonry Units: Running Bond.
 - 1. Coursing: One unit and one mortar joint to equal 8 inches.
 - 2. Mortar joints: Concave.

3.05 PLACING AND BONDING

- A. Lay solid masonry units in full bed of mortar, with full head joints, uniformly joined with other work.
- B. Lay hollow masonry units with face shell bedding on head and bed joints.
- C. Buttering corners of joints or excessive furrowing of mortar joints is not permitted.
- D. Remove excess mortar and mortar smears as work progresses.
- E. Interlock intersections and external corners.
- F. Do not shift or tap masonry units after mortar has achieved initial set. Where adjustment must be made, remove mortar and replace.
- G. Perform job site cutting of masonry units with proper tools to provide straight, clean, unchipped edges. Prevent broken masonry unit corners or edges.
- H. Isolate masonry partitions from vertical structural framing members with a control joint.
- I. Isolate top joint of masonry partitions from horizontal structural framing members and slabs or decks with compressible joint filler.

3.06 REINFORCEMENT AND ANCHORAGE – GENERAL

- A. Unless otherwise indicated on the drawings or specified under a specific wall type, install horizontal joint reinforcement at 16 inches on center.
- B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend a minimum of 16 inches each side of opening.
- C. Place continuous joint reinforcement in first and second horizontal joint below tops of walls.

- D. Lap joint reinforcement ends a minimum of 6 inches.
- E. Fasten anchors to structural framing and embed in masonry joints as masonry is laid. Unless otherwise indicated on the drawings, or closer spacing is indicated under a specific wall type, space anchors at a maximum of 36 inches horizontally and 24 inches vertically.

3.07 LINTELS

- A. Install reinforced unit masonry lintels over openings where steel or precast concrete lintels are not scheduled.
 - 1. Openings to 42 inches: Place two No. 3 reinforcing bars 1 inch from bottom.
 - 2. Do not splice reinforcing bars.
 - 3. Support and secure reinforcing bars from displacement. Maintain position within $\frac{1}{2}$ inch of dimensioned position.
 - 4. Place and consolidate grout fill without displacing the reinforcement.
 - 5. Allow masonry lintels to attain specified strength before removing temporary supports.
- B. Maintain a minimum of 4 inches of bearing on each side of the opening.

3.08 GROUTED COMPONENTS

- A. Reinforce bond beams with 2 No. 4 bars, in inch from bottom.
- B. Support and secure reinforcing bars from displacement. Maintain position within $\frac{1}{2}$ inch of dimensioned position.
- C. Place and consolidate grout fill without displacing reinforcement.
- D. At bearing locations, fill masonry cores with grout for a minimum of 12 inches on either side of opening.

3.09 BUILT-IN WORK

- A. As the work progresses, install built-in metal door frames and other items to be built into the work and furnished under other sections.
- B. Install built-in items plumb, level and true to line.
- C. Bed anchors of metal door frames in adjacent mortar joints. Fill frame voids with grout.

3.10 TOLERANCES

- A. Maximum Variation from Alignment of Walls: $\frac{1}{4}$ inch.
- B. Maximum Variation from Unit to Adjacent Unit: $\frac{1}{16}$ inch.
- C. Maximum Variation from Plane of Wall: $\frac{1}{4}$ inch in 10 ft. and $\frac{1}{2}$ inch in 20 ft. or more.
- D. Maximum Variation from Plumb: $\frac{1}{4}$ inch per story, non-cumulative; $\frac{1}{2}$ inch in two stories or more.
- E. Maximum Variation from Level Coursing: $\frac{1}{8}$ inch in 3 ft. and $\frac{1}{4}$ inch in 10 ft.; $\frac{1}{2}$ inch in 30 ft.
- F. Maximum Variation from Cross Sectional Thickness of Walls: $\frac{1}{4}$ inch.

3.11 CUTTING AND FITTING

- A. Cut and fit for chases. Coordinate with other sections of work to provide correct size, shape and location.
- B. Obtain approval prior to cutting or fitting masonry work not indicated or where appearance or strength of masonry work may be impaired.

3.12 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 014050 – Contract Quality Control and Section 014100 – Project Testing Laboratory Services.
- B. Concrete Masonry Unit Tests: Test each variety of concrete unit masonry in accordance with ASTM C140/C140M for conformance to the requirements of this specification.
- C. Mortar Tests: Test each type of mortar in accordance with ASTM C780, testing with same frequency as masonry samples.

3.13 CLEANING

- A. Remove excess mortar and mortar droppings.
- B. Replace defective mortar. Match adjacent work.

- C. Clean soiled surfaces with cleaning solution recommended by the mortar manufacturer.
- D. Use non-metallic tools in cleaning operations.

3.14 PROTECTION

- A. Without damaging completed work, provide protective boards at exposed external corners that may be subject to damage by construction activities.

END OF SECTION 042000

SECTION 050600

WELDING

PART 1 - GENERAL

1.01 SCOPE: The CONTRACTOR shall provide all labor, equipment, and materials for all shop and field welding as required by the Drawings and/or Specifications.

1.02 SHOP DRAWINGS AND ERECTION PROCEDURES:

- A. Drawing shall include all shop and erection details, including welds. All welds, both shop and field, shall be indicated by standard welding symbols as noted by American Welding Society (AWS) A2.0. Drawings shall show the size, length and type of each weld.

1.03 STANDARD REFERENCES: The following standard specifications shall apply to the WORK of this SECTION as indicated:

- A. American Welding Society, Structural Welding Code, (AWS)
- B. American Institute of Steel Construction Manual for Steel Construction, 9th Edition, (AISC)
- C. American Society for Testing and Materials (ASTM)
- D. American Welding Society:
 - 1. D1.1 - Code for Welding in Building Construction
- E. Welding shall be in accordance with American Welding Society Standard Code D1.1.

1.04 WELDERS QUALIFICATIONS: All welders, including tack welders, shall be qualified in accordance with Section 5, Part C of AWS D1.1. The CONTRACTOR shall certify by name, to the Miami Dade Department of Solid Waste Management, the welders so qualified including the code and procedures under which the individual qualified.

- A. Welders and Welding Operators, shop and field, shall be qualified by an independent laboratory using test procedures covered by an independent laboratory using test procedures covered in AWS D1.1, and shall have been employed as a welder using the positions for which he is qualified during the previous 90 days. The CONTRACTOR shall provide the Miami Dade Department of Solid Waste Management and the laboratory inspector with the names of welders to be employed in the shop and field on the WORK, certification of the position, date of the last qualification test and the name of the qualifying laboratory.
 - 1. All welders employed in the shop on the fabrication of the steel work shall be qualified for the most difficult welding position during shop fabrication.
 - 2. All welders employed in the field on the erection of the steel work shall be qualified for the most difficult welding position during field erection.
 - 3. The CONTRACTOR shall require any welder to retake the test, when, in the opinion of the Miami Dade Department of Solid Waste Management, the WORK of the welder creates a reasonable doubt as to the proficiency of the welder. Recertification of the welder shall be made to the Miami Dade Department of Solid Waste Management only after the welder has taken and passed the specified test. The Miami Dade Department of Solid Waste Management may require radiographic or ultrasonic testing or may require coupons to be cut from any location in any joint for testing.

4. Should any two radiographic or ultrasonic tests or coupons cut from the work of any welder show strengths, under tests, less than that of the base metal, it will be considered evidence of negligence or incompetence and such welder shall be removed from the WORK.
5. When coupons are removed from any part of a structure, the members cut shall be repaired, at no additional cost to the Miami Dade Department of Solid Waste Management, in a neat and workmanlike manner with joints of type to develop the full strength of the members and joints cut, with peening to relieve residual stress. All SECTIONS of welds found defective shall be chipped or cut out to base metal and rewelded before proceeding with the WORK.
6. Costs of all qualifications, tests and retests shall be borne by the CONTRACTOR.

1.05 INSPECTION AND TESTING:

- A. Shop inspections and tests shall include fit-up, preparation of surfaces and welding.
- B. Field inspections and tests shall include fit-up, preparation of surface and welding.

1.06 WARRANTY:

- A. The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 – Warranties and Guarantees.

PART 2 - MATERIALS

2.01 WELD METAL: The chemical and mechanical properties of all deposited weld metal shall be compatible to the base metal and conform to AWS specifications for electrodes.

2.02 BASE METAL: The parent structural steel shall be a weldable grade with the chemical and mechanical properties to produce a sound and serviceable welded joint.

2.03 FABRICATION:

- A. Surfaces of joints for welded and bolted connections shall be clean, bright metal.
 1. Welded connections will be permitted only where indicated on the drawings. Welded construction shall conform to the AISC and AWS Specifications.

PART 3 - EXECUTION

3.01 WELDING METHODS: Unless otherwise approved by the Miami Dade Department of Solid Waste Management, welding of steel shall be by an electric arc welding process and shall conform to AWS, Structural Welding Code, and the applicable sections of the AISC.

3.02 WELDING EQUIPMENT: Welding equipment shall be capable of providing the welding required by the drawings or specifications herein in accordance with the requirements of joint qualifications in AWS D1.1.

3.03 WELDING ELECTRODES:

- A. Electrodes and flux used for submerged arc welding shall be of the same manufacture. The flux shall be free of contamination from dirt, mill scale and foreign material. Fused flux used in welding shall not be reused. Bare electrodes and flux used in combination shall conform to the requirements of AWS D1.1.
- B. Electrodes for manual shielded metal-arc welding shall conform to AWS D1.1.

3.04 QUALIFIED WELDS: Only qualified welded joints shall be permitted in accordance with AWS, Structural Welding Code, and applicable sections of AISC.

3.05 PAINTING:

- A. After cleaning and connections are approved by the laboratory inspector, all surfaces to be welded shall be given a shop coat of primer. After erection, all field connections shall be cleaned.
- B. All connections, including welds and all abraded surfaces on the shop primer shall be painted to give one complete coat primer. Paint for field touch-up shall be the same paint used for the shop coat.

END OF SECTION 050600

SECTION 051000
STRUCTURAL STEEL

PART 1 - GENERAL

1.01 SCOPE:

- A. Summary of Work: The WORK of this SECTION shall consist of furnishing all the labor, materials, and equipment necessary for installation of structural steel as shown on the Drawings and as specified herein.
- B. Related Work Specified Elsewhere:
 - 1. SECTION 013300 – Submittals procedures
 - 2. SECTION 050600 - Welding

1.02 SHOP DRAWINGS AND ERECTION PROCEDURES:

- A. Prepare and submit shop and erection plans covering all structural steel and related items. All dimensions for checking of structural steel details shall be shown on the Drawings.
- B. The CONTRACTOR shall be responsible for the conformation of all steel details to the typical and special details shown on the Drawings. All details, notes and schedules appearing on the Drawings, and giving information for the fabrication and erection of the structural steel and related items shall be shown also on the erection or Shop Drawings. Drawings shall include all shop and erection details, including cuts, copes, connections and holes.
- C. Prepare and submit, for information, two copies of a detailed erection procedure with the shop and erection drawings. The procedure shall include the sequence of erection with temporary staying and bracing. No copies of such procedures will be returned.

1.03 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards of the organizations listed below in effect at the time of the advertisement for bids form a part of this specification to the extent referenced. See the various paragraphs for the specified standard. In the case of a conflict between the requirements of this SECTION and those of the listed document, the requirements of this SECTION shall prevail.
 - 1. American Institute of Steel Construction (AISC) Publications, with Commentary
 - a. Code of Standard Practice for Steel Buildings and Bridges
 - b. Specification for the Design, Fabrication and Erection of Structural Steel for Buildings, with Commentary
 - c. Manual of Steel Construction
 - 2. American Society for Testing and Materials (ASTM):
 - a. A36 – Standard Specifications for Carbon Structural Steel
 - b. A53 – Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless

- c. A500 – Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- d. A501 – Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing
- e. A572 – Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
- f. A992 – Standard Specification for Structural Steel Shapes
- g. E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection
- 3. American Welding Society (AWS)
 - a. D1.1 Structural Welding Code - Steel
- B. Unless otherwise indicated on the Drawings or specified herein, the Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings of the American Institute of Steel Construction, hereafter designated AISC, shall govern structural steel WORK.

1.04 SUBMITTALS:

- A. Submittals shall be in accordance with SECTION 013300.
- B. The CONTRACTOR shall submit:
 - 1. Signed and sealed Shop Drawings
 - 2. Mill reports

1.05 SUBSTITUTIONS OF SECTIONS: Substitutions of sections or modifications of details, or both, and the reasons therefore, shall be submitted with the Shop Drawings for approval and in accordance with Section 012500 – Substitution Procedures. Approved substitutions, modifications, and changes in related portions of the WORK shall be coordinated by the CONTRACTOR and shall be accomplished at no additional cost to the Miami Dade Department of Solid Waste Management.

1.06 RESPONSIBILITY FOR ERRORS: The CONTRACTOR shall be responsible for all errors of detailing, fabrication, and for correct fitting measurements in the field to verify or supplement dimensions shown on the Drawings and shall assume responsibility for fitting new WORK to existing WORK.

1.07 TEMPLATES: Templates shall be furnished by the Fabricator to the job, together with instructions for the setting of anchors, anchor bolts and bearing plates. The CONTRACTOR shall ascertain that the items are set during the progress of the WORK.

1.08 QUALIFICATION:

- A. Fabrication Shop and Erection personnel shall have fabricated and erected projects of similar size and complexity for at least five (5) years.
- B. Joint Qualification: All joints shall comply with AWS D1.1.

1.09 INSPECTION AND TESTING:

- A. Inspections and tests shall be performed by an independent laboratory complying with ASTM E329, selected, directed, and paid by the CONTRACTOR. All material to be furnished shall be subject to inspections and tests in the shop and field.

- B. Reports of shop and field inspections and testing shall be made by the laboratory on a weekly basis and submitted directly as follows: One (1) copy each to the Miami Dade Department of Solid Waste Management, Inspector, CONTRACTOR, Fabricator and Erector.

1.10 WARRANTY: The CONTRACTOR shall warrant the WORK against defects for one (1) year from the date of Substantial Completion and as described in Section 017400 – Warranties and Guarantees.

PART 2 - PRODUCTS

2.01 GENERAL: Materials shall be of domestic manufacture, within trade tolerances, new, undamaged and without splices. Structural material, plain or fabricated, shall be stored above the ground upon platforms, skids or supports. Material shall be kept free of dirt, grease and foreign matter and shall be protected from corrosion.

2.02 STRUCTURAL STEEL:

- A. Structural steel shall comply with ASTM A36, A53 Grade B, and A500 Grade B, A501, A572 Grade 50, and A992 as applicable. Refer to the Drawings for the locations of each type of structural steel.
- B. The CONTRACTOR shall furnish two (2) copies of all mill reports covering the chemical and physical properties of the steel used.

2.03 PAINT:

- A. Paint for both shop or primer coat and field touch-up shall be:
 - 1. Tnemec Company Incorporated's 99 Green Primer
 - 2. Sherwin-Williams Company's Ken Kromik Metal Primer
 - 3. Pratt & Lambert Incorporated's Noxide #96 Red Primer, or
 - 4. Miami Dade Department of Solid Waste Management Approved Equal.
- B. Paint shall be compatible with Sprayed Fireproofing Systems.

2.04 GROUT:

- A. Non-shrink grout beneath base and bearing plates shall be:
 - 1. Five Star Grout by U.S. Grout Corp.
 - 2. SonogROUT by L. Sonneborn Inc.
 - 3. Horn Non-Metallic Grout by A.C. Horn Inc.
 - 4. Non-Ferrous Non-Shrink Grout by the Burke Co., or
 - 5. Miami Dade Department of Solid Waste Management Approved Equal

2.05 FABRICATION:

- A. Structural material shall be fabricated and assembled in the shop. Assembled pieces shall be taken apart for the removal of burrs and shavings produced by the reaming operation. Parts not connected in the shop shall be secured by bolts to prevent damage in shipment and handling.
- B. Connections shall be as shown on the Drawings. Connections not indicated shall be made to conform to the AISC Specifications. One-sided or other types of eccentric connections will not be permitted

except where shown on the plans. Fit-up of the parts shall be inspected and approved by the laboratory inspector prior to making final connection.

1. Holes shall be cut, drilled or punched at right angles to the surface of the metal and shall not be made or enlarged by burning. Holes in base or bearing plates shall be drilled. Holes shall be clean-cut without torn or ragged edges. Outside burrs resulting from drilling or reaming operation shall be removed
- C. Milled surfaces shall comply with the AISC Specifications and the Drawings.
- D. Allowance shall be made for draw in all tension bracing.

PART 3 - EXECUTION

3.01 STRUCTURAL STEEL:

- A. Splices and field connections shall be made as shown or noted on the Drawings. Errors in shop fabrication of deformation resulting from handling and transportation that prevent the assembly and fitting of parts shall be reported immediately to the Miami Dade Department of Solid Waste Management for directions as to method of correction. Corrections shall be made at no additional cost to the Miami Dade Department of Solid Waste Management.
- B. Leveling plates shall not be used under base plates.
- C. Column bases and bearing plates shall be attached as shown on the Drawings. Plates shall be supported and aligned on steel wedges or shims. After the supported members have been plumbed and positioned and the anchor nuts tightened, the entire bearing area under the plate shall be dry-packed solidly with non-shrink grout. Wedges and shims shall be cut off flush with edge of column base and bearing plates, and shall be left in place.
- D. After assembly, the various members forming parts of a completed frame or structure shall be aligned and adjusted before being fastened. Tolerance shall conform to AISC. Fastening of splices of compression members shall be done after the abutting surfaces have been brought completely into contact. Bearing surfaces and surfaces that will be in permanent contact shall be cleaned before the members are assembled. As erection progresses, the WORK shall be fastened to take care of all dead load, wind and erection stresses. Splices will be permitted only where indicated on the Drawings. Erection bolts used in welded construction shall be tightened and left in place. Welding for redrilling will not be permitted.
- E. Drift pins may be used only to bring together the several parts, and shall not be used in such manner as to distort or damage the metal.
- F. The use of a gas-cutting torch in the field for correcting fabrication errors is prohibited unless the Miami Dade Department of Solid Waste Management has specifically approved such procedures for each case individually in writing.

3.02 PAINTING:

- A. All steel WORK shall be cleaned of loose mill scale, loose rust, accessible weld slag or flux deposit, dirt, and foreign matter. Solvent shall remove oil and grease deposits. No paint shall be applied when steel temperature is below the dew point of the atmosphere. Paint shall be mixed and no pigment shall remain on bottom of can.
- B. After cleaning and connections are approved by the laboratory inspector, all steel WORK except that to be encased in concrete, surfaces to be fireproofed, or surfaces to be welded or bolted shall be given a

- shop coat of primer. The primer shall be applied at a rate to provide a minimum dry film of two (2) mils. The primer shall be applied without holidays or paint runs.
- C. After erection, all field connections shall be cleaned. All connections, including welds and bolts, and all abraded surfaces on the shop primer shall be painted to give one complete coat primer. Paint for field touch-up shall be the same paint used for the shop coat.

END OF SECTION 051000

SECTION 055000

METAL FABRICATIONS

PART 1 GENERAL

1.01 SUMMARY

A. Related Sections:

1. 033000 - Cast-In-Place Concrete.
2. 099000 – Painting & Coatings.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM), latest edition:

1. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.
2. ASTM A53/A53M - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless; 2012.
3. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2017.
4. ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
5. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2014 (Editorial 2017).
6. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
7. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2017.
8. ASTM B633 - Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel; 2015.
9. AWS A2.4 - Standard Symbols for Welding, Brazing, and Nondestructive Examination; 2012.
10. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015, with Errata (2016).
11. IAS AC172 - Accreditation Criteria for Fabricator Inspection Programs for Structural Steel; 2017.
12. SSPC-Paint 15 - Steel Joist Shop Primer/Metal Building Primer; 1999 (Ed. 2004).
13. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).
14. SSPC-SP 2 - Hand Tool Cleaning; 1982, with Editorial Revision 2004).

B. American National Standards Institute (ANSI) A14.3 for fixed ladders.

C. Occupational Safety and Health Administration (OSHA).

1.03 SUBMITTALS

- A. Shop Drawings: Indicate profiles, sizes, connection attachments, reinforcing, anchorage, size and type of fasteners, and accessories. Include erection drawings, elevations, and details where applicable.
1. Indicate welded connections using standard AWS A2.4 welding symbols. Indicate net weld lengths.
 2. Design data: Submit drawings and supporting calculations, signed and sealed by a qualified professional structural engineer.

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- B. Welders' Certificates: Submit certification for welders employed on the project, verifying AWS qualification within the previous 12 months.
- C. Designer's Qualification Statement.
- D. Fabricator's Qualification Statement: Provide documentation showing steel fabricator is accredited under IAS AC172.
- E. Submittals shall be in accordance with Section 013300 – Submittal Procedures.

PART 2 PRODUCTS

2.01 MATERIALS - STEEL

- A. Steel Sections: ASTM A36/A36M.
- B. Steel Tubing: ASTM A501/A501M hot-formed structural tubing.
- C. Pipe: ASTM A53/A53M, Grade B Schedule 40, black finish.
- D. Slotted Channel Framing: ASTM A653/A653M, Grade 33.
- E. Bolts, Nuts, and Washers smaller than ½" Dia.: ASTM A307, Grade A, plain; large than ½" Dia.: ASTM A325.
- F. Welding Materials: AWS D1.1/D1.1M; type required for materials being welded.
- G. Steel fabrications specified to be field painted shall be factory primed after galvanizing.
- H. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
- I. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.
- J. Galvanized Metal Repair Compound:
 - 1. Hot Applied: Federal Specifications O-G-93.
 - 2. Cold Applied: Galvaneal, Galvicon, or Z.R.C.
- K. Shop Prime Coat: Zinc chromate primer.
- L. Stainless Steel Shapes and Plates: Type 304 with stainless fasteners.
- M. Isolation Coating: Zinc chromate paint or acceptable non-conductive tape.
- N. Fastenings, Anchors and Bolts:
 - 1. Provide required cast-in-place or built-in anchor bolts for miscellaneous metal items of galvanized steel, complete with matching washers and nuts.
 - 2. Where not practical to prelocate bolts, provide self-drilling or toggle type concrete anchors.
- O. Hot Dip Galvanizing: Where specified or indicated, hot dip galvanized ferrous items according to ASTM A385 and ASTM A123, minimum 2.0 ounces per square foot.

2.02 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Continuously seal joined members by intermittent welds and plastic filler.
- D. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

- E. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.
- F. Repair to Galvanized Surfaces: Repair damaged galvanized surfaces with hot or cold applied compound.
- G. Shop Painting of Ferrous Metal Items: Provide 1 coat of shop primer unless indicated or specified to be hot dip galvanized.
- H. Contact With Dissimilar Materials: Provide isolation coating where dissimilar metals are in contact or where aluminum contacts masonry, concrete, plaster, or mortar.
- I. Fabricate ferrous items according to AISC Specifications and approved shop drawings.
- J. Concrete filled metal filled pan stairs may have treads precast and delivered to job site integral with pan at option of Contractor. Landings shall be engineered to have a live load capacity of 100 psf.

2.03 FINISHES - STEEL

- A. Prime paint steel items.
 - 1. Exceptions: Do not prime surfaces to be embedded in concrete or where field welding is required.
- B. Prepare surfaces to be primed in accordance with SSPC-SP2.
- C. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- D. Prime Painting: One coat of rust-inhibitive primer.
- E. Galvanizing of Structural Steel Members: Galvanize after fabrication to ASTM A123/A123M requirements. Provide minimum 1.7 oz/sq ft galvanized coating.
- F. Galvanizing of Non-structural Items: Galvanize after fabrication to ASTM A123/A123M requirements.

2.04 FABRICATION TOLERANCES

- A. Squareness: 1/8 inch maximum difference in diagonal measurements.
- B. Maximum Offset Between Faces: 1/16 inch.
- C. Maximum Misalignment of Adjacent Members: 1/16 inch.
- D. Maximum Bow: 1/8 inch in 48 inches.
- E. Maximum Deviation From Plane: 1/16 inch in 48 inches.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that field conditions are acceptable and are ready to receive work.

3.02 PREPARATION

- A. Clean and strip primed steel items to bare metal where site welding is required.
- B. Supply setting templates to the appropriate entities for steel items required to be cast into concrete or embedded in masonry.

3.03 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Provide for erection loads, and for sufficient temporary bracing to maintain true alignment until completion of erection and installation of permanent attachments.
- C. Field weld components as indicated on drawings.
- D. Perform field welding in accordance with AWS D1.1/D1.1M.
- E. Obtain approval prior to site cutting or making adjustments not previously scheduled.
- F. After erection, prime welds, abrasions, and surfaces not shop primed, except surfaces to be in contact with concrete.
- G. Coordination: Coordinate miscellaneous metal items, including field dimensions where required with masonry openings and various other trades as applicable so items fit and function as intended.
- H. Erect and install miscellaneous metal items at proper locations and elevations, plumb, level, in alignment and not distorted by fastenings, according to approved shop and erection drawings, manufacturer's directions, and as specified. Provide adequate temporary supports to allow field connections of members without misalignment.
- I. Supplementary Parts: Furnish and install necessary to complete each item.
- J. Conform to best quality and accepted standard practice.
- K. Weld on back or bottom side so welds are not visible.
- L. Provide acceptable fasteners, inserts, and expansion anchors for supports placed in shear position where possible.
- M. Powder and pneumatic actuated (shot-type) fasteners shall not be used to provide support for construction elements located overhead.
- N. Install interior stair nosings to full step length.

3.04 FIELD QUALITY ASSURANCE

- A. Touch up abrasions to shop prime surfaces and welds with specified primer after erection and installation operations are complete.

3.05 TOLERANCES

- A. Maximum Variation From Plumb: 1/4 inch per story, non-cumulative.
- B. Maximum Offset From True Alignment: 1/4 inch.
- C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION 055000

**SECTION 05 51 33
METAL LADDERS**

PART 1 GENERAL

1.01 SUMMARY

- A. Provide factory-fabricated metal ladders where indicated on the drawings.

1.02 RELATED WORK

- A. Section 055000 - Metal Fabrications
- B. Section 077233 - Roof Hatches

1.03 REFERENCED STANDARDS

- A. American Ladder Institute – ALI A14.3 Ladders – Fixed – Safety Requirements. 2018
- B. American Society of Safety Professionals – ASSP Z359.16 Safety Requirements for Climbing Ladder Fall Arrest Systems. 2016
- C. American Welding Society – AWS D1.1/D1.1M Structural Welding Code – Steel. 2021
- D. ASTM International –
 - A. ASTM A36/A36M Standard Specification for Carbon Structural Steel. 2019
 - B. ASTM A47/A47M Standard Specification for Ferritic Malleable Iron Castings. 2018
 - C. ASTM A123/A123M Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products. 2017
 - D. ASTM A780/780M Standard Practices for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings. 2020
 - E. ASTM 924/924M Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process. 2022
- E. Master Painters Institute – MPI 79 Primer, Alkyd, Anti-Corrosive for Metal. 2016
- F. US National Archives and Records Administration –
 - A. 29 CFR 1910.23 Ladders. 2016
 - B. 29 CFR 1910.29 Fall Protection System and Falling Object Protection – Criteria and Practice. 2016

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for Ladders and Ladder Safety Devices.
- B. Shop Drawings: Submit shop drawings for Ladders and Ladder Safety Devices, including profiles, accessories, anchoring and dimensions.
- C. Certificates: Submit Fabricator Certification for Ladder Assembly.

1.05 CERTIFICATES

- A. Manufacturer: Provide fabricator certification for ladder assembly, stating that the ladder and associated components have been fabricated according to the requirements of 29 CFR 1910.23

1.06 QUALIFICATION OF WELDERS

- A. Qualify welders in accordance with AWS D1.1/D1.1M. Use procedures, materials and equipment of the type required for the work.

1.07 DELIVERY, STORAGE AND PROTECTION:

- A. Deliver product in protective packaging. Store items in a dry, protected enclosed area, free from contact with soil and weather. Protect from corrosion, deformation, and other types of damage. Remove and replace damaged items with new items.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Structural Carbon Steel: ASTM A36/A36M.
- B. Structural Tubing: ASTM A500/A500M.
- C. Steel Pipe: ASTM A53/A53M, Type E or S, Grade B.
- D. Fittings for Steel Pipe: Standard malleable iron fittings – ASTM A47/A47M.
- E. Steel Bars and Plates: ASTM A36/A36M.

2.02 METAL LADDER

- A. Fabricate vertical ladders conforming to 29 CR 1910.23 and Section 5 of ALI A14.3. Ladders shall be capable of supporting their maximum intended load. Use 3"x1/2" steel flats for stringers and 7/8" diameter steel rods for rungs. Ladder rungs shall be spaced at not less than 11" on center and not more than 24" side (measured before installation of ladder safety system), plug welded or shouldered and headed into stringers.

- B. Install ladders so that maximum perpendicular distance from the centerline of the rungs to the finished wall surface behind the ladder will not be less than 2'-8" at Building 3 and 7" at Building 4. Provide heavy clip angles welded or bolted to the stringers and drilled for not less than two ½" diameter expansion bolts into the concrete masonry wall. Provide intermediate clip angles not over 4'-8" on center.
- C. Finishes: Factory finish for the ladder and components shall be galvanized steel with a rust-inhibitive prime coating. Remove rust-inhibitive primer at locations to be field welded; restore primer coating after welding. Assembled ladder shall be field-painted with a rust-inhibitive alkyd coating.

2.03 LADDER SAFETY DEVICES (CLIMBING LADDER FALL ARREST SYSTEMS)

- A. Conform to 29 CFR 1910.29, Section 7 of ALI A14.3 and ASSP Z359.16.
- B. Two new ladders at Building 3 will be less than 20 feet in height. Safety Devices will not be required. One new ladder at Building 3 will be 30 feet and the new ladder at Building 4 will be 22 feet in height. They will require a safety cage or other safety device.

PART 3 EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

- A. Install ladders at locations indicated on the drawings, in accordance with manufacturer's instructions.
- B. Verify all measurements and take all field measurements necessary before fabrication. Ensure that ladder location and roof hatch opening are coordinated for proper alignment and safe operation.
- C. Include all materials, parts and components necessary to complete ladder installation, whether shown, specified or implicit.
- D. Poor matching of holes for fasteners will be cause for rejection.
- E. Thickness of metal and details of assembly and supports must provide strength and stiffness.

3.02 WORKMANSHIP

- A. Metalwork must be well formed to shape and size, with sharp lines and angles and true curves.
- B. Drilling and punching must produce clean, true lines and surfaces.
- C. Continuously weld along the entire area of contact. Do not tack weld exposed connections of work in place. Grind smooth exposed welds.
- D. Provide smooth finish on exposed surfaces or work in place, unless otherwise approved. Where tight fits are required, mill joints. Cope or miter joints, well formed and in true alignment.
- E. Install in accordance with manufacturer's installation instructions and approved shop drawings, cuts, and details.

3.03 ANCHORAGE, FASTENINGS AND CONNECTIONS

- A. Provide anchorage where necessary for fastening metal items securely in place. Include anchorage not otherwise specified or indicated, including but not limited to slotted inserts, expansion anchors, toggle bolts and tapcons for concrete and masonry; machine bolts, carriage bolts and powder-actuated threaded bolts for steel.
- B. Make exposed fastenings of compatible materials, generally matching in color and finish, the surfaces to which the fastenings are applied.

3.04 WELDING

- A. Perform welding, welding inspection, and corrective welding in accordance with AWS D1.1/D1.1M. Use continuous welds on all exposed connections. Grind visible welds smooth in the finished installation.

3.05 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces according to manufacturer's instructions. Touch up damaged metal coatings.

END OF SECTION 055133

SECTION 056000
MISCELLANEOUS METALS

PART 1 - GENERAL

1.01 MATERIALS: Materials shall be new, free from defects impairing strength, durability of appearance, and of best commercial quality for intended purposes.

1.02 SUBMITTALS: Submit for acceptance fully detailed shop and erection drawings for all miscellaneous metal work required for this project. Include with submittal color selections as required. Submittals shall be in accordance with Section 013300 – Submittal Procedures.

1.03 RELATED WORK SPECIFIED ELSEWHERE:

- A. Section 051000 Structural Steel
- B. Section 055000 Metal Fabrications

1.04 WARRANTY:

- A. The MANUFACTURER shall warrant the EQUIPMENT, MATERIALS and PRODUCTS specified in this section against defective materials and workmanship with the MANUFACTURER'S standard warranty, but for no less than one year from the date of Substantial Completion, and as described in Section 017400 – Warranties and Guarantees.
- B. The CONTRACTOR shall warrant the WORK against defects for one year from the date of Substantial Completion and as described in Section 017400 – Warranties and Guarantees..

PART 2 - PRODUCTS

2.01 BASIC MATERIALS:

- A. Miscellaneous Structural Shapes: ASTM A36
- B. Miscellaneous Aluminum Shapes: ASTM B221, alloy 6063 T-5, Sheet: ASTM B 209, alloy 3003, tempered as required
- C. Miscellaneous Iron Castings: ASTM A48, Class 30
- D. Anchors and Fastenings: Compatible with material to be fastened
- E. Shop Primer: No. 5210 Universal Primer by Glidden
- F. Isolator for Aluminum and Specified Galvanized Metals: Aluminum pigmented bituminous paint or epoxy

2.02 FINISHES:

- A. Hot-dipped galvanizing ASTM A386, Class C, for angle thresholds and all other shapes cast-in or directly attached to concrete or masonry.
- B. Shop Primer: One coat on all ferrous metals not scheduled or required to be galvanized.
- C. Caustic Etch and Lacquer: Miscellaneous aluminum.

2.03 SHOP FABRICATED ITEMS:

- A. Metal Stairs: To detail conforming to all codes and regulations governing industrial stairs.
- B. Pipe Railings: 1-1/2-inch diameter schedule 40, all welded construction, galvanized after fabrication.
- C. Angle Thresholds, Corner Guards, and Other Shapes Indicated as Cast-In-Construction: Weld round-rod back anchors as detailed or required. At corners, miter, weld and grind smooth. Follow basic material requirements.
- D. Steel Pipe Stanchions: 4" diameter schedule 40 galvanized steel pipe, heights as shown on the Drawings.

PART 3 - EXECUTION

3.01 INSTALLATION:

- A. Follow accepted shop and erection drawings. Coordinate with work of Section 033000 for items cast into concrete.
- B. Isolate aluminum surfaces in contact with other surfaces with two (2) coats of specified paint.
- C. Isolate galvanized surfaces to be cast into concrete with two (2) coats of specified paint.

3.02 FIELD WELDING: Conform to AWS Code Standards. Use certified welders.

3.03 MISCELLANEOUS:

- A. Furnish all fastenings including lag screws, rods, bolts, washers, nuts, and inserts as required to complete all work.
- B. Embed pipe stanchions minimum 3 inches below grade in minimum 1-foot-4-inches diameter by 3-feet-6-inches deep 3000 psi concrete.

END OF SECTION 056000

SECTION 06 10 53

MISCELLANEOUS ROUGH CARPENTRY

PART 1- GENERAL

1.01 SUMMARY

- A. Installation of blocking, curbs, and other miscellaneous carpentry, as shown on the drawings or specified herein.

1.02 RELATED WORK

- A. Section 024100 - Selective Demolition
- B. Section 072200 - Rigid Tapered Roof Insulation
- C. Section 075216 - SBS Modified Bitumen Roofing
- D. Section 076000 - Flashing and Sheet Metal

1.03 SUBMITTALS

- A. In accordance with Section 013300 of these Specifications.

1.04 ENVIRONMENTAL CONDITIONS

- A. Material installation shall proceed only when weather conditions are in compliance with the applicable manufacturer's recommendations for installation and no precipitation is imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement with new materials at no additional cost to Owner.

PART 2 PRODUCTS

2.01 WOOD PRODUCTS

- A. Non-Structural Wood Blocking: Nominal 2-inch-thick maximum, nominal widths as specified, shop pressure-treated for above ground contact. Do not use oil-based preservatives.
- B. CD-X Exterior Grade Plywood: 3/4-inch-thick, three-ply minimum.
- C. Wood Fiber Tapered Edge Strips: ASTM C208, Type II, Grade 1 (Built-Up Roofs), C209. Approved for use by approved roofing system manufacturer.
- D. Any other wood members necessary throughout the project to provide a complete, functional installation.

2.02 FASTENERS

- A. Screws: #12 double-coated galvanized steel screws or stainless-steel self-tapping wood screws that shall be able to resist any galvanic action that may be able to develop between the nail and the pressure treatment. The use of a lesser quality screw will not be approved. Screws shall be of sufficient length to penetrate a minimum of 1-1/2-inches into the substrate.

Space screws no more than 12-inches on-center, unless specified otherwise.

- B. Bolts: At metal decking, provide minimum ¼" dia. bolts and nuts to fasten blocking to deck. Space screws/bolts no more than 12-inches on-center, unless specified otherwise. At concrete slabs provide expansion fasteners or Tapcons, sized and spaced as required for the uplift requirements, but no more than 12 inches on center.
- C. Nails: For securing new lumber to new lumber or new plywood/OSB to new lumber, double-coated galvanized steel or stainless-steel ring shank nails are to be used to penetrate a minimum of 1-1/2-inches into the substrate but not smaller than 10d nails. Use 16d nails where material being secured is 1-1/2-inch to 2-inches-thick. Space nails no more than 12-inches on-center unless specified otherwise.
- D. Masonry Fastener: Space fastener no more than 12-inches on-center unless specified otherwise.
 - 1. Masonry Anchor, minimum 1-1/4-inch into substrate, as manufactured by OMG Roofing Products
 - 2. Tapcon 1/4-inch x minimum 1-1/4-inch in the substrate, as manufactured by Buildex.
 - 3. Roofing Spike, minimum 1-1/4-inch into substrate, as manufactured by Powers Fasteners.

PART 3 EXECUTION

3.01 GENERAL

- A. Furnish and install new wood blocking at all roof mounted equipment and other curbs, as required to provide a minimum flashing height of 8-inches above roof level.
- B. Blocking shall be installed under integral equipment curbs as required to maintain full cant face above roof level and secured to the deck with appropriate fasteners through the deck as specified.
- C. At small units (largest dimension up to 30-inches) where wood blocking can be installed beneath the units, new pressure-treated wood blocking may be installed on top of the existing curb. The wood blocking shall match the curb in width. New wood blocking shall be attached to the curb using specified wood screws and a minimum of 2 fasteners per side. Subsequent layers of wood blocking shall be secured using specified nails and a minimum of 2 nails per side.
- D. The cost for raising curbs or installing curb extensions shall be included in the Base Bid.

3.02 WOOD BLOCKING INSTALLATION: Install the minimum number of layers to satisfy the total thickness requirements shown on drawings or specified herein. Locate two fasteners approximately 2 inches from the end of each board and at intervals of 12" oc. Maximum.

- A. Parapets: Furnish and install new continuous wood blocking on top of the new metal decking at existing parapet metal siding panels, as shown on drawings. Furnish and install wood fiber tapered edge strips at the top of the parapets. Edge strips shall provide a minimum slope of ¾-inch-per-foot across the parapet. Secure the wood fiber using two equally spaced rows of nails spaced no more than 12 inches on-center in each row. Offset the nail locations a minimum of 6 inches. Refer to the Drawings.

END OF SECTION 061053

SECTION 07 22 00

RIGID TAPERED ROOF INSULATION

PART 1 GENERAL

1.01 SUMMARY: Installation of new roof insulation over existing metal deck and over existing and new concrete slabs at Building 3 and over existing concrete slab at Building 4, as shown in the drawings and specified herein. All materials and methods shall bear Miami-Dade County Product Control approval and have a valid, current Notice of Acceptance (N.O.A.).

1.02 RELATED WORK:

- A. Section 061053 - Miscellaneous Rough Carpentry
- B. Section 075216 - SBS Modified Bitumen Roofing
- C. Section 076000 - Flashing and Sheet Metal

1.03 SUBMITTALS

- A. Refer to Section 013300 Submittal Procedures of these Specifications.

1.04 ENVIRONMENTAL CONDITIONS

- A. Material installation shall proceed only when weather conditions are in compliance with the applicable manufacturer's recommendations for installation and no precipitation is imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement with new materials at no additional cost to Owner.

1.05 WARRANTY

- A. Refer to Section 075216 SBS Modified Bitumen Roofing of this Specification.

PART 2 PRODUCTS

2.01 GENERAL

- A. All products and systems to carry Miami-Dade County Product Control approval and active Notice of Acceptance (NOA).

2.02 POLYISOCYANURATE ROOF INSULATION

- A. Flat and tapered, as specified, ASTM C1289, Type II, Class I. Board size shall not exceed 4' x 8' for mechanically attached insulation. Board size of tapered insulation shall not exceed 4' x 4'. The Long-Term Thermal Resistance shall be a minimum of 5.7 per inch. Insulation compressive strength shall be minimum 20 psi. Insulation density shall be 2 pcf. minimum. Thermal insulating factor as specified; however, thicknesses of each layer of insulation shall not exceed 2 inches.

2.03 WOOD FIBER TAPERED EDGE STRIPS

- A. ASTM C208, Type II, Grade 1 (Built-Up Roofs), C209. Approved for use by approved roofing system manufacturer.

2.04 COVER BOARD

- A. Gypsum Fiber Board, Nominal 1/2" thick, ASTM C 1177, 0 Flame Spread and 0 Smoke Developed when tested in accordance with ASTM E 84, nominal 900 psi minimum compressive strength, Class A, non-combustible, 4' x 8' board size.

2.05 CANT STRIPS

- A. Perlite cut to fit at 45 degrees with minimum 4" face. ASTM C728. Approved for use by approved roofing system manufacturer.

2.06 BLACK PLASTIC ROOF CEMENT (ASPHALT)

- A. ASTM D2822-91(1997), Class I. Class II cement will be used if applied to damp or wet surfaces. Approved for use by approved roofing system manufacturer.

2.07 PRIMER

- A. As required by the manufacturer for steel and concrete decks, parapets, and exposed wood blocking.

2.08 INSULATION ADHESIVE

- A. Low rise foam adhesive suitable to use with Polyisocyanurate Insulation. Adhesive shall meet High Velocity Wind Zone requirements to prevent uplift of insulation and roofing and be rated for low VOC emissions.

2.09 FASTENERS & PLATES

- A. Insulation Fastener- Steel Deck: Minimum #12 steel screw roof insulation fastener for steel decking as approved by the roofing materials manufacturer and Miami Dade County Department of Solid Waste Management requirements. Fasteners must pass a minimum of 15 cycles in the Kesternich SFW 2.0s DIN 50018 test with less than 15% red rust.
- B. Insulation Fastener Plate: 3" ribbed, galvalume coated steel plate as approved by the roofing materials manufacturer and Miami Dade County Department of Solid Waste Management requirements.
- C. Insulation Fastener – Concrete Deck: Tapered insulation over concrete decks shall be fully adhered with approved adhesive to meet Florida Building Code uplift requirements.
- D. Low-Rise Adhesive Fastener: double or single-component low-rise polyurethane adhesive as approved by the roofing system manufacturer.

PART 3 EXECUTION

3.01 COORDINATION AND INSPECTION

- A. The substrate shall be clean, smooth, dry, and free of debris and all foreign matter prior to receiving insulation and cover board. Application of new materials shall constitute approval of the substrate by the Contractor.
- B. The contractor bears the responsibility to locate any conduits that are in the decking flutes or above the existing concrete deck prior to the start of the work. The contractor shall, to the full extent possible, not engage these conduits with screws, fasteners, etc. Should power be lost due to penetration of a conduit, the Contractor bears the responsibility to locate and repair the conduit and/or enclosed wiring to the original condition so as to restore power to the Owner. Cost associated with these repairs shall be borne by the Contractor at no additional cost to the Owner.
- C. Repairs to conduit, wiring, electrical equipment, and accessories under this paragraph shall be performed by an electrical contractor licensed to perform such work in the state of Florida with a minimum of 5 years experience in this type of work.

3.02 GENERAL INSTALLATION: Roof Insulation and Cover Board

- A. Apply insulation with end joints staggered approximately one-half the length of the units.
- B. Offset insulation joints from the preceding layer a minimum of six (6) inches.
- C. Fit insulation units snugly to each other and to all vertical surfaces.
- D. Hot Asphalt: Secure each board in a solid mopping of insulation adhesive or hot steep grade asphalt.
- E. Low-Rise Foam Adhesive: Secure each board to the substrate using low-rise adhesive beads at spacings in accordance with the manufacturer's requirements to resist the uplift pressures and/or ratings shown on drawings for each zone. However, spacings shall not exceed 12 inches on-center in the field (Zone 1 and 1'), 6 inches on center for the perimeter (Zone 2), and 4 inches on center for the corner (Zone 3). Zone definition is indicated on drawings. Ensure insulation contact with adhesive by weighting units. Prior to applying adhesive bead, apply one continuous bead of adhesive around the perimeter of the of the insulation board not further that 4 inches from the edge.
- F. Mechanical Attachment: Secure each board to the metal deck using plates and fasteners in accordance with the manufacturer's requirements to resist the uplift pressures and/or ratings shown on drawings for each zone. However, there shall be a minimum of 1 fastener/plates per 4 square feet for the field (Zone 1 and 1'), 1 fastener/plates per 2 square feet at the perimeter (Zone 2), and 1 fastener/plates per 1 square feet at the corners (Zone 3). Zone definition is indicated on drawings. Partial units less than 4 square feet shall be secured with a minimum of 4 fasteners/plates. Provide insulation fastener of length to penetrate the roof deck a minimum of ¾ inch and a maximum of 1-1/2 inch.
- G. Replace damaged units as required to provide a smooth surface and uniform insulation thickness.

3.03 GENERAL REQUIREMENTS (CRICKETS/SADDLES)

- A. Crickets/saddles must have a minimum finished slope of ¼-inch per foot. Cricket/Saddles shall also meet the requirements of Paragraph 3.02 above.
- B. Start cricket construction by striking chalk lines for outer edges of tapered units. Install the first row along the chalk lines, mitering and fitting at the points where lines break.
- C. Complete the cricket assembly using tapered isocyanurate and isocyanurate fill units. Fill unit shall not exceed 1 inch in thickness.
- D. The thin edge of the tapered insulation shall be ½" and shall be located at the valley created by the tapered insulation and the roof insulation.
- E. Remove and replace damaged units with new insulation or repair to provide a smooth surface and uniform insulation thickness.
- F. Utilize tapered wood fiber edge strips that transition from 0" to 1/2" as the first layer of tapered insulation to provide a smooth transition. Set wood fiber on top of the insulation in one continuous band of low-rise foam adhesive.

3.04 INSTALLATION

- A. Apply one layer of 2-inch-thick polyisocyanurate insulation to the metal roof deck in Building 3, secured by mechanical attachment. At the existing and new concrete decks in Buildings 3 & 4, secure the insulation by approved adhesive.
- B. Apply one layer of 1.5-inch-thick polyisocyanurate insulation to the first layer of insulation and secure using low-rise adhesive.
- C. Apply one layer of 1/4-inch per foot tapered polyisocyanurate insulation to the second layer of insulation and secure using low-rise adhesive.
- D. At the primary drains, the thin edge of the tapered insulation shall be located adjacent to the drain bowl. Fill units shall not exceed 1 inch in thickness. Remove and replace damaged units with new insulation or repair to provide a smooth surface and uniform insulation thickness.
- E. Furnish and install tapered insulation to move water from walls, form valleys/crickets, as shown on roof plans, using factory-tapered polyisocyanurate units and polyisocyanurate fill units.
- F. Furnish and install one layer of nominal 1/2-inch-thick cover board over all polyisocyanurate insulation and secure using low-rise foam adhesive.
- G. Install perlite cants at locations where membrane changes from horizontal to vertical. Secure the cant at both contact surfaces using roofing cement. Do not install cants at locations specified on drawings or where liquid flashing will be applied.

END OF SECTION 072200

SECTION 07 51 05
GENERAL INSTALLATION PROCEDURES

PART 1 GENERAL

1.01 GENERAL INSTALLATION PROCEDURES/ASPHALTIC ROOFING

- A. Do not proceed with installation of new roofing until all vents, curbs, cants, blocking, nailing strips and projections through the roof deck have been installed.
- B. Do not apply materials on wet or damp surfaces, over dust, dirt or other foreign matter. Foaming of hot bitumen at application is evidence that the surface is too wet for application.
- C. Do not apply bituminous materials when ambient air temperature is below 40° F or above 90° F unless equipment can be operated, and materials handled without exceeding maximum allowable temperature and without damage to materials, and then only with approval of the Architect/Engineer.
- D. Do not apply emulsions when ambient air temperature is below 40° F or is expected to be below freezing within 24 hours of application.
- E. Do not step on freshly installed roofing. Allow sheets to cool and set prior to any traffic.
- F. Protect edges and incomplete flashings against water entry at all times. Remove cutoffs and temporary protection prior to resumption of work.
- G. Prime all metal, masonry and concrete surfaces to receive hot bitumen and/or cement using approximately one gallon of asphalt primer per 100 square feet of surface. Allow primer to dry thoroughly before applying bituminous materials.

1.02 TORCH-APPLIED ROOFING

- A. Use a hook or cane to roll sheet into asphalt after heating bitumen on the underside of the membrane using a torch.

Note: Torch work shall be performed by personnel who have received training in the heating and installation of APP modified bitumen membrane systems. Contractor shall provide the Architect/Engineer with a copy of training certificates for each person who will be performing such work on this project. A copy of each certificate shall be on site during the performance of such work.

Note: Torch application is correct when a 1/8" – 1/4" asphalt "bleed out" occurs from laps.

- B. Maintain personnel to observe person applying torch-applied roofing to ensure that person to not come in close proximity to edges, walls, or penetrations.
- C. Protect existing facilities from fire as a result of construction operations. Contractor shall provide suitable and adequate fire extinguishers conveniently located at staging areas, storage areas and at areas or equipment where an open flame is being used. Competent operators shall be in attendance at all times and shall be properly trained or instructed in fire protection.

- D. At each location where an open flame is used, Contractor shall provide a watchman with a suitable fire extinguisher.
- E. Protocol for fire safety.
 - 1. Before starting open flame activities, submit to the Owner's Representative a written Fire Safety Program enumerating all safeguards and procedures to ensure safe torch application of roofing, protecting Owner's property and safeguarding workers and Owner's staff.
 - 2. Maintain equipment checklist for proper operation,
 - 3. Must have a fire extinguisher located near every open flame activity.
 - 4. Follow Wind requirement limits for open flames.
 - 5. Monitor any open flame work for subsequent combustion.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION 075105

SECTION 07 52 16

SBS MODIFIED BITUMEN ROOFING

PART 1 GENERAL

1.01 SUMMARY

- A. Provide and Install SBS modified bitumen membrane and accessories, as specified herein. Materials and systems selected shall bear current, valid Notice of Acceptance from Miami-Dade Product Control.

1.02 RELATED WORK

- A. Section 072200 - Rigid Tapered Roof Insulation
- B. Section 075105 - General Installation Procedures
- C. Section 076000 - Flashing and Sheet Metal

1.03 SUBMITTALS

- A. In accordance with Part 2 of this Section and Section 013300 of these Specifications.

1.04 ENVIRONMENTAL CONDITIONS

- A. Material installation shall proceed only when weather conditions comply with the applicable manufacturer's recommendations for installation and no precipitation is imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement with new materials at no additional cost to the Owner.

1.05 QUALITY ASSURANCE

- A. Contractor shall perform a minimum 8-hour water test at one of the primary drains as described after cap sheet and flashing installation at drains. Drains for testing to be selected by the Architect/Engineer.
- B. Water test shall only be performed after sunset and when no inclement weather is expected over the next 24 hours.
- C. Fill the sump/drain area with water until a 2-inch head is accomplished directly over the center of the drain bowl. Cover the area with plastic and seal to prevent water evaporation.
- D. After a lapse of 8 hours, check the water head at the center of the drain bowl.
- E. Document conditions beneath and at drain bowls with time/date stamped photographs.
- F. Prepare report of finding for Architect/Engineer and Owner review.

1.06 WARRANTY

- A. Comply with the General Conditions of the Contract concerning warranties and bonds. The

Contractor shall agree that the work covered under this Contract shall remain free from any water penetration and physical defects caused by defective workmanship or materials for a period of two years from the date of final acceptance by Owner. Warranty shall be executed on Contractor's company letterhead and signed by an authorized officer of the company.

- B. Prior to final payment, Contractor shall submit one original and three copies of the Roofing System Manufacturer's Twenty-Year, No Dollar Limit Guarantee, with flashing endorsement, to the Owner.
1. Warranty shall include a high-wind rider for up to 150 MPH Winds.
 2. There have been instances where a problem has arisen with the material performance of a product that has been approved by the roofing system manufacturer, but is not manufactured by the roofing system manufacturer. In those instances, where a product defect or failure occurs during the twenty year Warranty period, even if the failure/defect does not result in leaks through the membrane and/or facility, the roofing system manufacturer shall work in concert with the roofing contractor to resolve such issues to the satisfaction of the Owner at no additional cost to the Owner.
- C. Emergency repairs to defects and leaks shall be performed within 48 hours of receiving notice from Owner. As soon as weather permits, permanent repairs and restoration of affected areas shall be accomplished in a manner in conformance with the original Contract requirements. This work shall be done without additional cost to the Owner, except if it is determined that such leaks and effects were caused by abuse, lightning, hurricane, tornado, hailstorm, or other unusual phenomena.
- D. Starting dates of all warranties shall be the date of the final inspection and Owner acceptance.

1.07 WIND UPLIFT RESISTANCE: Refer to the Structural Drawings.

1.08 FIRE RESISTANCE: Completed roof covering must comply with the requirements of Underwriter's Laboratories, Inc. for a Class A roof covering.

PART 2 PRODUCTS

2.01 ACCEPTABLE ROOFING SYSTEM MANUFACTURERS

- A. Firestone Building Products
- B. Johns Manville
- C. Siplast
- D. Soprema
- E. Owner & A/E approved alternative manufacturer deemed equal regarding product quality and compliance with all requirements of this specification.

2.02 GENERAL

- A. All products and systems to carry Miami-Dade County Product Control approval and active Notice of Acceptance (NOA).

2.03 PRODUCTS

- A. Primer: ASTM D41. Approved for use by approved roofing system manufacturer.
- B. Flashing Cement (Asbestos Free): ASTM D4586. Approved for use by the roofing system manufacturer. Certain SBS modified bitumen materials are not compatible with black plastic roofing/flashing cement. Follow the manufacturer's written instructions regarding the use of such cements near or at flashing material.
- C. Smooth Bituminous Membrane: Styrene-butadiene-styrene (SBS) smooth membrane shall conform to ASTM D6164, Grade S, Type II. Approved for use by the roofing system manufacturer in the method of application specified. Minimum thickness is 118 mils.
- D. Granulated Bituminous Membrane: Styrene-butadiene-styrene (SBS) sheet with white mineral granules shall conform to ASTM D6164, Grade G, Type II. Approved for use by the roofing system manufacturer in the method of application specified. Minimum thickness is 157 mils. White granules that provide a minimum initial year solar reflectance of 0.70 and minimum initial year thermal emittance of 0.75 and shall be Miami-Dade County Approved, with active, valid N.O.A.
- E. Aluminum Coating: ASTM D 2824, Type III. Approved for use by approved roofing system manufacturer.

2.04 PMMA/PMA LIQUID FLASHINGS

Two-component, with catalyst, cold fluid-applied reinforced low-odor polymethyl-methacrylate (PMMA) or polymethacrylate (PMA) flashing/vertical grade waterproofing membrane. Membrane installation shall consist of PMMA/PMA resin; polyester fleece reinforcement; PMMA/PMA resin application for a finished dry film membrane thickness of .105-inch nominal per ply; conforming to ASTM C 836. Provide membrane flashing. Provide products manufactured and supplied or approved for use to be included in the roofing system warranty.

- A. Primer: Two-component, high solids polymethyl methacrylate resin and/or 100% epoxy resin for use in improving adhesion of membrane to wood, asphalt, cementitious, and concrete substrate surfaces, as appropriate. As recommended by the approved membrane manufacturer and installed at rates recommended by the membrane manufacturer depending on substrate absorbency.
- B. Accessories: Surface Leveling/Pitching Mortar Resin; Patching, Filling and Smoothing Resin; Leveling and Patching Aggregate; Backer Rod; Miscellaneous Fasteners; Caulking; Temporary and Night Sealant; tools, other accessories, and cleaners as recommended or required by membrane manufacturer to provide a warrantable roofing system.

2.05 WALKWAY PADS

- A. As manufactured by approved roofing system manufacturer. Nominal 30" wide x 50' long. Black color (modified bitumen roofing). Approved for use by approved roofing system manufacturer.

2.06 FASTENING

- A. Roofing Nails: With minimum 1" head, such as Simplex nails or approved equal.
- B. Termination Bar: 1/4" x 1" aluminum.
- C. Masonry Anchor:
 - 1. Masonry Anchor, minimum 1-1/4 inch into substrate, as manufactured by OMG Roofing

- Products
2. Tapcon ¼" x minimum 1-1/4" in the substrate, as manufactured by Buildex.
 3. Roofing Spike, minimum 1-1/4 inch into substrate, as manufactured by Powers Fasteners.
 4. Approved equal prior to bid.

PART 3 EXECUTION

3.01 INSPECTION

- A. The substrate shall be clean, smooth, dry, free of debris and all foreign matter prior to installation of the roof membrane. Application of new materials shall constitute approval of the substrate by the Roofing Contractor.
- B. Insulation joints with gaps greater than ¼" shall be filled with roof insulation in order to provide a smooth surface.
- C. The Contractor shall maintain a fire watch with an operational fire extinguisher on the roof for a minimum of one hour after the completion of all torch operations, unless the roofing system manufacturer has a more stringent requirement. At the end of one hour, the fire watch shall inspect all areas where torch work was performed to ensure ignition has not occurred.
- D. The contractor shall not apply torch flame directly to plywood sheathing or wood blocking. At locations where membrane is to be turned up wood blocking/sheathing, the contractor shall place membrane in appropriate location and then fold the membrane back onto itself. The underside shall be heated, and the membrane then "flopped" into place.

3.02 TORCH-APPLIED SMOOTH BITUMINOUS ROOF MEMBRANE INSTALLATION

- A. Check substrate carefully for damage and application defects and make appropriate repairs and corrections prior to application of roof surfacing.
- B. Roll out membrane and allow to "relax" in accordance with roofing system manufacturer's written instructions.
- C. Beginning at the low point of the roof area, one ply of membrane shall be applied shingle fashion, uniformly adhered to the insulation and to each other without voids.
- D. Heat the underside of the membrane to a molten state and unroll the membrane onto the cover board.
- E. Lap sides and ends in accordance with the roofing system manufacturer written requirements. However, side laps shall be lapped a minimum of two (2) inches and end laps a minimum of six (6) inches.
- F. Utilize a steel roller to press the side and end laps of the membrane to ensure proper adhesion and bleed-out.
- G. Whenever possible, the entire roll shall be applied in a continuous manner. If rolls are allowed to set while partially rolled out, the roll shall be rolled back sufficiently to expose the area where the roll had stopped so that the underside the membrane can be heated at this area.
- H. All roofing membrane shall be cut off neatly along top edge of all cants and at the exterior edge of eave wood blocking.

- I. At internal roof drains, membrane shall be extended across the drain. Membrane shall be cut across the drain body opening and trimmed flush with the inside face of the drain body. Seal the membrane to the drain bowl using a three-coursing of roofing cement and mesh.
- J. Drain lead flashings, clamping rings, and stripping shall be installed prior to the end of each workday. Refer to Section 076000 of this specification.
- K. Furnish and install granulated bituminous membrane as specified herein.

3.03 TORCH-APPLIED GRANULATED ROOF MEMBRANE (CAPSHEET) APPLICATION

- A. Check roof surface carefully for damage and application defects and make appropriate repairs and corrections prior to application of roof surfacing.
- B. Install roof surfacing after base membrane has been applied, including stripping plies for flashings. However, roof surfacing shall be applied prior to base flashings surfacing membrane.
- C. Roll out cap sheet and allow to "relax" in accordance with roofing system manufacturer's written instructions.
- D. Beginning at the saddle and cricket valleys created with tapered insulation at drains, torch apply one ply of specified granulated bituminous membrane without voids. Install cap sheet at valley so that water will run across the laps.
- E. After the valleys, beginning at the lowest point of the roof, torch apply one ply of granulated bituminous membrane without voids. Apply the membrane in shingle fashion.
- F. Heat the underside of the membrane to a molten state and unroll the membrane onto the smooth membrane.
- G. Lap sides and ends in accordance with the roofing system manufacturer written requirements. However, side laps shall be lapped a minimum of two (2) inches and end laps a minimum of six (6) inches.
- H. Embed white roofing granules, which match the cap sheet surface, in all asphalt overruns. Finished surfaces must have a uniform appearance throughout without asphalt streaks or spots.
- I. At all end laps, heat and embed the granules on the underlying sheet for a distance to match the end lap.
- J. Utilize a steel roller to press the side and end laps of the membrane to ensure proper adhesion and bleed-out.
- K. Whenever possible, the entire roll shall be applied in a continuous manner. If rolls are allowed to set while partially rolled out, the roll shall be rolled back sufficiently to expose the area where the roll had stopped so that the underside the membrane can be heated at this area.
- L. All roofing membrane shall be cut off neatly along top edge of all cants and at the exterior edge of eave wood blocking.
- M. At roof drains, the contractor shall apply a nominal 36" x 36" target patch where the drain bowl lies in the center of the target patch. The target patch shall be cut across the drain body opening and trimmed flush with the inside face of the drain body. The contractor shall adhere the target patch to the base membrane by torch application.

- N. At internal roof drains, cap sheet shall be extended onto the target patch a minimum of 6 inches at all locations. The granules of the target patch shall be heated and embedded into the underlying membrane asphalt prior to cap sheet application. Priming the granules is not acceptable.
- O. Install base flashings as specified herein.

3.04 BASE FLASHING INSTALLATION

- A. Prior to application of base flashings to metal, concrete, or masonry surface, apply appropriate primer and allow to thoroughly dry.
- B. Prior to the application of base flashings to a plywood surface, apply one ply of fiber glass base sheet secured to the wood substrate using cap nails at spacings not to exceed 9 inches in all directions.
- C. At a minimum, smooth bituminous flashing membrane shall be applied after the smooth bituminous roof membrane.
- D. Granulate bituminous flashing membrane shall be applied after granulated bituminous roofing membrane has been applied.
- E. Install bituminous flashings at all curbs, walls and vertical surfaces where other types of flashings are not specified or shown on Drawings.
- F. At inside and outside corners of the parapet, curbs, and/or walls above roof level, furnish and install a sacrifice sheet in the corner. This sacrifice membrane shall extend onto either side of the corner a minimum of 4 inches. Fully adhere the sacrifice membrane in accordance with the membrane manufacturer's written instructions.
- G. Torch apply a strip of granulated bituminous flashing membrane, without voids, extending at least six (6) inches onto the roof, up the face of the cant, and at least eight (8) inches above the top of the roof surface. However, base flashing should extend up the vertical surface to the point of counterflashing installation. Offset laps from the previous layer a minimum of six (6) inches. Lap the ends at least three (3) inches, unless manufacturer has more stringent requirements. Flashings shall not extend up the wall higher than 12 inches above the surface of the roof unless otherwise shown on drawings.
- H. At inside and outside corners, extend the base flashing from 1st side of the corner to 4 inches onto the 2nd side of the corner. The base flashing from the 2nd side of the corner shall extend onto the base flashing at the 1st side of the corner a minimum of 4 inches. Notch extensions at cants and where membrane extends onto roofing. Fully adhere base flashing in accordance with membrane manufacturer recommendations and this section of the specification. This process shall be accomplished for all base flashings layers and flashing extension.
- I. Fasten the bituminous flashings top edge with flashing nails or appropriate fasteners on a line approximately one (1) inch below the top edge and spaced not over four (4) inches apart. Where it is not possible to secure the top of the bituminous flashings with flashing nails, furnish and install specified termination bar fastened to the substrate with appropriate fasteners at spacings not to exceed six (6) inches on center. If multiple termination bar sections are used, leave a ¼ inch gap between sections.

- J. Cover the top edges and fasteners with a nominal 1/8-inch-thick troweling of cement. At vertical laps and corners, apply a troweling of nominal 1/8-inch-thick cement, embed a fiber glass mat, and then cover with another 1/8-inch-thick troweling of cement. Apply cement on either side of the vertical lap a minimum of three (3) inches.
- K. Allow flashing cement to fully cure prior to applying coatings. Apply a uniform coating of a fibrated aluminum roof coating over all bituminous flashings and laps using not less than 1-½" to 2 gallons per 100 square feet.

3.05 PMMA/PMA LIQUID FLASHING INSTALLATION

- A. Install liquid flashings at location shown on drawings or as directed in the manufacturer's written instructions.
- B. Perform adhesive test of all surfaces to received liquid flashing prior to application. Abrade metal and/or roofing membrane surfaces to receive liquid flashing as required by the flashing manufacturer.
- C. Fill gaps between surfaces with backing and silicone sealant.
- D. Mask target area a minimum of 8" onto the field with tape or other material and onto the vertical substrate as shown on drawings. Prime all areas requiring the liquid flashing as required by the flashing manufacturer.
- E. Apply the liquid flashing base coat a minimum of 8" into the field of the roof and onto the vertical substrate as shown on drawings. Cut reinforcement as to have a maximum of 1/8" of basecoat exposed on both the field and vertical side of the sheet and completely embed the scrim sheet into the liquid flashing base coat. Apply the liquid flashing finish coat a maximum of 1/8" beyond the scrim outline.
- F. Immediately remove the masking tape.

3.06 WALKWAY PAD

- A. Check roof surface carefully for damage and application defects and make appropriate repairs and corrections prior to application of walkway pads.
- B. Roll out walkway pads and allow to "relax" in accordance with roofing system manufacturer's written instructions.
- C. Apply walkway pads at the locations shown on drawings or as needed to protect roof from anticipated traffic for maintenance of equipment, in accordance with the roofing system manufacturer's written instructions.

3.07 FIELD QUALITY REQUIREMENTS

- A. Manufacturer's Field Services: Upon Owner's request, provide material manufacturer's field service consisting of product use recommendations and periodic site visit for inspection of product installation in accordance with manufacturer's instructions.
- B. Minimum Manufacturer Inspections: Provide inspections by a Technical Representative employed by the roofing system manufacturer. Contractor shall complete any necessary repairs required for issuance of warranty.

- C. Minimum schedule of material manufacturer inspections:
 - 1. Pre-Construction Conference
 - 2. 50% Completion
 - 3. Final Completion
- D. Contractor shall provide Owner and Designer a copy of the manufacturer's inspection report within 48-hours of each inspection.

END OF SECTION 075216

SECTION 07 60 00

FLASHING AND SHEET METAL

PART 1 GENERAL

1.01 SUMMARY

- A. Includes the fabrication and installation of sheet metal gutter at gridline D of Building 3, as well as all sheet metal flashings, other components and related accessories associated with roofing membranes at Buildings 3 and 4, providing physical protection to membrane, base flashings and membrane terminations, as specified herein.

1.02 RELATED WORK

- A. Section 061053 - Miscellaneous Rough Carpentry
- B. Section 075216 - SBS Modified Bitumen Roofing

1.03 SUBMITTALS

- A. In accordance with Section 013300 of these Specifications.

1.04 ENVIRONMENTAL CONDITIONS

- A. Material installation shall proceed only when weather conditions are in compliance with the applicable manufacturer's recommendations for installation and no precipitation is imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement with new materials at no additional cost to Owner.

1.05 WARRANTY

- A. In accordance with Section 017400 of these Specifications.

PART 2 PRODUCTS

2.01 GENERAL

- A. All products and systems to carry Miami-Dade County Product Control approval and active Notice of Acceptance (NOA).

2.02 METALS

- A. Stainless Steel: Type 316 (16% chromium, 10% nickel, and 2% molybdenum) ASTM A240, mill finished.
- B. Hot-Dip Galvanized Steel: ASTM A653/A653M, minimum 26 ga.
- C. Aluminum: ASTM B209, minimum 0.040" thick.
- D. Termination Bar: 1/4" x 1" galvanized steel.

- E. Solder: ASTM D32-66T with 50% lead and 50% tin unless otherwise specified. Follow manufacturer's recommended soldering procedures.
- F. Lead: 4 lb. soft lead. Flanges on soil pipe vents shall be a minimum of 24" x 24" in size. Flanges at drains shall be a minimum 36" x 36".

2.03 NON-SHRINKING SEALANT

- A. ASTM C920, Type S or M, Grade NS, Class 25, for Use NT, M, A, and O.

2.04 SELF-ADHERING MODIFIED BITUMEN MEMBRANE

- A. High-temperature, ASTM D1970, minimum 40 mils, by manufacturer of SBS Modified Bitumen Roofing (Section 075216), or approved equal prior to bid.

2.05 PMMA LIQUID FLASHING

- A. PMMA (Poly Methyl Methacrylate) Flashing Resin – Catalyzed, combined with polyester fleece, high-performance, fast curing. Siplast Parapro Roof Membrane Resin or approved equal.

2.06 MINIMUM ACCEPTABLE METAL WEIGHTS

- A. All steel to be stainless steel or hot-dip galvanized and as directed below.

Coping:	22-gauge Galv. Steel.
Coping Cleat:	22-gauge Galv. Steel
Counterflashing:	24-gauge Galv. Steel
Overflow Scupper:	22-gauge Galv. Steel
Overflow Scupper Exterior Flange:	22-gauge Galv. Steel
Equipment Curbs	22-gauge Galv. Steel

PART 3 EXECUTION

3.01 GENERAL INSTALLATION REQUIREMENTS

- A. Inspect all surfaces to which metal is to be applied. Do not install metal unless surfaces are even, sound, clean, dry and free from defects which might affect the application.
- B. Follow recommendations of the National Roofing Contractors' Association (NRCA) and Sheet Metal and Air-Conditioning Contractors National Association (SMACNA) Architectural Sheet Metal Manual (7th Edition) for fabricating in-shop and on-site, and for installation, unless otherwise specified herein.
- C. Metal flashings installed at edges and/or parapets of low-sloped roofing shall adhere to ANSI/SPRI ES-1 wind uplift requirements, as necessary. Specified fastening along with metal flashing thicknesses, gauges, and/or weights listed herein are the minimum required. In the event additional fastening or thicker, lower gauge, or heavier metal

flashings are required, the contractor shall satisfy the requirements of ANSI/SPRI ES-1. Follow published instructions of the product manufacturer for installation of extruded or proprietary metal products, unless otherwise specified herein.

- D. Use nails, screws, bolts, cleats or other fasteners of the same material or of a material chemically compatible with the contacted metal.
- E. Fabricate cleats to be a minimum of one gauge heavier than fascia metal.
- F. Do not place dissimilar metals in direct contact or in positions where water sheds across both metals.
- G. Install metal to be water and weather tight with lines, arises and angles sharp and true and with paint surfaces free of waves and buckles.
- H. Install shop-formed metal flashings in 10-foot lengths with a minimum number of pieces in each straight run.
- I. At all corners, shop form corner pieces of fascia and drip edge flashing from a single section of metal with minimum 36-inch legs on either side of the corner.
- J. Cleats: Cleats shall be secured with nails that penetrate the wood a minimum of 1 inch' at spacings not to exceed 6 inches on center. Nails shall be applied along the vertical face of the wood blocking and located approximately 1-3/4-inch from the bottom of the cleat. Metal flashing drip legs shall be fold snugly over the cleat.
- K. Cover Plate: Refer to Drawings. Leave a minimum 1/2-inch-wide gap between sections of sheet metal. Center a minimum 6-inch-wide cover plate over the joint and set in roofing cement along its profile. Secure the cover plate to the eave wood blocking using two fasteners equally spaced through the opening between sections.
- L. Lapped Metal: Refer to Drawings. Apply a continuous bead of caulk between any lapped metal sections, except for counterflashing lapped joints. The application of caulk after metal components have been lapped is unacceptable and will be grounds for rejection.

3.02 GUTTER INSTALLATION

- A. Form new gutter from 22 ga. Galvanized Steel sheets. Gutter shall be 8" wide by 12" deep, fabricated to a rectangular profile as indicated on the construction drawings.
- B. Install new gutter in 10-foot lengths minimum, with properly sealed splices of at least 8 inches.
- C. Metal gutter shall be anchored, reinforced and braced as required for a secure, stable installation capable of supporting the weight and thrust of the water draining into it from the sloped metal roof at Building 3, in compliance with the SMACNA Architectural Sheet Metal Manual.
- D. Provide downspouts at 25 feet on center maximum and connect same to the relocated

storm drainage system. See Sheets P-101 and P-102 of the construction drawings.

3.03 COPING INSTALLATION

- A. Form new Miami-Dade County approved coping as shown on Drawings. Refer to NRCA Details SM-06 and UL-12 and Drawings. The flashing shall cover the exterior wall cladding a distance to match the existing; however, the exterior vertical flange and interior vertical flange of the coping shall not be more than 5 inches and 3 inches, respectively. If additional area of parapet needs to be covered with flashing, furnish and install new face extenders. Install face extender prior to installing flashing.
- B. Prior to the installation of the coping cap, apply a strip of self-adhered modified bitumen membrane across the top of the blocking and extend down the outside and inside face approximately the length of the vertical sections of the coping cap. Use strips as long as practical, lapping the ends 6 inches and cemented with flashing cement.
- C. Secure both vertical legs of the coping with a continuous cleat.
- D. Join sections with cover plates.
- E. At locations where coping intersects at corners, the Contractor shall join sections with flat drive cleats.
- F. Install preformed sheet metal closures as shown on drawings.

3.03 COUNTERFLASHING INSTALLATION

- A. Form new metal surface-mounted counterflashing from hot-dip galvanized steel or approved equal. Install surface-mounted counterflashings around all RTU curbs. Refer to SMACNA Architectural Sheet Metal Manual Figures 4-6.
- B. Notch and lap sections a minimum of 3 inches.
- C. Set flange against vertical surface in a solid bed of caulk. Furnish and install a nominal 1" x ¼" flat bar and secure over the counterflashing using appropriate fasteners at spacings not to exceed 12 inches on center. At places where the counterflashing is being installed behind a frame or existing sheet metal flashing, slide counterflashing behind frame/existing flashing a minimum of one inch.
- D. Notch and lap joints and inside corners. Notch and seam outside corners. Do not rivet or otherwise secure joints and corner.
- E. Fill the cove at the top of the counterflashing with a non-shrink caulk.

Note: A cove is not required where counterflashing is behind a frame and/or existing sheet metal flashing.

3.04 MISCELLANEOUS FLANGED FLASHINGS INSTALLATION

- A. Prime both sides of lead flashing flanges.

Note: Provide lead flashings with a minimum 24" x 24" flange for pipe penetrations.

- B. Set flange on top of all roofing plies in a minimum 1/8" thick solid bed of black plastic roof cement.
- C. At sanitary vents using lead sleeve flashing, turn top sleeves neatly into inside of pipe at least one inch. Prefabricated sleeve caps may be used.
- D. Strip flange with base sheet. Fit all plies snugly to vertical leg. Extend base sheet at least 6 inches beyond flange.

3.05 DRAIN FLASHING INSTALLATION

- A. Use 4 lb. lead sheet 36" x 36" or at least large enough to extend a minimum of 12" outside drain flashing flange.

Note: Drain lead flashings, clamping rings, and base membrane shall be installed prior to the end of each workday.

- B. Prime both sides of lead sheet.
- C. Cut hole in the center of the sheet with the diameter one inch less than the inside diameter of the clamping ring.
- D. Center hole over the center of the drain. Set the lead sheet in a minimum 1/8" thick solid bed of black plastic roof cement. Install the clamping ring over the lead sheet and pull it down tightly and evenly.
- E. Trim excess lead from the inside of the flashing flange and press sheet into the black plastic roof cement evenly and uniformly.
- F. Install new clamping rings and strainers.
- G. Cover the lead sheet with one ply of base membrane extending at least 12 inches beyond the edge of the lead sheet. Fit membrane neatly to the outside edge of the clamping ring.

3.06 SCUPPER LINER INSTALLATION

- A. Contractor to provide shop drawings of all scupper details for approval.
- B. Form new overflow scupper liners from 22 ga. galvanized steel. Refer to SMACNA Architectural Sheet Metal Manual Figure 1-26A and 1-26B. Also refer to Drawings.
- C. Cover all unexposed surfaces to be in contact with scupper with a minimum 1/8" thick bed of black plastic roof cement. Set the flange over the roofing membrane and wall in a minimum 1/8" thick bed of black plastic roof cement. Cover bottom and sides of scupper opening with peel and stick membrane.
- D. Install scupper. Install closure flanges at both sides of wall, lock and solder closure flange seams.

- E. Overflow scuppers should have a drip edge on the horizontal flange at the discharge point.
 - 1. Extend the face of the scupper liner beneath the coping. Use liquid membrane flashings to terminate the top of the flashings at the edges of the scupper.
 - 2. Install liquid membrane flashings over all exposed joints in the galvanized steel scupper.
- F. Flash the interior flange with one ply of base membrane, extending it a minimum of 12 inches beyond the edge of the flange.
- G. At all membrane terminations on the scupper horizontal and vertical surfaces, furnish and install new PMMA flashings to extend a minimum of 4-inches in either direction from the transition.
- H. Flash the interior flange with one ply of base membrane, extending it a minimum of 12 inches beyond the edge of the flange.
- I. At all membrane terminations on the scupper horizontal and vertical surfaces, furnish and install new liquid membrane flashings to extend a minimum of 4-inches in either direction from the transition.

END OF SECTION 076000

SECTION 07 72 33

ROOF HATCHES

PART 1 GENERAL

1.01 SUMMARY

- A. Provide factory-fabricated roof hatches for ladder access at locations indicated on the drawings, in accordance with NOA No. 20-1104.24 (The BILCO Company).
- B. One roof hatch will be installed at the roof of the existing stairs in Building 3 and one roof hatch will be installed at the roof of Building 4. Refer to the construction drawings for exact location.

1.02 RELATED WORK

- A. Section 024100 - Selective Demolition
- B. Section 055133 - Metal Ladders
- C. Section 061053 - Miscellaneous Rough Carpentry
- D. Section 076000 - Flashing and Sheet Metal

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data.
- B. Shop Drawings: Submit shop drawings including profiles, accessories, location, adjacent construction interface, anchoring and dimensions.
- C. Warranty: Submit executed copy of manufacturer's standard warranty.

1.04 QUALITY CONTROL

- A. Manufacturer: A minimum of 5 years experience manufacturing similar products.
- B. Installer: A minimum of 2 years experience installing similar products.
- C. Manufacturer's Quality System: Registered to ISO 9001 Quality Standards including in-house engineering for product design activities.
- D. Notice of Acceptance: Product selected must have a valid Notice of Acceptance (NOA) from the Miami-Dade County Product Control Department.

1.05 ENVIRONMENTAL CONDITIONS

- A. Materials installation shall proceed only when weather conditions are in compliance

with the applicable manufacturer's recommendations for installation and no precipitation is imminent. Materials installed during adverse weather conditions shall be subject to removal and replacement with new materials at no additional cost to the Owner.

- B. Installation during adverse weather shall place the Contractor under liability for any damages to the building caused by water intrusion.

1.06 DELIVERY AND STORAGE

- A. Deliver products in manufacturer's original packaging. Store materials in a dry, protected, well-ventilated area. Inspect product upon receipt and report damaged material immediately to delivering carrier and note such damage on the carrier's freight bill of lading.

1.07 WARRANTY

- A. Manufacturer's Warranty: Provide manufacturer's standard 5- year warranty. Materials shall be free of defects in material and workmanship for a period of five years from the date of purchase. Should a part fail to function in normal use within this period, manufacturer shall furnish a new part at no additional cost to the Owner.

PART 2 PRODUCTS

2.01 MANUFACTURER

Must have active and approved NOA with Miami-Dade County Product Control Department.

- A. Standard of Quality / Basis-of-Design Manufacturer: Type S Roof Hatch by The BILCO Company, P.O. Box 1203, New Haven, CT 06505, 1-800-366-6530, Fax: 1-203-535-1582, Web: www.BILCO.com. (NOA No. 24-1029.02).

2.02 ROOF HATCH

- A. Furnish and install, where indicated on plans, metal roof hatch Type S-50HZ, size - width: 36" (914mm) x length: 30" (762mm). Length denotes hinge side. The roof hatch shall be single leaf. The roof hatch shall be pre-assembled by the manufacturer.
- B. Performance characteristics:
1. Cover shall be reinforced to support a minimum live load of 40 psf (195kg/m²) with a maximum deflection of 1/150th of the span and a: 140 psf (684 kg/m²) wind uplift for aluminum (Type S-50) roof hatches.
 2. Operation of the cover shall be smooth and easy with controlled operation throughout the entire arc of opening and closing.
 3. Operation of the cover shall not be affected by temperature.
 4. Entire hatch shall be weather tight with fully welded corner joints on cover and curb. Hatch shall have rubber gasket all around perimeter to provide moisture proof seal and prevent humidity infiltration.
 5. Galvanized steel (Type S-20) and aluminum (Type S-50) roof hatches shall be

Miami-Dade Product approved (NOA No. 24-1029.02). Expiration Date:
December 2, 2029), meeting large and small missile impact requirements.

- C. Cover: Shall be 11 gauge (2.3mm) aluminum with a 3" (76mm) beaded flange with formed reinforcing members. Cover shall have a heavy extruded EPDM rubber gasket that is bonded to the cover interior to assure a continuous seal when compressed to the top surface of the curb.
- D. Cover insulation: Shall be fiberglass of 1" (25mm) thickness, fully covered and protected by an 18 gauge (1mm) aluminum liner.
- E. Curb: Shall be 12" (305mm) in height and of 11 gauge (2.3mm) aluminum. The curb shall be formed with a 3-1/2" (89mm) flange with 7/16" (11.1mm) holes provided for securing to the roof deck. The curb shall be equipped with an integral metal cap flashing of the same gauge and material as the curb, fully welded at the corners, that features the Bil-Clip® flashing system, including stamped tabs, 6" (153mm) on center, to be bent inward to hold single ply roofing membrane securely in place.
- F. Curb insulation: Shall be rigid, high-density fiberboard of 1" (25mm) thickness on outside of curb.
- G. Lifting mechanisms: Manufacturer shall provide compression spring operators enclosed in telescopic tubes to provide, smooth, easy, and controlled cover operation throughout the entire arc of opening and closing. The upper tube shall be the outer tube to prevent accumulation of moisture, grit, and debris inside the lower tube assembly. The lower tube shall interlock with a flanged support shoe for aluminum construction: welded to the curb assembly.
- H. Hardware
 1. Heavy pintle hinges shall be provided
 2. Cover shall be equipped with a spring latch with interior and exterior turn handles
 3. Roof hatch shall be equipped with interior and exterior padlock hasps.
 4. The latch strike shall be a stamped component bolted to the curb assembly.
 5. Cover shall automatically lock in the open position with a rigid hold open arm equipped with a 1" (25mm) diameter red vinyl grip handle to permit easy release for closing.
 6. All hardware shall be Type 316 Stainless Steel.
 7. Cover hardware shall be bolted into heavy gauge channel reinforcing welded to the underside of the cover and concealed within the insulation space.
- I. Finishes: Factory finish shall be mill finish aluminum.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates and openings for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

- B. Ensure proper alignment of concrete deck openings with access ladders below prior to installation of roof hatches.

3.02 PREPARATION

- A. Furnish and install new nominal 2x6 wood blocking to match the height of the surrounding insulation. Install in accordance with Section 061053 of this specification.

3.03 INSTALLATION

- A. Install products in strict accordance with manufacturer's instructions and approved submittals. Locate units level, plumb, and in proper alignment with adjacent work.
 - 1. Test units for proper function and adjust until proper operation is achieved.
 - 2. Repair finishes damaged during installation.
 - 3. Restore finishes so no evidence remains of corrective work.

3.04 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces according to manufacturer's instructions. Touch up damaged metal coatings.

END OF SECTION 077233

SECTION 078600

PREFABRICATED EXPANSION JOINTS

PART 1 - GENERAL

1.01 SCOPE: The Work of this Section shall consist of furnishing the labor, materials, and equipment necessary for installation of prefabricated expansion joints as shown on the Drawings and as specified herein.

1.02 SUBMITTALS:

- A. Submit 4-inch long samples of expansion joint covers with labels attached.
- B. Submit manufacturer's product data and shop drawings on all fabricated work, showing details of all conditions, material types, weights, gauges, joining, sealing, and fastening.

1.03 COORDINATION:

- A. Before commencing roofing and ordering of materials, a Pre-Roofing Conference will be held to discuss specified roof expansion joint covers and their proper application.
- B. Coordinate application with the application of the flashings, roofing system, wood bases, protruding materials and roof accessories in such a manner that the complete installation is watertight and in accord with warranty requirements.

1.04 WARRANTY:

- A. The MANUFACTURER shall warrant the EQUIPMENT, MATERIALS and PRODUCTS specified in this section against defective materials and workmanship with the MANUFACTURER'S standard warranty, but for no less than two years from the date of Substantial Completion, and as described in Section 017400 – Warranties and Guarantees. If the MANUFACTURER'S standard warranty is less than the stipulated period, the MANUFACTURER shall provide a special MANUFACTURER'S extended warranty for the stipulated period, or a Maintenance Bond in the form attached herein, to extend the MANUFACTURER'S warranty period for the stipulated period.
- B. The CONTRACTOR shall warranty the WORK against defects for one year from the date of Substantial Completion and as described in Section 017400 – Warranties and Guarantees.

PART 2 - PRODUCTS

2.01 ROOF EXPANSION JOINT COVERS: Johns-Manville "Expand-O-Flash," Type CF-4 and CF-ES; Celotex Corp. "Expansion Joint Shields," curb flange type and curb-to-wall type, Nervastral "Nerva-Flex," Type CA-545 or CF-454 Curb Flange, and Curb to Wall Flange Types, conforming to details and the following criteria:

- A. Components:
 - 1. Bellows: 1/16 inch thick cured calendared neoprene sheet, or 36 mils chlorinated polyethylene sheet.
 - 2. Metal Flanges: Stainless steel, Type 430 dead soft, .015 inch thick minimum.
 - 3. Insulation: 3/8-inch thick closed cell foam insulation with a K factor of 0.27.
 - 4. Screws: Neoprene grommets No. 8 pan-head stainless steel sheet metal screws. At concrete sub-bases, provide compatible lead shields for screws.

5. Splicing: Strips of uncured calendared neoprene sheet, or CPE sheet to match expansion joint material.
 6. Adhesives and Sealant: As supplied by manufacturer of components.
- B. Design Function: Design of entire roof expansion joint covers shall provide a complete watertight assembly capable of movement in all directions. Provide prefabricated corner, tee, or crossover units to suit each condition encountered.

2.02 FLEXIBLE VAPOR RETARDER: Black pigmented 6-mil polyethylene film.

2.03 COMPRESSIBLE INSULATION: Glass fiber blanket insulation, approximately 1-1/2 inches thick by 7 inches wide.

2.04 NEOPRENE SHEET: (For Use Under Expansion Joint Covers): 40 mil thick sheet neoprene or at CONTRACTOR's option CPE sheet. Provide manufacturer's recommended adhesive.

PART 3 - EXECUTION

3.01 SEALING OF EXPANSION JOINTS PRIOR TO APPLICATION OF COVERS:

- A. After base flashings are installed cover tops of curbs with flexible vapor retarder polyethylene film, extend film 2 inches down over top of base flashings and drape down into expansion joint approximately 7 inches. Tack edges of film to edges of wood nailers 12 inches o.c. At curb - wall expansion joints, turn film up 2 inches on wood nailers and tack in place 12 inches o.c.
- B. Pack compressible glass fiber insulation into expansion joints approximately 7 inches deep.
- C. Cover tops of curbs over compressible insulation with neoprene sheet, extend neoprene 2 inches down over base flashings and tack in place 12 inches o.c. Allow slack at expansion joint. At curb-wall expansion joints, turn neoprene sheet up at top of upper wood nailer with roofing cement. Seal lap splices in neoprene with manufacturer's recommended adhesive.

3.02 ROOF EXPANSION JOINT COVER INSTALLATION: In accord with manufacturer's published recommendations and requirements for a complete watertight installation.

- A. After wall and parapet expansion joints are sealed, install expansion joint cover flanges over completed built-up roof membrane and base flashings in plastic roofing cement. Extend expansion joint covers up parapets and terminate on top of parapets. Provide additional polysulfide sealant and adhesive applied neoprene or CPE stripping to seal exposed top ends of expansion joint covers weathertight.
- B. Secure metal flanges with neoprene grommets stainless steel screws to wood nailers every 4 inches o.c. staggered.
- C. At concrete and masonry surfaces set flanges in sealant and secure metal flanges to concrete walls and parapets with neoprene grommets stainless steel pan head sheet metal screws in lead shields at 4 inches o.c. staggered.

END OF SECTION 078600

SECTION 07 90 00

JOINT SEALANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Joint sealers, fillers, backing rods, primers, bond breakers and other related materials, compatible with one another, with joint substrate, and with other adjacent materials including finishes.
- B. Provide joint sealer and backing for all joints requiring sealing including, but not limited to, roof flashings, parapet copings, roof access hatch, and any other joints to be sealed.

1.02 RELATED SECTIONS

- A. Section 076000 - Flashing and Sheet Metal
- B. Section 077233 - Roof Hatches
- C. Section 099000 - Painting & Coatings
- D. Structural Drawings

1.03 SUBMITTALS

- A. Shop Drawings: Detail proper joint sealer and backing for all joints requiring sealing. Show joint widths and depths, backing material, seal bead material, and any other pertinent information.

1.04 QUALITY ASSURANCE

- A. Provide single source responsibility for each type of joint materials.

1.05 WARRANTY

- A. Manufacturer shall provide warranties covering joint sealers for 10 years from date of Substantial Completion.
- B. Contractor shall furnish the Department of Solid Waste Management a 2-year written warranty, from date of Substantial Completion, covering quality of construction from applicator.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Joint Sealers:

1. Pecora Corp.
2. Sika Chemical Corp.
3. Sonneborn Building Products.
4. Dow Corning Corp.
5. Tremco Manufacturing Co.
6. W.R. Meadows, Inc.
7. Approved equal.

2.02 MATERIALS

- A. Sealant: Dow Corning Corp. DOWSIL 790 Silicone Building Sealant is set as the Standard of Design. Other products that meet or exceed the characteristics and performance of the standard may be submitted for approval.
- B. Colors: As selected by Architect and Owner from manufacturers' standard colors.
- C. Primer: Use only those primers which are non-staining, have been tested for durability on the surfaces to be sealed, and are specifically recommended for this installation by the manufacturer of the sealant used.
- D. Backup Materials: Use only those backup materials which are specifically recommended for this installation by the manufacturer of the sealant used and which are non-absorbent and non-staining.
- E. Bond-preventive Materials: Use only those materials best suited for the application and as recommended by the manufacturer of the sealant used.
- F. Use only solvents which can be completely removed or which will not adversely affect the caulking or sealant to be applied

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to the proper and timely completion of the work. Do not proceed until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Concrete/Stucco Surfaces:

1. All surfaces in contact with caulking or sealant shall be dry, sound and well brushed and wiped free from dust.
2. Use solvent to remove oil and grease, wiping the surfaces with clean rags.
3. Where surfaces have been treated, remove the surface treatment by use of wire brushing.
4. Remove all laitance and mortar from the joint cavity.
5. Where backstop is required, insert the approved backup material in the joint cavity to the depth required.

B. Steel Surfaces:

1. Steel surfaces in contact with sealant shall be scraped or wire-brushed to remove mill scale.
2. Use solvent to remove oil and grease, wiping the surface with clean rags.
3. Remove protective coatings on steel by a solvent that leaves no residue.

C. Aluminum Surfaces:

1. Aluminum surfaces in contact with caulking or sealant shall be cleaned of temporary protective coatings, dirt, oil and grease.
2. Use only such solvents to remove protective coatings as are recommended for that purpose by the manufacture of the aluminum work and which are non-staining.

3.03 INSTALLATION OF BACK-UP MATERIALS

- A. Installation of back-up materials, primers and bond-breakers shall be in strict accordance with the respective manufacturer's recommendations.

3.04 JOINT DIMENSIONS

- A. Minimum joint 1/4" wide by 1/2" deep.
- B. Joints more than 1/2" deep shall be solidly filled to within 1/2" of the surface with specified filler

3.05 APPLICATION

(Coordinate with the work of other Sections)

- A. Masking: thoroughly and completely mask all joints where the appearance of sealant on adjacent surfaces would be objectionable.
- B. Apply generally with caulking gun of proper nozzle size to fit joint.
- C. Apply with sufficient pressure to fill joint from backing to surface.
- D. For joints in flat surfaces, neatly tool compound slightly concave with proper tools.
- E. As work progresses, immediately remove compound that may accidentally flow onto adjoining surfaces using manufacturer's recommended solvent and cleaners. Remove excess material from joints immediately.

3.06 CLEANING

- A. Remove masking tape immediately after joints have been tooled.
- B. Clean adjacent surfaces free from sealant as the installation progresses. Use solvent or cleaning agent as recommended by the sealant manufacturer.
- C. At completion, carefully check all joints for damage and repair damaged joints.
- D. Remove all debris resulting from this operation.

END OF SECTION 079000

SECTION 09 20 10

STUCCO AND STUCCO REPAIRS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. New stucco on exterior and semi-exterior masonry or concrete walls, where indicated in the drawings.
2. Repairs/replacement of existing stucco as required.

B. Related Sections:

1. Section 079000 - Joint Sealants
2. Section 099000 - Painting & Coatings

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM), latest edition:

1. C150/C150M Specification for Portland Cement.
2. C897 Specification for Aggregate for Job-Mixed Portland Cement-Based Plasters.
3. C926 Specification for Application of Portland Cement-Based Plaster.
4. C932 Specification for Surface-Applied Bonding Compounds for Exterior Plastering.
5. E119 Test Methods for Fire Tests of Building Construction and Materials.

B. Florida Building Code (FBC), 2023 Ed.

C. Portland Cement Association (PCA), Portland Cement Plaster (Stucco) Manual.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for cementitious stucco and accessories.

1.04 QUALITY ASSURANCE

- A. New stucco on existing or new masonry or concrete walls shall match existing adjacent stucco appearance and texture. Stucco shall comply with the requirements of the referenced standards.
- B. Stucco repairs shall be flush with and match appearance and texture of adjacent surfaces being repaired.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Portland Cement Plaster/Stucco:

1. Florida Super Stucco by Lafarge Florida.
2. Lonestar Products.
3. Rinker Materials Corp.
4. United States Gypsum Co.

2.02 MATERIALS

A. PVC Accessories:

1. Accessories shall have perforated flanges and be fabricated from high impact PVC in conformance with ASTM D1784.
2. Accessories shall be provided in accordance with materials provisions of ASTM C926.
3. Size: minimum 0.050-inch thick x 10-foot long. Coordinate depth of accessories with thickness and number of coats required.
4. Install PVC accessories at locations indicated on the Plans or as may be required by industry standards and practices, whichever is more stringent
5. Accessories shall be installed using longest lengths possible to reduce to a minimum, the total number of joints.
6. Provide PVC back plates, connector clips, "⊥" and "T" connectors, at all butt joints and intercepting points to ensure proper alignment of all accessories.
7. Accessories shall be fastened to the substrate in accordance with ASTM Standards and as recommended by accessory manufacturer, whichever is more stringent.
8. All joints and ends shall be caulked using an elastomeric sealant in accordance with manufacturer's recommendation.

B. Portland Cement Plaster Materials:

1. Base Coat Cements: Portland Cement, ASTM C150, Type I or III.
2. Finish Coat Cement: Portland Cement, ASTM C150, Type I, white.
3. Factory-Prepared Finish Coat:
 - a. Manufacturer's standard product requiring addition of water only. White in color unless otherwise indicated.
 - b. Product: Oriental Exterior Stucco by United States Gypsum Co.
4. Sand Aggregate - Base Coats: ASTM C897.
5. Aggregate - Finish Coats: ASTM C897, manufactured or natural sand, white in color.
6. Fiber - Base Coat:
 - a. Alkaline-resistant glass fibers, 1/2" long, free of contaminates, manufactured for use in Portland cement plaster.

C. Miscellaneous Materials:

1. Water for Mixing and Finishing Stucco: potable, free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.
2. Bonding Agent (Exterior) - Portland cement: ASTM C932.

2.03 MIXES

A. Portland Cement Plaster/Stucco Mixes and Compositions - Base Coats:

1. Comply with ASTM C926 for Portland cement plaster base and finish coat mixes as applicable bases, materials, and other requirements indicated.
2. Base Coat:
 - a. Proportion materials for respective base coats in parts by volume for cementitious materials and in parts by volume per sum of cementitious materials for aggregates to comply with the following requirements for each method of application and plaster base indicated.
 - b. Adjust mix proportions below within limits specified to attain workability.
3. Two-Coat Work Over Concrete Unit Masonry:
 - a. Contractor's Option 1:
 - 1) Base Coat: 1 part Portland cement, 3 to 4 parts sand.
 - b. Contractor's Option 2:
 - 1) Base Coat: 1 part masonry cement, 3 to 4 parts sand.
4. Fiber Content:
 - a. Add fiber to mixes above to comply with fiber manufacturer's directions, maximum 2 lbs. per cu. feet of cementitious materials.
 - b. Reduce aggregate quantities accordingly to maintain workability.

B. Portland Cement Plaster/Stucco Mixes and Compositions - Finish Coats:

1. Job-Mixed:
 - a. Contractor's Option 1:
 - 1) 1 part Portland cement, 2-1/4 to 3 parts sand.
 - b. Contractor's Option 2:
 - 1) 1 part Portland cement, 1 part masonry cement, 2-1/4 to 3 parts sand.
 - c. Contractor's Option 3:
 - 1) 1 part masonry cement, 1-1/2 parts sand.
2. Factory-Prepared Portland Cement Plaster/Stucco Finish Coats:
 - a. Add water only.
 - b. Comply with finish coat manufacturer's directions.

- C. Mixing: Mechanically mix cementitious and aggregate materials for plasters to comply with applicable referenced application standard and with recommendations of plaster manufacturer.

PART 3 EXECUTION

3.01 INSTALLATION

A. PVC Accessories:

1. Miter or cope accessories at corners and install with tight joints and in proper alignment.
2. Attach accessories securely to substrate to maintain placement and alignment during plastering/stuccoing process.
3. Provide trim accessories as follows:
 - a. Corner Reinforcement: Install at external corners.
 - b. Corner Bead: Install at external corners.
 - c. Casing Beads: Install at termination of plaster work unless otherwise indicated.

B. Portland Cement Plaster/Stucco Application:

1. Portland Cement Plaster Application Standard: Apply Portland cement plaster materials, compositions, and mixes to comply with ASTM C926.
2. Number of Coats: Apply Portland cement plaster/stucco in two coats of composition indicated.
3. Finish Coat: Floated finish unless otherwise indicated; match existing adjacent surfaces for texture and color.
4. Moist cure Portland cement plaster base and finish coats to comply with ASTM C926, including recommendations for time between coats and curing in ASTM C926 Annex A2 - Design Considerations.

3.02 ADJUSTING, CLEANING, AND PROTECTION

A. Cutting and Patching:

1. Cut, patch, point-up, and repair stucco as necessary to accommodate other work and to restore cracks, dents, and imperfections.
2. Repair or replace work to eliminate blisters, buckles, excessive crazing and check cracking, dry-outs, efflorescence, sweat-out and similar defect, and where bond to substrate has failed.
3. Sand smooth-troweled finishes lightly to remove trowel marks and arises.

B. Cleaning:

1. Remove temporary protection and enclosure of other work.
2. Promptly remove plaster from door frames, windows, and other surfaces that are not to be plastered.
3. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering work.
4. When plastering is completed, remove unused materials, containers, and equipment, and clean floors of plaster debris.

C. Protection: Provide final protection and maintain conditions, in a manner suitable to Installer, that ensures plaster work being without damage or deterioration at time of Substantial Completion.

END OF SECTION 092010

SECTION 09 90 00

PAINTING & COATINGS

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Pressure washing of Buildings 3 & 4 – Pressure wash where indicated.
2. Painting of new and existing stucco surfaces at Buildings 3 & 4.
3. Touch up of previously painted surfaces that were damaged or stained by construction activities at Buildings 3 & 4.
4. Priming and painting of all existing steel framing and other miscellaneous metals at Buildings 3 & 4, after partial demolition and completion of all structural repairs.
5. Painting of all existing exterior and semi-exterior painted doors and frames at Buildings 3 & 4.

B. Related Sections:

1. Section 028319 - Removal of Lead-Based Paint
2. Section 055000 - Metal Fabrications
3. Section 055133 - Metal Ladders
4. Section 079000 - Joint Sealants
5. Architectural and Structural Drawings.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM), latest edition:

1. D3359 - Test Methods for Rating Adhesion by Tape Test.

B. OSHA Workers Environmental Conditions

C. OSHA 1926.62 Lead Standard

D. National Fire Protection Association (NFPA): NFPA 30 - Flammable and Combustible Liquids Code.

E. Master Painters Institute (MPI) - "Architectural Painting Specifications Manual", latest edition.

1.03 SUBMITTALS

- A. General Requirements:** Provide three (3) complete copies of Submittals to the A/E and one (1) complete copy to the Miami-Dade Department of Solid Waste Management Project Manager, for their review and approval. One complete copy of each approved Submittal shall be kept at the job site, easily available for use by the A/E and the Owner.

Project No.: EDP-SW-18577-24

B. Product Data: Submit Manufacturer Safety Data Sheet (MSDS), manufacturer's technical information, including paint label analysis and application instructions for each material proposed for use.

C. Samples: Color Chips

1. Before starting work, furnish the Owner color chips from approved manufacturer's color fan. Color chips shall comply with approved colors selected by the owner.
2. Use representative colors when preparing samples for review.

D. Warranty:

1. Submit paint manufacturer's proposed 6-year warranty document.
2. Submit paint manufacturer's proposed program of inspection and approval before and during the Work as required by paint manufacturer to implement the submitted 6-year warranty.
3. At the end of the paint work, provide to the owner, from the authorized paint manufacturer's representative, a signed and notarized letter stating that the surfaces painted have met all the conditions for paint adhesion.

1.04 QUALITY ASSURANCE

- A. Painting contractor shall be licensed in the State of Florida and/or Miami-Dade County and shall have a minimum of five years of experience performing on projects of similar size and complexity.
- B. Contractor's employees shall be certified journeymen by Miami-Dade County.
- C. Paint materials shall be products of Sherwin-Williams, Glidden, Pittsburgh Paints, or approved equal.

1.05 DELIVERY AND STORAGE

- A. Deliver materials to job site in original, new, and unopened packages and containers bearing manufacturer's name, label and product identification.
- B. Storage:
1. Store all paint material per manufacturer written recommendations, at a location designated by the Department of Solid Waste Management Project Manager.
 2. Store materials that are not in actual use in tightly covered containers.
 3. Maintain containers used in storage of paint in a clean condition, free of foreign materials and residue.
 4. Keep storage area neat and orderly.
 5. When flammable materials are to be left on-site during the Work, store the tightly covered materials in cabinets meeting the requirements of NFPA 30 and have FM and UL labeling.

1.06 PROJECT CONDITIONS

A. Environmental Requirements:

1. Apply water-based and alkyd resin paints only when temperature of surfaces to be painted and surrounding air temperatures are between 50 and 90 degrees F, unless otherwise allowed by paint manufacturer's printed instructions.
2. Do not apply paint in rain, fog, or mist, or when relative humidity exceeds 85 percent, or to damp or wet surfaces.
3. Apply paint only to dry, clean, and adequately prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not affect the quality of finished surfaces.
4. Do not perform work where plaster or cement is being applied or is in the curing process.
5. Do not apply paint unless minimum lighting level, as recommended by MPI, is provided on surfaces to be painted.

B. Workers Environmental Conditions:

1. Comply with the standards established in OSHA Workers Environmental Conditions.
2. Take precautions to ensure that personnel and work areas are adequately protected from fire and health hazards resulting from handling, mixing, and application of paints.
3. Illumination: Provide lighting equal to the permanent lighting planned for designated space.
4. Ventilation: Provide adequate ventilation to prevent buildup of fumes.
5. Contain and prevent vapors or dust generated by the Work from polluting adjacent occupied spaces.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. All paint materials shall be listed in the latest edition of the Master Painters Institute (MPI) "Approved Product List" and shall be from a single manufacturer for each system used.
- B. All materials, preparation and workmanship shall conform to the standards contained in the latest edition of the Master Painters Institute (*MPI*).

2.02 MATERIALS

- A. Paint systems used for the project shall meet all the performance criteria and Warranty requirements specified in this document.
- B. Steel structural members, bracing and other roof framing components shall be primed with an oil-modified alkyd primer (Rust-Oleum Metal Primer or equal) and painted with an oil-modified alkyd paint (Rust-Oleum High Performance Protective Enamel or equal). Color shall be as selected by the Department of Solid Waste Management.

PART 3 EXECUTION

3.01 INSPECTION AND ACCEPTANCE OF SURFACES

- A. Prior to bidding, the Contractor, the Painting Subcontractor and the Paint Manufacturer's Representative shall examine and assess all surfaces scheduled to be painted. If found to be adequate, provide written certificate of acceptance of surfaces.
- B. If surfaces require preparation or repair, perform required actions to render the surfaces acceptable.
- C. Start of painting operations implies contractor's acceptance of the surface conditions and responsibility for required standards of quality and appearance.

3.02 PRESSURE WASHING

- A. Prior to start of construction on each phase, pressure wash all existing surfaces (exterior and semi-exterior (under roof but exposed to ambient air) including but not limited to, exposed concrete walls, exterior/semi-exterior stucco surfaces, exterior/semi-exterior doors and frames, semi-exterior steel structural systems, and any other building surfaces, to remove dirt, grime, oil, bird waste, trash residue, and any other contaminants.

3.03 SURFACES TO BE PAINTED

- A. Prime and paint all new and existing steel roof framing, including but not limited to, existing steel joists, steel angle bridging, existing and new steel channels, beams and girders, at Building 3, existing steel joists and existing and new steel beams at Building 4, as well as steel railings and any other steel components at both buildings, to match existing adjacent surfaces.
- B. Paint all stucco surfaces, new or existing.
- C. Paint existing concrete surfaces at Building 4 where lead-based paint has been removed.
- D. Touch up any existing painted surfaces that are marred, stained or damaged by the construction activities.

3.04 SURFACES NOT TO BE PAINTED

- A. Existing or repaired exposed concrete surfaces.

3.05 PREPARATORY WORK

- A. Prepare all surfaces scheduled to be painted in accordance with MPI requirements. Allow stucco surfaces to cure and dry completely before applying paint.
- B. Protect lighting fixtures and leave clean and completely free of paint.
- C. Clean surfaces of all dirt, dust, or other contaminants that affect adhesion of paint or appearance of paint. Clean grease and oil from metal surfaces with turpentine or mineral spirits and wipe dry before priming. Wire brush or sand metal surfaces to remove rust and scale. Touch-up factory primed surfaces with compatible factory primers. Schedule the cleaning so that contaminants from the cleaning process will not fall onto the wet painted surfaces.
- D. Allow all coats to dry thoroughly before applying succeeding coats. Comply with paint manufacturer's recommendations.
- E. Clean surfaces between coats as recommended by the paint manufacturer.
- F. Special Preparatory and Corrective Work on Previously Painted Surfaces: As a minimum, in addition to the general requirements specified above, and as may be recommended by the paint manufacturer, perform the following work on existing painted surfaces before starting application of new materials:
 - 1. Interior and Exterior: Remove loose, peeling, or flaking paint, chalking, and mildew. Sand surfaces to produce a smooth, even surface, free of sharp edges where paint has been partially removed, with an even texture and uniform absorptive quality. Provide additional partial or total prime and/or finish coats if required to obtain uniform finish in color and sheen.
 - 2. The paint on the steel components is considered lead paint under OSHA Standards. Refer to Section 028319 Removal of Lead-Based Paint for preparation of such surfaces.

3.06 APPLICATION

- A. General:
 - 1. Perform work in a thorough and professional manner in conformance with accepted good practices and requirements of authorities having jurisdiction.
 - 2. Protect finished materials and areas not to be painted by using drop cloths, masking, or other accepted methods.
 - 3. Provide adequate ventilation for proper drying of surfaces before and after painting.
 - 4. Drying Period: Allow each coat to dry thoroughly before succeeding coats are applied. Minimum drying time shall be according to manufacturer's recommendations.
- B. Apply materials, as they come from manufacturer to dry surfaces according to manufacturer's directions as printed on container.

- C. Apply finish coat to give an even, solid color. For deep tone finish colors, use deep base or monochromatic gray primers recommended by manufacturer.
- D. Apply paint materials by spray method and touch up with brush.
 - 1. Select method best suited to profile, texture, and finish of existing surface, subject to suitability regarding safety and conditions in existing or occupied areas, and subject to approval by paint manufacturer and owner.
 - 2. Apply materials evenly, smoothly flowed on and cut in neatly, without runs, sags, wrinkles, shiners, streaks, and brush marks; drying uniformly to color and sheen selected. Make dividing lines straight and clean cut.
- E. Dry Film Thickness:
 - 1. Comply with manufacturer's specifications for minimum and maximum dry film thickness.

3.07 PAINT SCHEDULE

- A. Existing Painted Surfaces:
 - 1. Repainting of existing painted surfaces shall use paint matching the paint type, color and texture of the adjacent existing surfaces.
- B. New Stucco:
 - 1. Primer: Latex Primer as recommended for Finish Coat type and color.
 - 2. Finish Coats: Latex Paint to match adjacent painted surfaces in type, texture and color.
- C. Repainting of steel framing and decking :
 - 1. Primer: Rust-inhibitive coating recommended by paint manufacturer for steel exposed to humid environments.
 - 2. Finish Coats: Rust-inhibitive finish paint compatible with primer and recommended for humid environments. Minimum of two coats.

3.08 CLEANUP

- A. Upon completion of the Work, staging, scaffolding, and containers shall be removed from the site. Paint spots, oil, or stains upon adjacent surfaces shall be completely removed to the satisfaction of the owner. Touch up any existing painted surfaces that are marred, stained or damaged by the construction activities.

END OF SECTION 099000

Additional Information for RPQ No. 18599-24 Roof and Structural Repairs for 40 Year Recertification of Buildings 3 and 4 at South Dade Landfill

Pursuant to Florida Statute Section 403.707, to the extent economically feasible, all construction and demolition Construction & demolition shall be processed prior to disposal, either at a permitted materials recovery facility or at a permitted disposal facility. Recovered materials, as well as any materials that have been source separated and offered for recycling or materials that have been previously processed are not subject to this requirement. Construction and Demolition Debris shall be reused or recycled to the fullest extent practical.

In accordance with the County's Green Procurement Preferences, the solicited roofing material shall meet, to the fullest extent practical, the EPA Comprehensive Procurement Guidelines recommended for roofing materials, specified in the table below:

Product	Material	Postconsumer Content (%)	Total Recovered Materials Content (%)
Roofing Materials	Steel ¹	16 67	25-30 100
	Aluminum	20-95	20-95
	Fiber (felt) for Fiber Composite	50-100	50-100
	Rubber	12-100	100
	Plastic or Plastic/Rubber Composite	100	100
	Wood/Plastic Composite	--	100
	Cement	Refer to the cement and concrete specifications	

Regarding the Cool Roof Requirements outlined on Page A-103 of the 40-year recertification project plan: The roofing material used shall be US EPA Energy Star Cool Roof Rating Council (ES-CRRC) Certified.

MIAMI-DADE COUNTY
MAYOR DANIELLA LEVINE CAVA
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COUNTY ATTORNEY
SOLID WASTE DEPARTMENT DIRECTOR

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OJITO & ASSOCIATES

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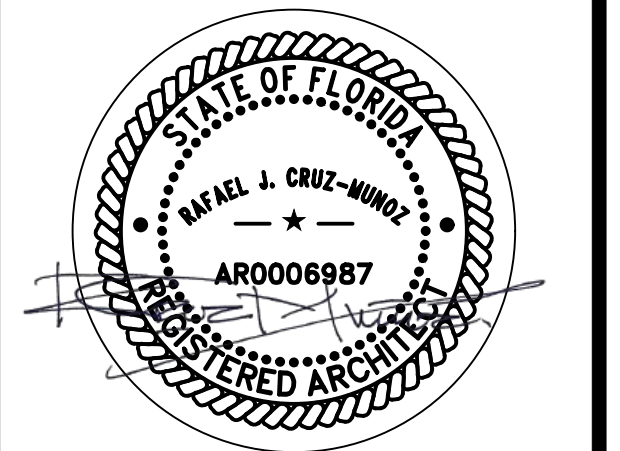
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

CONFIDENTIAL :

CONTRACTOR SHALL NOT PERMIT THE USE OR RELEASE OF THE DRAWINGS TO OUTSIDE ENTITIES, NOT DIRECTLY INVOLVED WITH THE PROJECT, WITHOUT PRIOR WRITTEN PERMISSION BY MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT. CONTRACTOR SHALL ADVISE ITS EMPLOYEES, SUBCONTRACTORS, OR AGENTS OF THESE REQUIREMENTS AND OF THEIR OBLIGATIONS UNDER THESE TERMS.



SIGNED AND SEALED

[illegible]

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

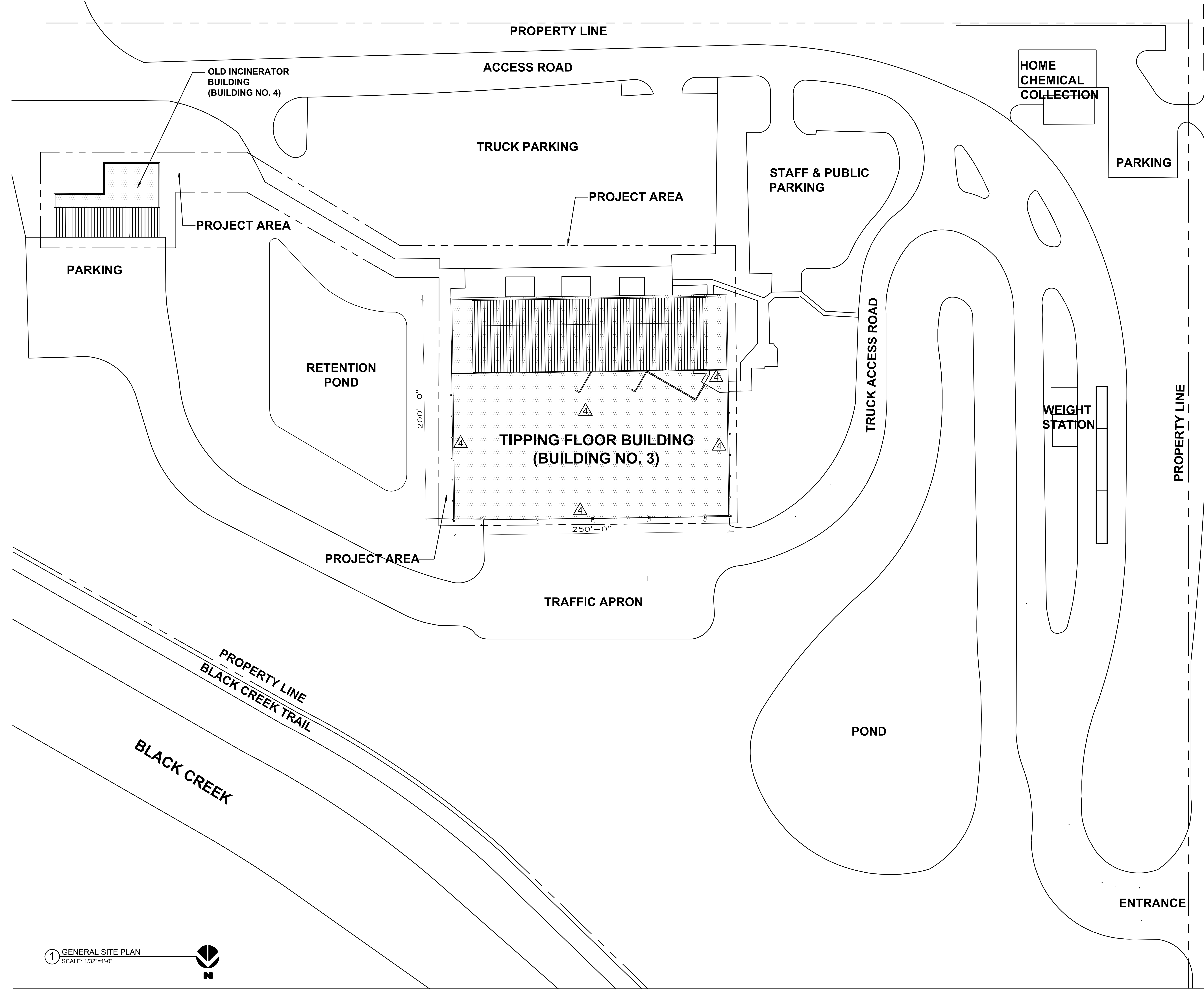
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
COVER SHEET

PROJECT NO.: SFL 1021.001	ISSUE DATE: 10-3-2022.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

G-000



1 GENERAL SITE PLAN
SCALE: 1/32"=1'-0"



SW 97TH AVENUE



OJITO & ASSOCIATES

11952 SW 134 COURT
MIAMI, FLORIDA 33186
WWW.OJITO.COM



BOTAS Engineering, Inc.

5825 NW 58th Lane, Suite #102 • Doral, FL 33172
Tel: 305-468-2811 Fax: 305-468-2812



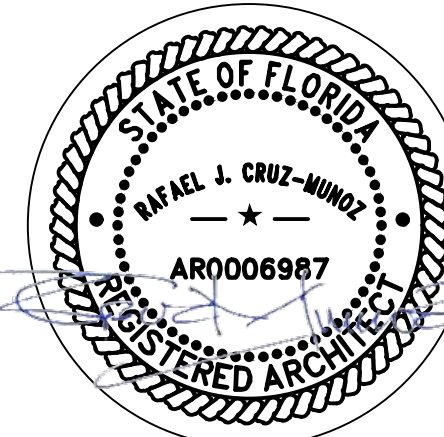
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MIAMI-DADE COUNTY
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AGENTS OF THESE REQUIREMENTS AND OF
THEIR OBLIGATIONS UNDER THESE TERMS.



SIGNED AND SEALED

4	9-09-24	REVISED PER OWNERS MODIFICATIONS.
2	6-30-23	REVISED PER 40-YR RECERT. REPORTS
1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS

NO: DATE: REMARKS:

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

GENERAL SITE PLAN

PROJECT NO.:
SFL 1021.001

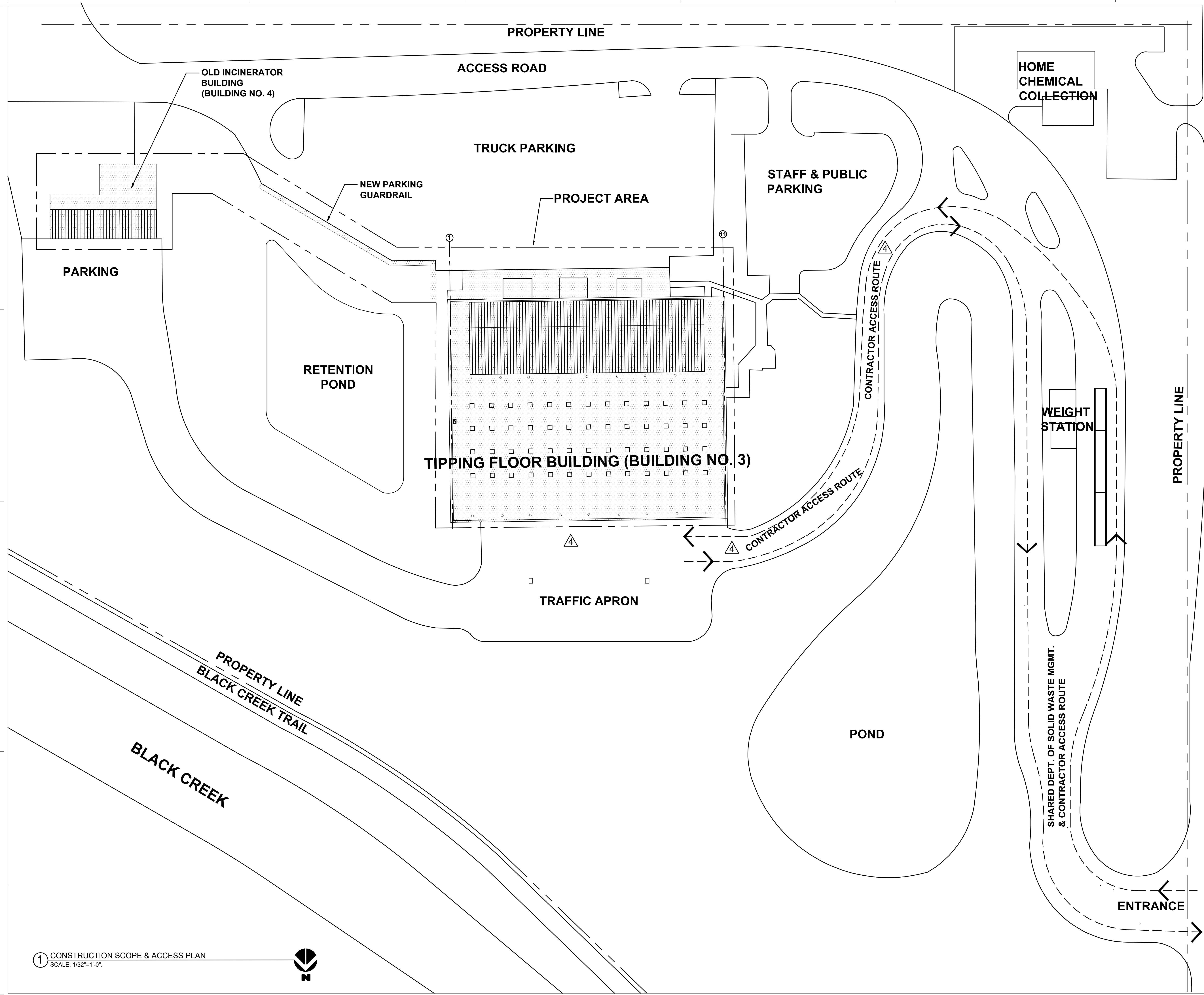
ISSUE DATE:
10-3-2022.

DRAWN BY:
L.F.M.

CHECKED BY:
R.C.M.

SHEET NUMBER:

G-101





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11952 SW 134 COURT
MIAMI, FLORIDA 33186
WWW.OJITO.COM



BOTAS Engineering, Inc.
8815 SW 52nd Lane, Suite #102 • Miami, FL 33172
Tel: 305-485-0311 Fax: 305-485-2817



MIAMI-DADE
COUNTY

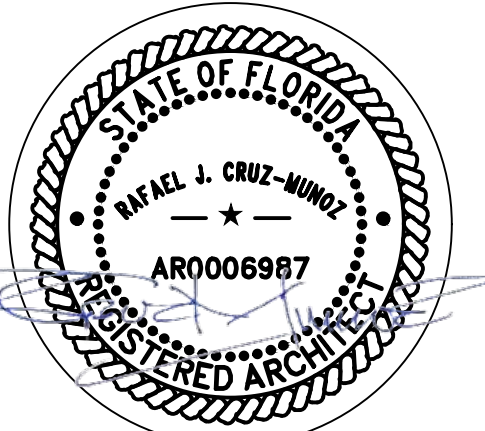
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
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1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS

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HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
CONSTRUCTION SCOPE &
ACCESS PLAN

PROJECT NO.:	ISSUE DATE:
SFL 1021.001	10-3-2022

DRAWN BY:	CHECKED BY:
L.F.M.	R.C.M.

SHEET NUMBER:

G-102



13501 SW. 136 St.
Suite 211
Miami, FL 33186
Ph: (786) 364-7654
Business No. 31691
www.raymondllc.com



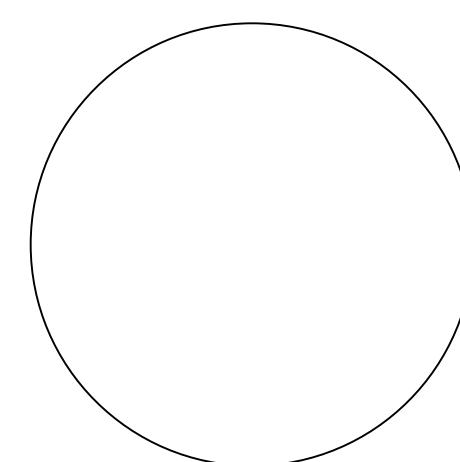
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OF BUILDINGS 3 & 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18033-21

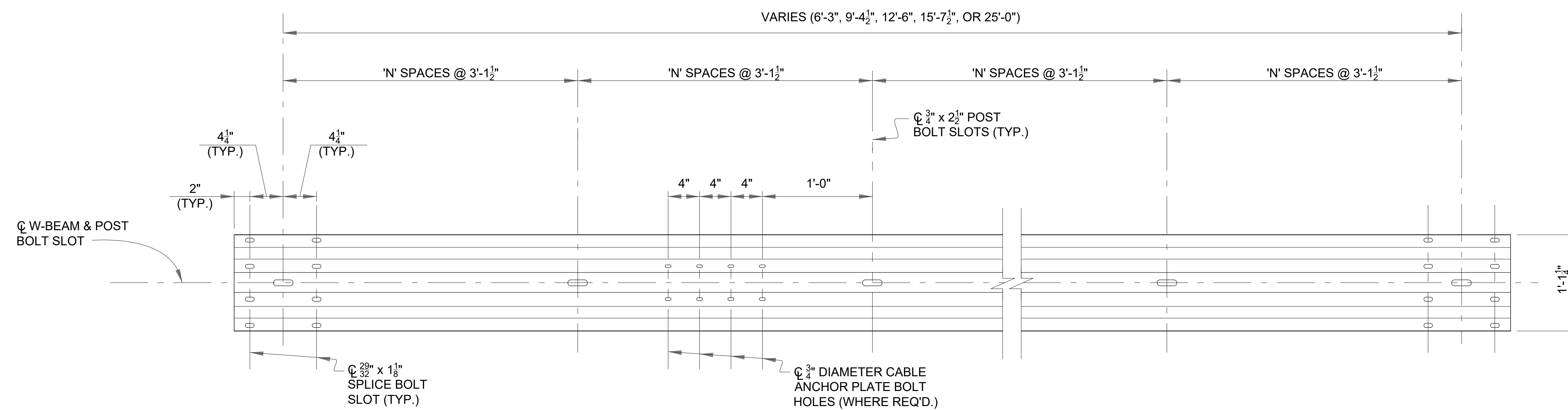
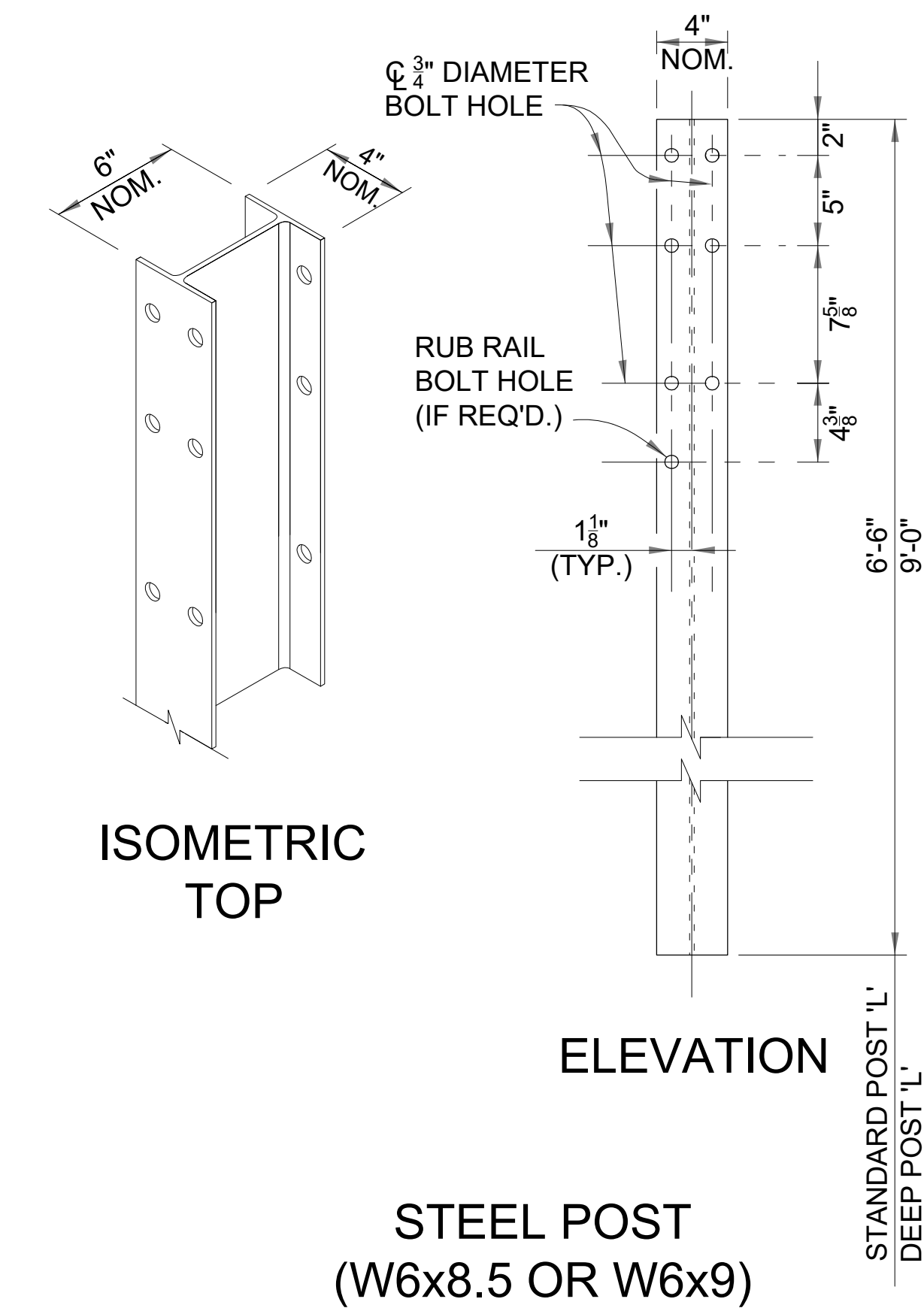
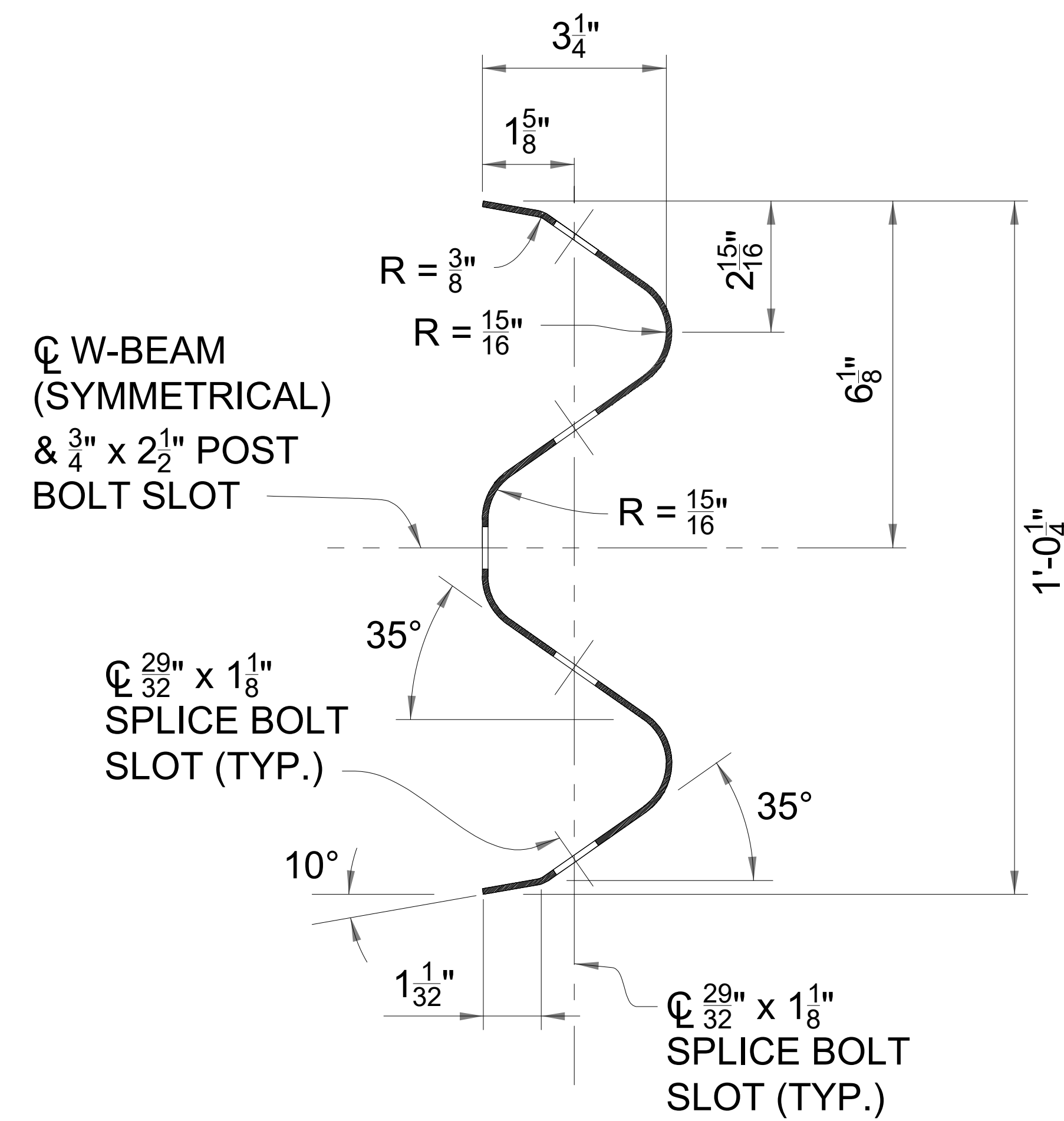
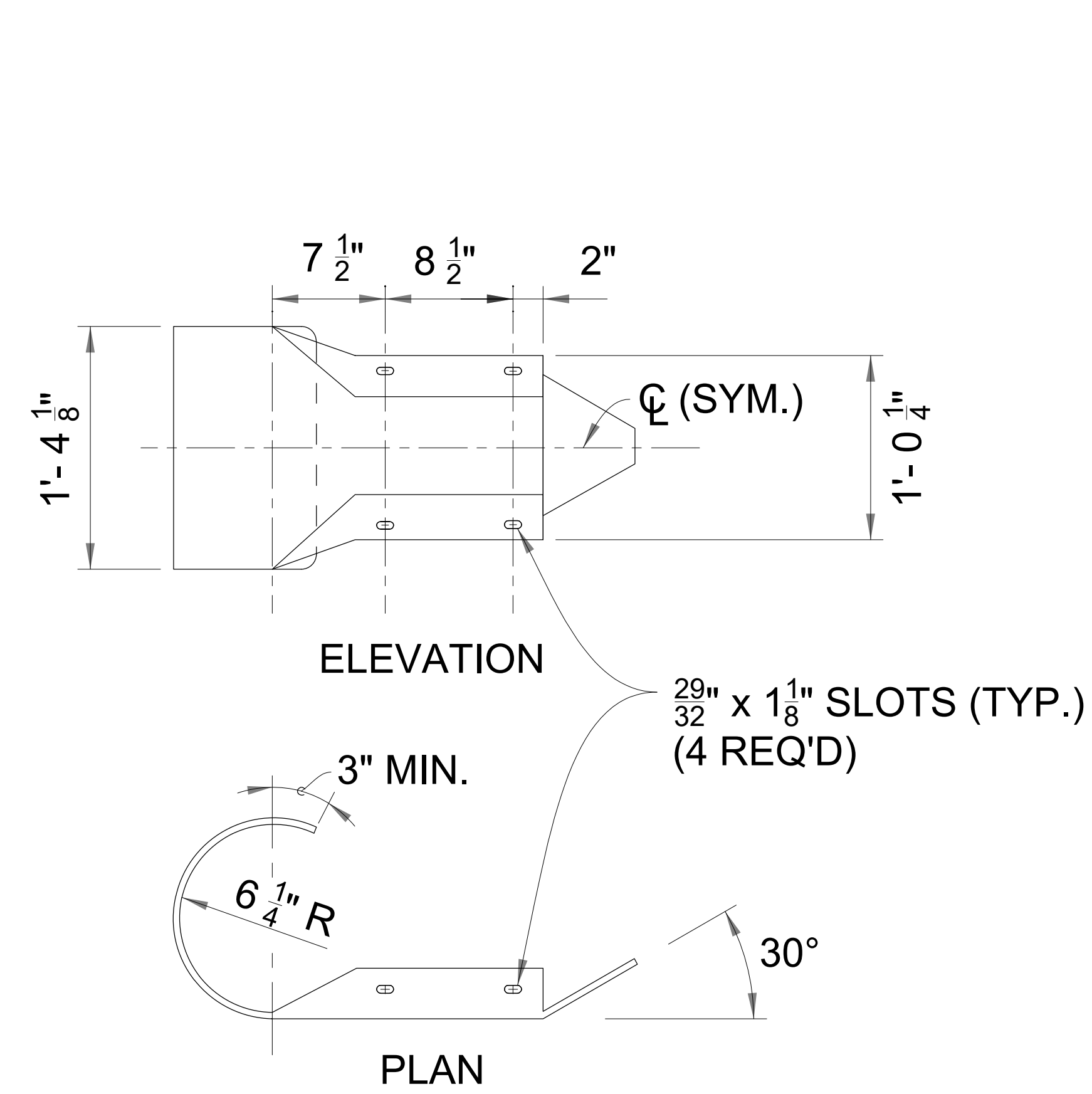
DRAWING TITLE:
SITE PLAN - PROPOSED
PARKING GUARDRAILS

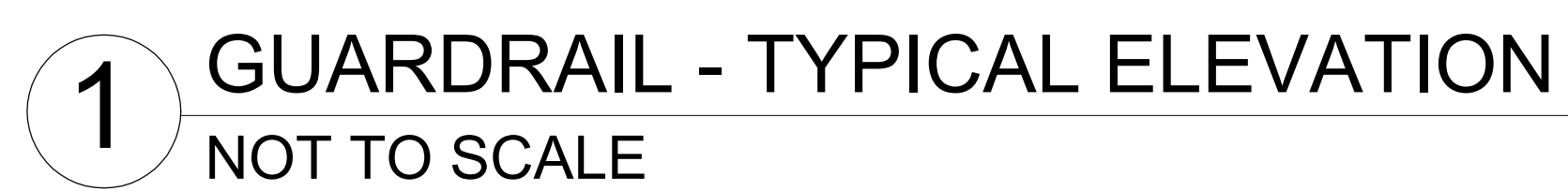
PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER

G-104

2







4 RECTANGULAR WASHER DETAILS

NOTE: FOR TYPE II, CRT, & TERMINAL CONNECTORS WHERE SHOWN - INSTALL OVER PANEL FACE



1" DIAMETER RECESS @
 $\frac{1}{16}$ " DEPTH (EACH FACE)

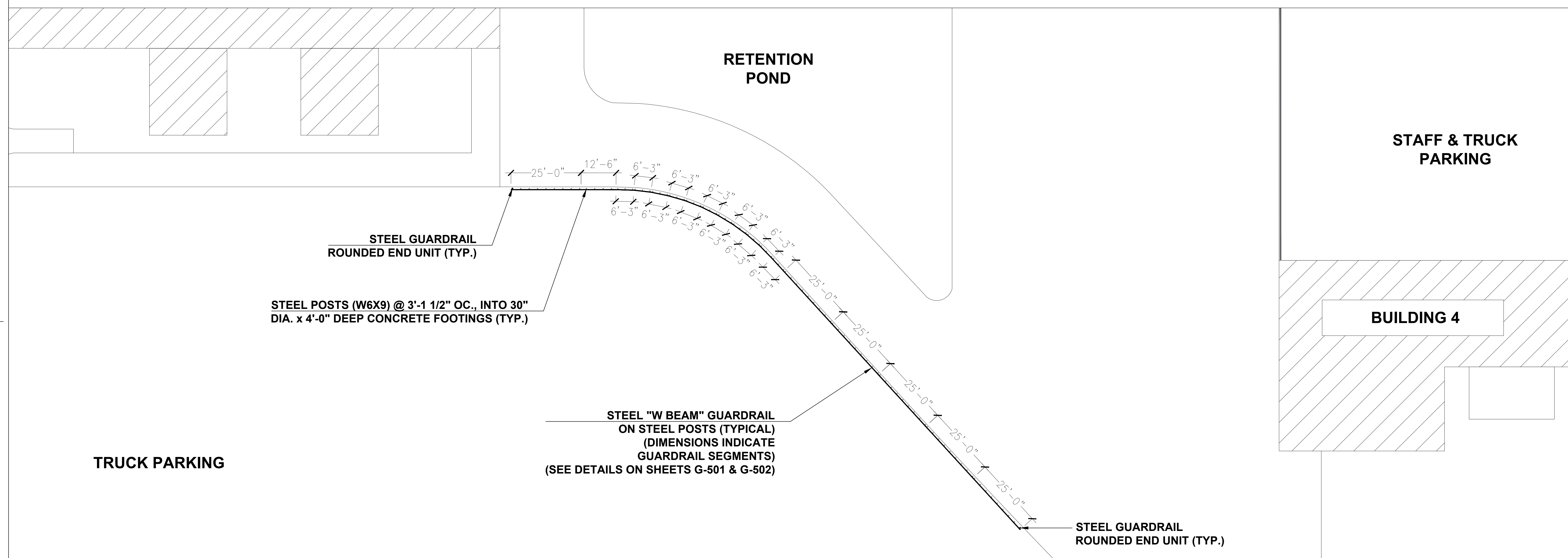
BUTTON-HEAD BOLT LENGTHS:

APPLICATION(S):	LENGTH 'L':	MIN. THREAD LENGTH:
PANEL SPLICE	1 $\frac{1}{4}$ "	FULL LENGTH
STEEL POST MOUNT - SINGLE FACED GUARDRAIL	10"	4"
TIMBER POST MOUNT - SINGLE FACED GUARDRAIL	18"	4"
STEEL OR TIMBER POST MOUNT - DOUBLE FACED GUARDRAIL	25"	4"
MODIFIED THREE-BEAM PANEL / TERMINAL CONNECTOR SPLICE	2"	FULL LENGTH

2 WASHER DETAILS

3 HEX-NUT DETAILS

NOT TO SCALE



5 DETAIL SITE PLAN - NEW GUARDRAIL LAYOUT
SCALE: 1/16" = 1'-0".



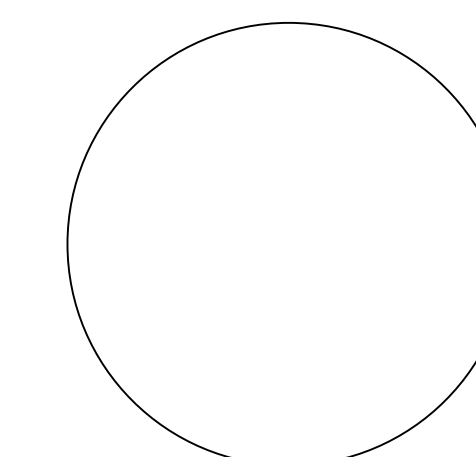
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OF BUILDINGS 3 & 4
SOUTH DADE LANDFILL

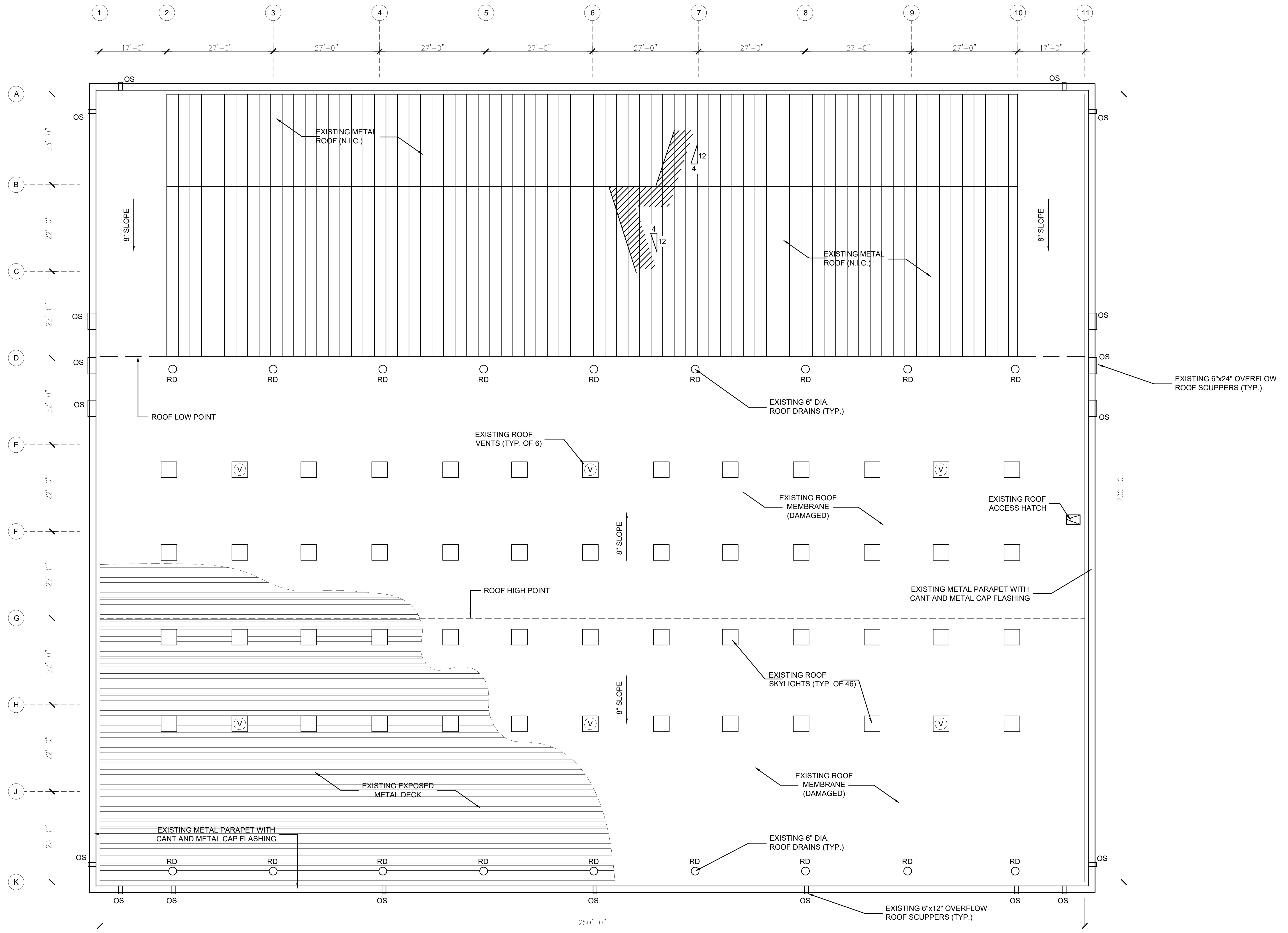
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18033-21

DRAWING TITLE:
**PARKING GUARDRAIL
DETAILS**

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023
DRAWN BY: R.C.M.	CHECKED BY: R.C.M.

SHEET NUMBER

G-503²



BUILDING 3 - EXISTING ROOF PLAN
SCALE: 3/32"=1'-0".

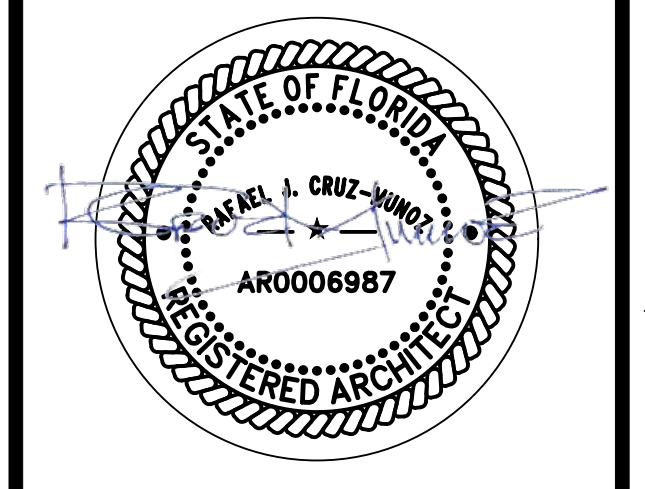


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NO:	DATE:	REMARKS:

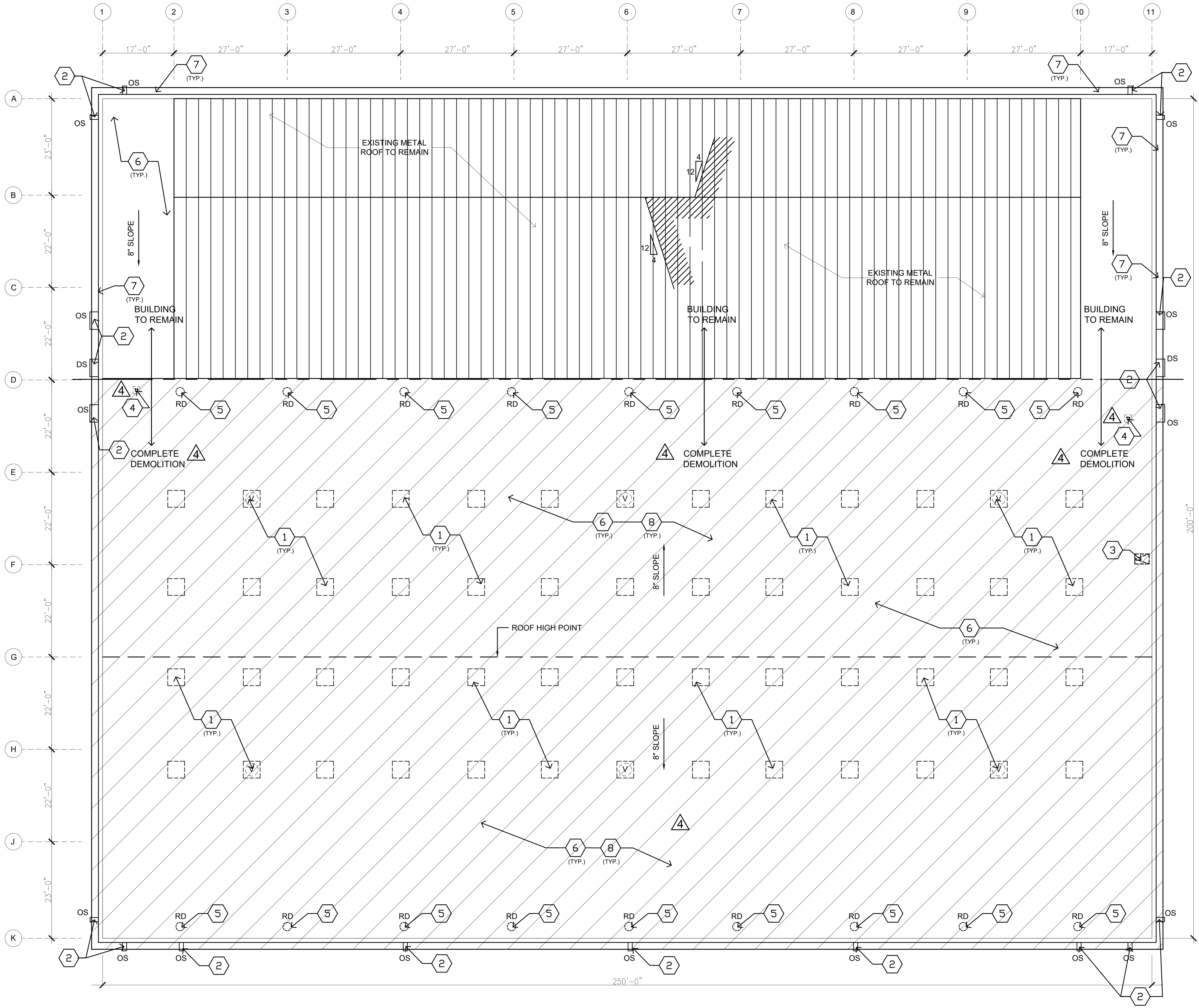
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SOUTH DADE LANDFILL
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - EXISTING
ROOF PLAN

PROJECT NO.: SFL 1021.001	ISSUE DATE: 10-3-2022.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-101



ROOF DEMOLITION NOTES

- 1 REMOVE EXISTING ALUMINUM & GLASS NON-IMPACT SKYLIGHTS AND VENTS, COMPLETE, INCLUDING CURBS AND OTHER APPURTENANCES. (TYPICAL OF 52).
- 2 REMOVE EXISTING DRAINAGE OR OVERFLOW SCUPPERS, COMPLETE, INCLUDING FLASHING, COUNTERFLASHING AND ANY OTHER COMPONENTS.
- 3 REMOVE EXISTING METAL ROOF HATCH, COMPLETE, INCLUDING CURB, FRAME, ANCHORS & OTHER APPURTENANCES. REMOVE EXISTING STEEL LADDER TO ROOF HATCH, COMPLETE, INCLUDING BRACKETS, ANCHORS AND ANY OTHER COMPONENTS.
- 4 EXISTING, THROUGH THE ROOF FIRE DEPARTMENT CONNECTION TO BE RELOCATED. REMOVE EXISTING PITCH PAN & PIPE TO MAIN FIRE LINE (SOUTH OF GRIDLINE D) AND CAP UNTIL NEW CONNECTION.
- 5 REMOVE EXISTING ROOF DRAINS, COMPLETE, INCLUDING DRAIN, CLAMPING RING AND STRAINER.
- 6 REMOVE EXISTING ROOF SYSTEM, COMPLETE, INCLUDING MODIFIED BITUMEN MEMBRANES, INSULATION, METAL DECKING, ANCHORS AND ANY OTHER COMPONENTS
- 7 EXISTING PARAPET, EXTERIOR PANEL FINISH AND METAL FRAMING TO REMAIN. REMOVE EXISTING BITUMINOUS FLASHING, CANT, PARAPET INSULATION, WOOD NAILER AND METAL CAP FLASHING, COMPLETE.
- 8 COMPLETE DEMOLITION: BETWEEN GRIDLINES 1 TO 11 AND GRIDLINES D TO K, IN ADDITION TO REMOVALS SPECIFIED HEREIN BEFORE, REMOVE ALL EXISTING LONG-SPAN STEEL JOISTS, STEEL CROSS BRACINGS AND ALL THEIR CONNECTIONS. REMOVE ALL STEEL BEAMS AND GIRDERS, ALL METAL WALL PANELS, PURLINS, SUPPORTS AND ANCHORS, PARAPETS AND ANY OTHER COMPONENTS. SAW-CUT AND REMOVE CONCRETE WALLS AND COLUMNS TO 6'-0" HEIGHT ABOVE TIPPING FLOOR LEVEL, EXCEPT AT GRIDLINE E, FROM GRIDS 10 TO 11, WHERE THE EXISTING STAIRS TO THE OFFICES WILL REMAIN. REFER TO SHEETS A-105D, A-105, A-106D & A-106 FOR DETAILED INFORMATION REGARDING DEMOLITION AND NEW WORK IN THAT AREA.

BUILDING 3 - PARTIAL DEMOLITION PLAN
SCALE: 3/32"=1'-0"



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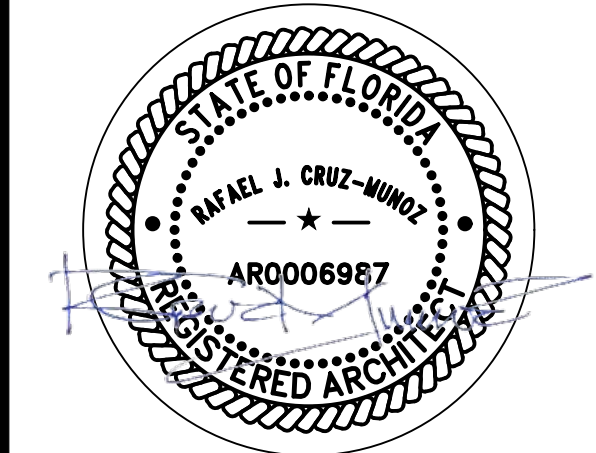
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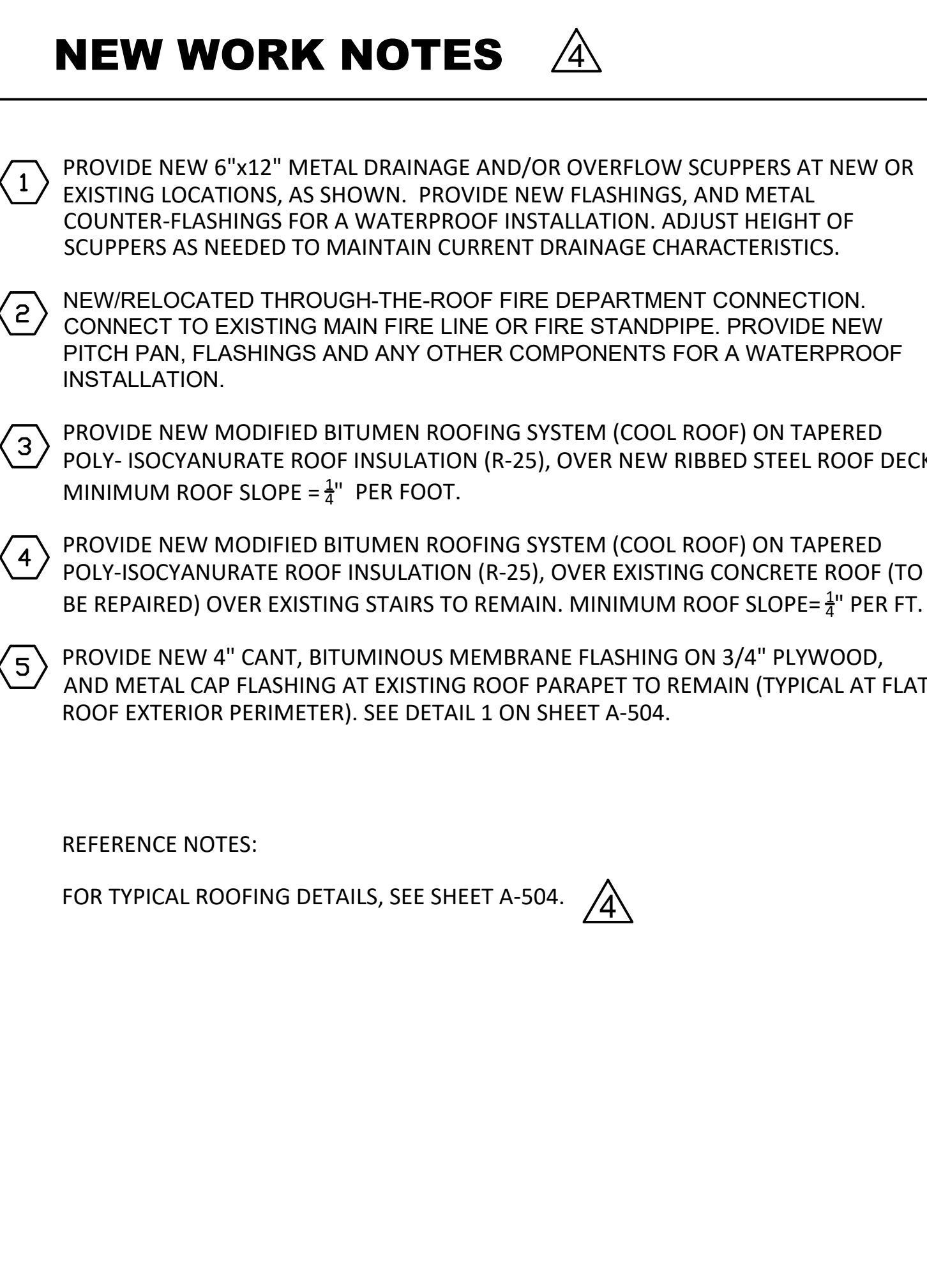
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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - DEMOLITION ROOF PLAN

PROJECT NO.: SFL 1021 001	ISSUE DATE: 10-3-2022
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.
SHEET NUMBER:	

A-102



- 1 PROVIDE NEW 6"x12" METAL DRAINAGE AND/OR OVERFLOW SCUPPERS AT NEW OR EXISTING LOCATIONS, AS SHOWN. PROVIDE NEW FLASHINGS, AND METAL COUNTER-FLASHINGS FOR A WATERPROOF INSTALLATION. ADJUST HEIGHT OF SCUPPERS AS NEEDED TO MAINTAIN CURRENT DRAINAGE CHARACTERISTICS.
- 2 NEW/RELOCATED THROUGH-THE-ROOF FIRE DEPARTMENT CONNECTION. CONNECT TO EXISTING MAIN FIRE LINE OR FIRE STANDPIPE. PROVIDE NEW PITCH PAN, FLASHINGS AND ANY OTHER COMPONENTS FOR A WATERPROOF INSTALLATION.
- 3 PROVIDE NEW MODIFIED BITUMEN ROOFING SYSTEM (COOL ROOF) ON TAPERED POLY - ISOCYANURATE ROOF INSULATION (R-25), OVER NEW RIBBED STEEL ROOF DECK. MINIMUM ROOF SLOPE = $\frac{3}{4}$ " PER FOOT.
- 4 PROVIDE NEW MODIFIED BITUMEN ROOFING SYSTEM (COOL ROOF) ON TAPERED POLY-ISOCYANURATE ROOF INSULATION (R-25), OVER EXISTING CONCRETE ROOF (TO BE REPAIRED) OVER EXISTING STAIRS TO REMAIN. MINIMUM ROOF SLOPE = $\frac{3}{4}$ " PER FT.
- 5 PROVIDE NEW 4" CAN'T, BITUMINOUS MEMBRANE FLASHING ON 3/4" PLYWOOD, AND METAL CAP FLASHING AT EXISTING ROOF SHEET TO REMAIN (TYPICAL AT FLAT ROOF EXTERIOR PERIMETER). SEE DETAIL 1 ON SHEET A-504.

EL. ROOF
LADDER 

DIFFIED BITUMEN ROOFING ON TAPERED
NURATE INSULATION ON EXISTING
TE ROOF TO BE REPAIRED (AT
STAIRS TO REMAIN) SEE SHEETS
-105 A-106D & A-106 FOR ADDITIONAL
SEE STRUCTURAL DRAWINGS FOR
URAL INFORMATION.

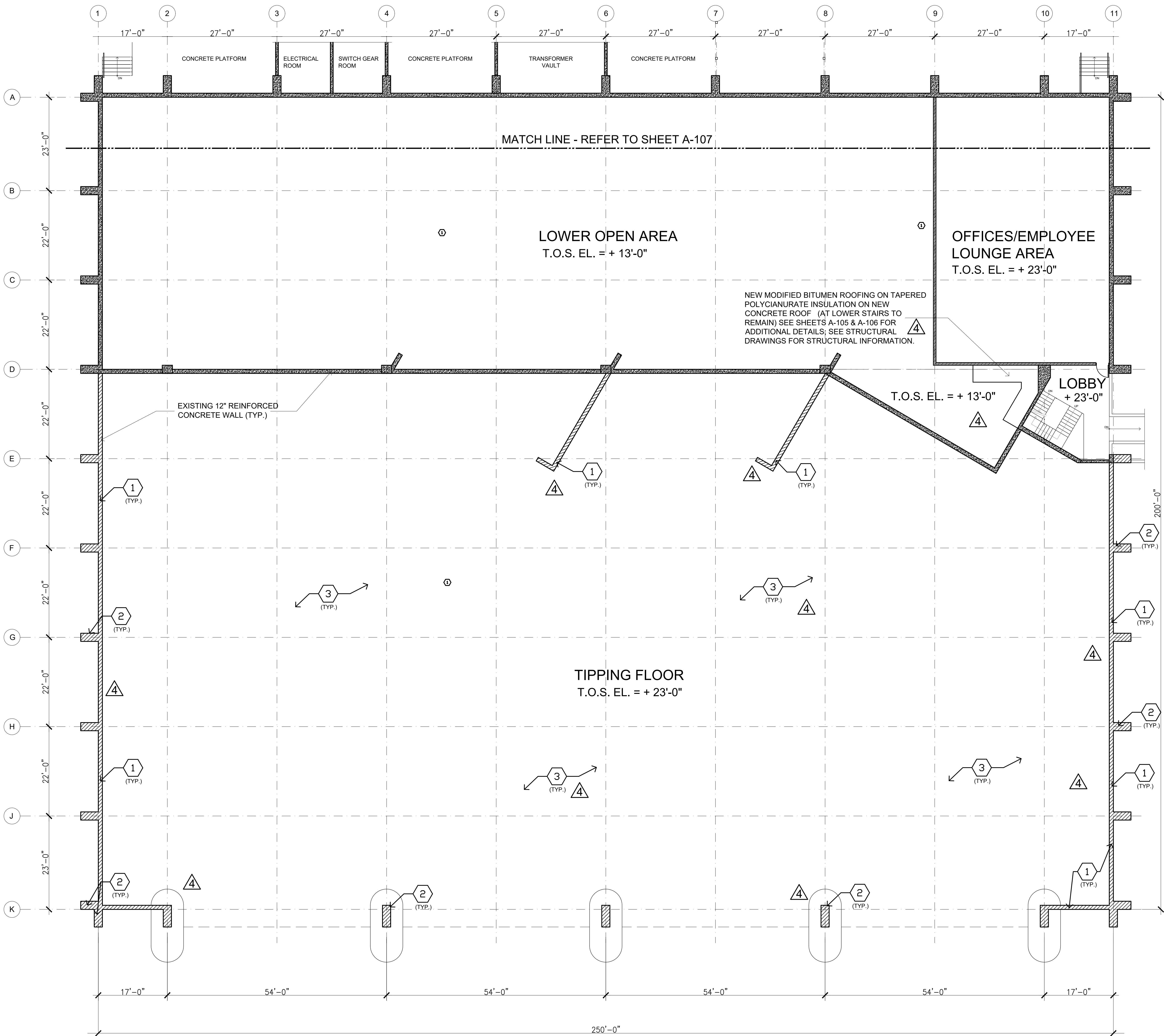
OF ACCESS HATCH.
ILS, SHEET A-502.



4

NOTE: FOR ANY STRUCTURAL REPAIRS NEEDED IN THIS AREA, TO ADDRESS THE DEFICIENCIES NOTED IN THE 40-YR. RECERTIFICATION REPORT ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.

A-103



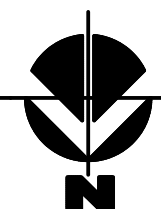
- ### DEMOLITION NOTES
- REFERENCES TO NOTE MARKS ON SHEETS A-104, A-105D & A-106D.
- 1 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE WALLS TO 6'-0" HEIGHT ABOVE TIPPING FLOOR. PORTION BELOW 6'-0" HEIGHT AND FOUNDATIONS SHALL REMAIN. SEE STRUCTURAL DRAWINGS FOR DETAILS.
 - 2 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE COLUMNS TO 6'-0" HEIGHT ABOVE TIPPING FLOOR. PORTION BELOW 6'-0" HEIGHT AND FOUNDATIONS SHALL REMAIN. SEE STRUCTURAL DRAWINGS FOR DETAILS.
 - 3 EXISTING TIPPING FLOOR TO REMAIN AS IS.
 - 4 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE WALL COMPLETE, DOWN TO CONCRETE FOOTING, WHICH IS TO REMAIN. SEE STRUCTURAL DRAWINGS FOR FURTHER DETAILS.
 - 5 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE WALL COMPLETE, DOWN TO TIPPING FLOOR SLAB, WHICH IS TO REMAIN. SEE STRUCTURAL DRAWINGS FOR FURTHER DETAILS.
 - 6 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE SLAB & RAMP, AS REQUIRED TO ACCOMMODATE NEW CONCRETE WALL. SEE STRUCTURAL DRAWINGS FOR FURTHER DETAILS.
 - 7 REMOVE EXISTING METAL DOOR AND FRAME, COMPLETE, INCLUDING HARDWARE, ANCHORS AND APPURTENANCES.
 - 8 SAW-CUT AND REMOVE EXISTING BALCONY, COMPLETE, INCLUDING CONCRETE SLAB, CONCRETE TIE BEAMS, METAL RAILINGS AND ALL OTHER APPURTENANCES.
 - 9 REMOVE EXISTING STEEL LADDER TO ROOF, COMPLETE, INCLUDING LADDER, SUPPORT BRACKETS, ANCHORS, ROOF HATCH, AND ANY OTHER COMPONENTS.
 - 10 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE WALL, COMPLETE, INCLUDING WALL, CONCRETE BEAMS ABOVE AND BELOW WALL, AND ANY PORTION OF EXISTING FLOOR AND ROOF SLAB OUTSIDE OF NEW CONCRETE WALL INSTALLATION.
 - 11 SAW-CUT AND REMOVE PORTION OF EXISTING CONCRETE ROOF SLAB AS INDICATED, TO ACCOMMODATE NEW ROOF ACCESS HATCH.

PLAN LEGEND

	NEW CONCRETE WALL OR COLUMN
	EXISTING CONCRETE WALL OR COLUMN TO REMAIN
	EXISTING CONCRETE WALL OR COLUMN TO BE SAW-CUT TO 6'-0" ABOVE TIPPING FLOOR
	EXISTING CONCRETE WALL OR COLUMN TO BE DEMOLISHED
	EXISTING C.M.U. WALL TO REMAIN
	NEW C.M.U. WALL

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BUILDING 3 - GROUND FLOOR PLAN - TIPPING FLOOR LEVEL
SCALE: 3/32"=1'-0"



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3855 NW 56th Ave., Suite #707 • Coral Gables, FL 33177
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MIAMI-DADE COUNTY

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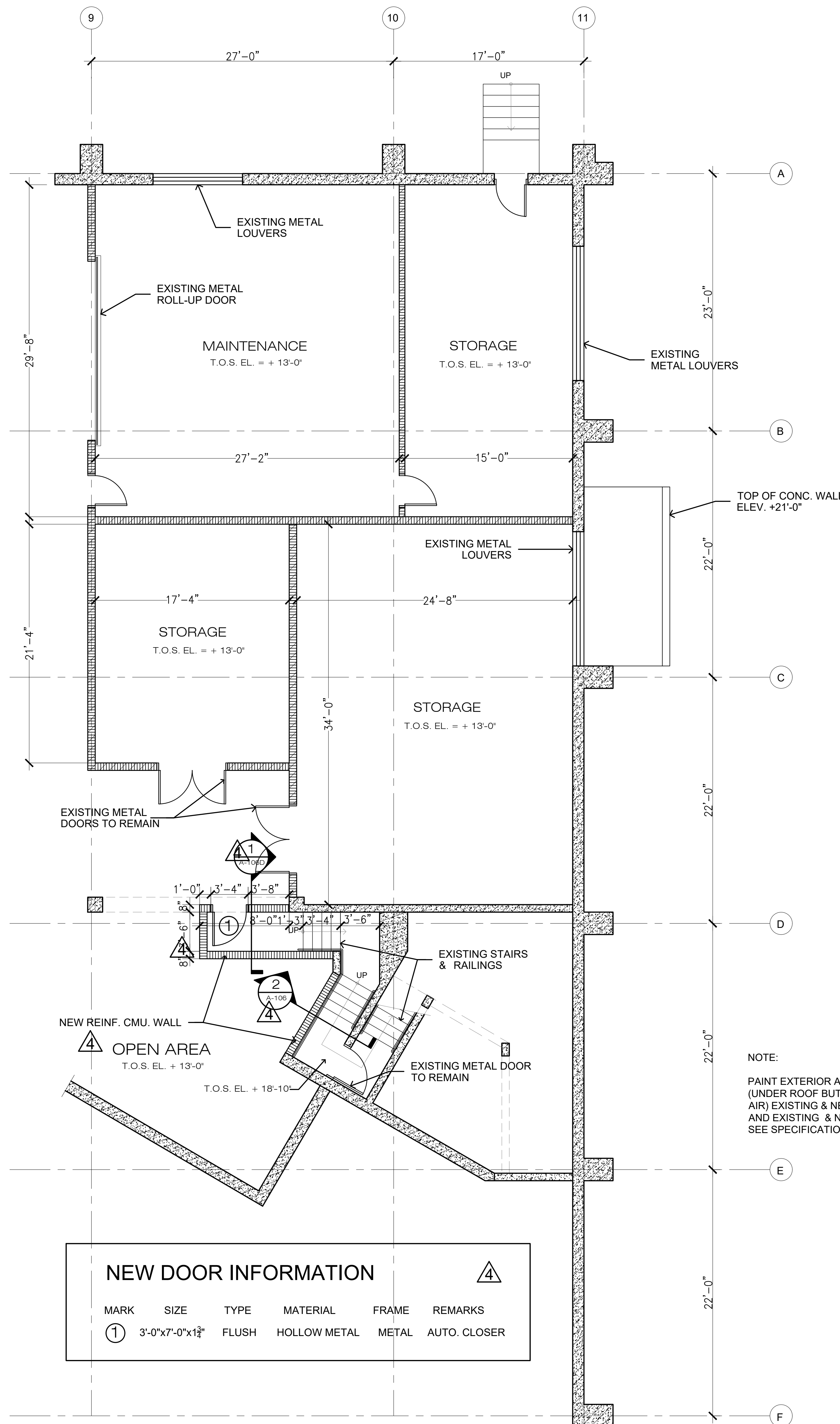
23707 SW 97TH AVENUE
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DRAWING TITLE:
BUILDING 3 - GROUND FLOOR PLAN (TIPPING FLOOR LEVEL)

PROJECT NO.: SFL 1021.001	ISSUE DATE: 10-3-2022
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

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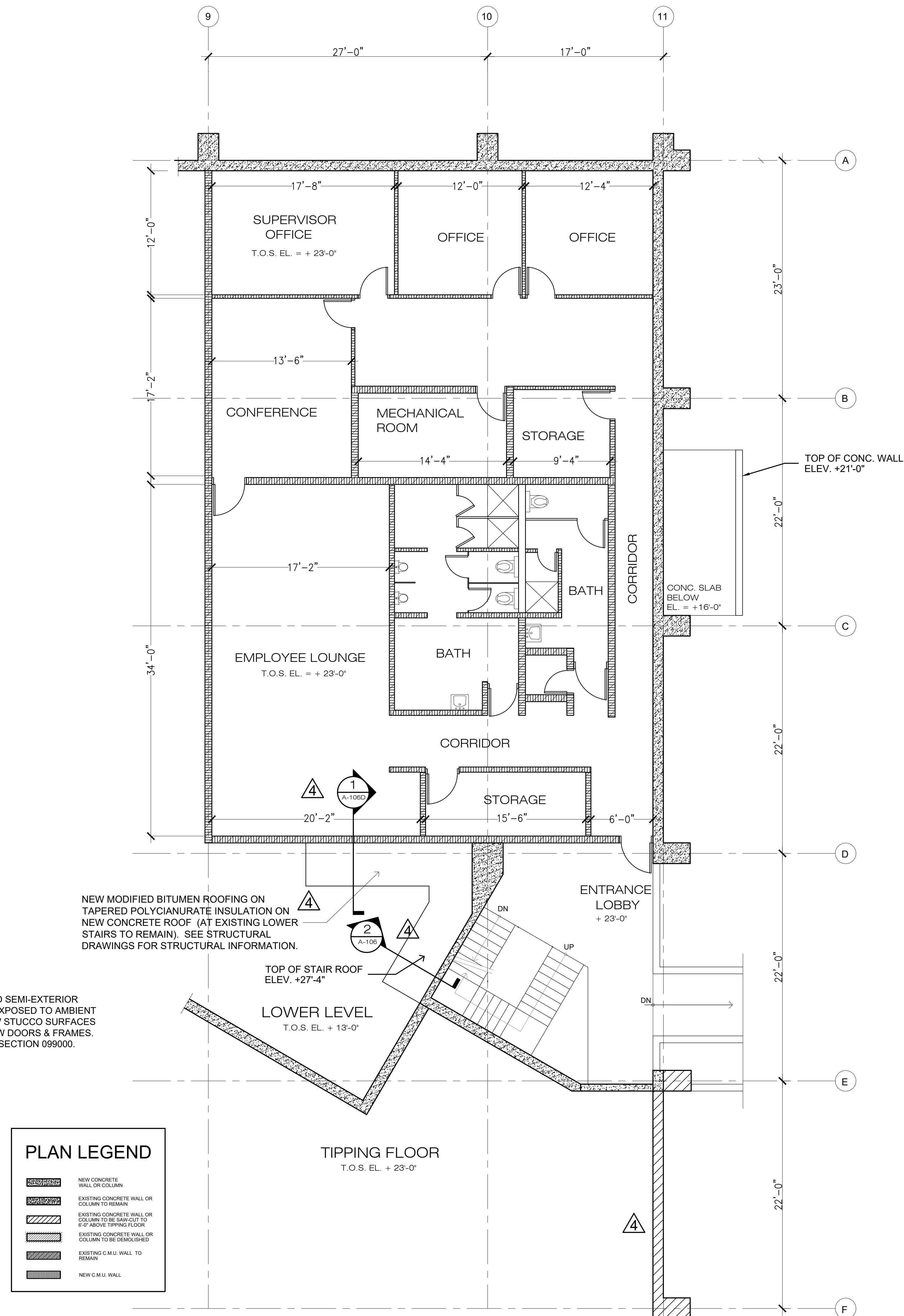
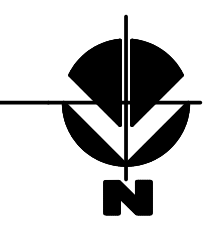
A-104



NEW DOOR INFORMATION					
MARK	SIZE	TYPE	MATERIAL	FRAME	REMARKS
①	3'-0"x7'-0"x1 1/2"	FLUSH	HOLLOW METAL	METAL	AUTO. CLOSER

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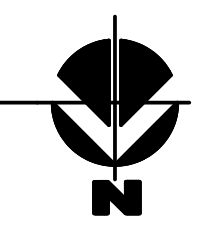
BUILDING 3 - GROUND FLOOR PLAN - MAINTENANCE AREA
SCALE: 3/16"=1'-0"



PLAN LEGEND	
[Symbol]	NEW CONCRETE WALL OR COLUMN
[Symbol]	EXISTING CONCRETE WALL OR COLUMN TO REMAIN
[Symbol]	EXISTING CONCRETE WALL OR COLUMN TO BE SAWCUT TO 6'-0" ABOVE TIPPING FLOOR
[Symbol]	EXISTING CONCRETE WALL OR COLUMN TO BE DEMOLISHED
[Symbol]	EXISTING C.M.U. WALL TO REMAIN
[Symbol]	NEW C.M.U. WALL

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BUILDING 3 - SECOND FLOOR PLAN - EMPLOYEE AREA
SCALE: 3/16"=1'-0"

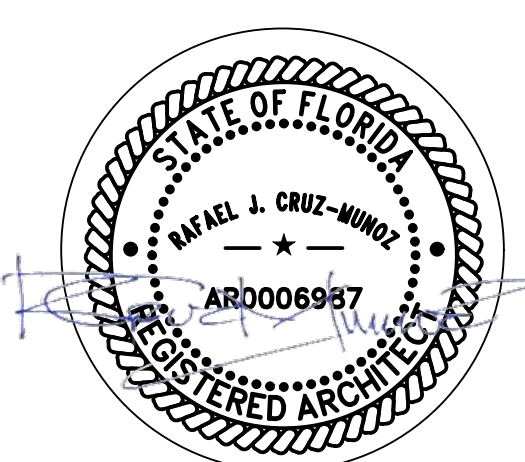


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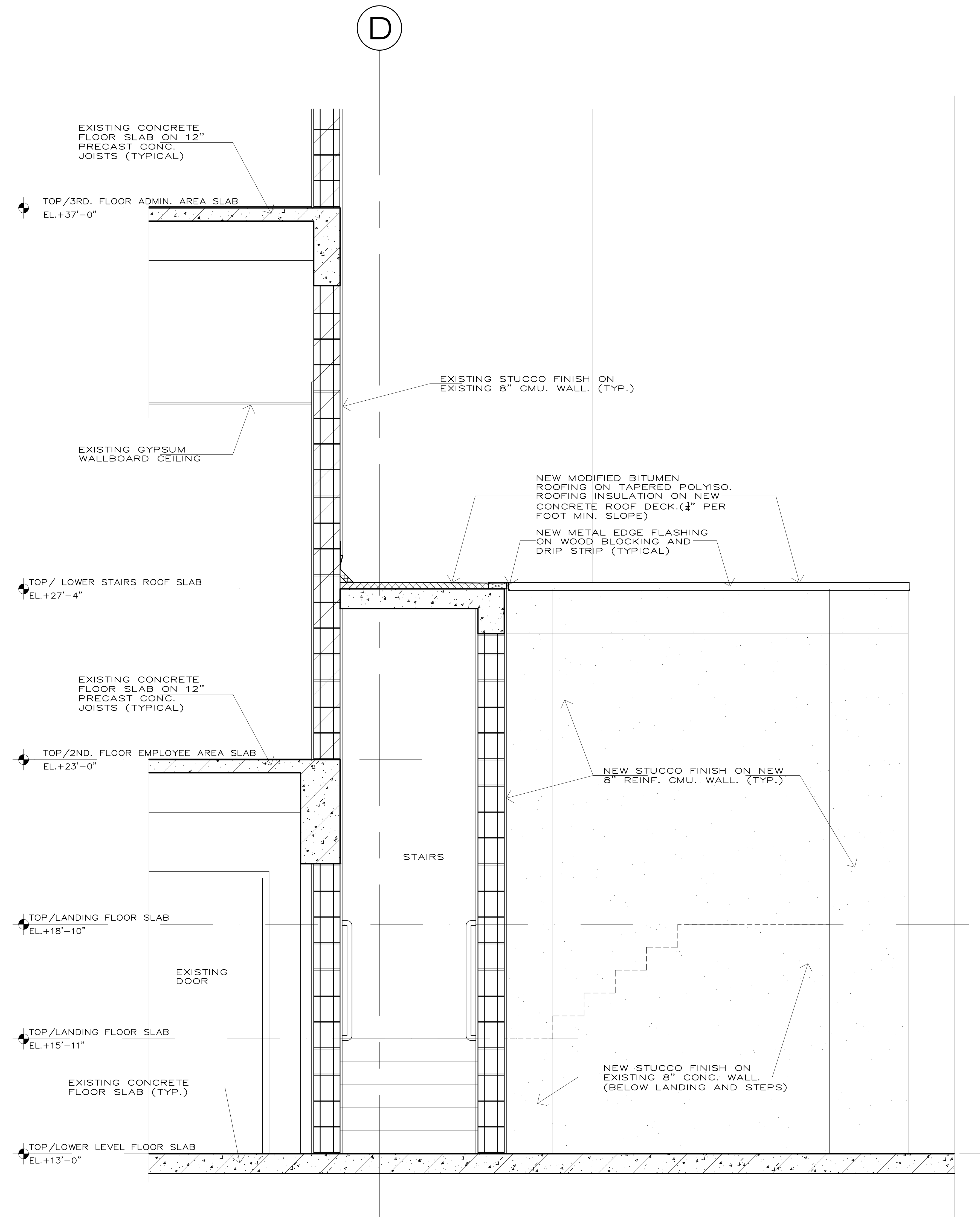
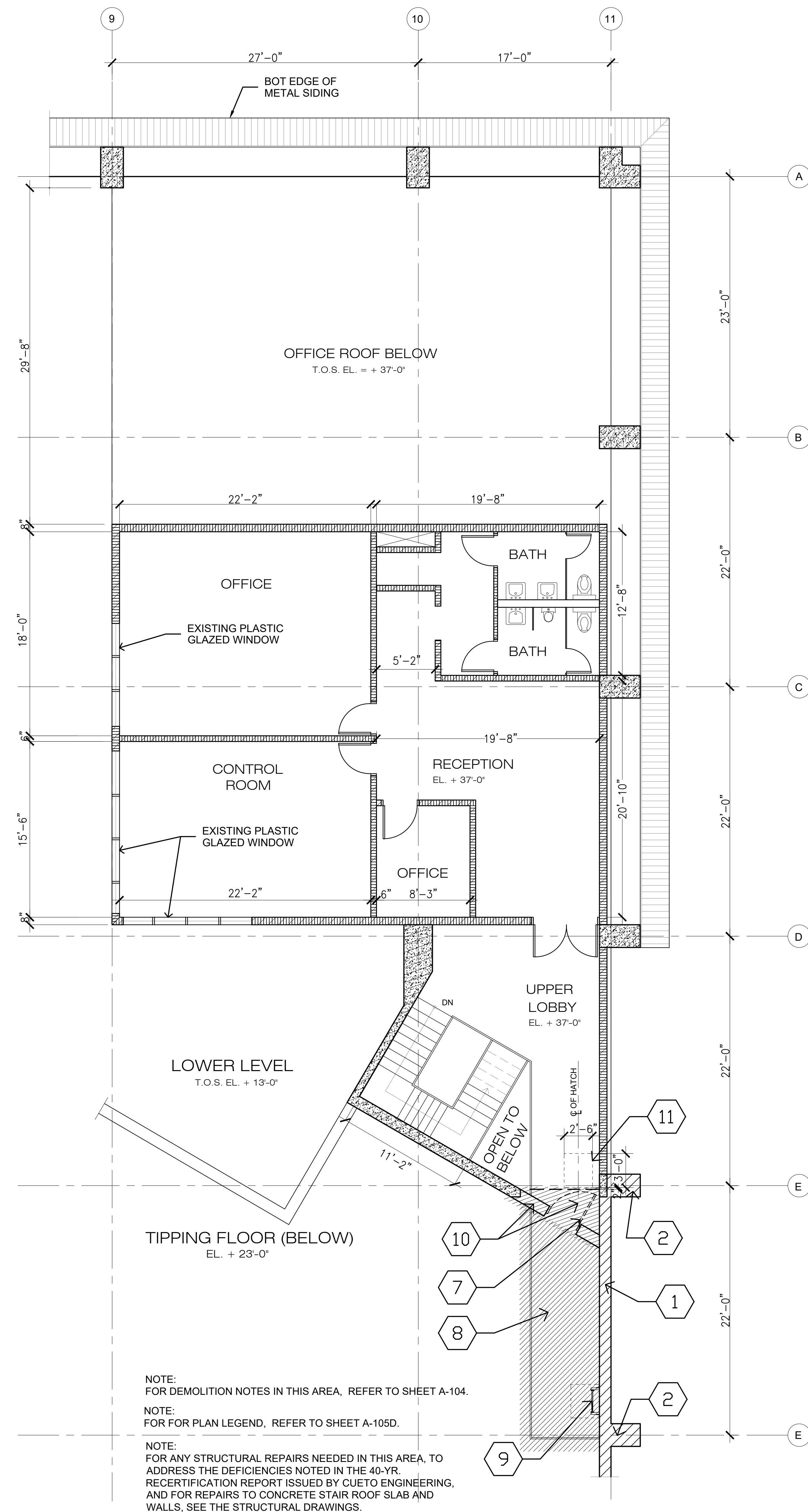
PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - GROUND FLOOR & SECOND FLOOR PLANS (MAINTENANCE & EMPLOYEE AREAS)

PROJECT NO.: SPL 1021.001	ISSUE DATE: 6-30-2023
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.
SHEET NUMBER:	

A-105



NEW WORK NOTES

- 1 PRESSURE WASH ENTIRE BUILDING, INCLUDING EXTERIOR EXPOSED CONCRETE WALLS, STEEL ROOF AND SIDING FRAMING TO REMAIN, EXTERIOR DOORS & FRAMES, AND ANY OTHER EXTERIOR (UNDER ROOF OPEN AREAS) SURFACES EXPOSED TO AMBIENT AIR.
- 2 RE-PAINT EXISTING STEEL ROOF FRAMING TO REMAIN, STEEL SIDING AND ITS FRAMING AND EXISTING EXTERIOR DOORS AND FRAMES. DO NOT PAINT EXPOSED CONCRETE WALLS.

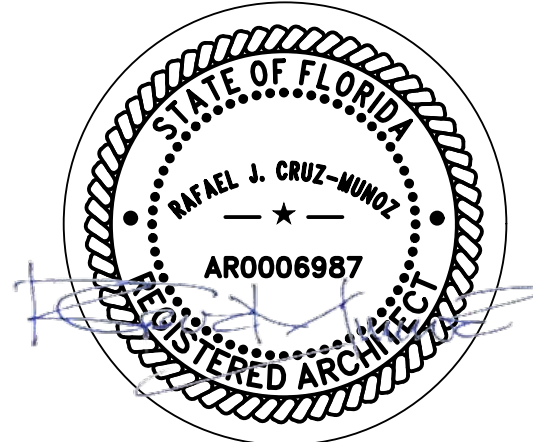


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CLIENT:
MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT
2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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CONTRACTOR SHALL NOT PERMIT THE USE OR RELEASE OF THE DRAWINGS TO OUTSIDE ENTITIES NOT DIRECTLY INVOLVED WITH THE PROJECT, WITHOUT PRIOR WRITTEN PERMISSION BY MIAMI-DADE COUNTY DEPARTMENT OF SOLID WASTE MANAGEMENT. CONTRACTOR SHALL ADVISE ITS EMPLOYEES, SUBCONTRACTORS, OR AGENTS OF THESE REQUIREMENTS AND OF THEIR OBLIGATIONS UNDER THESE TERMS.



SIGNED AND SEALED

NO.	DATE	REVISIONS
4	6-09-24	REVISED PER OWNER MODIFICATIONS
2	6-30-23	SHEET ADDED PER 40-YR RECERT. REPORTS
1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

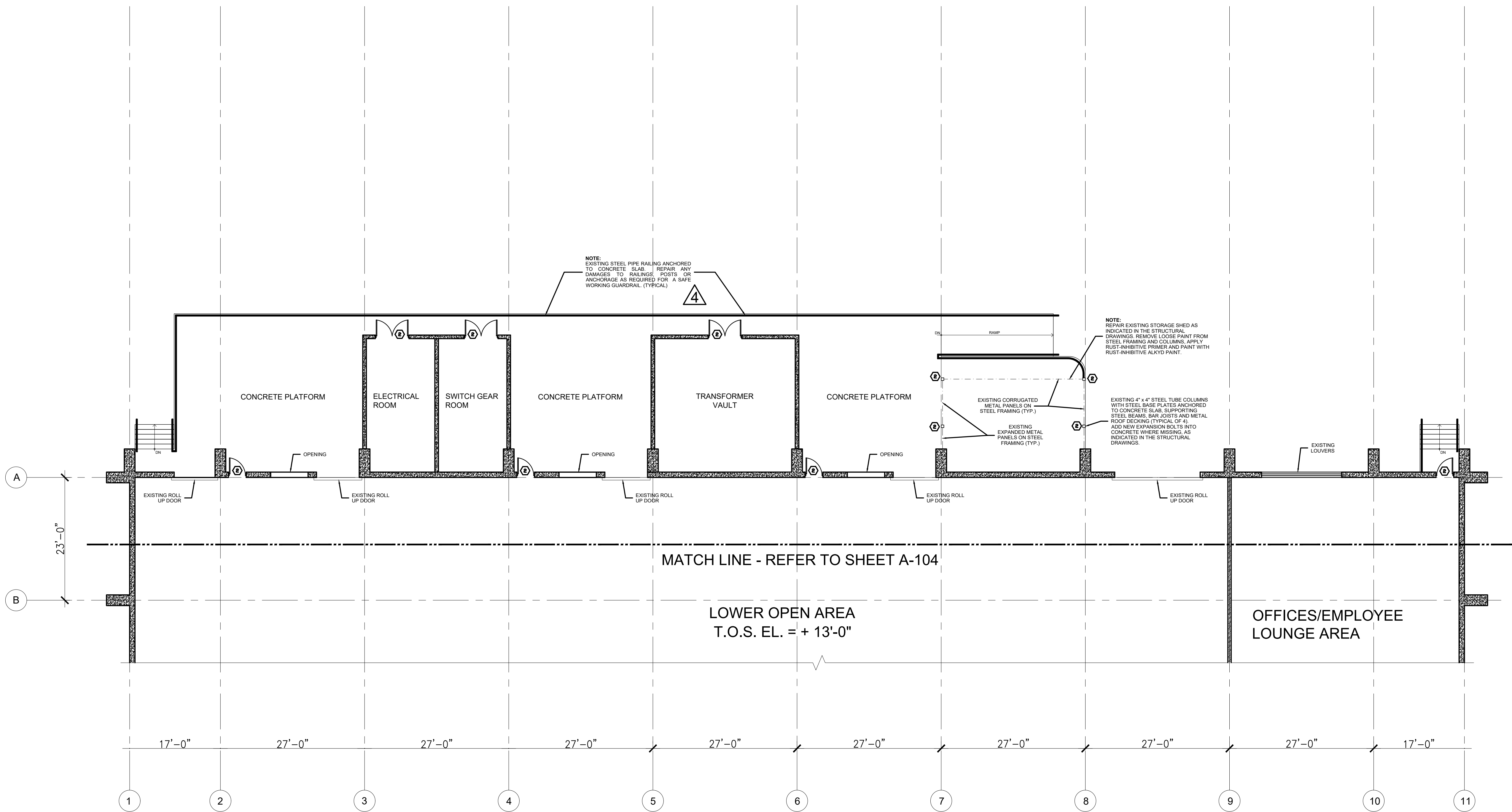
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - GROUND FLOOR PLAN (LOWER OPEN AREA AND UTILITY BAYS)

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-107



1 BUILDING 3 - GROUND FLOOR PLAN - LOWER OPEN AREA AND UTILITY BAYS
SCALE: 3/32"=1'-0".



NOTE: FOR ANY STRUCTURAL REPAIRS NEEDED IN THIS AREA, TO ADDRESS THE DEFICIENCIES NOTED IN THE 40-YR. RECERTIFICATION REPORT ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.

NEW WORK NOTES

- 1 PRESSURE WASH ENTIRE BUILDING, INCLUDING EXTERIOR EXPOSED CONCRETE WALLS (WHERE INDICATED), STEEL ROOF AND SIDING FRAMING, EXTERIOR DOORS & FRAMES, AND ANY OTHER SEMI-EXTERIOR (UNDER ROOF BUT EXPOSED TO AMBIENT AIR) SURFACES.
- 2 RE-PAINT EXISTING STEEL ROOF FRAMING, STEEL SIDING FRAMING AND EXISTING EXTERIOR DOORS AND FRAMES. DO NOT PAINT EXPOSED CONCRETE WALLS.



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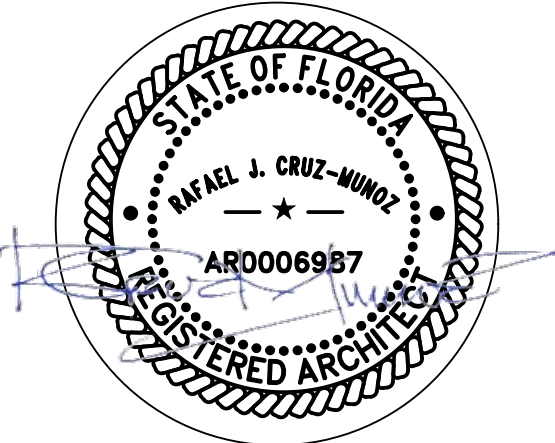
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DEPARTMENT OF
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2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

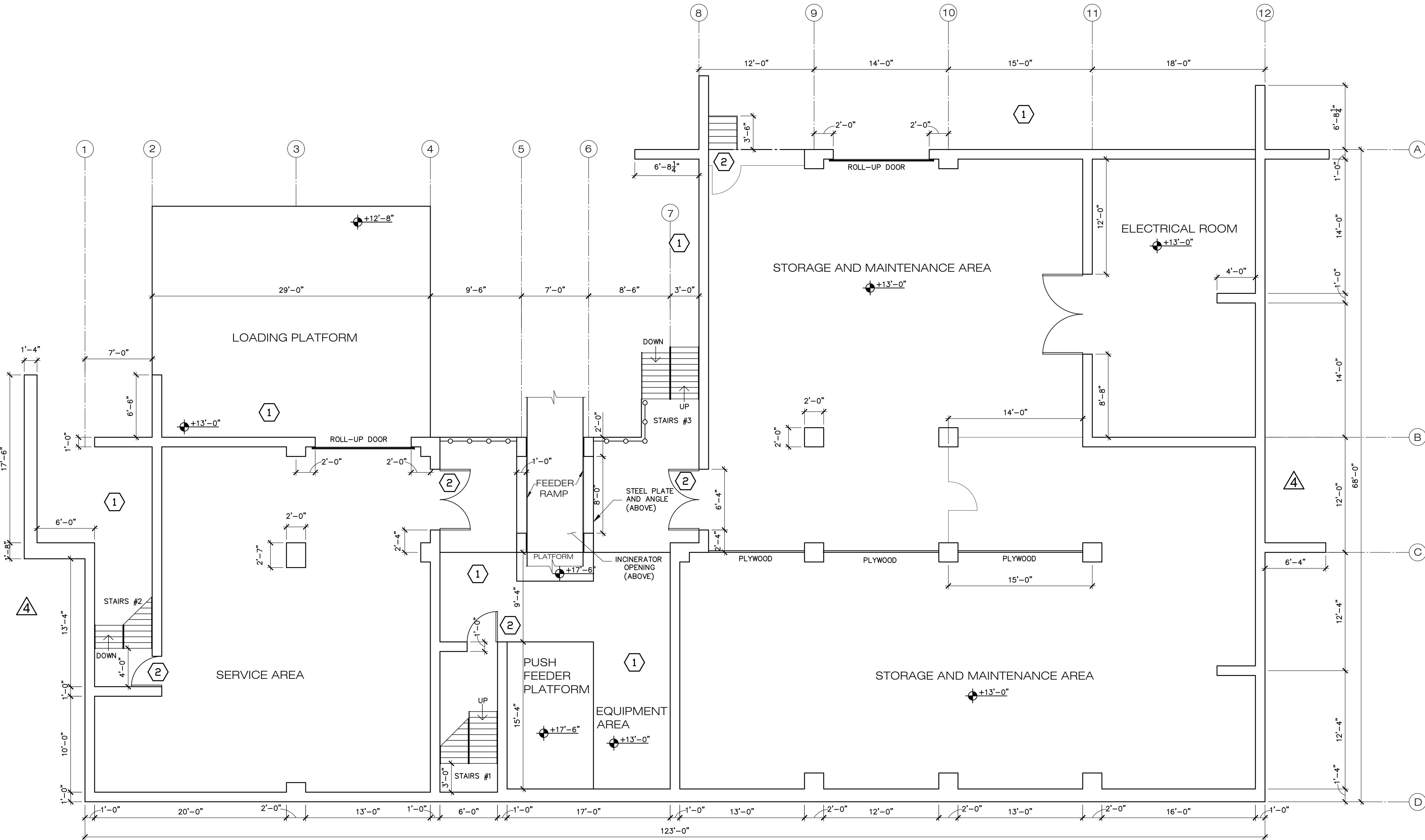
DRAWING TITLE:

BUILDING 4 - GROUND
FLOOR PLAN

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-108



NOTE:
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1 BUILDING 4 - GROUND FLOOR PLAN
SCALE: 3/16"=1'-0".



NEW WORK NOTES

1 PRESSURE WASH ENTIRE BUILDING, INCLUDING EXTERIOR EXPOSED CONCRETE WALLS (WHERE INDICATED), STEEL ROOF AND SIDING FRAMING, EXTERIOR DOORS & FRAMES, AND ANY OTHER EXTERIOR (UNDER ROOF OPEN AREAS) SURFACES EXPOSED TO AMBIENT AIR.



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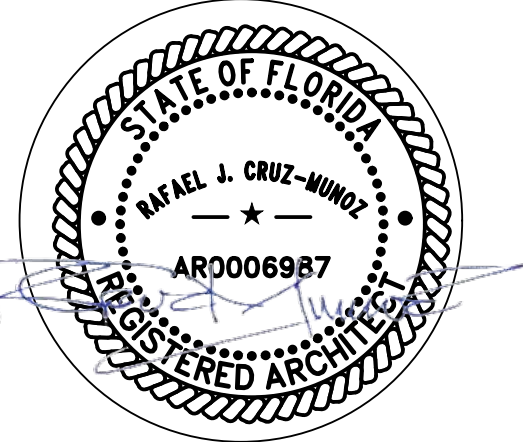
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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
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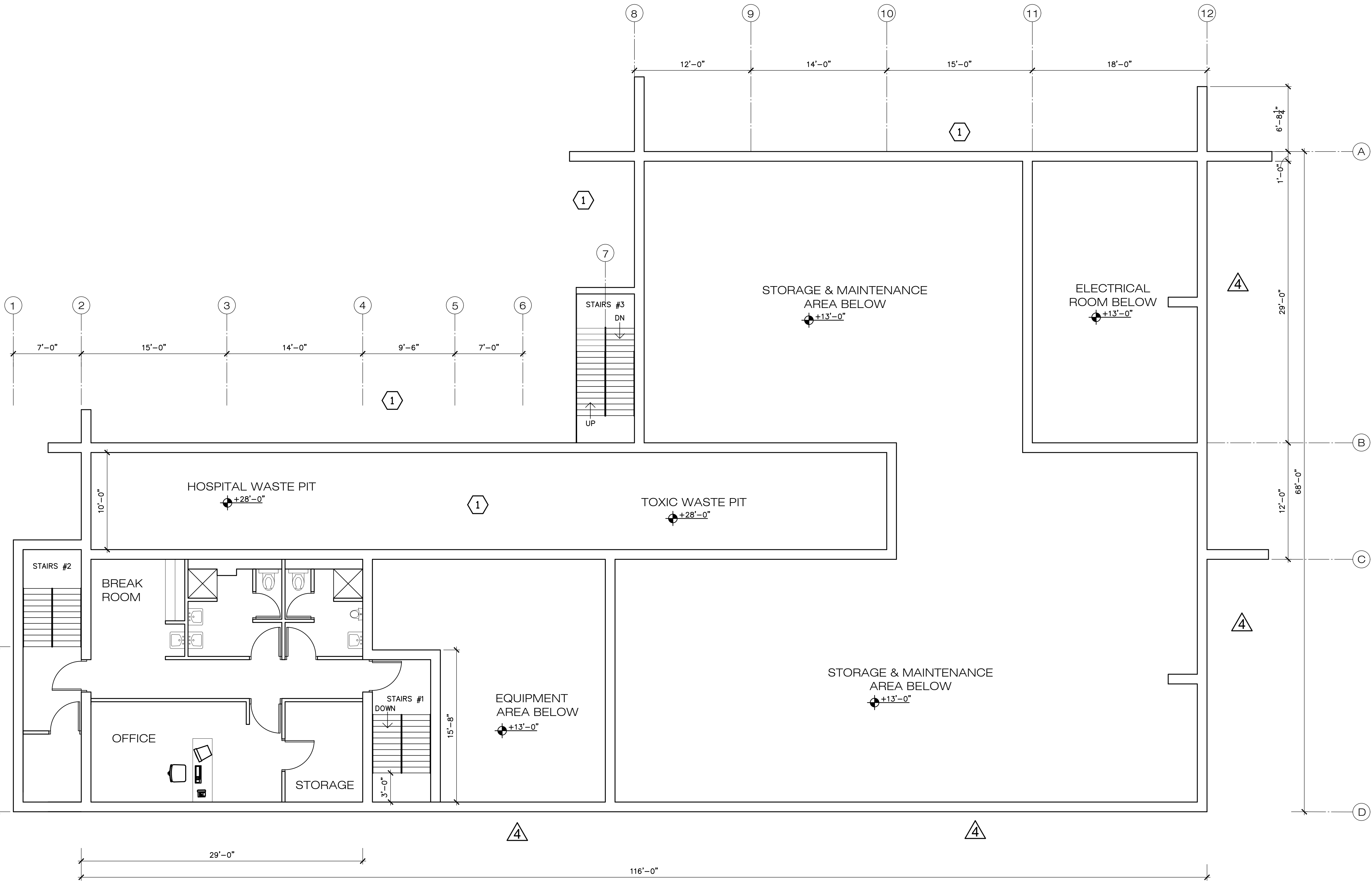
DRAWING TITLE:

BUILDING 4 - SECOND
FLOOR PLAN

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-109



NOTE:
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1 BUILDING 4 - SECOND FLOOR PLAN
SCALE: 3/16"=1'-0".



NEW WORK NOTES

- 1 PRESSURE WASH ENTIRE BUILDING, INCLUDING EXTERIOR EXPOSED CONCRETE WALLS, STEEL ROOF AND SIDING FRAMING, EXTERIOR DOORS & FRAMES, AND ANY OTHER SEMI-EXTERIOR (UNDER ROOF OPEN AREAS) SURFACES EXPOSED TO AMBIENT AIR.
- 2 RE-PAINT EXISTING STEEL ROOF FRAMING, STEEL SIDING FRAMING AND EXISTING EXTERIOR DOORS AND FRAMES. DO NOT PAINT EXPOSED CONCRETE WALLS.



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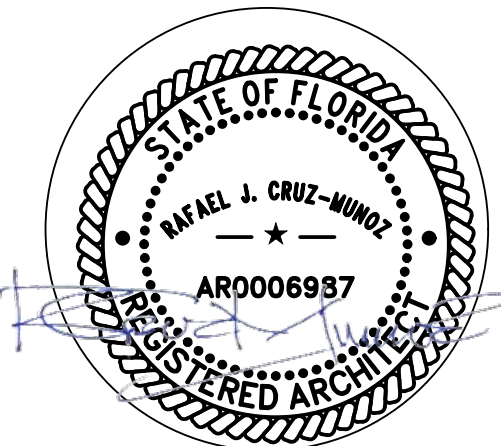
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PROJECT TITLE:
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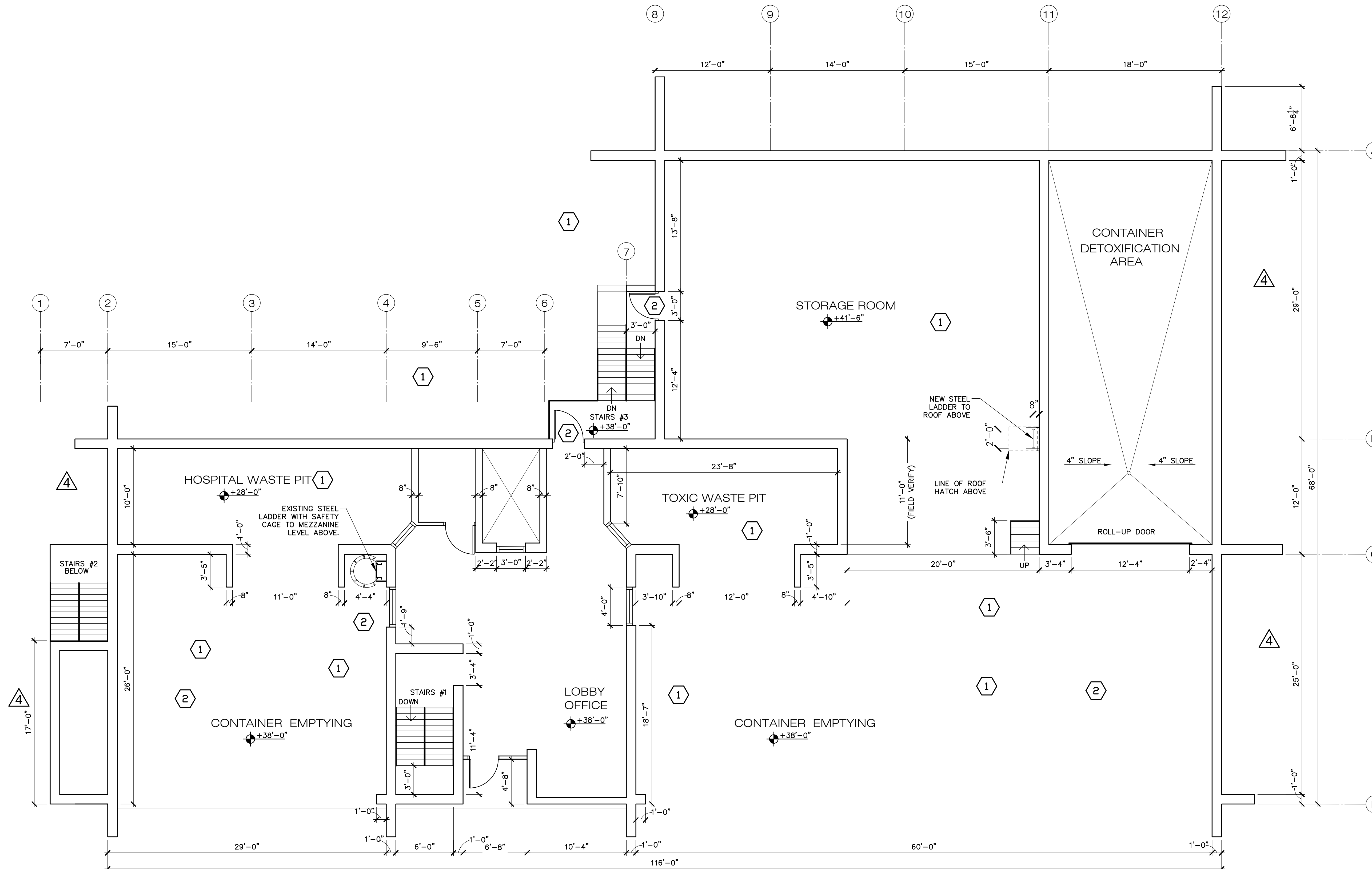
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

BUILDING 4 - THIRD FLOOR & MEZZANINE PLAN

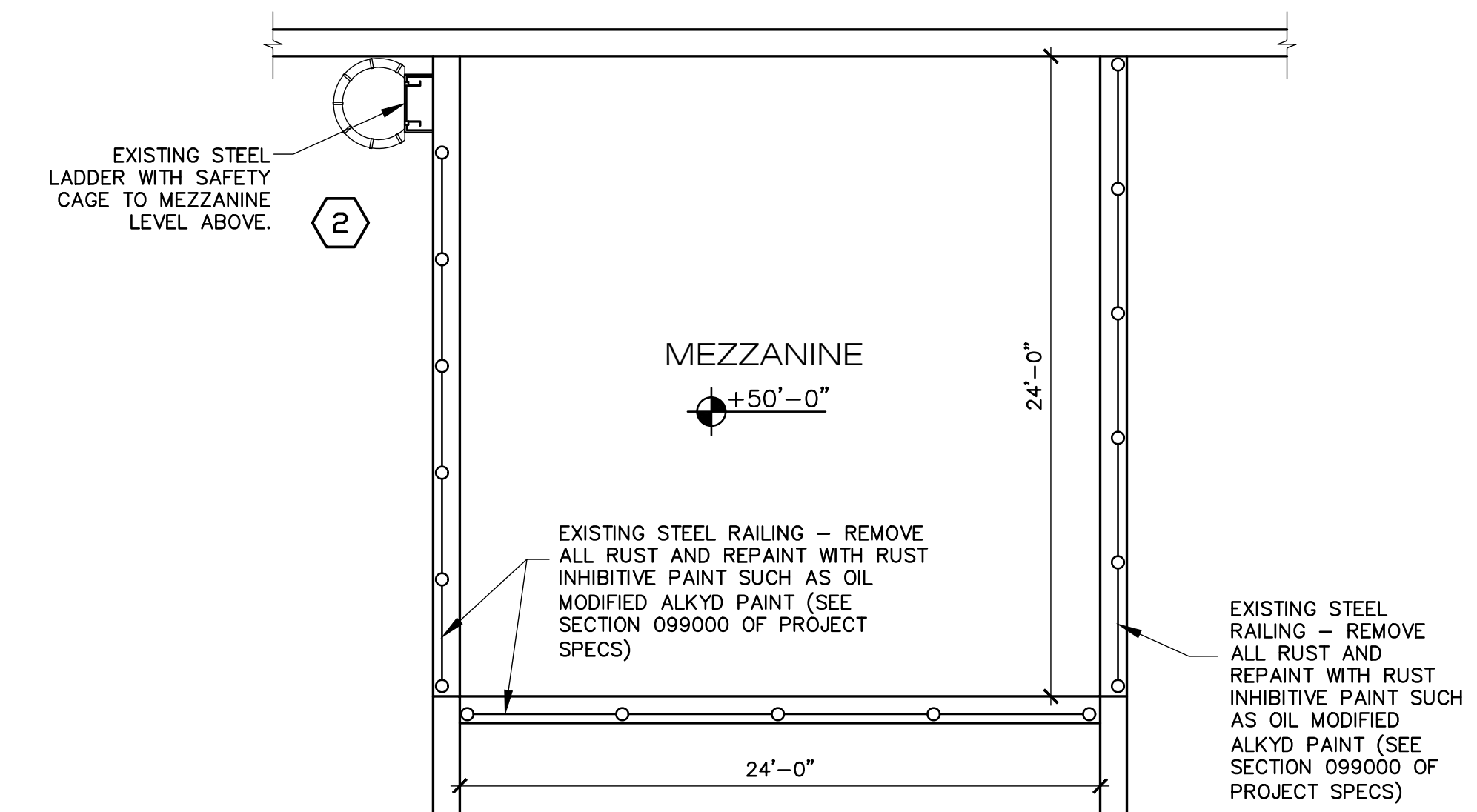
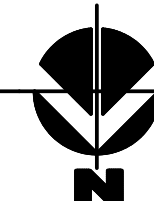
PROJECT NO: SPL 1021.001	ISSUE DATE: 6-30-2023
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.
SHEET NUMBER:	

A-110



NOTE:
FOR ANY STRUCTURAL REPAIRS NEEDED IN THIS AREA, TO ADDRESS THE DEFICIENCIES NOTED IN THE 40-YR. RE-CERTIFICATION REPORT ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.

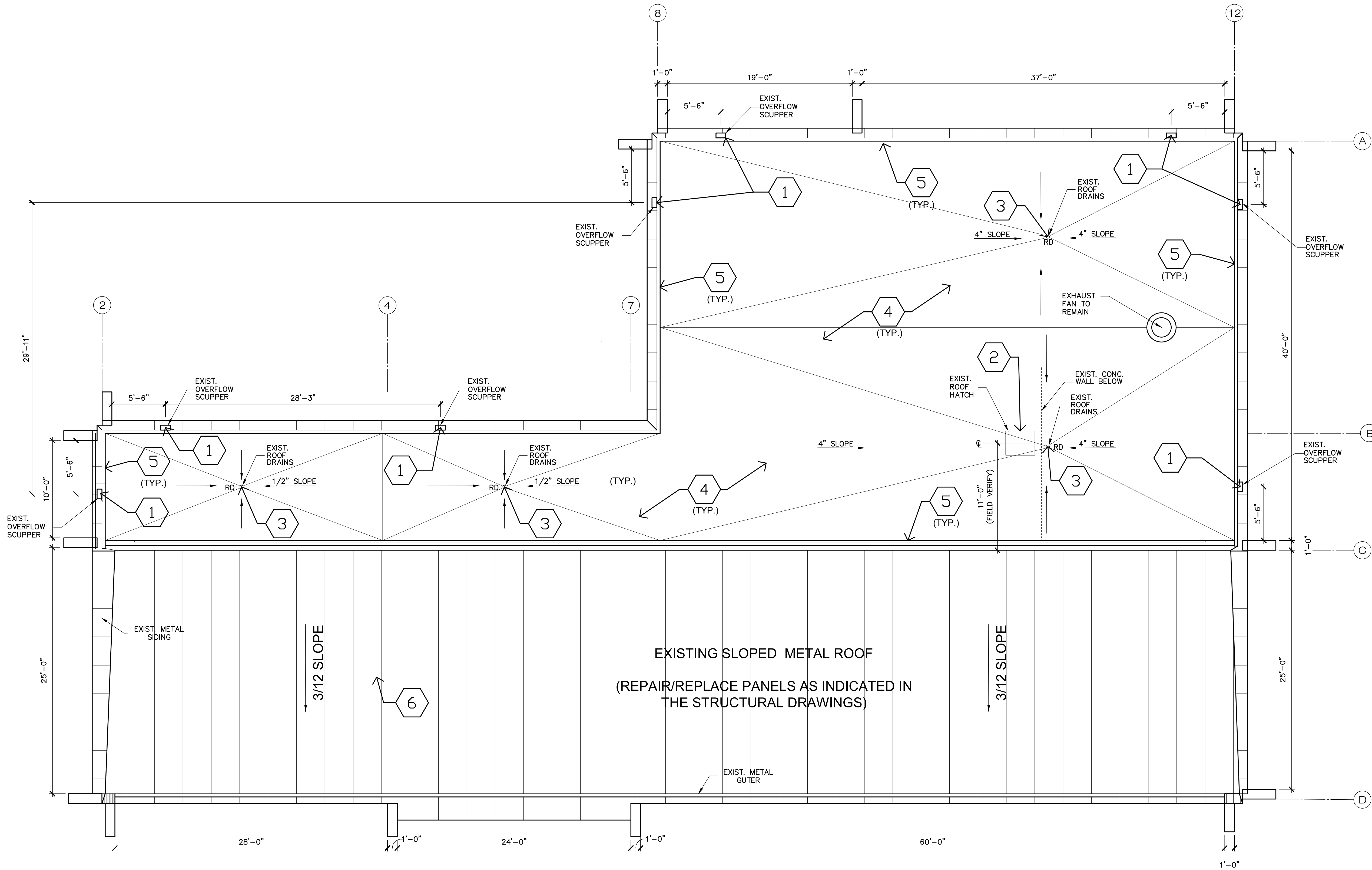
1 BUILDING 4 - THIRD FLOOR PLAN
SCALE: 3/16"=1'-0".



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2 BUILDING 4 - THIRD FLOOR MEZZANINE PLAN
SCALE: 3/16"=1'-0".





DEMOLITION NOTES

- 1 REMOVE EXISTING OVERFLOW SCUPPERS, COMPLETE, INCLUDING FLASHING, COUNTERFLASHING AND ANY OTHER COMPONENTS.
- 2 REMOVE EXISTING METAL ROOF HATCH, COMPLETE, INCLUDING CURB, FRAME, ANCHORS & OTHER APPURTENANCES. REMOVE EXISTING STEEL LADDER TO ROOF HATCH, COMPLETE, INCLUDING BRACKETS, ANCHORS AND ANY OTHER COMPONENTS.
- 3 REMOVE EXISTING ROOF DRAINS, COMPLETE, INCLUDING DRAIN, CLAMPING RING AND STRAINER.
- 4 REMOVE EXISTING ROOF SYSTEM, COMPLETE, INCLUDING MODIFIED BITUMEN MEMBRANES, INSULATION, METAL DECKING, ANCHORS AND ANY OTHER COMPONENTS.
- 5 EXISTING PARAPET EXTERIOR PANEL FINISH AND METAL FRAMING TO REMAIN. REMOVE EXISTING BITUMINOUS FLASHING, CANT, PARAPET INSULATION, WOOD NAILER AND METAL CAP FLASHING, COMPLETE.
- 6 REMOVE EXISTING METAL ROOFING PANELS WHERE INDICATED ON SHEET S-404 OF THE STRUCTURAL DRAWINGS.



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BOTAS Engineering, Inc.

8825 SW 28th Lane, Suite #702 • Coral Gables, FL 33134
Tel: 305-442-8911 Fax: 305-442-8912



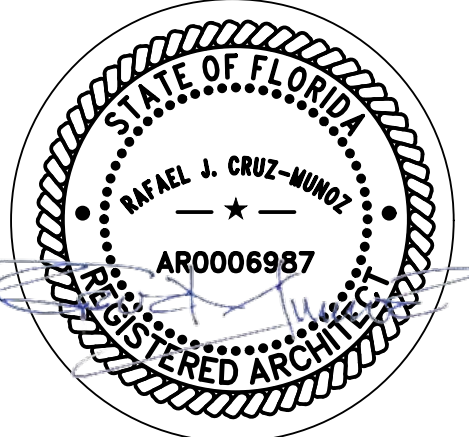
CLIENT:

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2525 SW 62ND STREET
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1	2-12-23	REVISIONS PER BLDG DEPT. COMMENTS
NO:	DATE:	REMARKS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

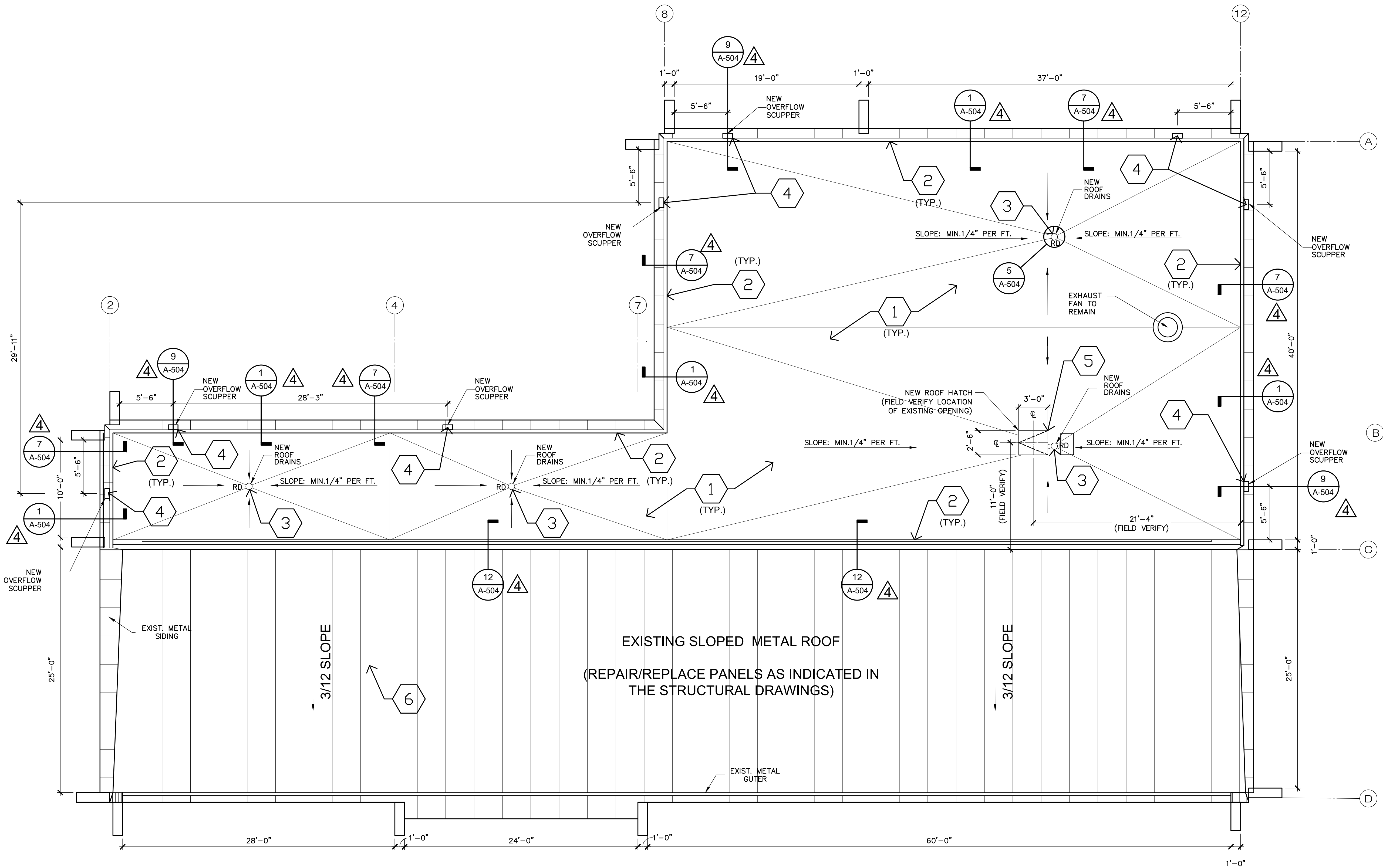
DRAWING TITLE:

BUILDING 4 - DEMO ROOF PLAN

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-111²



① BUILDING 4 - NEW ROOF PLAN
SCALE: 3/16"=1'-0".

NOTE: REPAIR WORK FOR BUILDING 4
IS PART OF PHASE I.

NEW WORK NOTES

- 1 PROVIDE NEW MODIFIED BITUMEN ROOFING SYSTEM (COOL ROOF) ON TAPERED POLY-ISOCYANURATE ROOF INSULATION (R-25), OVER EXISTING CONCRETE ROOF SLAB. MINIMUM SLOPE = 1/4" PER FOOT.
- 2 PROVIDE NEW 4" CANT BITUMINOUS FLASHING AND METAL CAP. FLASHING AT EXISTING ROOF PARAPET TO REMAIN (TYPICAL AT ROOF PERIMETER).
- 3 PROVIDE NEW ROOF DRAINS AT EXISTING LOCATIONS. PROVIDE DRAIN, STRAINER, DRAIN BOWL, FLASHING AND ANY OTHER COMPONENTS FOR A COMPLETE, WATERPROOF INSTALLATION.
- 4 PROVIDE NEW METAL OVERFLOW SCUPPERS AT EXISTING LOCATIONS, SIZED TO MATCH EXISTING. PROVIDE NEW FLASHING AND METAL COUNTER-FLASHING FOR A WATERPROOF INSTALLATION. ADJUST HEIGHT OF OVERFLOW SCUPPERS AS NEEDED TO MAINTAIN CURRENT DRAINAGE CHARACTERISTICS.
- 5 PROVIDE NEW 30"x36" STEEL ROOF HATCH WITH INTEGRAL CURB, STEEL FRAMING AND COUNTER-FLASHING AT NEW DESIGNATED LOCATION. (BILCO TYPE S, OR APPROVED EQUAL) (SEE SHEET A-502). PROVIDE NEW STEEL STAIR FROM FLOOR BELOW, UP TO ROOF HATCH (FOR ANCHORAGE & DETAILS, SEE SHEET A-503).
- 6 PROVIDE NEW REPLACEMENT METAL ROOFING PANELS TO MATCH EXISTING, AS INDICATED ON SHEET S-404 OF THE STRUCTURAL DRAWINGS.

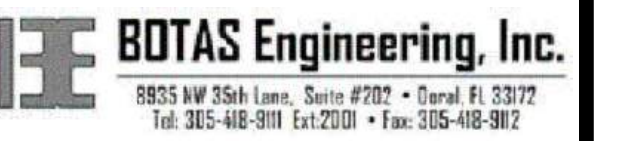
REFERENCE NOTES:

FOR TYPICAL ROOFING DETAILS, SEE SHEET A-504.
FOR ROOF HATCH DETAIL, SEE SHEET A-502.



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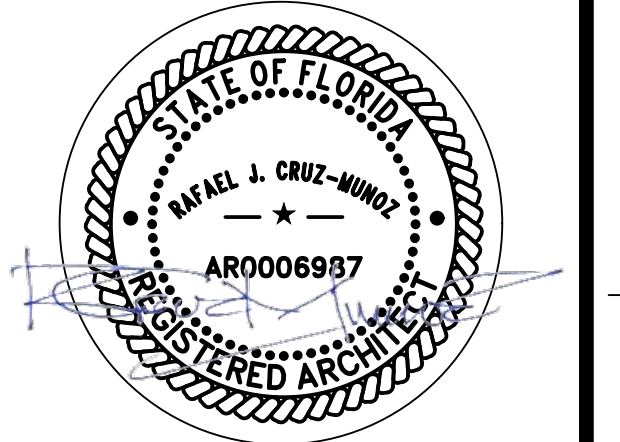
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PROJECT TITLE:
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FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

BUILDING 4 - NEW ROOF
PLAN

PROJECT NO.: SFL 1021 001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

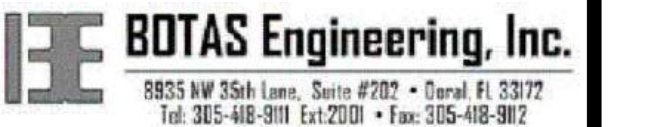
SHEET NUMBER:

A-112



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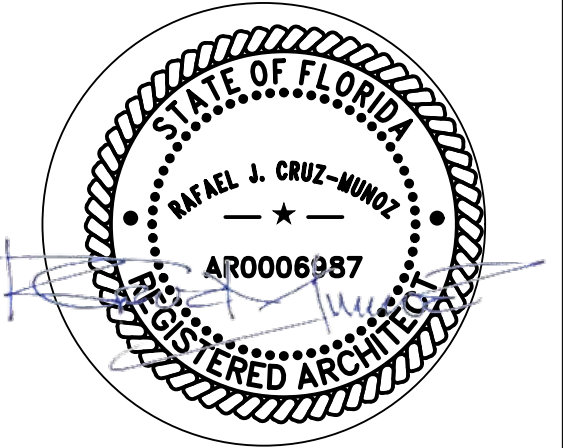
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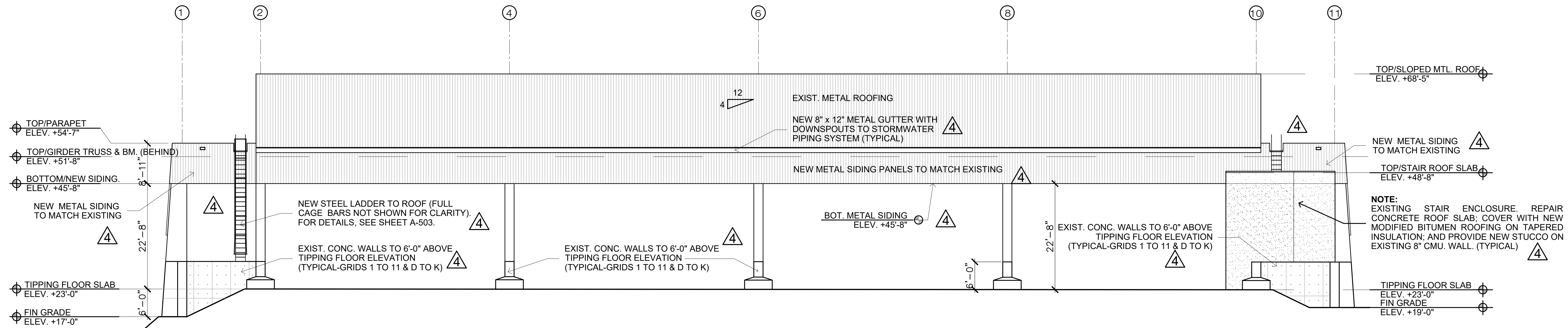
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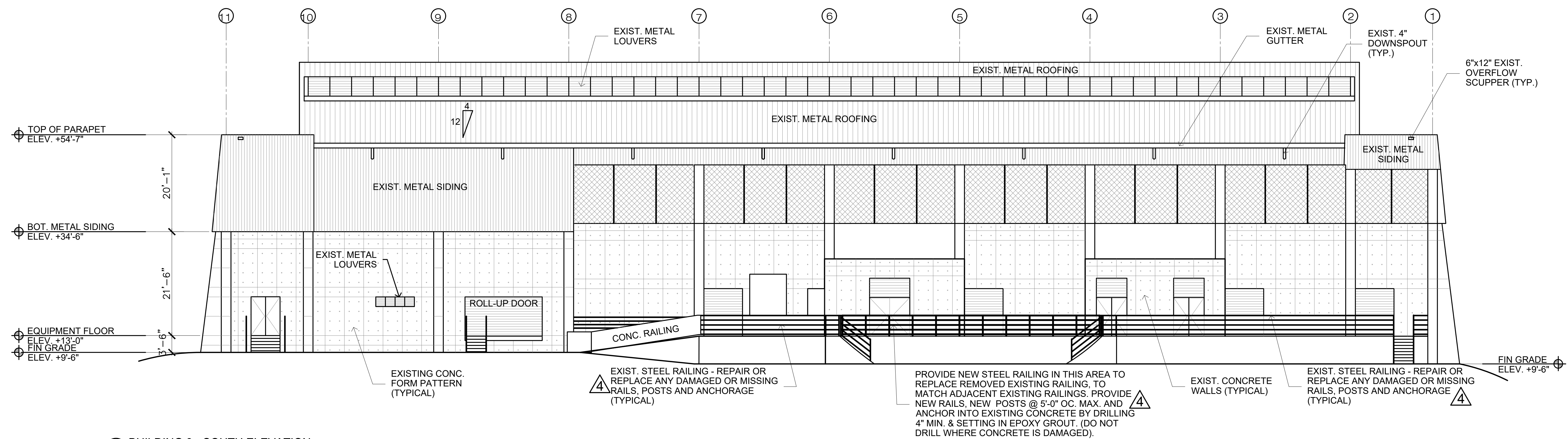


SIGNED AND SEALED



1 BUILDING 3 - NORTH ELEVATION
SCALE: 3/32"=1'-0"

NOTE:
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2 BUILDING 3 - SOUTH ELEVATION
SCALE: 3/32"=1'-0"

NOTE:
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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - NORTH &
SOUTH ELEVATIONS

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.
SHEET NUMBER:	

A-301



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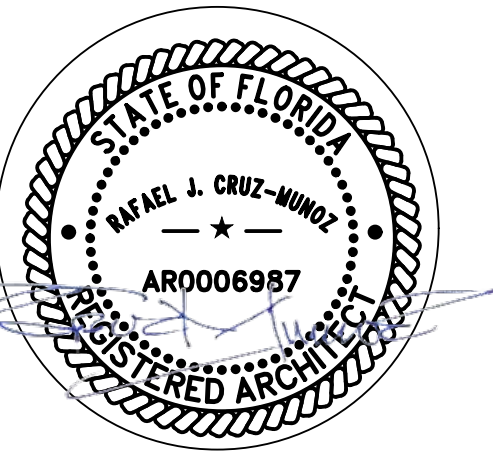


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SOUTH DADE LANDFILL

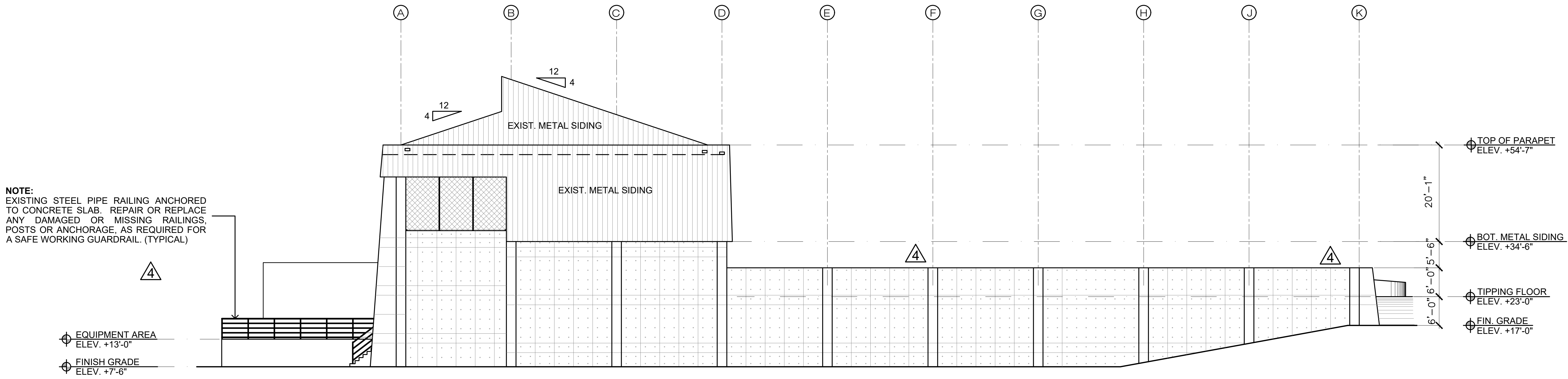
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - EAST & WEST
ELEVATIONS

PROJECT NO.: SPL 1821.001	ISSUE DATE: 6-30-2023
DRAWN BY: L.F.M.	CHECKED BY: R.C.M.

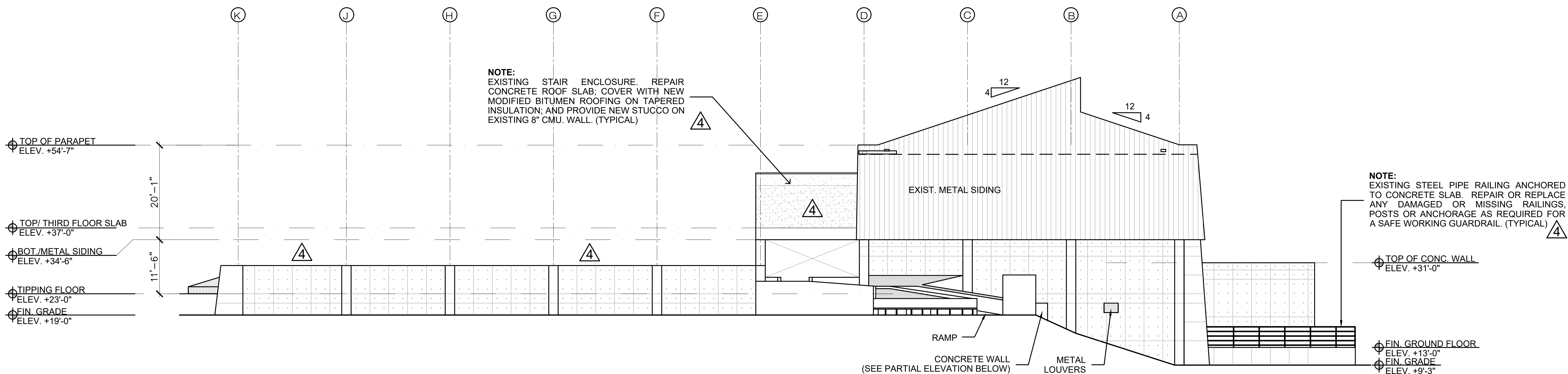
SHEET NUMBER:

A-302



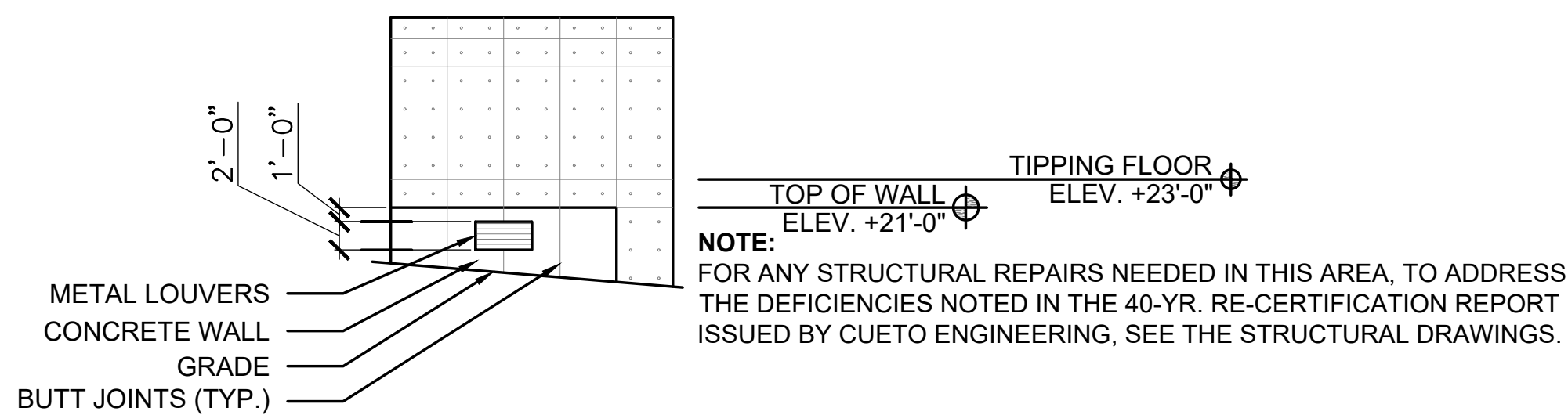
1 BUILDING 3 - EAST ELEVATION
SCALE: 3/32"=1'-0"

NOTE:
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2 BUILDING 3 - WEST ELEVATION
SCALE: 3/32"=1'-0"

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THE DEFICIENCIES NOTED IN THE 40-YR. RE-CERTIFICATION REPORT
ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.

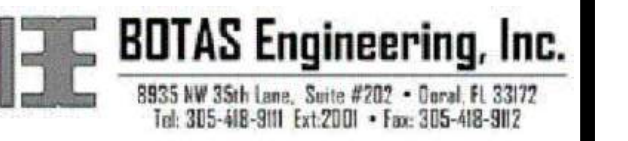


3 PARTIAL ELEV. BETWEEN COLUMNS B & C
SCALE: 3/32"=1'-0"



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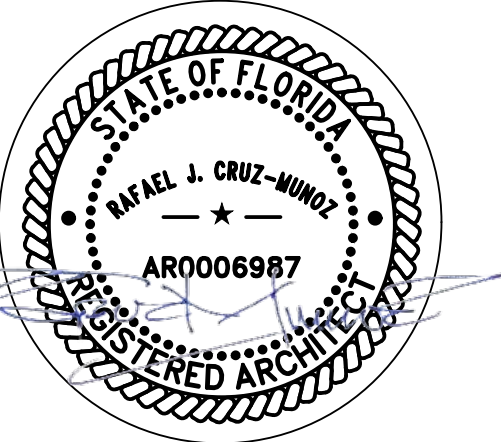
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

CONFIDENTIAL :

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SIGNED AND SEALED

2	6-30-23	SHEET ADDED PER 40-YR. RECERT. REPORTS
1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS
NO:	DATE:	REMARKS:

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

BUILDING 4 - NORTH &
SOUTH ELEVATIONS

PROJECT NO.:
SPL 1021.001

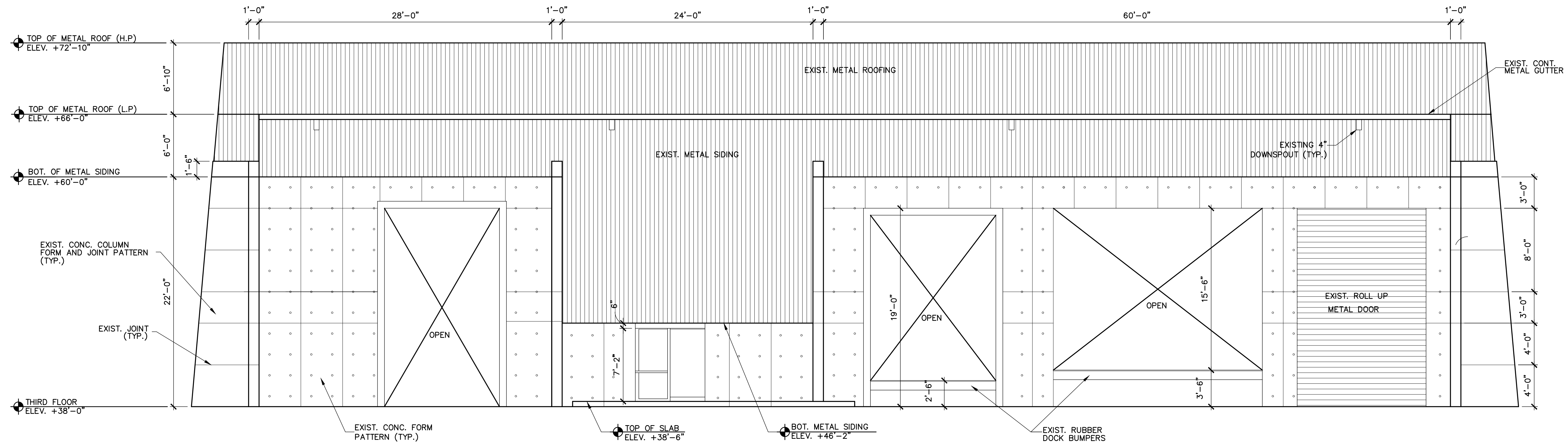
ISSUE DATE:
6-30-2023

DRAWN BY:
L.F.M.

CHECKED BY:
R.C.M.

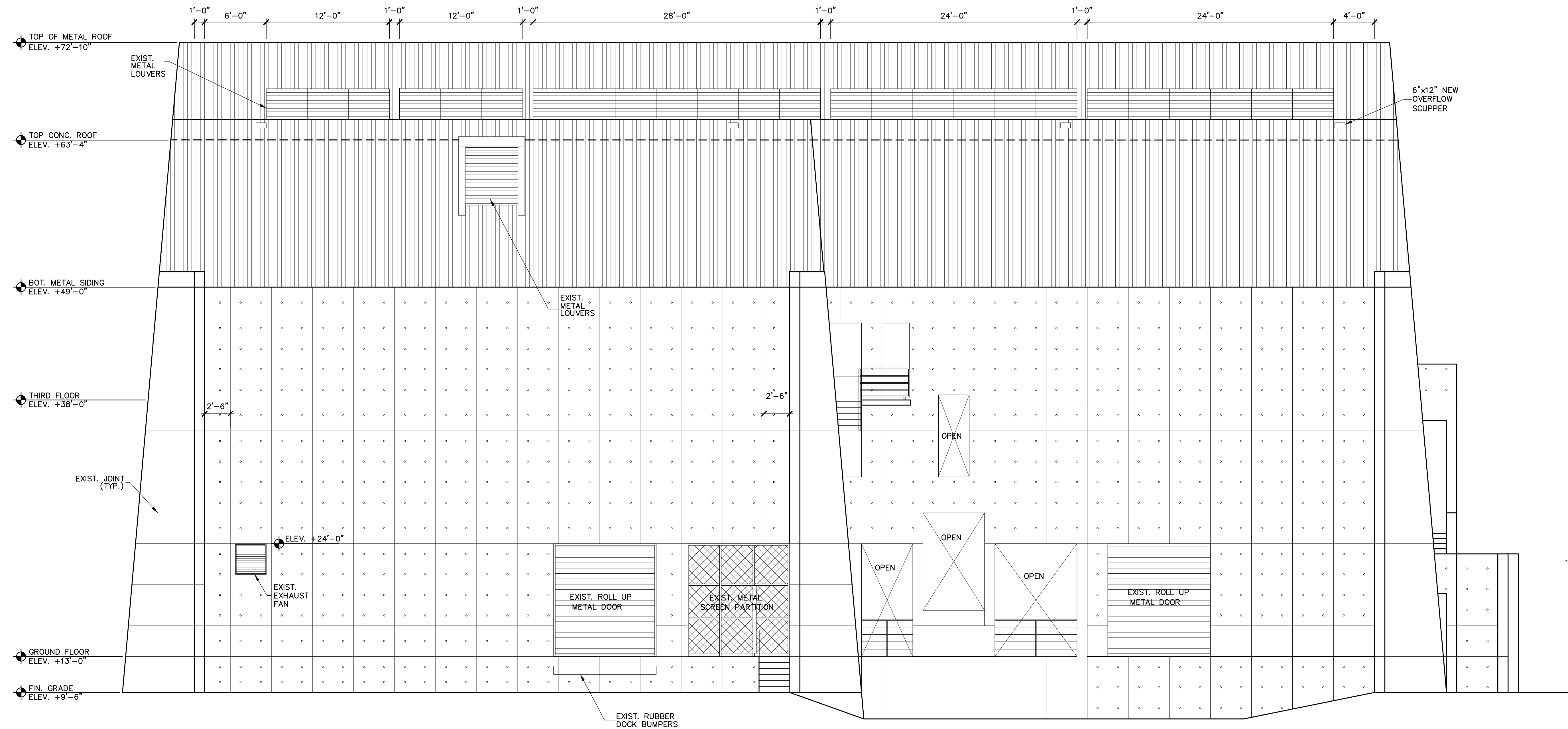
SHEET NUMBER:

A-303



1 BUILDING 4 - NORTH ELEVATION
SCALE: 3/16"=1'-0"

NOTE:
FOR ANY STRUCTURAL REPAIRS NEEDED IN THIS AREA, TO ADDRESS
THE DEFICIENCIES NOTED IN THE 40-YR. RE-CERTIFICATION REPORT
ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.



2 BUILDING 4 - SOUTH ELEVATION
SCALE: 3/16"=1'-0"

NOTE:
FOR ANY STRUCTURAL REPAIRS NEEDED IN THIS AREA, TO ADDRESS
THE DEFICIENCIES NOTED IN THE 40-YR. RE-CERTIFICATION REPORT
ISSUED BY CUETO ENGINEERING, SEE THE STRUCTURAL DRAWINGS.

A-304²



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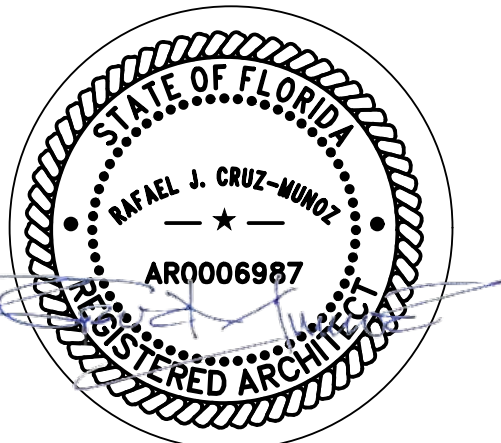


CLIENT:
MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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OUTSIDE ENTITIES, NOT DIRECTLY INVOLVED
WITH THE PROJECT, WITHOUT PRIOR
WRITTEN PERMISSION BY MIAMI-DADE
COUNTY DEPARTMENT OF SOLID WASTE
MANAGEMENT. CONTRACTOR SHALL ADVISE
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AGENTS OF THESE REQUIREMENTS AND OF
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SIGNED AND SEALED

4 9-09-24 SHEET ADDED PER OWNER
MODIFICATIONS
NO: DATE: REMARKS:

REVISIONS:

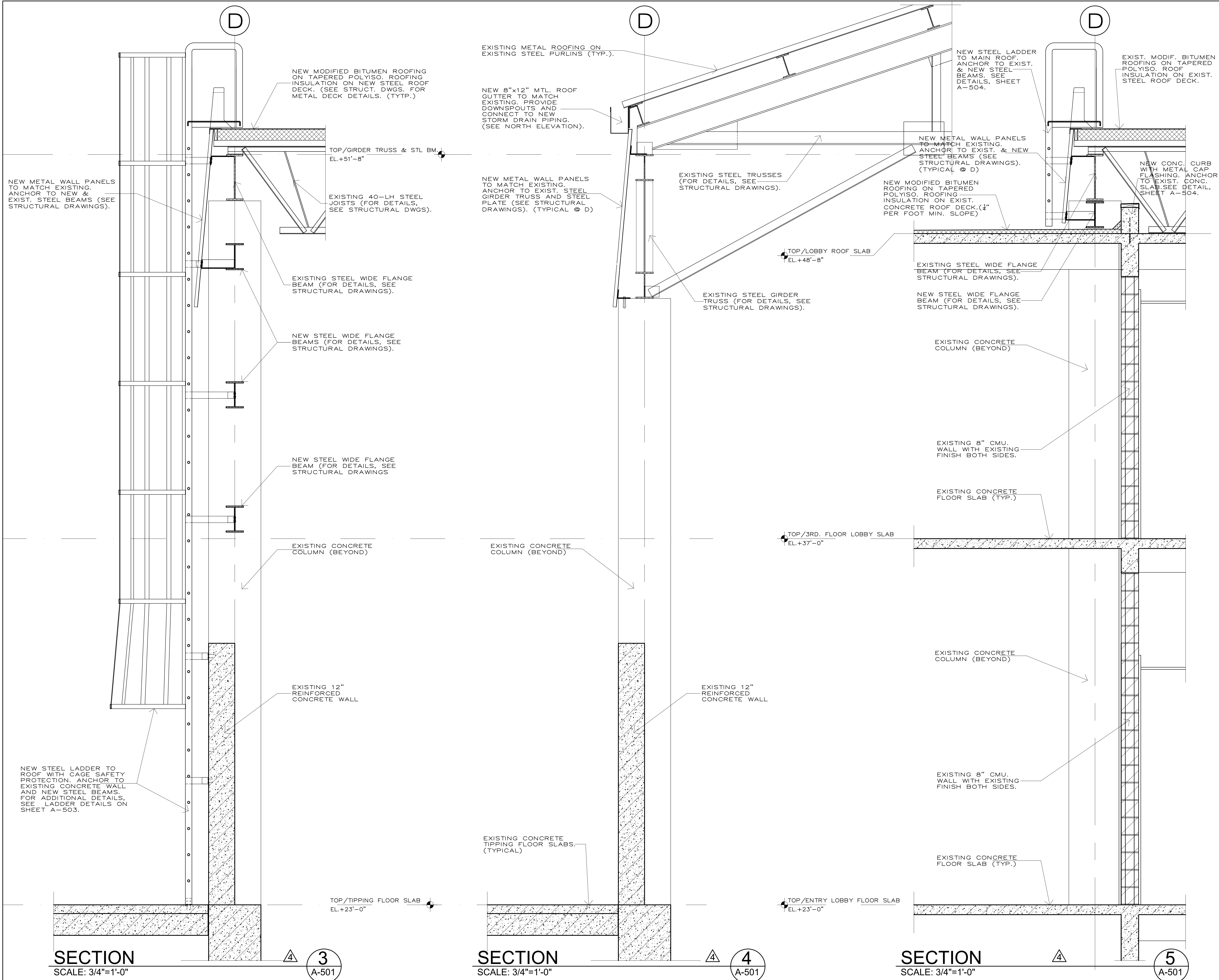
PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

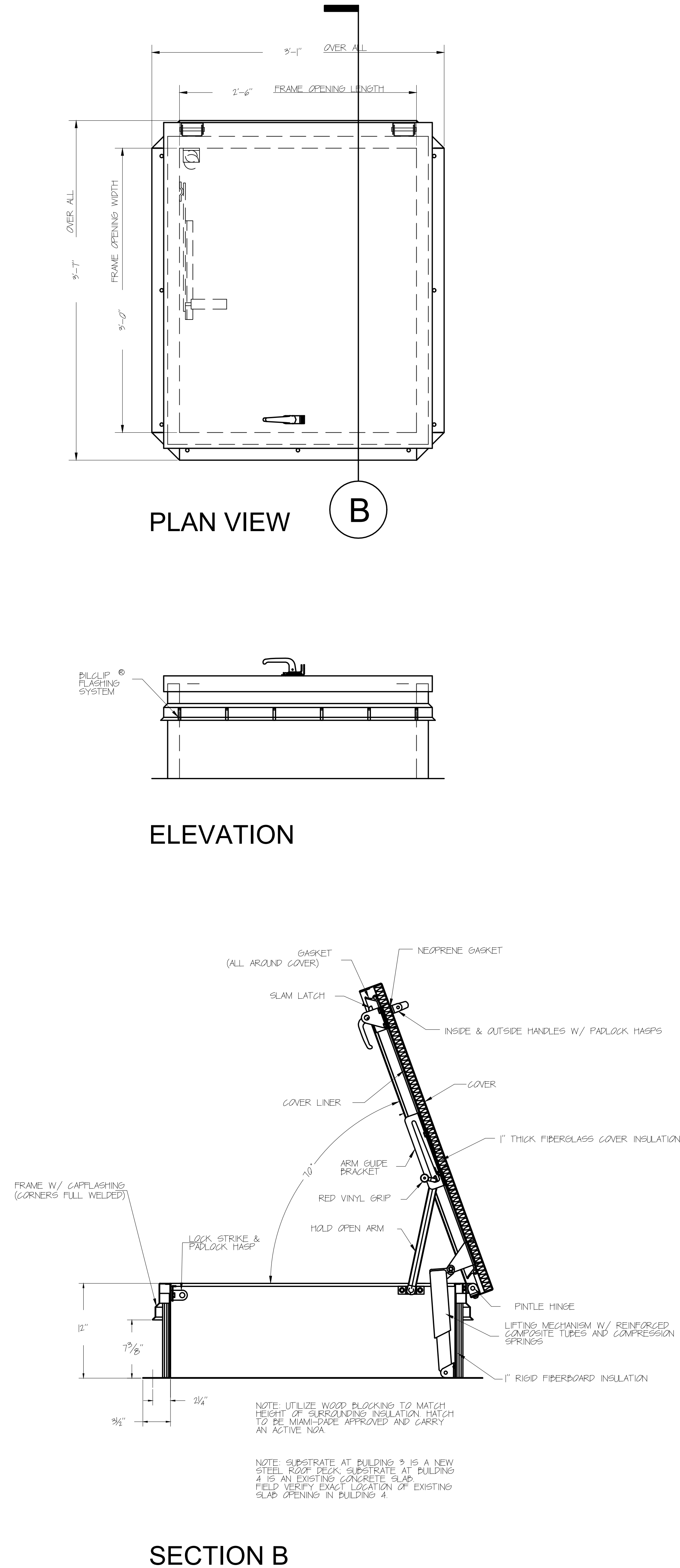
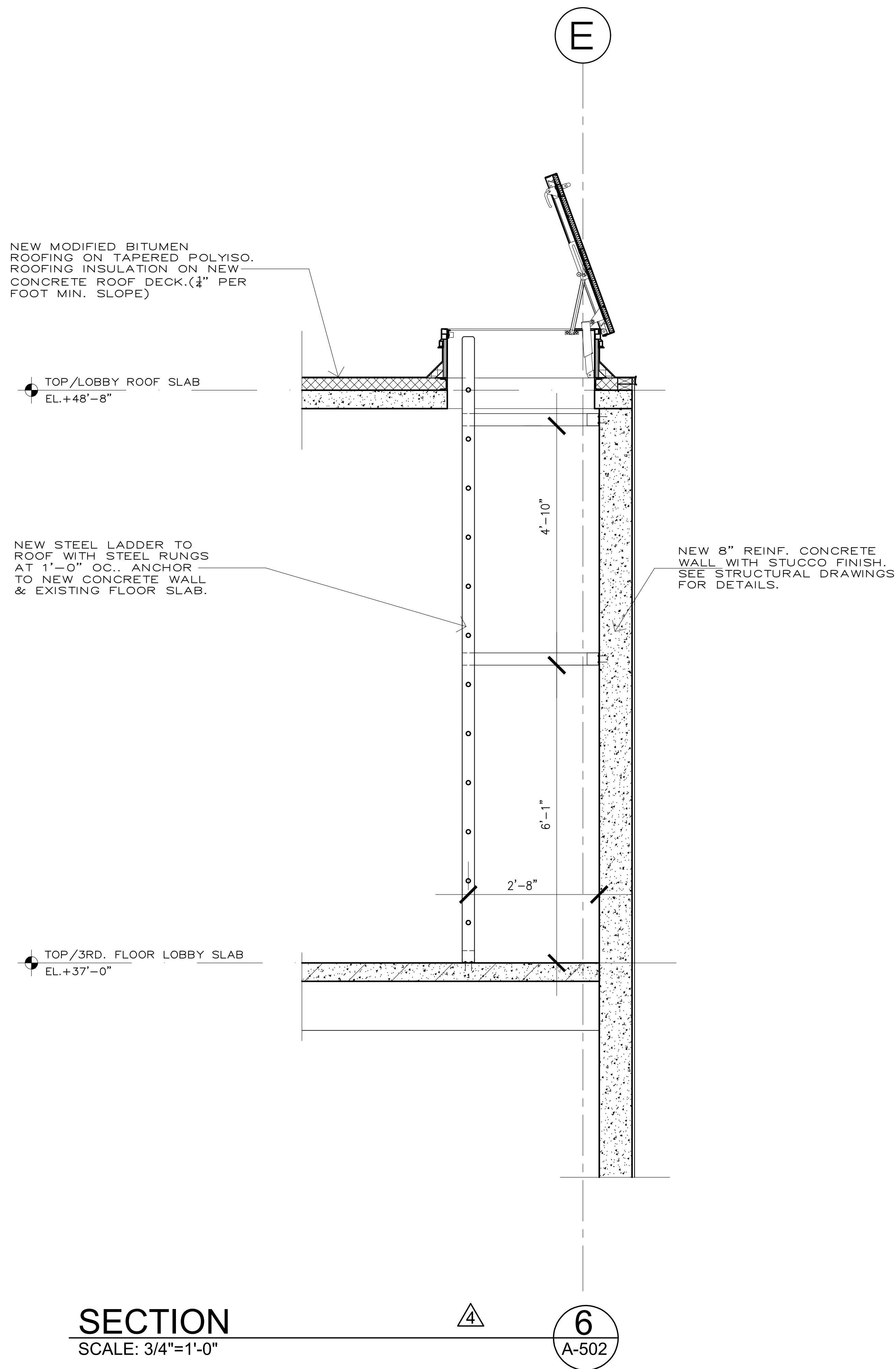
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
DETAILED SECTIONS
(BUILDING 3)

PROJECT NO.: SFL 1021.001
ISSUE DATE: 6-30-2023
DRAWN BY: R.C.M.
CHECKED BY: R.C.M.
SHEET NUMBER:

A-501





ROOF ACCESS HATCH DETAILS (BLDGS. 3 & 4).
SCALE: 1 1/2"=1'-0"



OJITO & ASSOCIATES

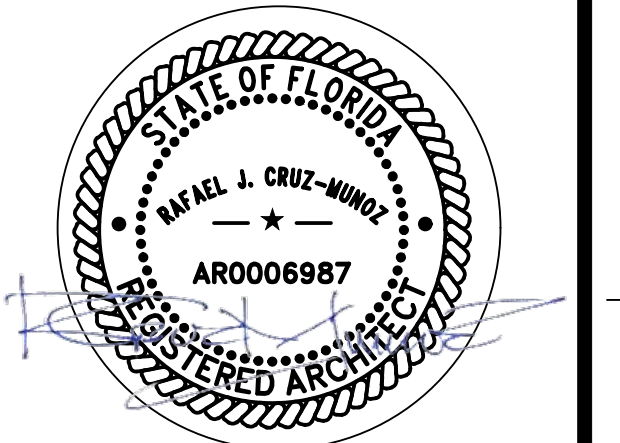
11952 SW 134 COURT
MIAMI, FLORIDA 33186
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CLIENT:
MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT
2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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SIGNED AND SEALED

1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS
2	6-30-23	REVISED PER 40-YR RECERT. REPORTS
4	9-09-24	REVISED PER OWNER MODIFICATIONS
REVISIONS:		
NO:	DATE:	REMARKS:

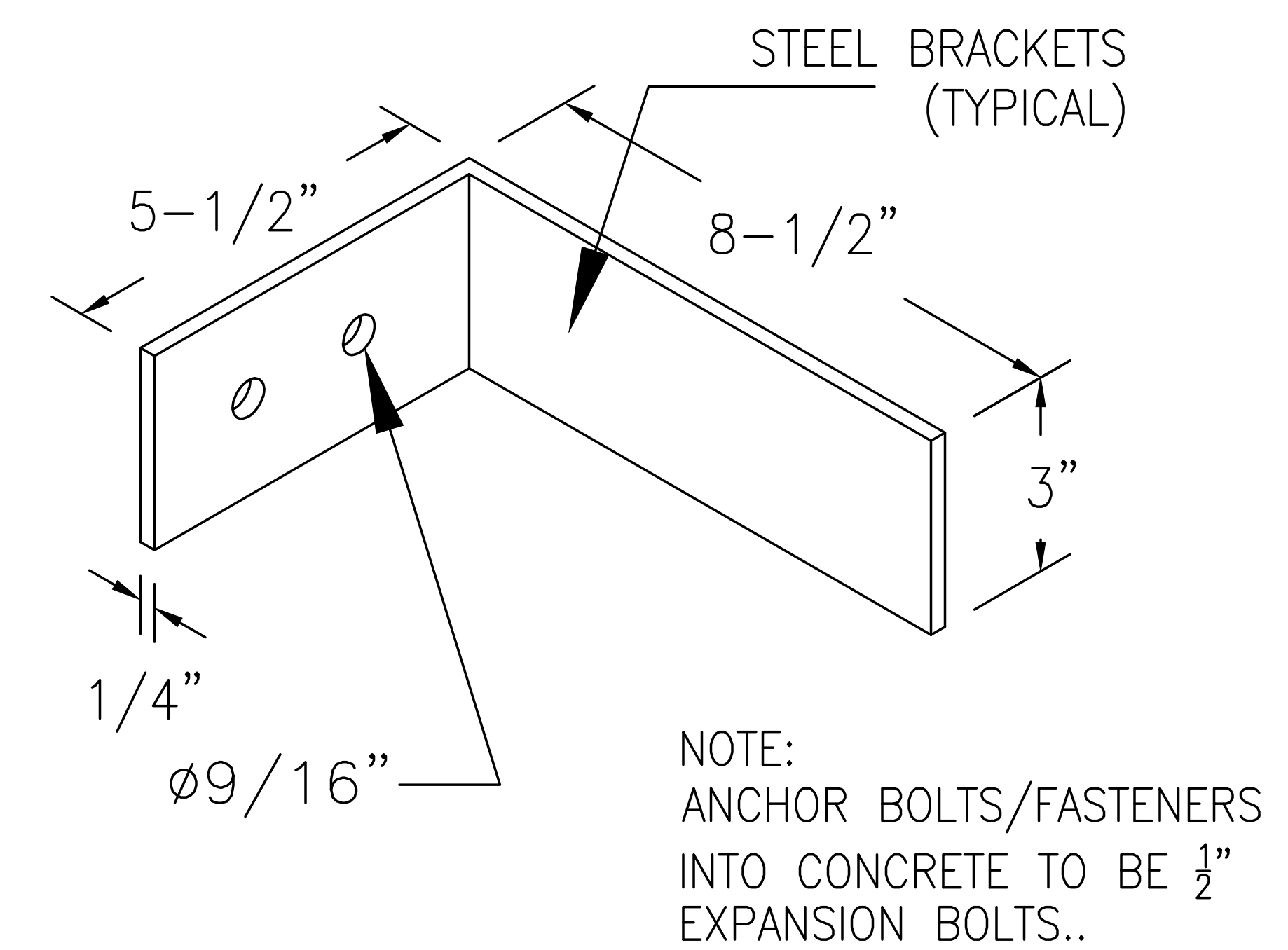
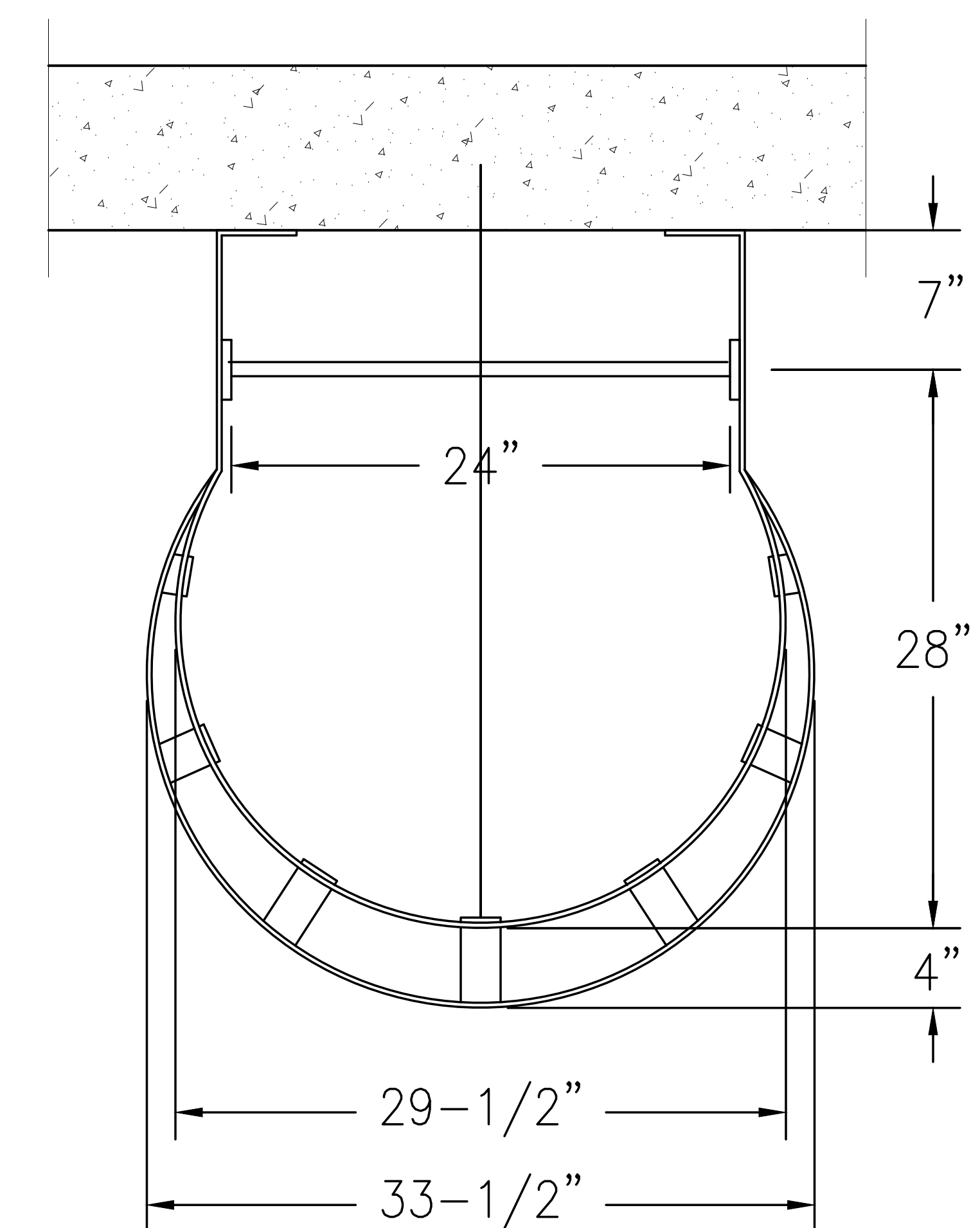
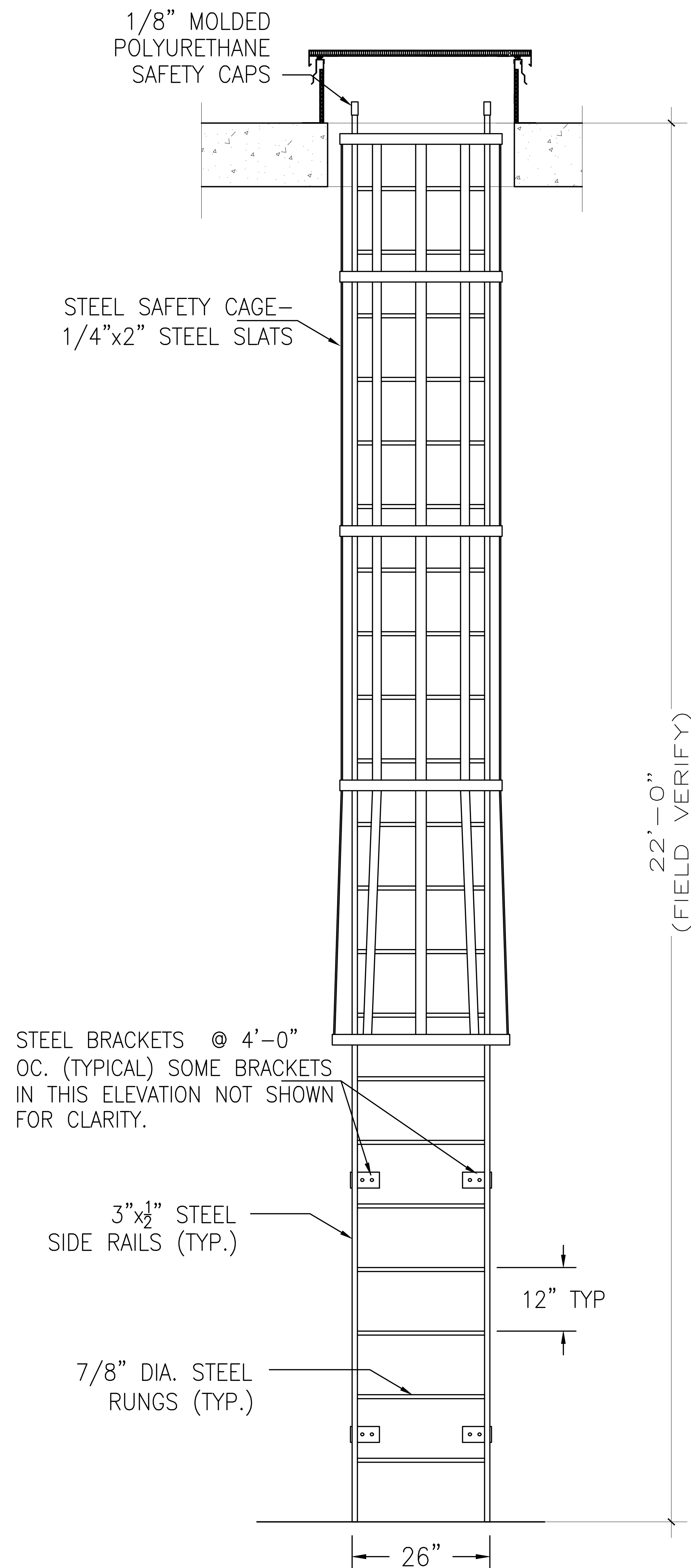
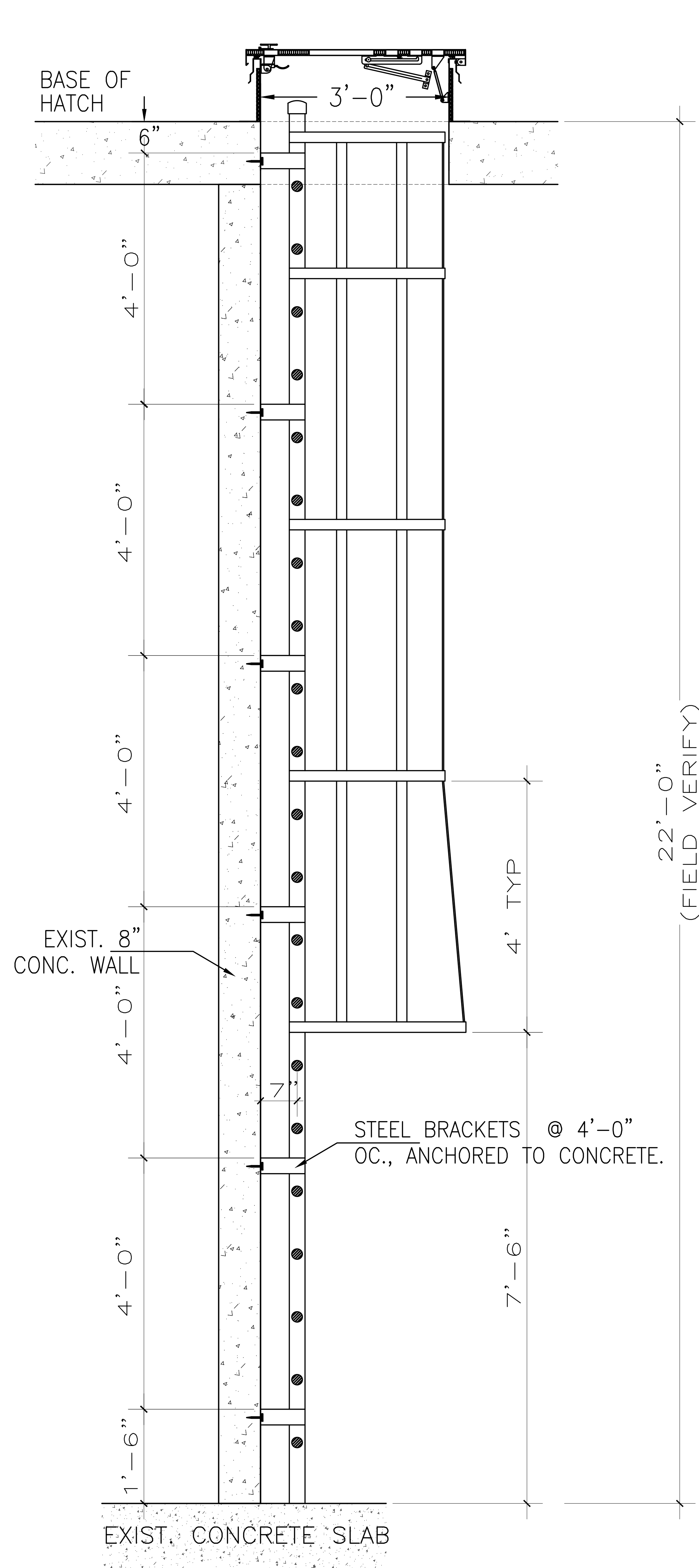
PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
SECTION 6 (BUILDING 3) & ROOF ACCESS HATCH DETAILS

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023
DRAWN BY: R.C.M.	CHECKED BY: R.C.M.

SHEET NUMBER:

A-502



NOTE: 

THE DETAILS SHOWN HEREIN ARE FOR THE ROOF ACCESS LADDER AT BUILDING 4. HOWEVER, THE CONSTRUCTION, MATERIALS, BRACKETS, AND ANCHORS SHOWN HEREIN ARE TYPICAL AND APPLY TO THE THREE ROOF ACCESS LADDERS AT BUILDING 3. REFER TO SHEETS A-501 AND A-502 FOR SECTIONS SHOWING THE ACTUAL OVERALL HEIGHTS AND SPECIFIC DETAILS OF EACH LADDER AT BUILDING 3.

ROOF ACCESS LADDER DETAILS
BUILDING NO. 4 
(BUILDING NO. 3 - SIMILAR)



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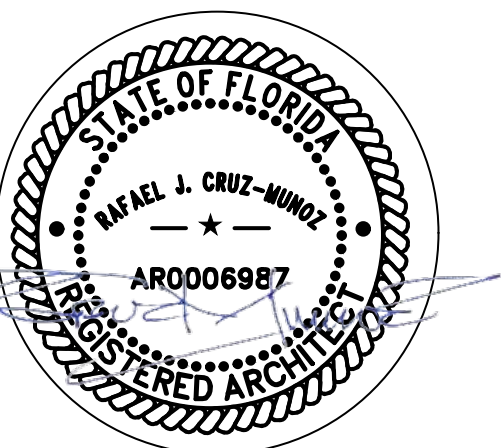
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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SIGNED AND SEALED

4	9-08-24	REVISED PER OWNER MODIFICATIONS
2	6-30-23	SHEET ADDED PER 40-YR RECERT. REPORTS
1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS
NO:	DATE:	REMARKS:
REVISIONS:		

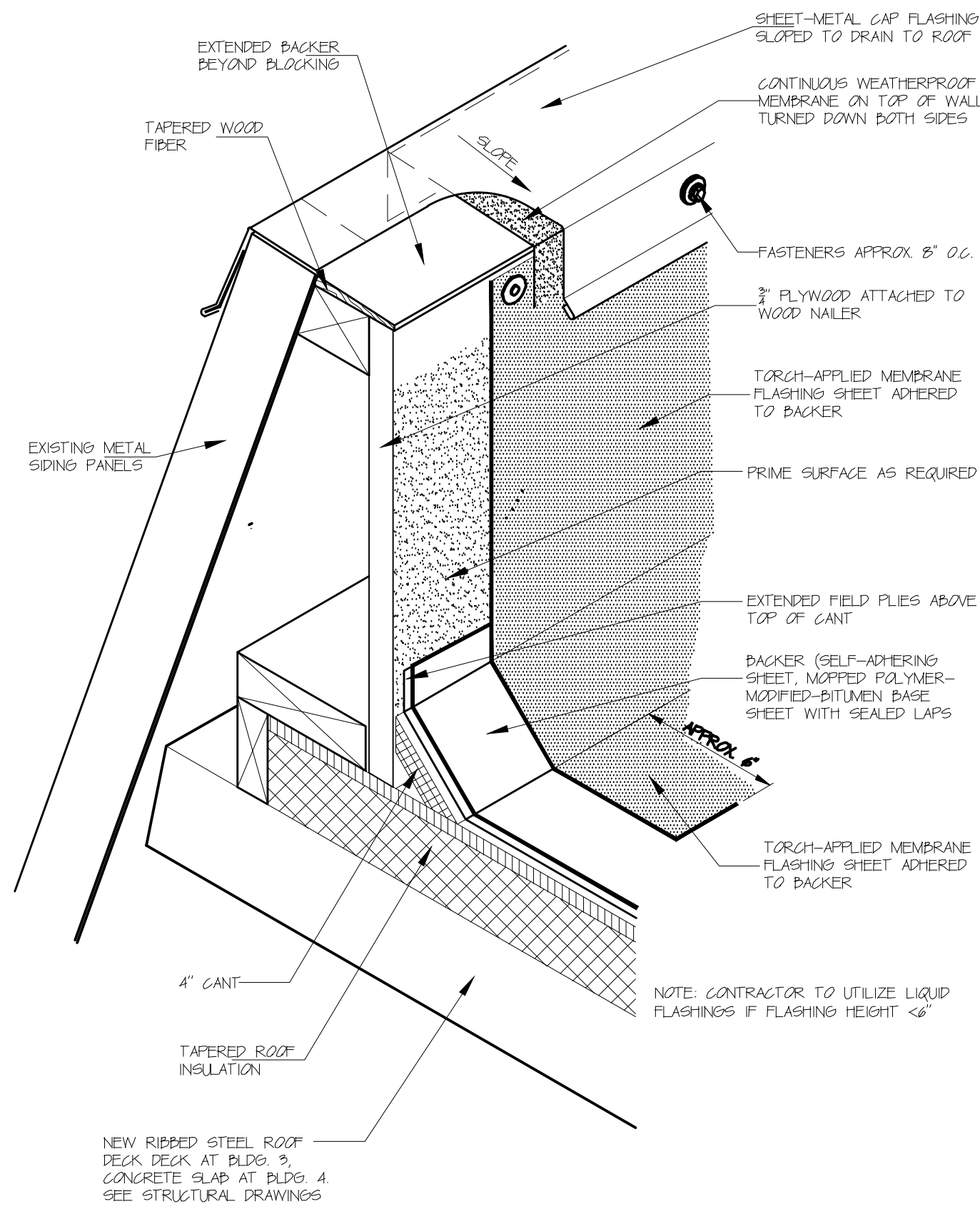
PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

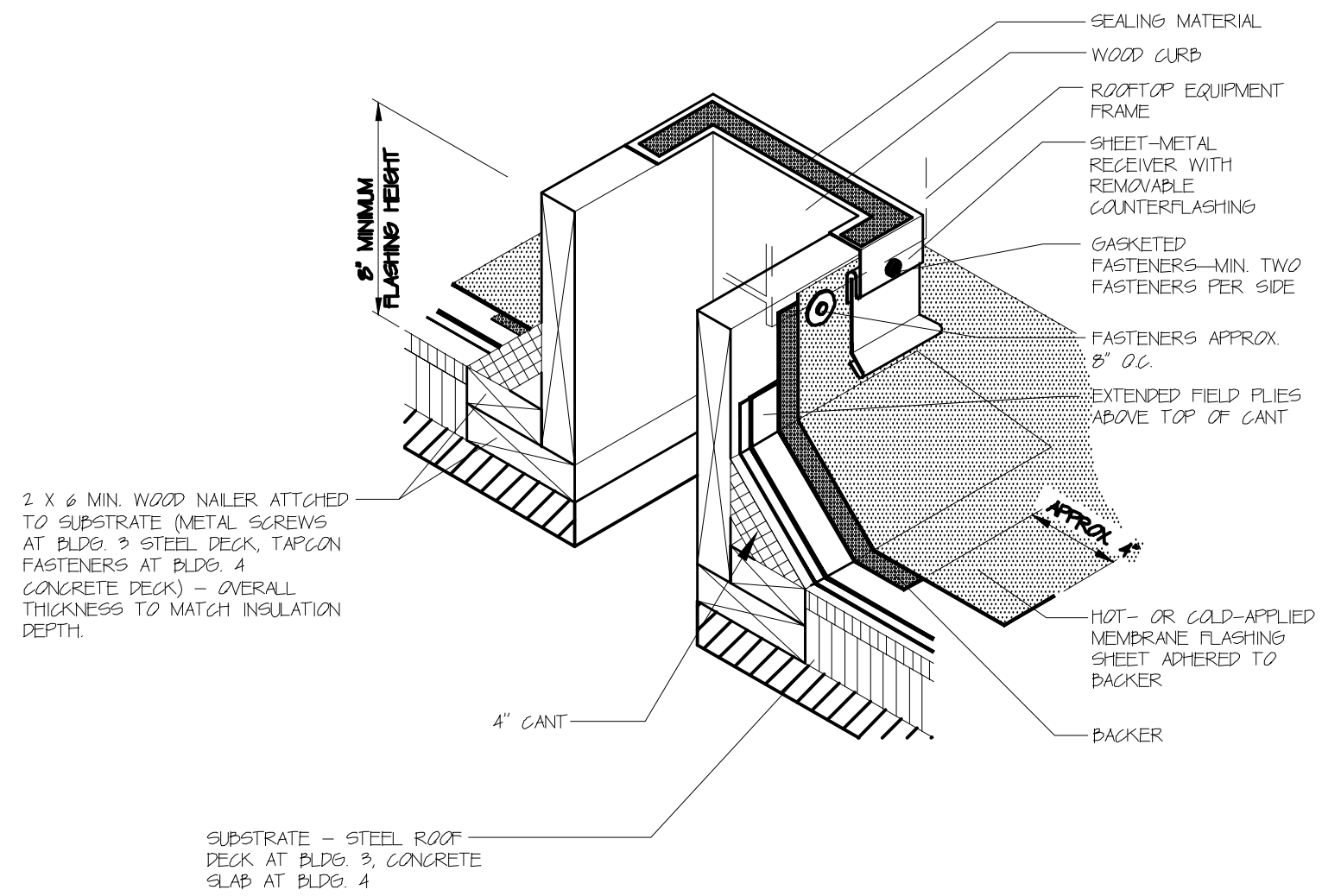
DRAWING TITLE:
ROOF ACCESS LADDER
DETAILS (BUILDING 4).
(BUILDING 3 - SIMILAR).

PROJECT NO.: SFL 1021.001	ISSUE DATE: 6-30-2023.
DRAWN BY: R.C.M.	CHECKED BY: R.C.M.
SHEET NUMBER:	

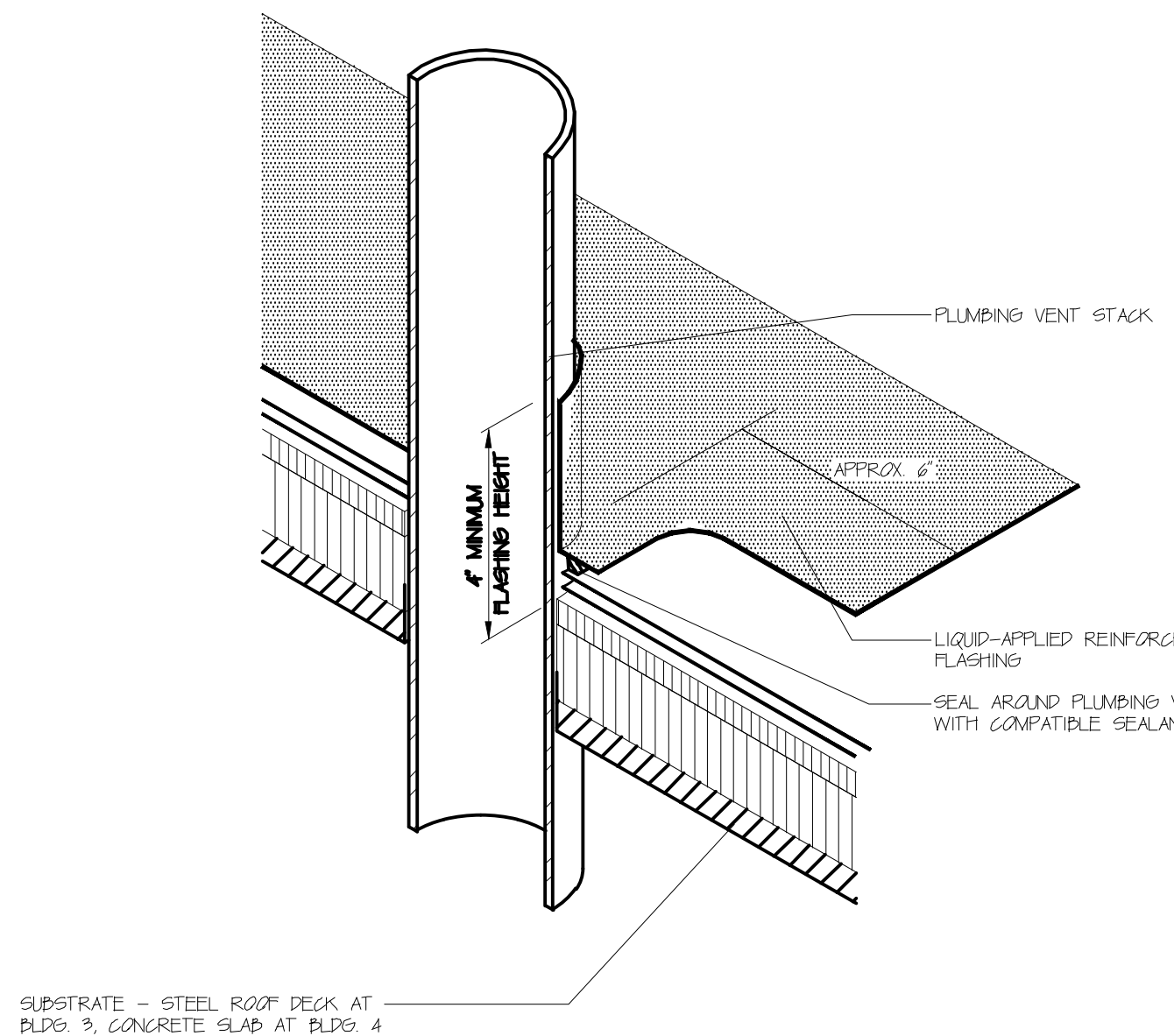
A-503²



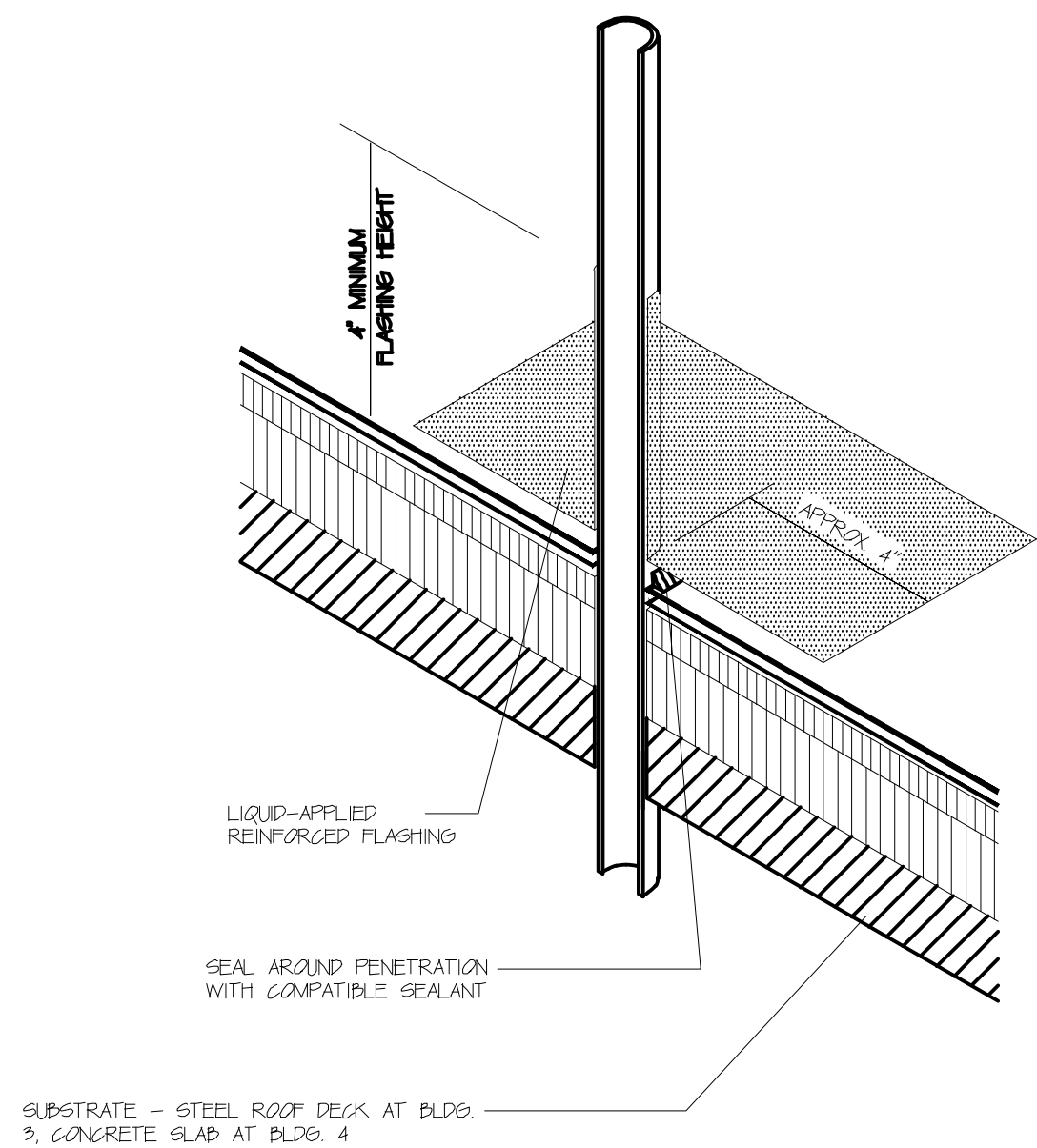
BASE FLASHING AT PARAPET WALL WITH METAL CAP FLASHING (TORCH-APPLIED FLASHING SYSTEMS)



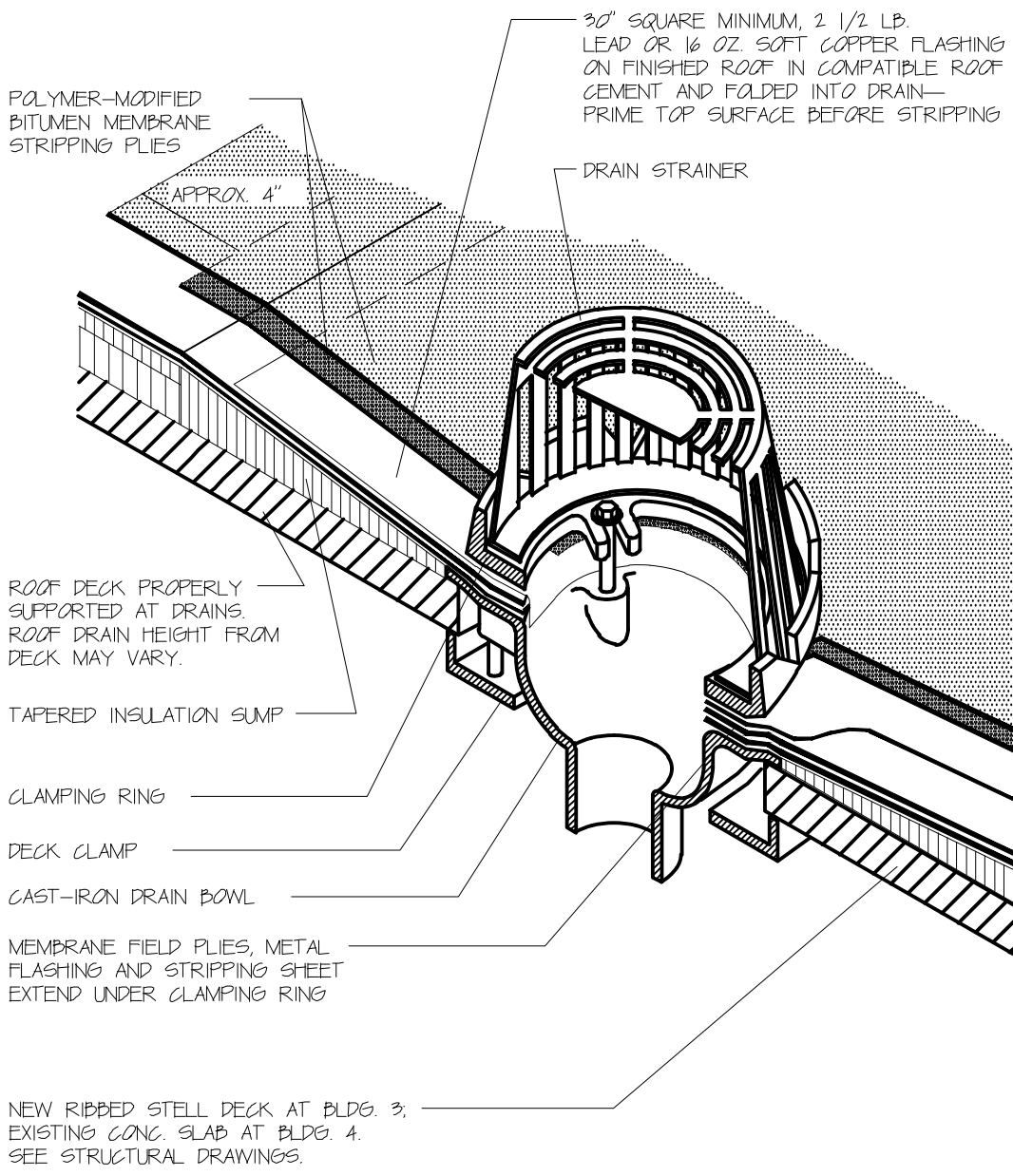
BASE FLASHING AT WOOD CURB (HOT-OR COLD-APPLIED FLASHING SYSTEMS)



PLUMBING VENT (LIQUID-APPLIED FLASHING SYSTEMS)

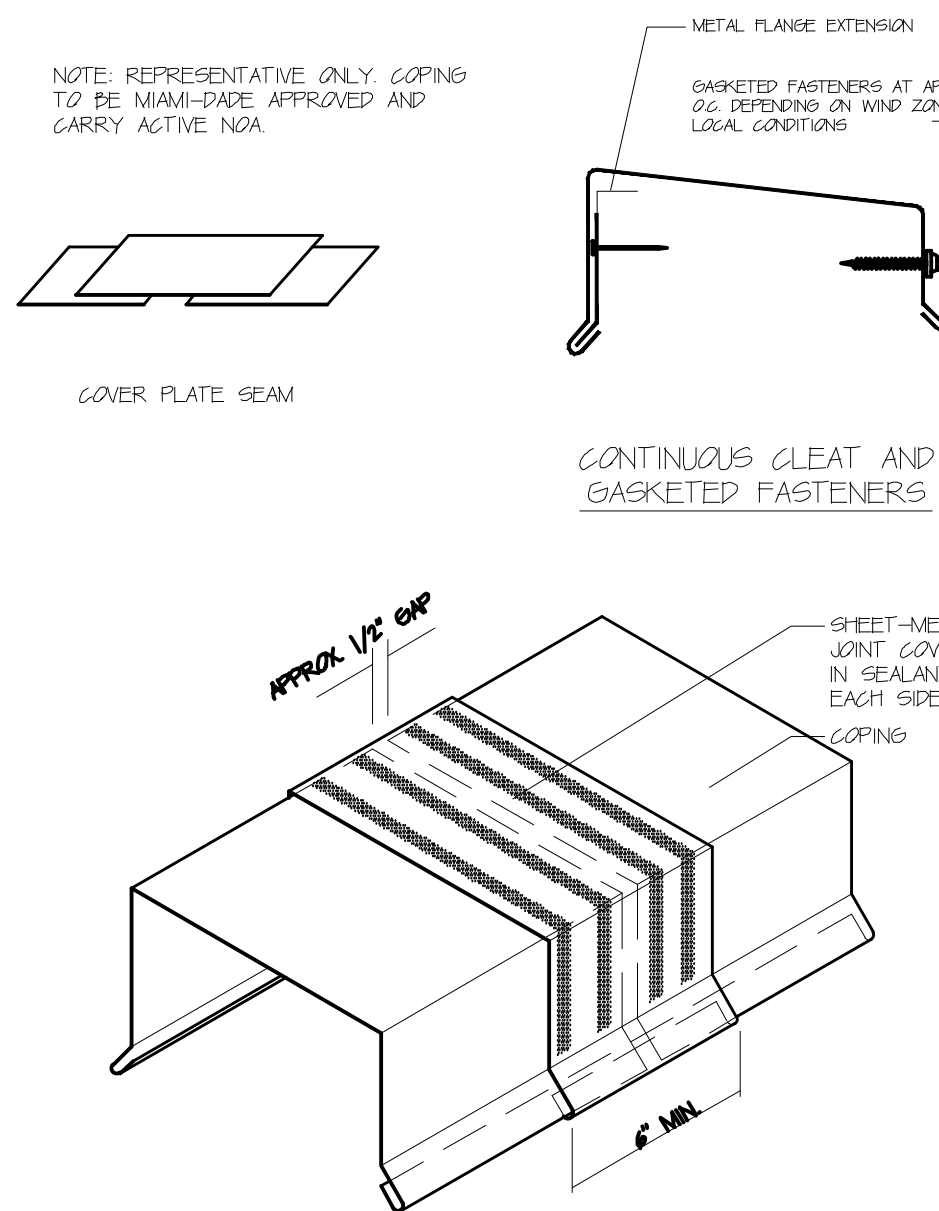


PIPE PENETRATION-SINGLE PENETRATION (LIQUID-APPLIED FLASHING SYSTEMS)

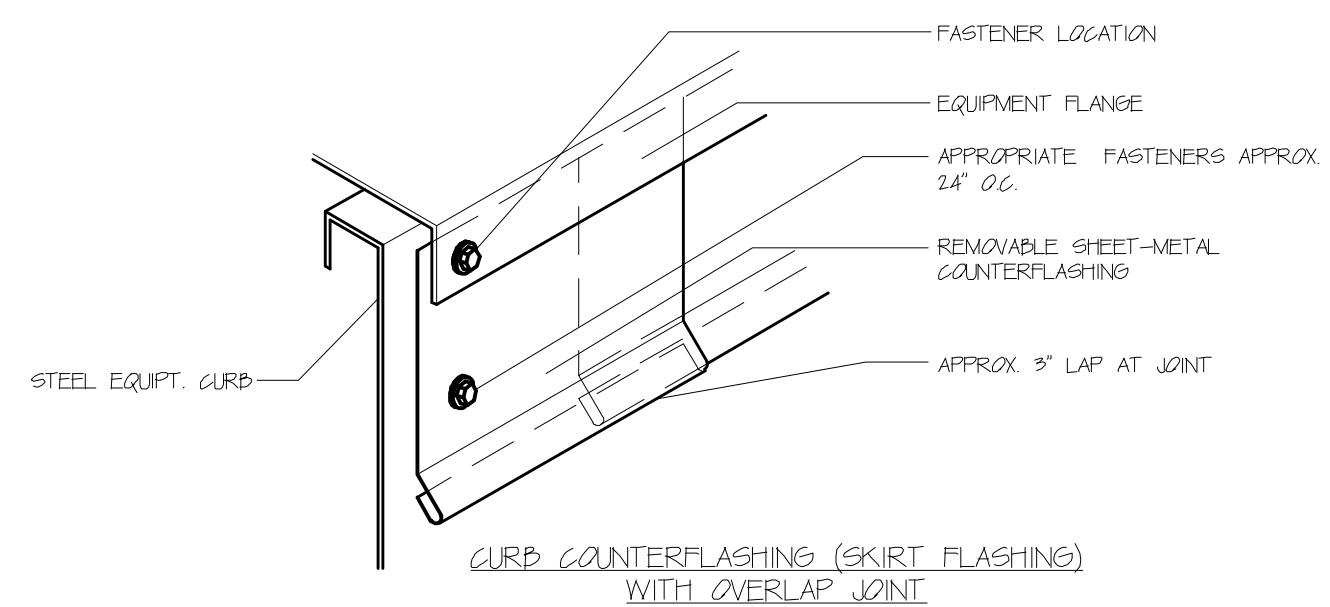


ROOF DRAIN (HOT-, COLD- OR TORCH-APPLIED FLASHING SYSTEMS)

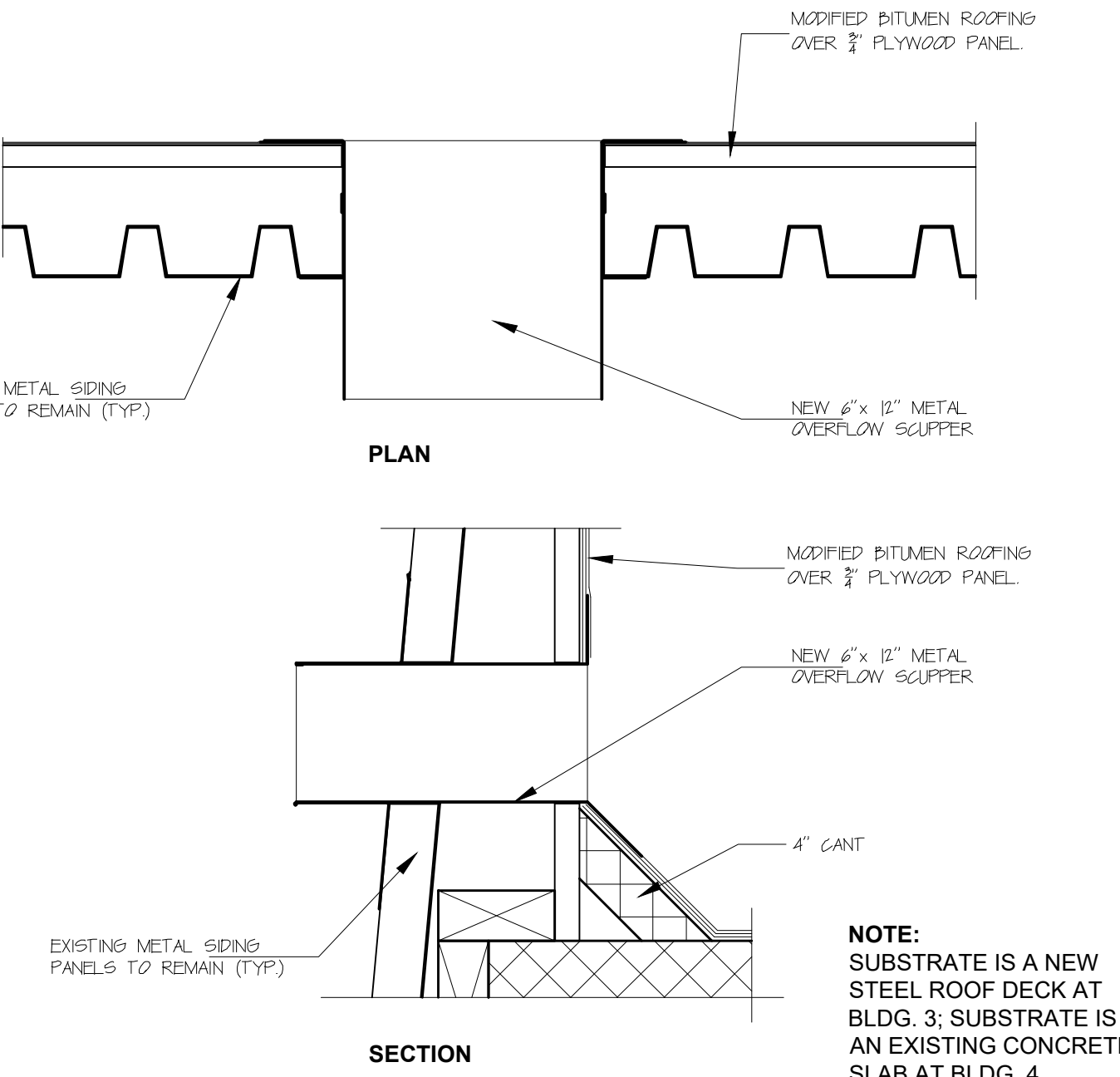
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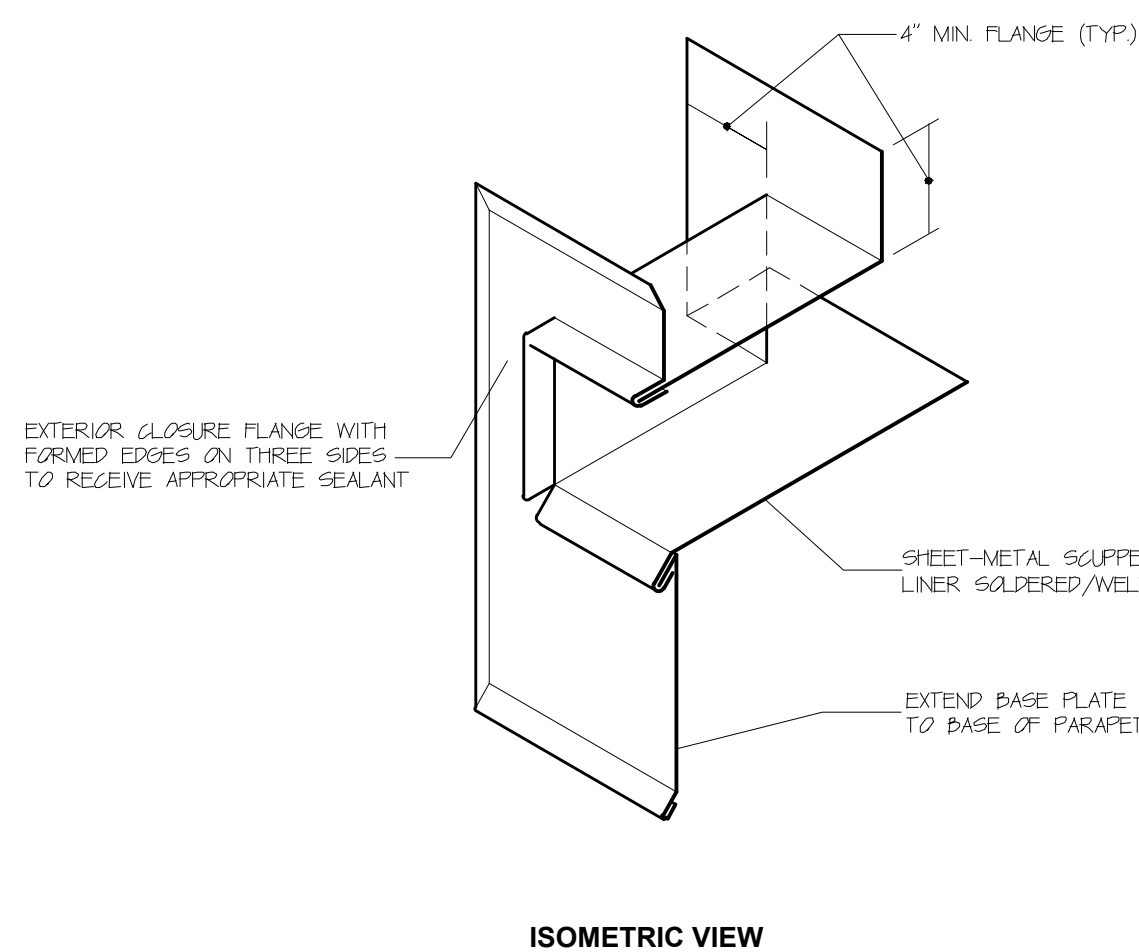
METAL COPING AT ROOF PARAPET



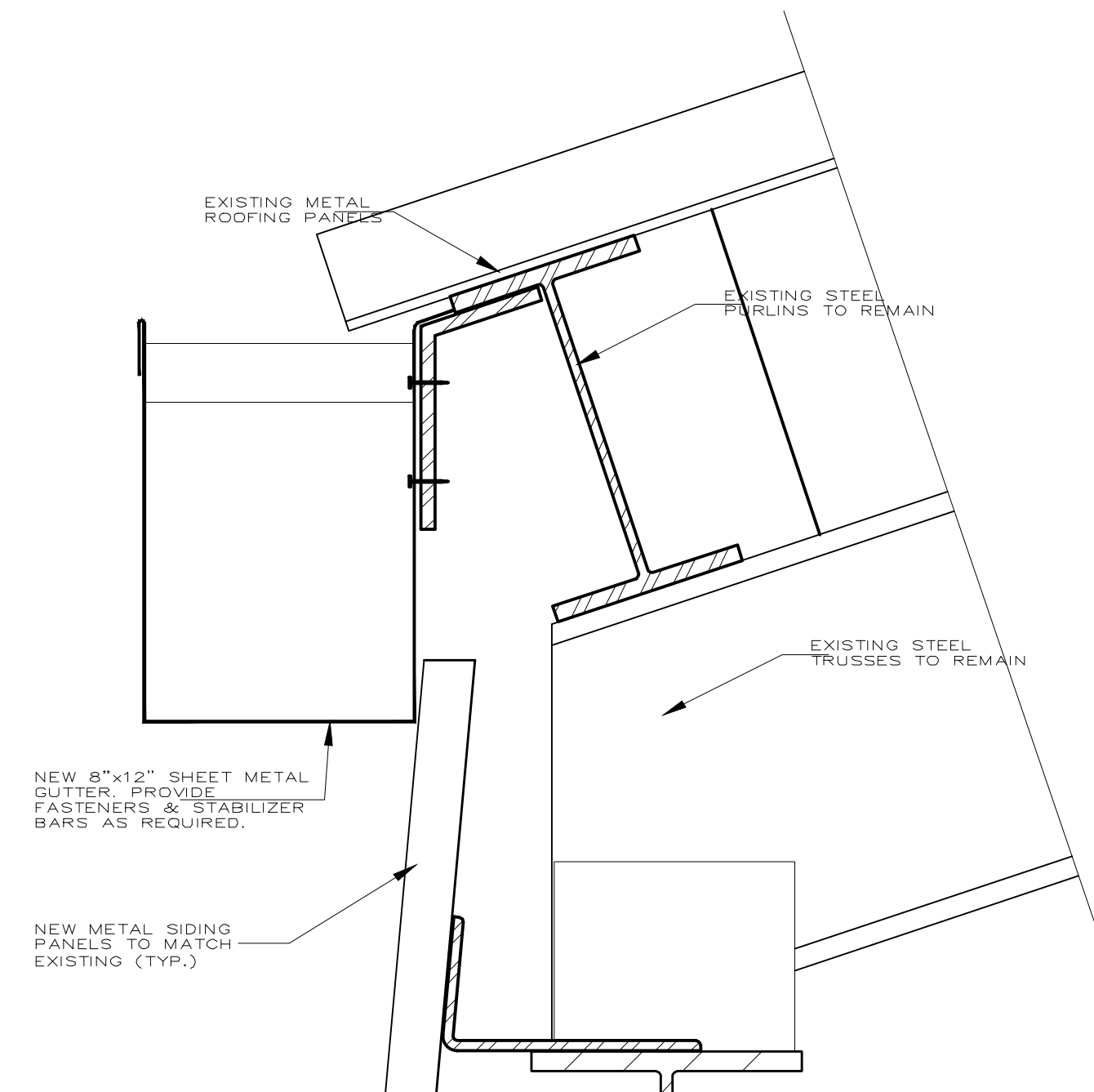
ROOF CURB COUNTERFLASHING



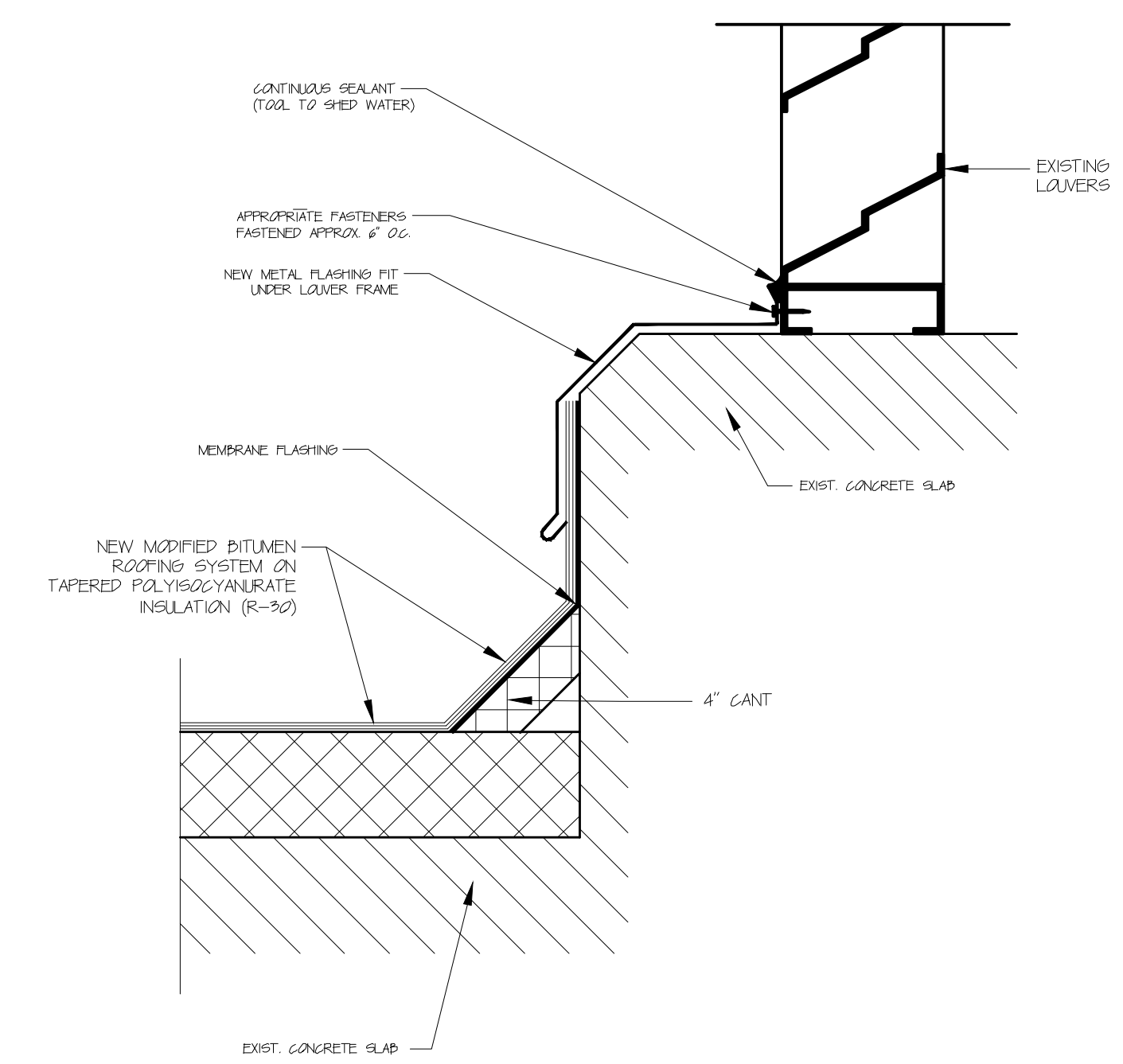
METAL OVERFLOW SCUPPER



METAL OVERFLOW SCUPPER - ISOMETRIC VIEW



GUTTER AT SLOPED ROOF EDGE - BUILDING 3



FLASHING AT CURB & LOUVERS - BUILDING 4

OJITO & ASSOCIATES
11952 SW 134 COURT
MIAMI, FLORIDA 33186
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BOTAS Engineering, Inc.
2815 SW 52nd Lane, Suite #102 • Coral Gables, FL 33134
Tel: 305-448-0311 Fax: 305-448-0312

MIAMI-DADE COUNTY

CLIENT:
MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT
2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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SIGNED AND SEALED

NO.	DATE	REVISIONS
4	9-09-24	REVISED PER OWNER MODIFICATIONS
2	6-30-23	REVISED PER 40-YR. RECENT REPORTS
1	2-17-23	REVISIONS PER BLDG. DEPT. COMMENTS

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
TYPICAL ROOF DETAILS

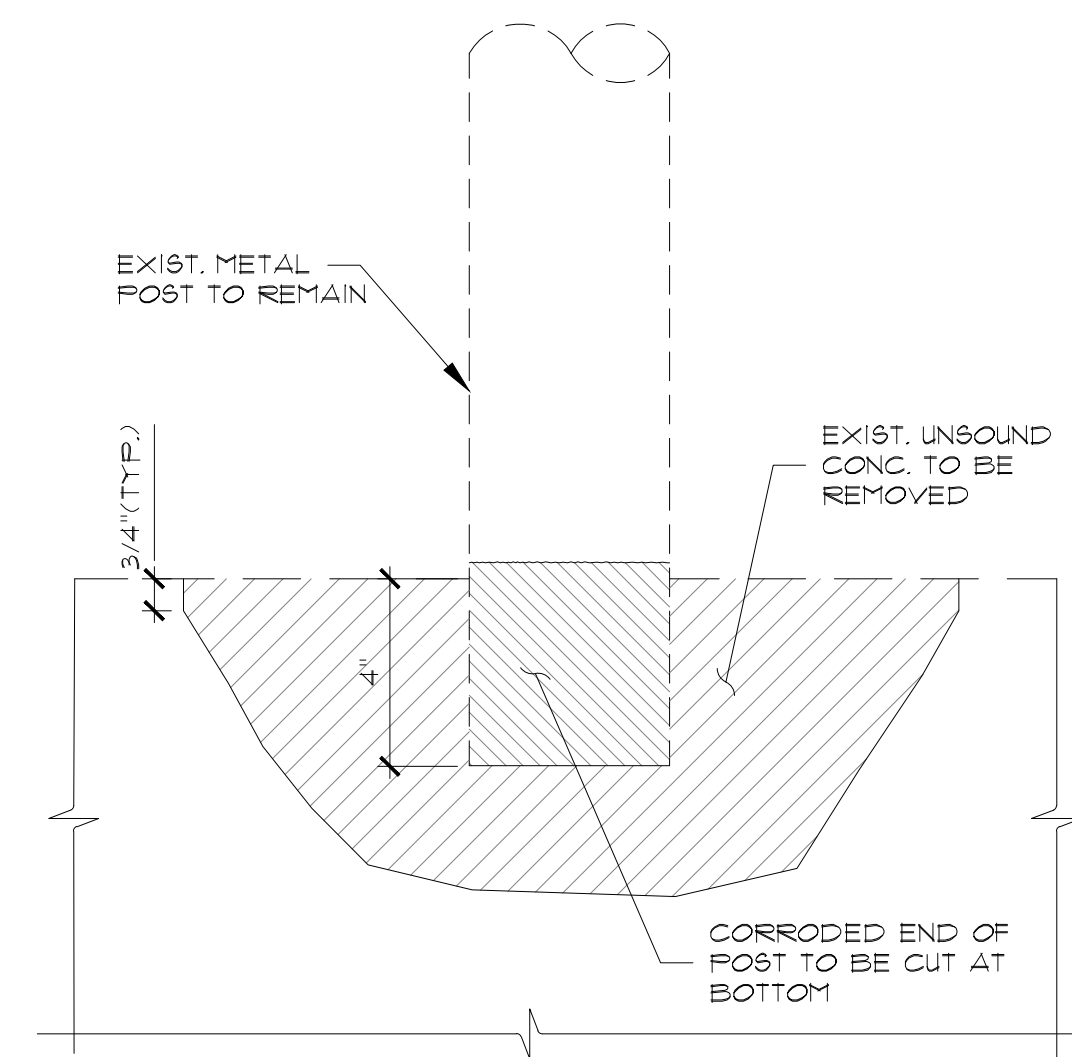
PROJECT NO.:	ISSUE DATE:
SPL 1021.001	10-3-2022

DRAWN BY:	CHECKED BY:
L.F.M.	R.C.M.

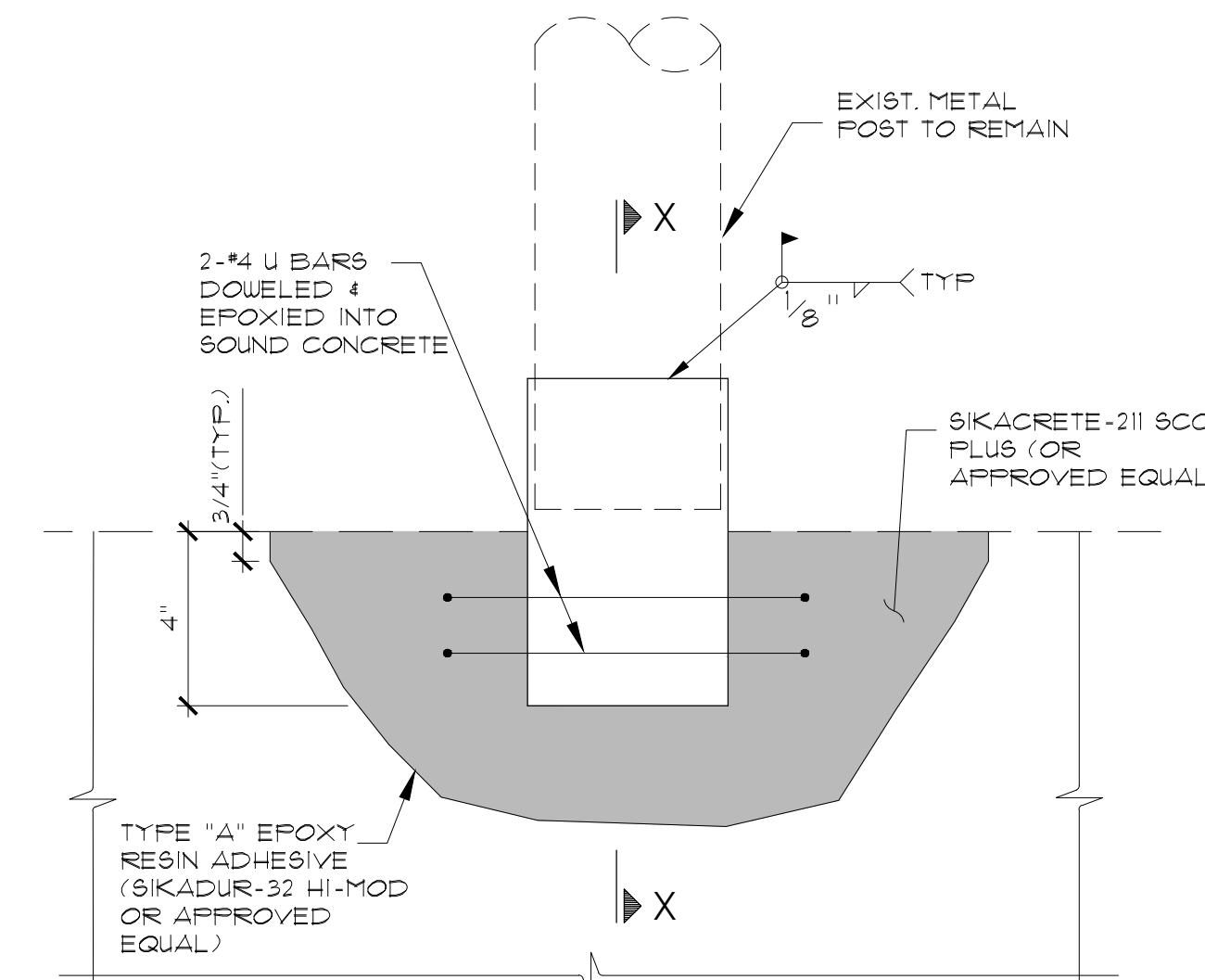
SHEET NUMBER:

FORMERLY A-501
A-504

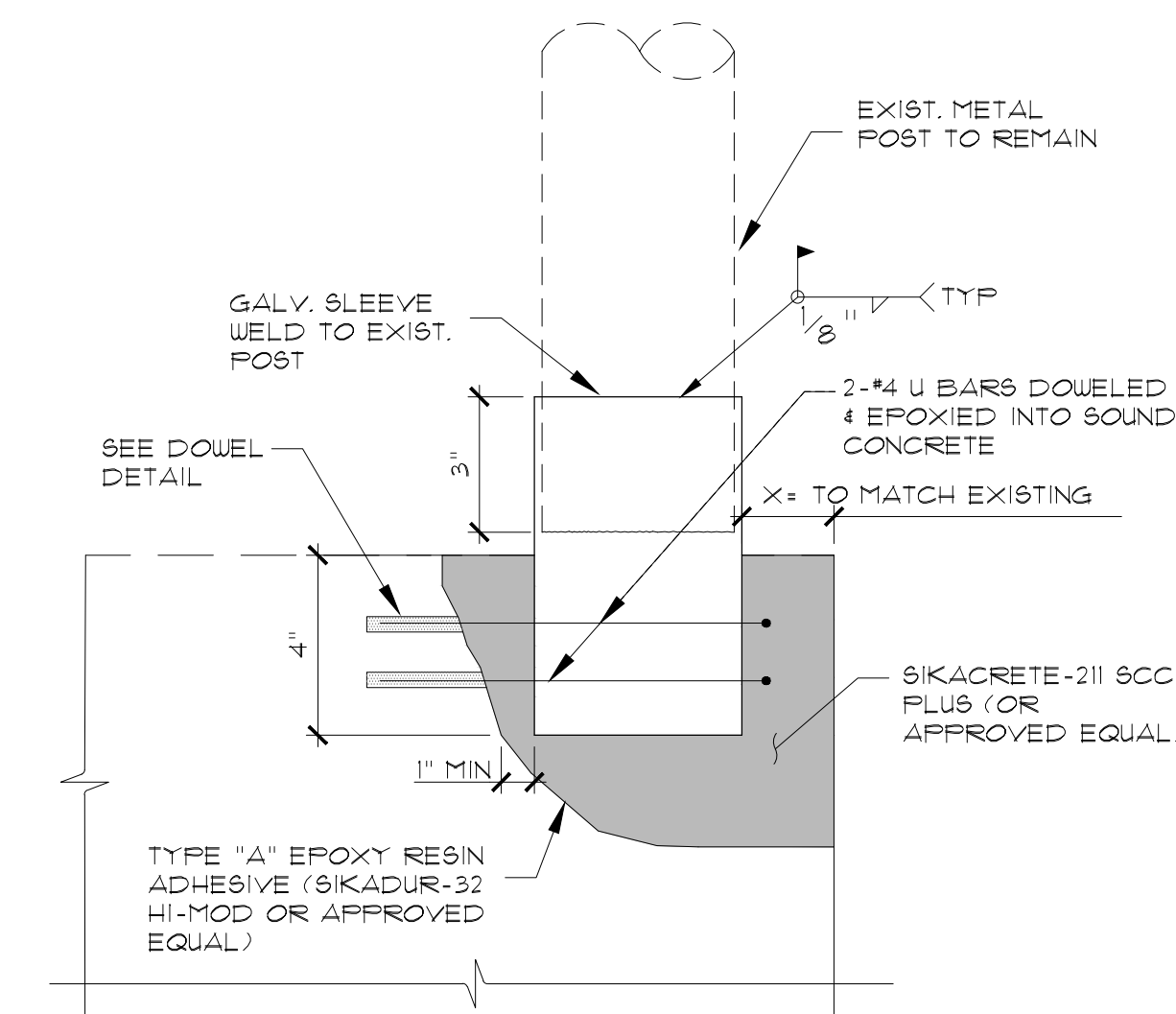
1. CUT CORRODED END AT BOTTOM OF POST AND PROVIDE A GALV. SLEEVE (LAPPING 3" MIN. WITH EXIST. POST). FIELD WELD TOP OF GALV. SLEEVE TO EXIST. POST.
2. REMOVE ALL UNSOUND CONCRETE AROUND POST.
3. CUT ALL PERIMETER EDGES OF SPALL TO A MINIMUM OF 3/4".
4. THOROUGHLY CLEAN ALL SPALL AREA AND INSERT 2"x4 U DOUGL'S WITH EPOXY.
5. APPLY AN APPROVED TYPE "A" EPOXY RESIN ADHESIVE ON THE SPALL'S SURFACE FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
6. APPLY A FAST CURING/HIGH STRENGTH EPOXY GROUT SUCH AS SIKACRETE-21 SCC FILL OR APPROVED EQUAL.



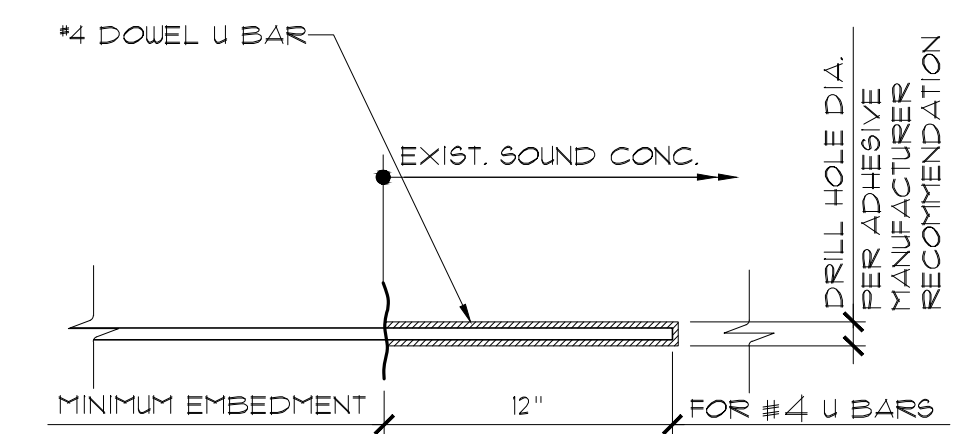
N.T.9



N.T.S.



N.T.S.

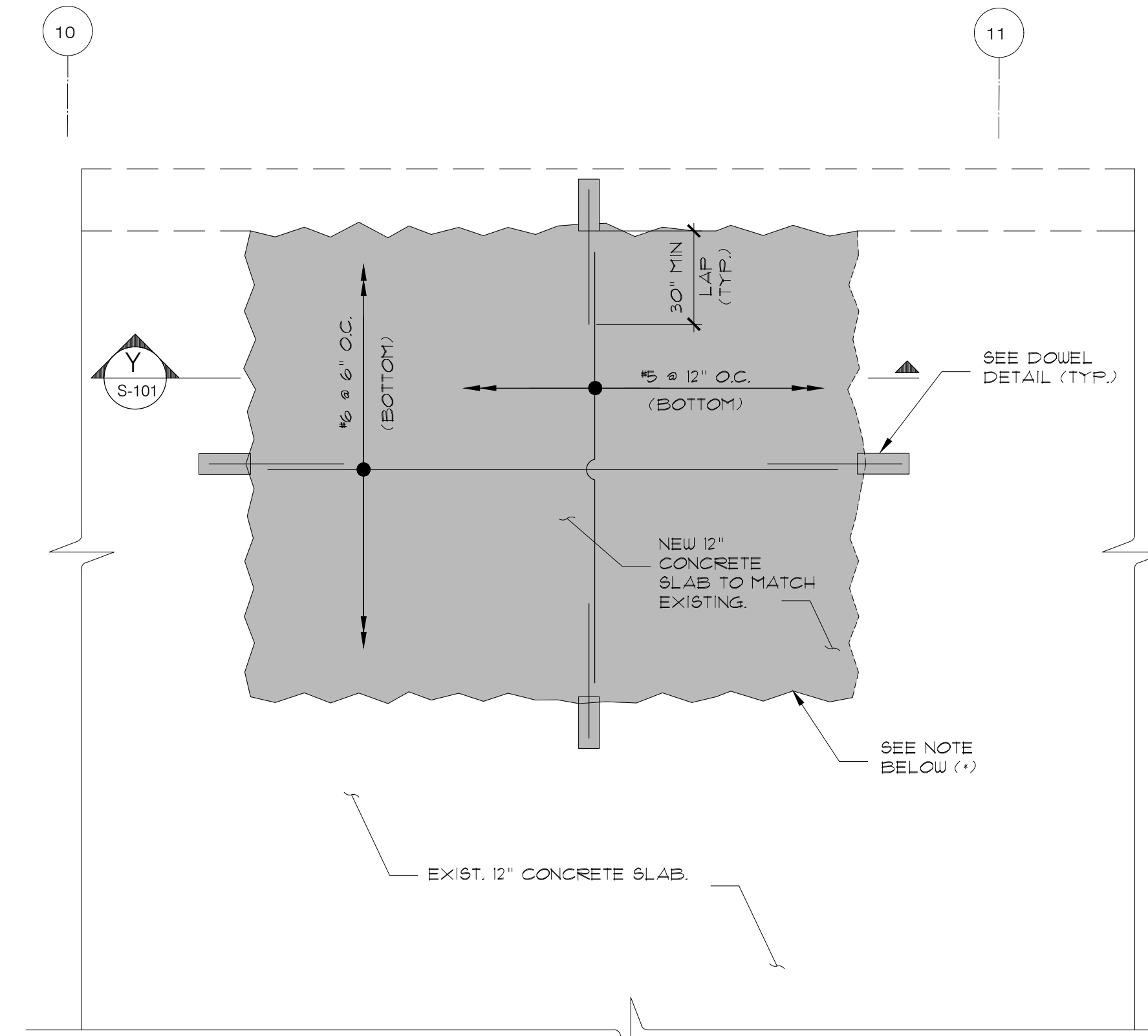


SC: $1\frac{1}{2}" = 1'-0"$

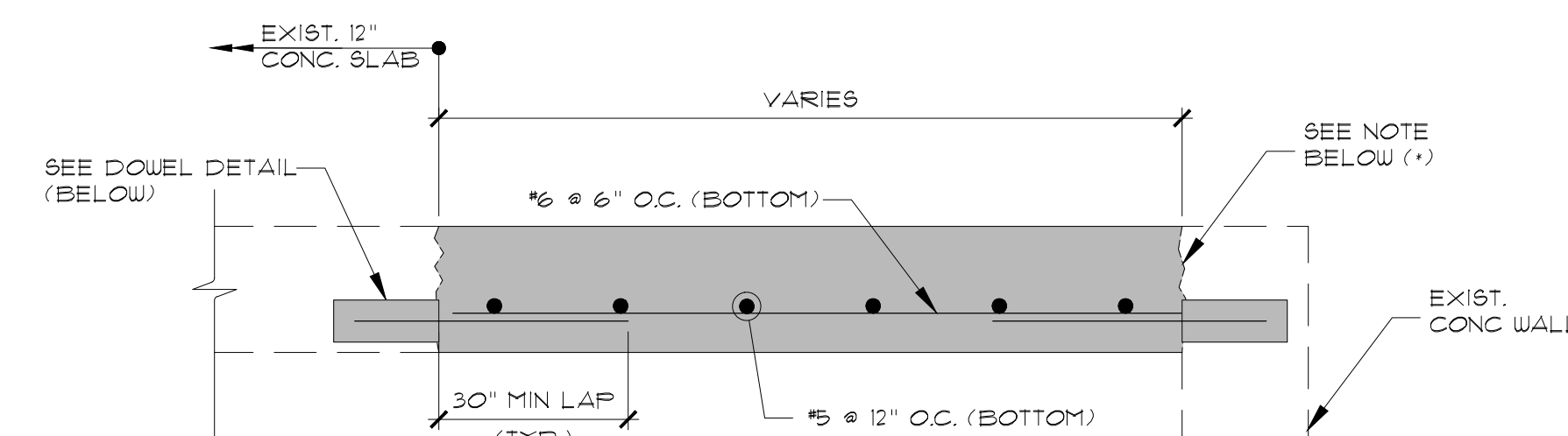
- NOTE:
1. DRILLED HOLES FOR DOWEL BARS SHALL BE THOROUGHLY CLEANED AND DRIED, FOLLOWING MANUFACTURER'S RECOMMENDATION, PRIOR TO PLACING EPOXY & DOWELS.
 2. DRILL HOLE AS PER MANUFACTURER'S RECOMMENDATION, PLACE #4 U BAR AND FILL WITH HIT-RE 500 V3 EPOXY (TYP.).

1. ALL FENCE POSTS THAT THE END IS CORRODED AND SEVERED FROM THE STEEL SUPPORT, TO BE REPLACED WITH A SIMILAR GALV. POST AND RE-ATTACHED TO THE EXISTING GALVANIZED CHAIN LINK FENCE.

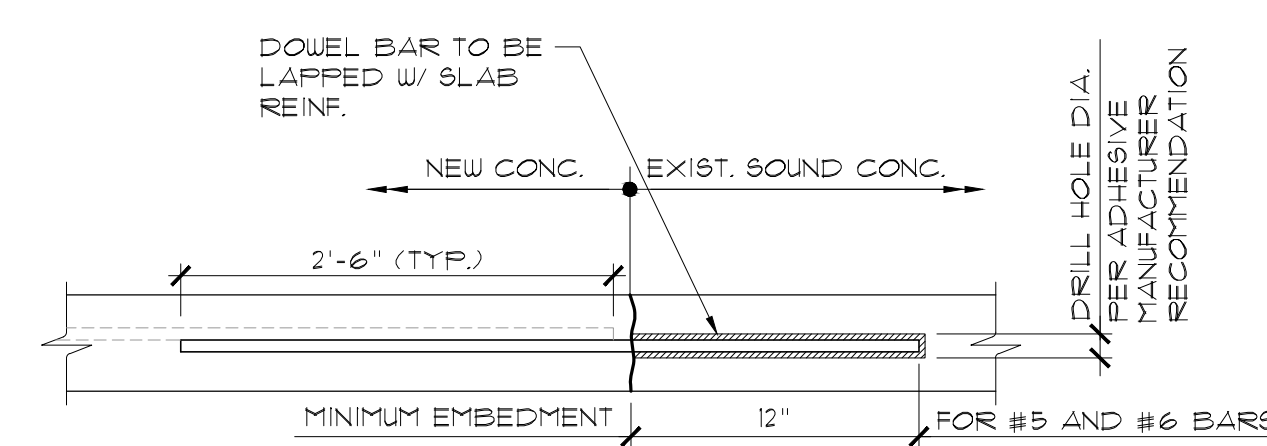
RAILING POST REPAIR DETAILS



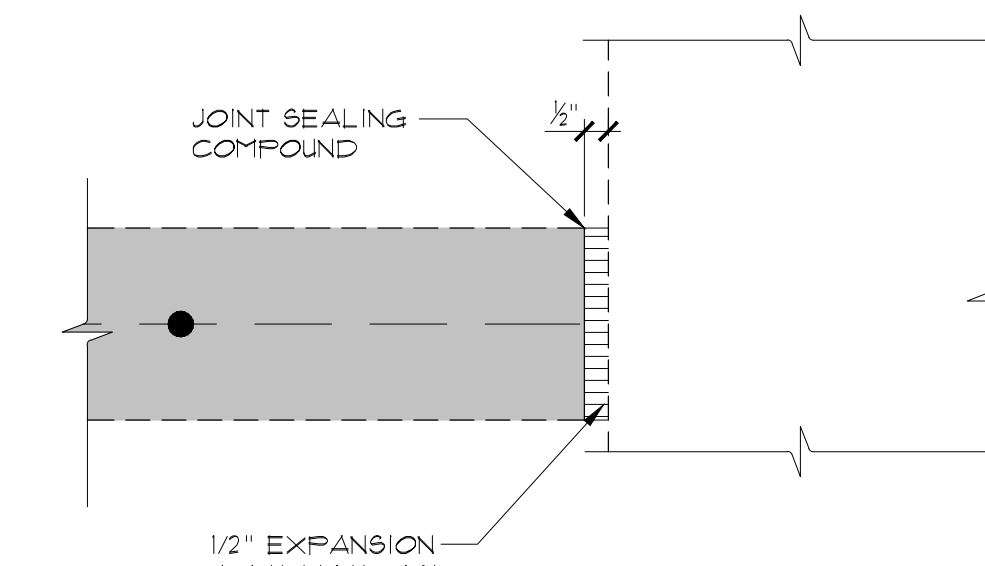
SC: 1/2" = 1'-0"



SC: 3/4" = 1'-0"


$$SC_1 \mid \frac{1}{2}'' = 1'-0$$

- NOTE:
1. DRILLED HOLES FOR DOWEL BARS SHALL BE THOROUGHLY CLEANED AND DRIED, FOLLOWING MANUFACTURER'S RECOMMENDATION, PRIOR TO PLACING EPOXY 4 DOWELS.
 2. DRILL HOLE AS PER MANUFACTURER'S RECOMMENDATION, PLACE BAR AND FILL WITH HIT-RE 300 V3 EPOXY (TYP.).


$$9C_2 \mid \frac{1}{2}'' = 1'-0''$$
REPAIR TYPE ⑧
EXPANSION JOINT

EXIST .CONC. SLAB CLOSURE DETAILS

1. THE PERIMETER OF THE EXISTING CONCRETE SLAB OPENING TO BE
ROUGHENED, CLEANED AND AN APPROVED BONDING AGENT
APPLIED (FOLLOWING THE MANUFACTURER'S RECOMMENDATIONS)
PRIOR TO CONCRETE POURING.



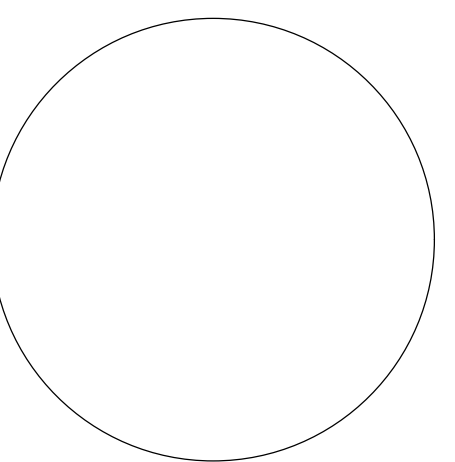
11952 SW 134 COURT
MIAMI, FLORIDA 33186
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MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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SIGNED AND SEALED

	11/30/2023	BLDG DEPT. REVIEW COMMENTS
	6/30/2023	ADDED SHEET PER 40-YEAR RECERTIFICATION REPORT
	2/07/2023	REVIEW COMMENTS
NO:	DATE:	REMARKS:
REVISIONS:		

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

MISC. REPAIR
DETAILS

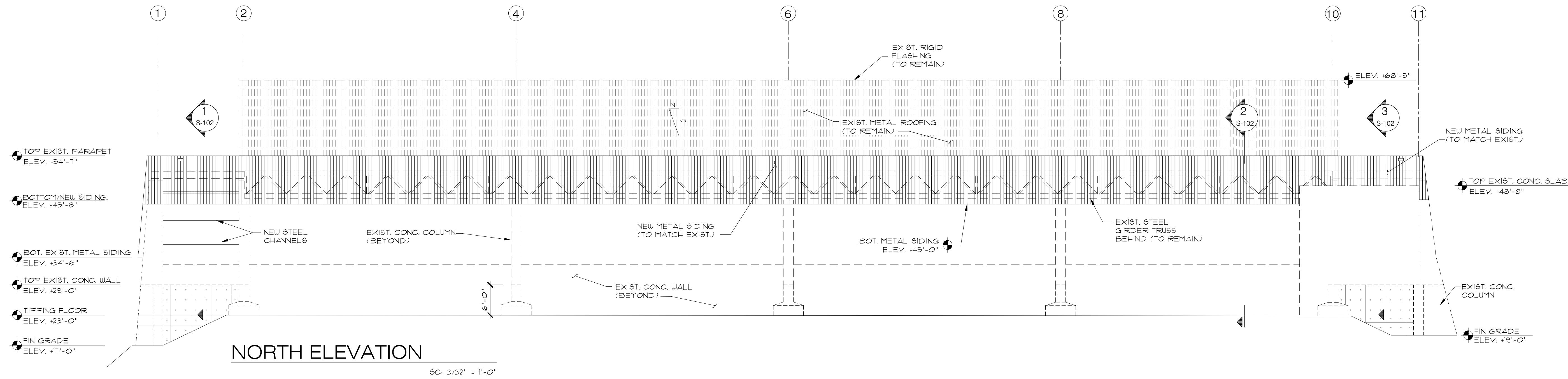
(BLDG.3 & BLDG.4)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

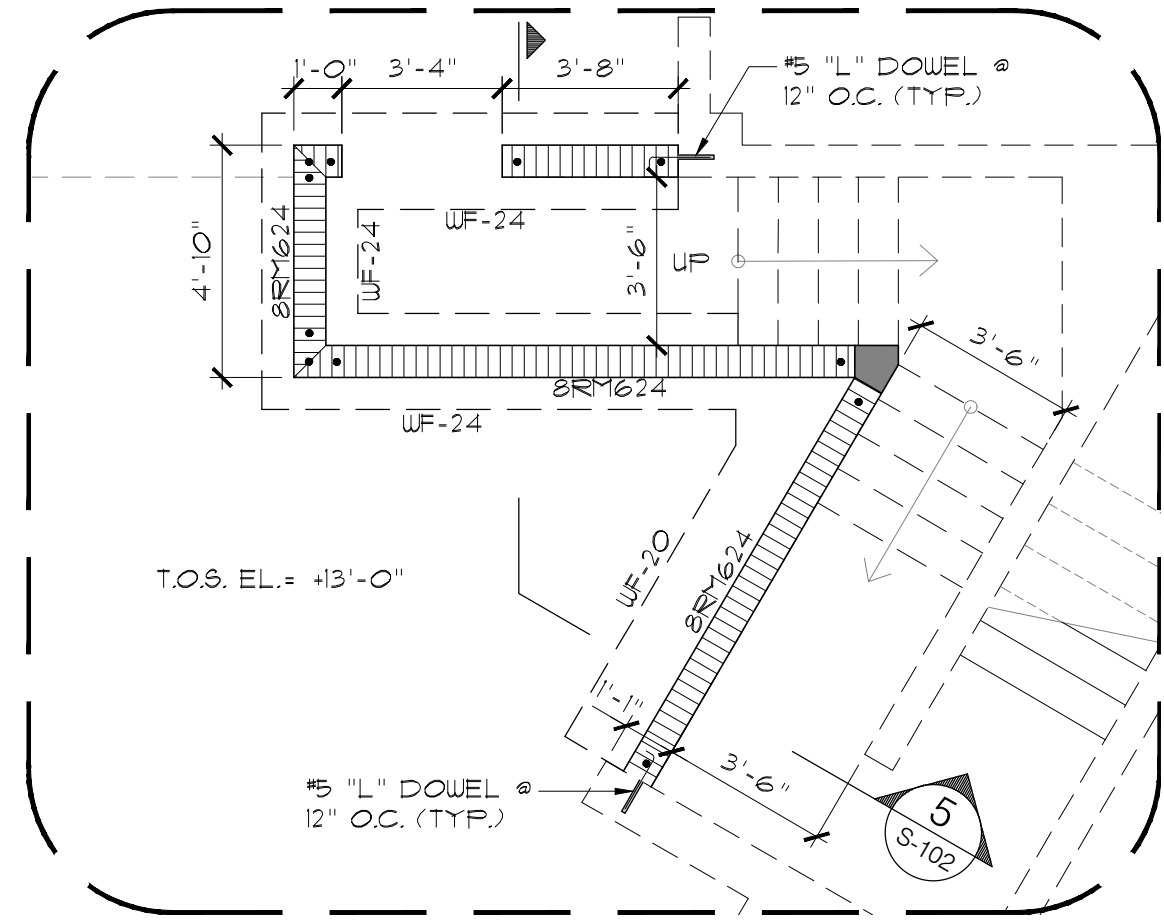
SHEET NUMBER:

S-101

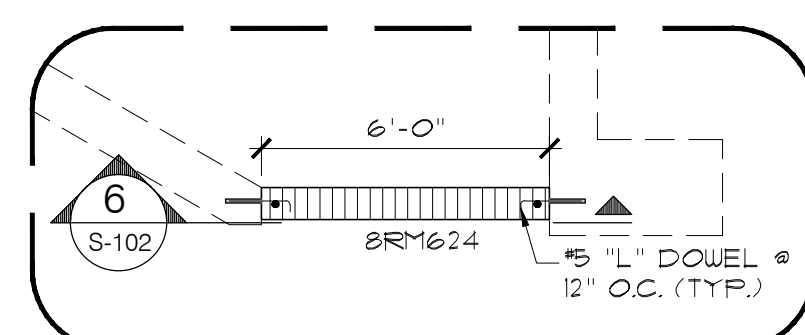
100% SUBMITTAL



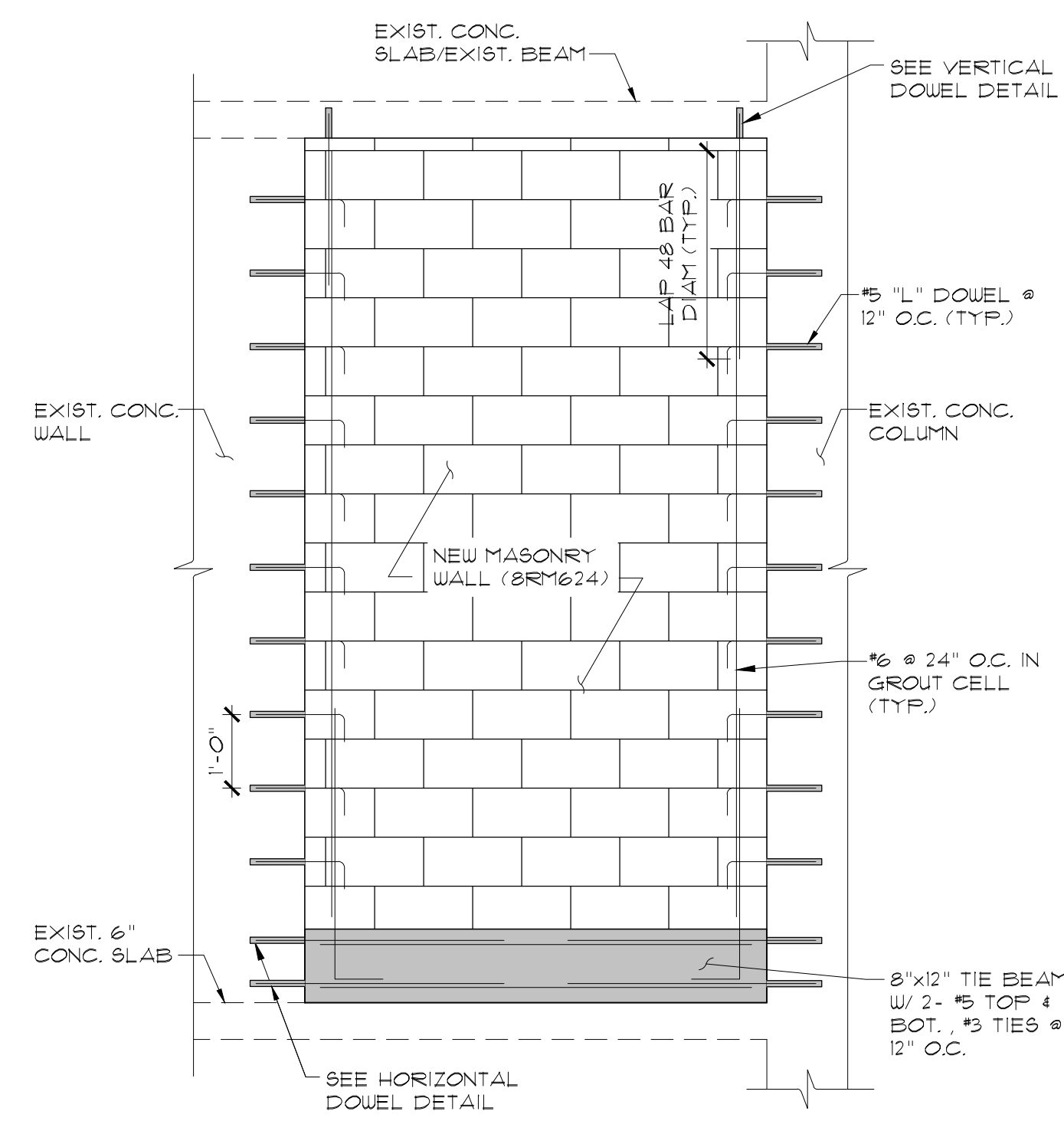
LEGEND:
 REINFORCED MASONRY:
 8 RM 5 24
 SIZE REINFORCED SIZE OF CENTER TO
 MASONRY BAR CENTER SPA/C.
 ALL NEW REINFORCED MASONRY WALLS SHALL BE PROVIDED WITH #5 DUE-TO-WALL LADDER TYPE HORIZONTAL REINFORCEMENT AT 16" O.C. VERTICALLY. HORIZONTAL REINFORCEMENT MIN. OF 4" INTO ALL CONCRETE COLUMNS.
 • DENOTES ADDITIONAL VERT. REINF. BAR IN NEW CMU WALL



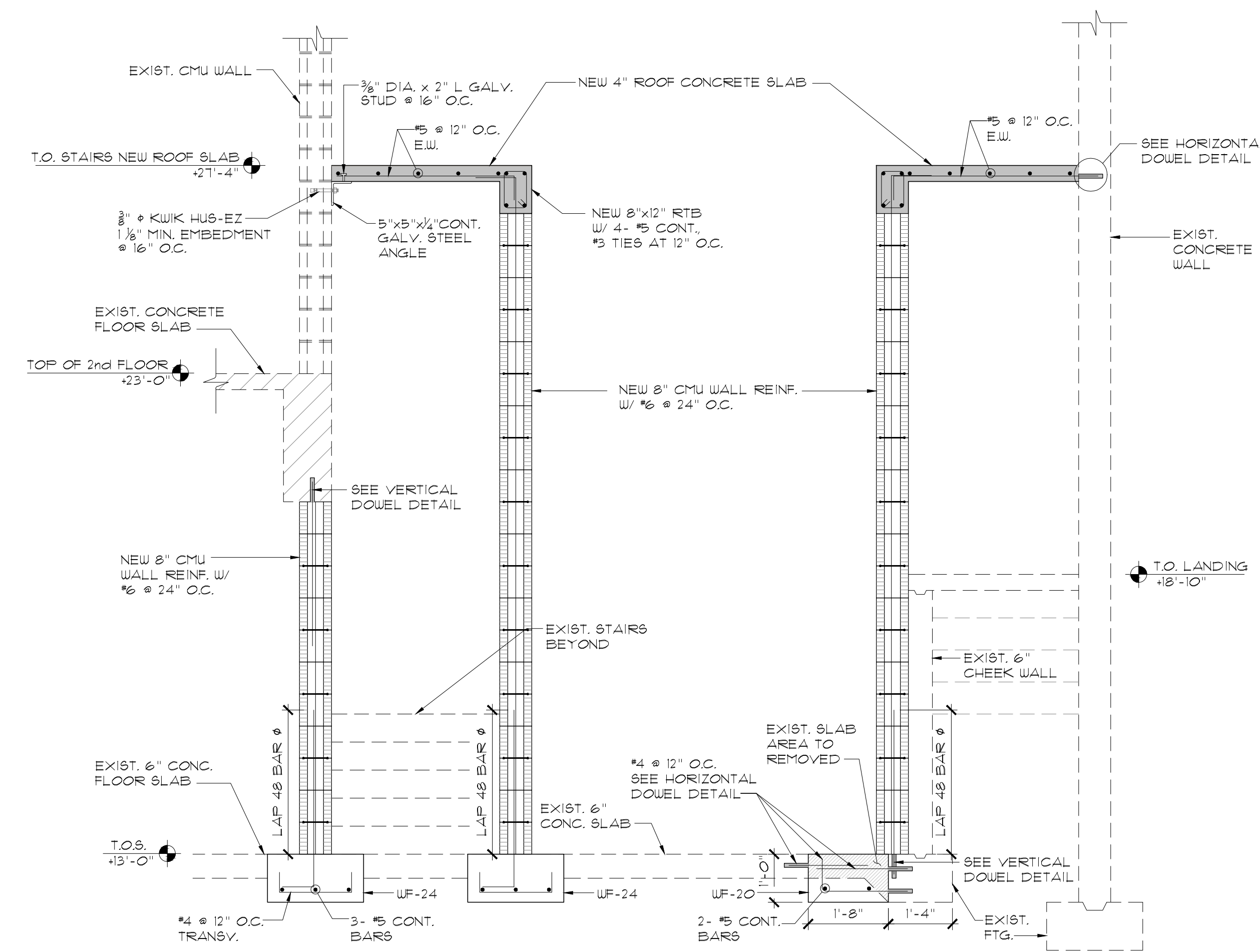
DETAIL C
 SC: 1/4" = 1'-0"



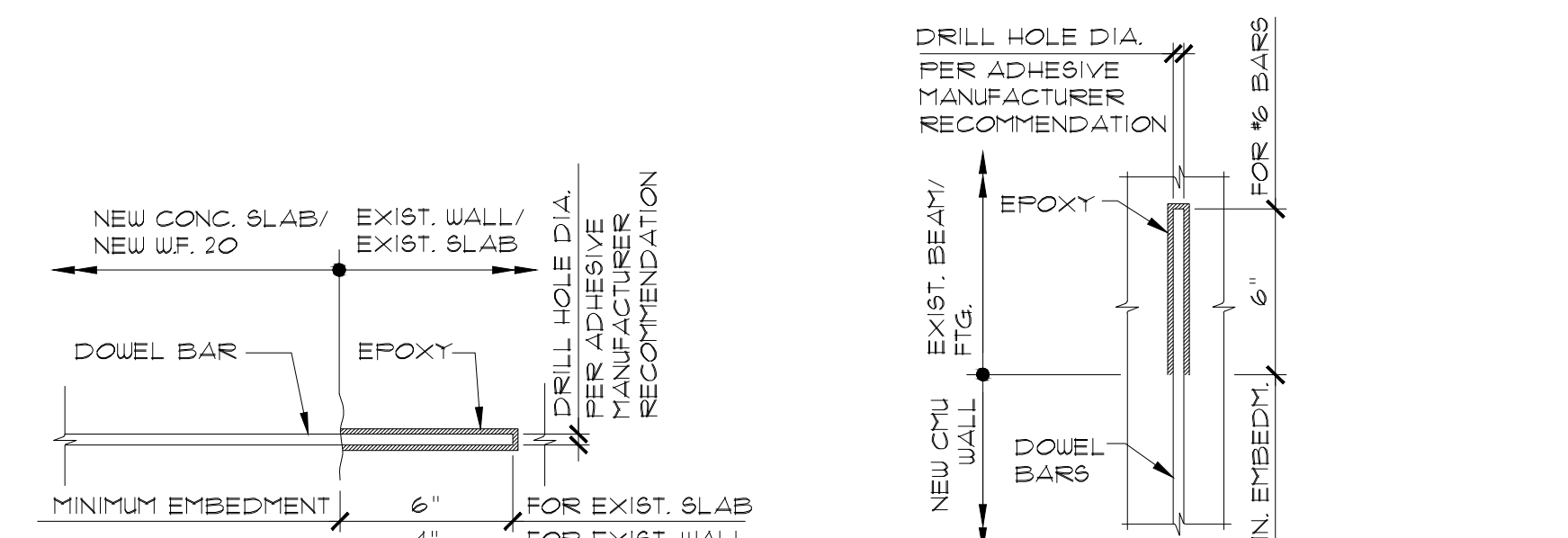
DETAIL D
 SC: 1/4" = 1'-0"



SECTION 6
 SC: 1/2" = 1'-0"

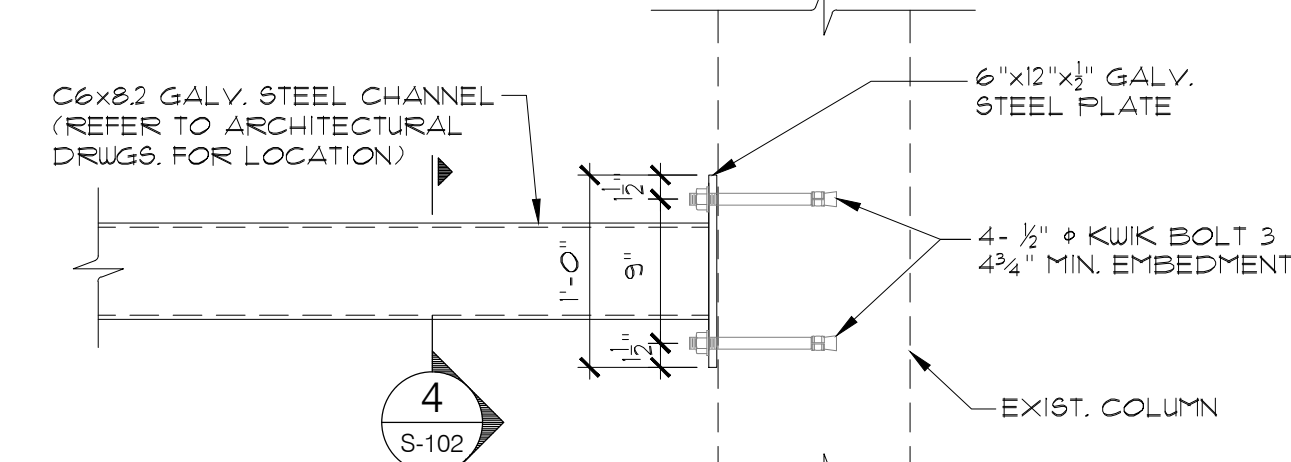


SECTION 5
 SC: 1/2" = 1'-0"

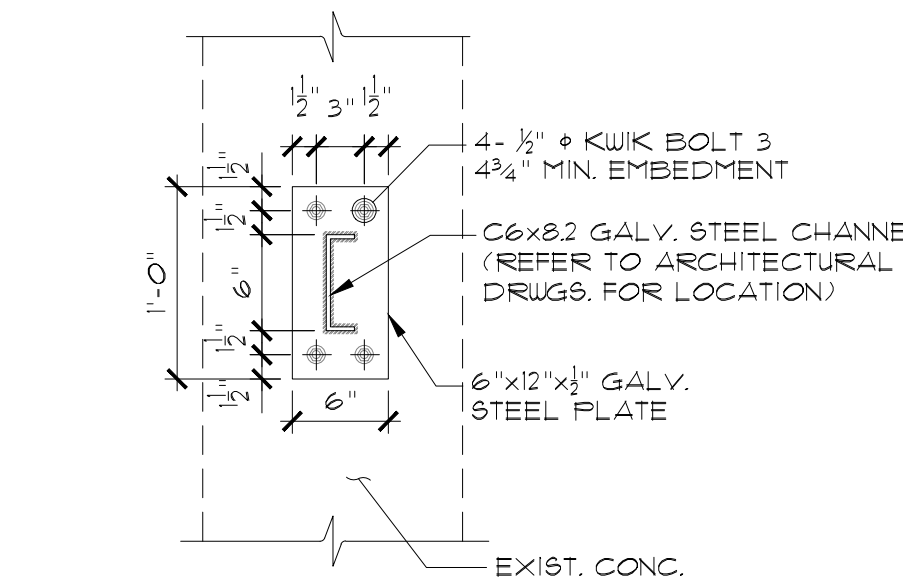


HORIZ. DOWEL DETAIL SC: 1 1/2" = 1'-0"
VERT. DOWEL DETAIL SC: 1 1/2" = 1'-0"

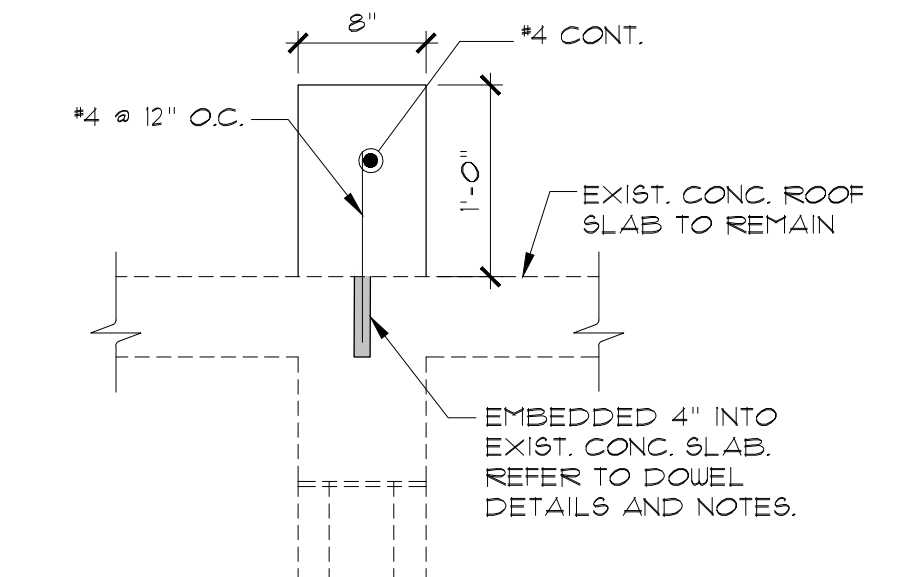
NOTE:
 1. DRILLED HOLES FOR DOWEL BARS SHALL BE THOROUGHLY CLEANED AND DRIED, FOLLOWING MANUFACTURER'S RECOMMENDATION. PRIOR TO PLACING EPOXY.
 2. DRILL HOLE AS PER MANUFACTURER'S RECOMMENDATION. PLACE BAR AND FILL WITH HIT-RE 300 V3 EPOXY (TYP.).



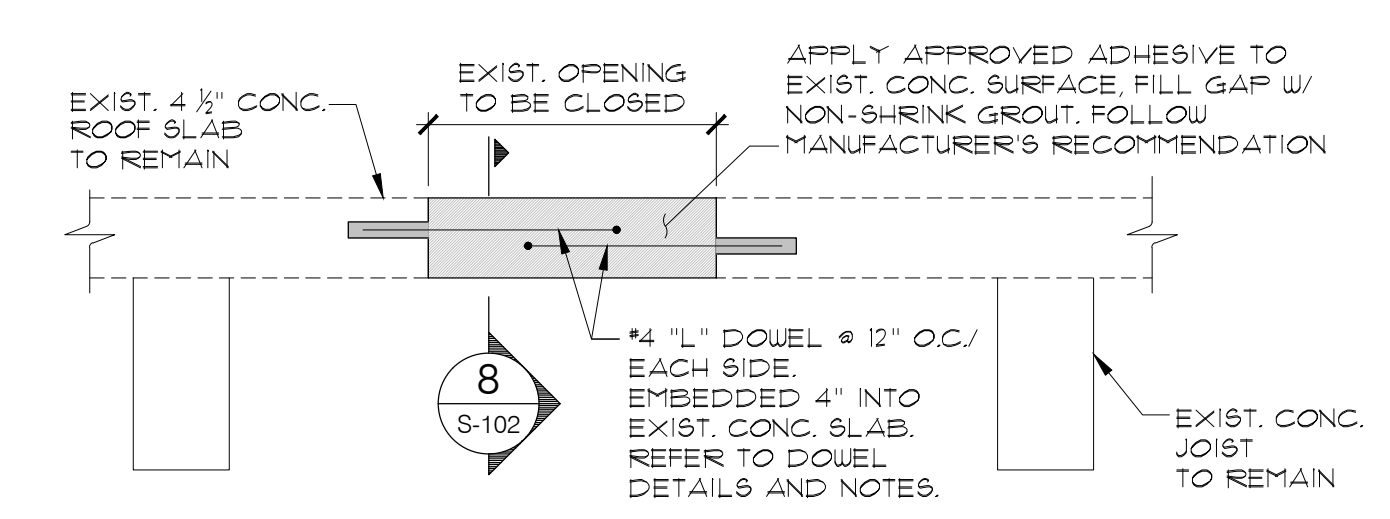
DETAIL 'A'
 SC: 1" = 1'-0"



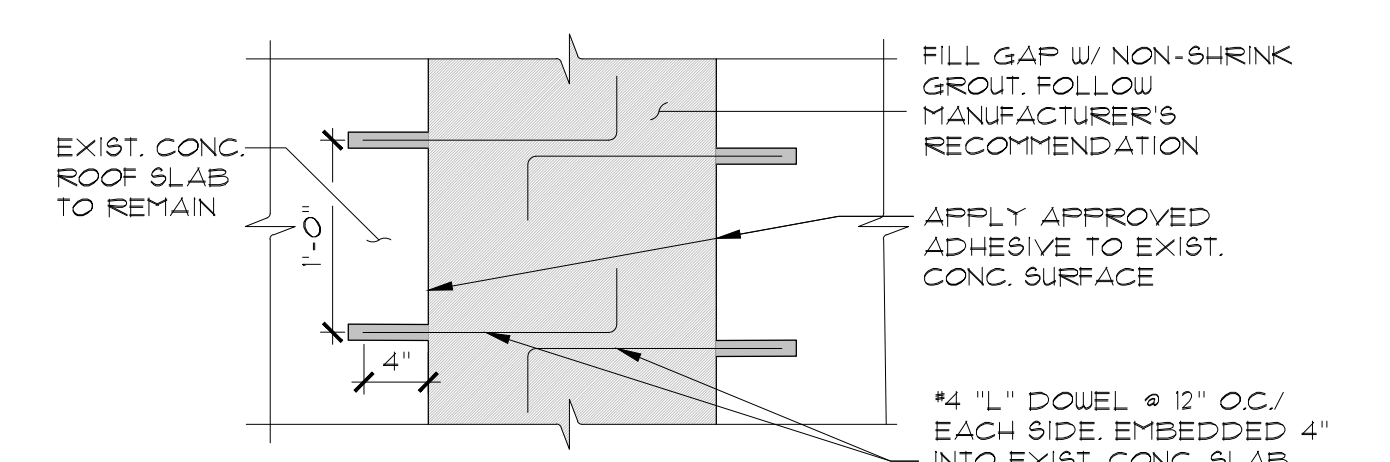
SECTION 4
 SC: 1" = 1'-0"



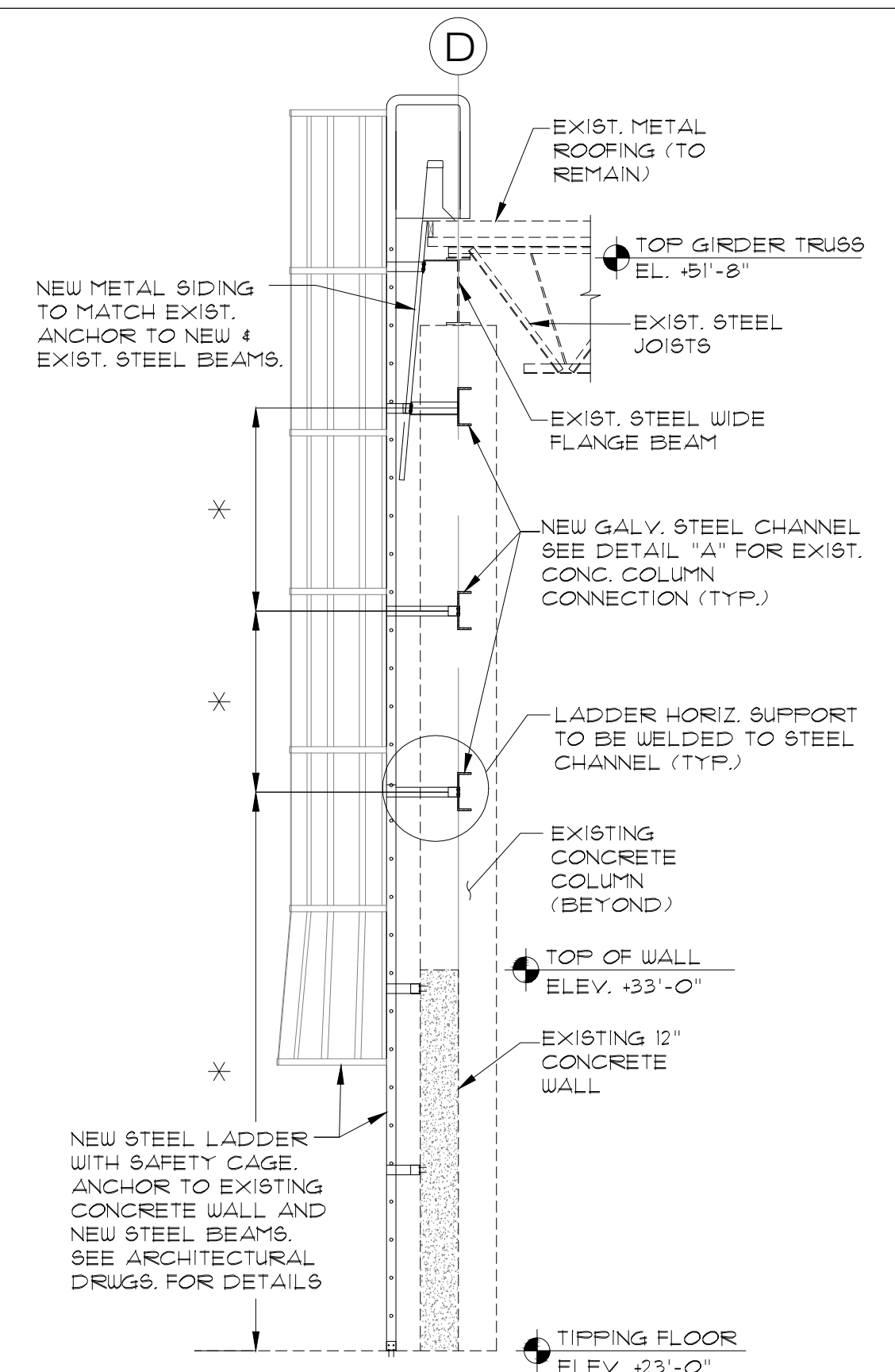
DETAIL 'B'
 SC: 1" = 1'-0"



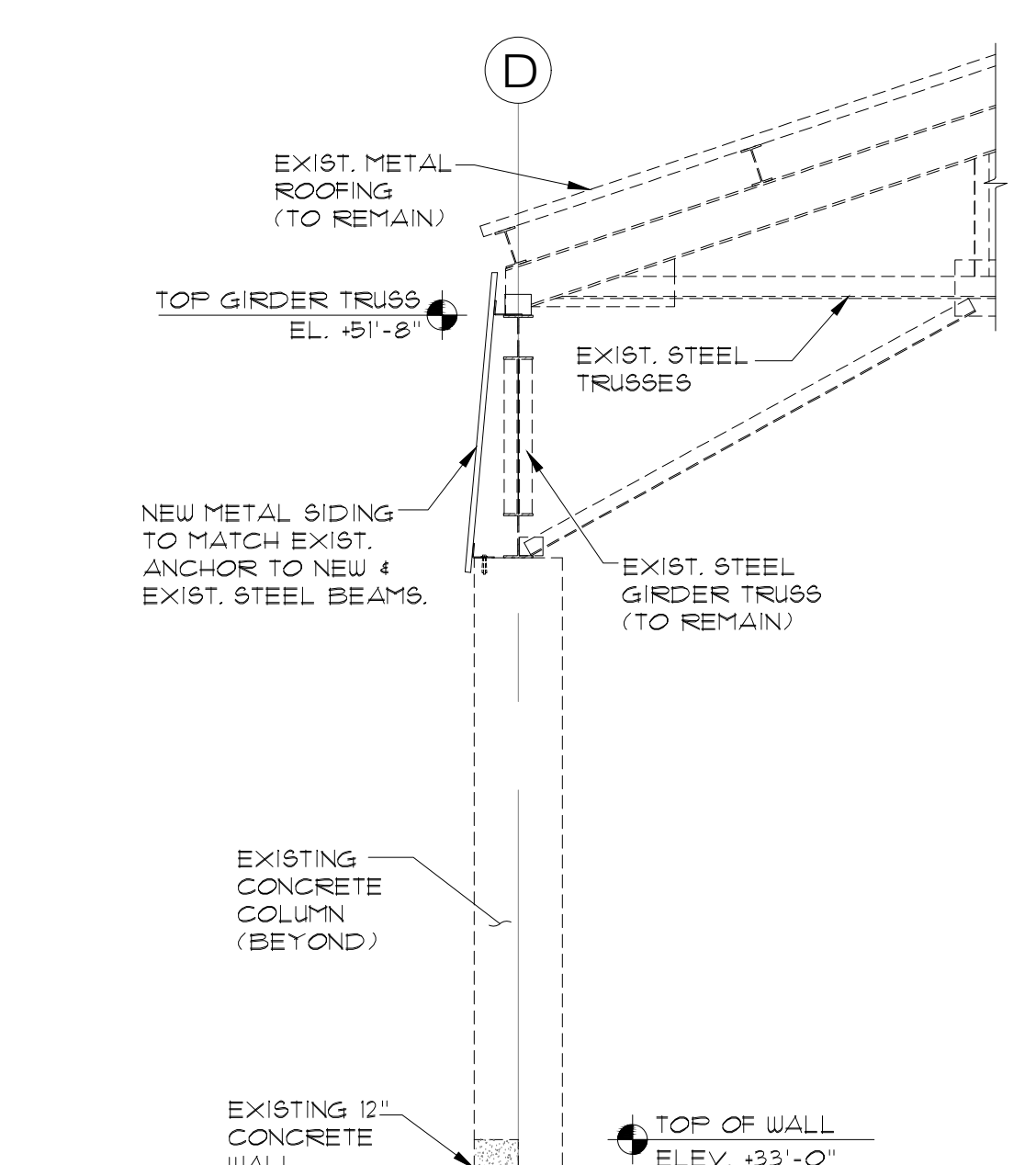
SECTION 7
 SC: 1" = 1'-0"



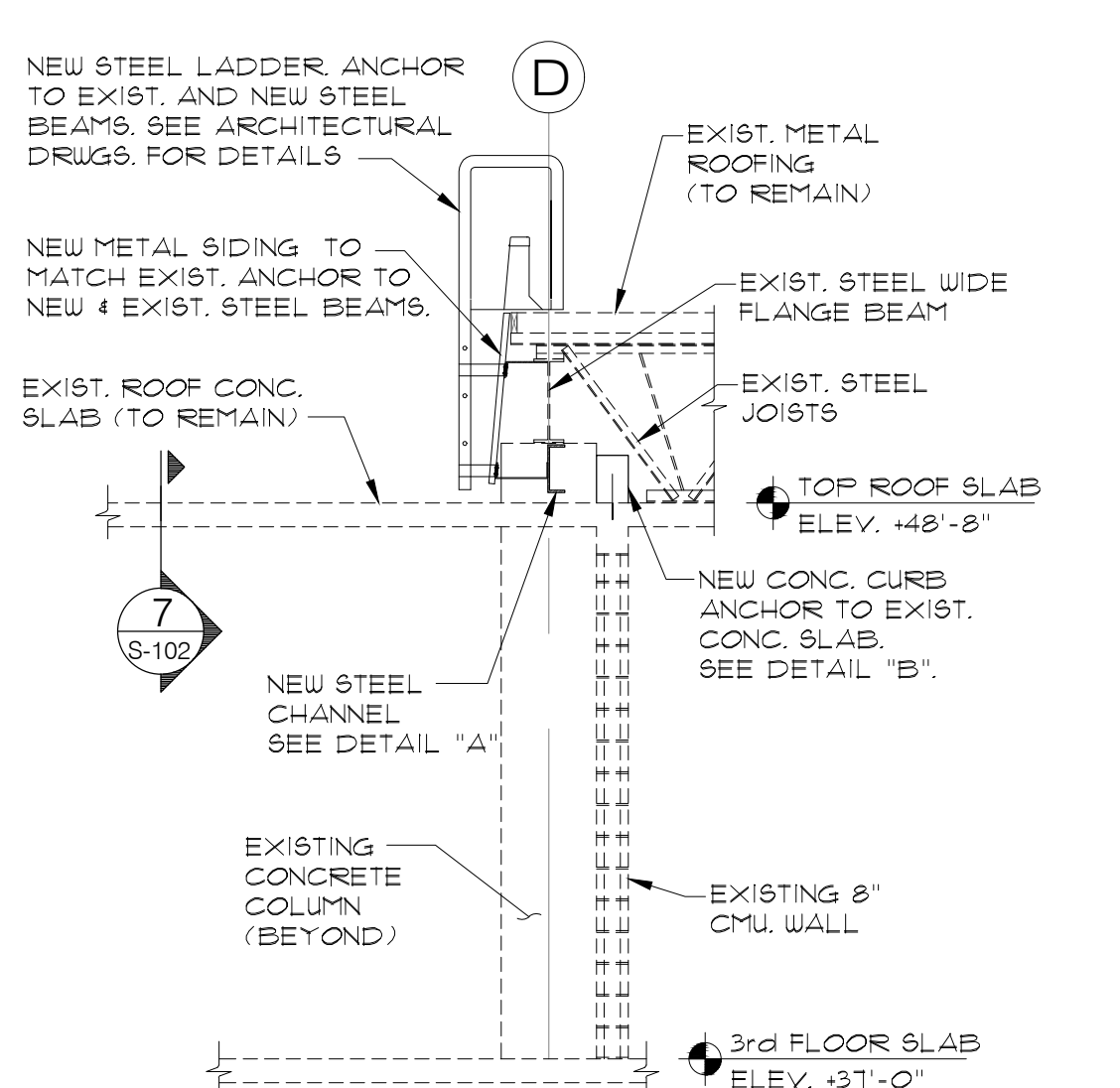
SECTION 8
 SC: 1" = 1'-0"



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



SECTION 2
 SC: 1/4" = 1'-0"



SECTION 3
 SC: 1/4" = 1'-0"

100% SUBMITTAL



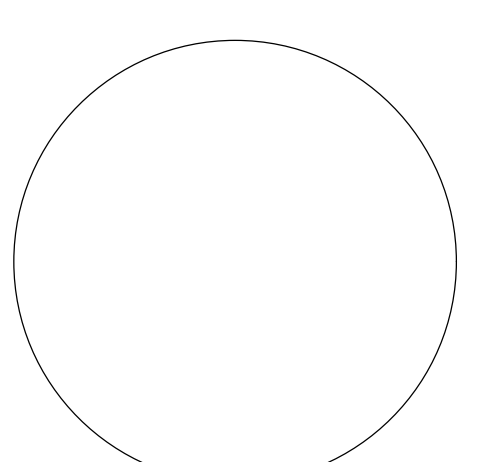
OJITO & ASSOCIATES
 11952 SW 134 COURT
 MIAMI, FLORIDA 33186
 WWW.OJITO.COM



CLIENT:
 MIAMI-DADE COUNTY
 DEPARTMENT OF
 SOLID WASTE MANAGEMENT
 2525 SW 62ND STREET
 MIAMI, FLORIDA 33147

CONFIDENTIAL:

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9/09/2024	MODIFICATION DUE TO OWNER REQUEST
11/30/2023	BLDG DEPT. REVIEW COMMENTS
6/30/2023	ADDED SHEET PER 40-YEAR RECERTIFICATION REPORT
2/07/2023	REVIEW COMMENTS
NO. DATE:	REMARKS:

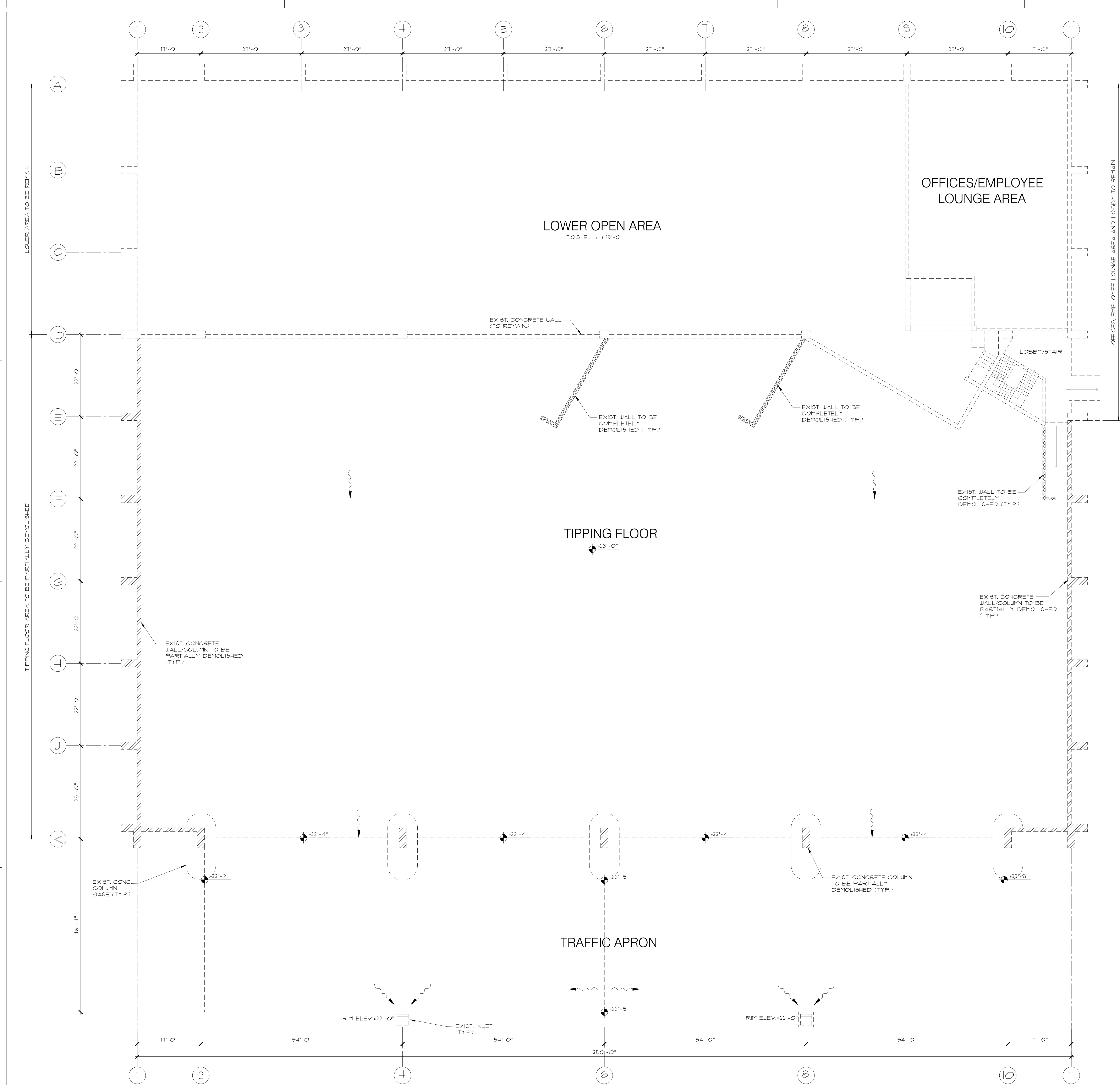
PROJECT TITLE:
 ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
 HOMESTEAD, FLORIDA 33032
 PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
 ELEVATION, SECTIONS AND DETAILS (BLDG.3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

S - 102



FLOOR PLAN DEMOLITION

SC: 3/32" = 1'-0"



DEMOLITION NOTES

GENERAL CONTRACTOR SHALL PERFORM DEMOLITION IN ACCORDANCE WITH APPLICABLE AUTHORITIES HAVING JURISDICTION.

THIS DRAWINGS ARE ONLY TO ASSIST IN SHOWING THE SCOPE OF DEMOLITION WORK AND ARE NOT INTENDED TO INDICATE ALL DEMOLITION. CONTRACTOR SHALL REMOVE ALL EXISTING ITEMS, AS REQUIRED, TO COMPLETE THE JOB.

CEASE OPERATIONS AND NOTIFY OWNER AND ENGINEER IMMEDIATELY IF SAFETY OR INTEGRITY OF STRUCTURE APPEARS TO BE ENDANGERED. PROPERLY BRACE AND SUPPORT STRUCTURE BEFORE RESUMING OPERATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING ALL THE COLLECTED WASTE MATERIAL IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED BARRICADES, DAILY CLEAN-UP, AND REPAIRS TO ANY AREAS OR PROPERTIES AFFECTED BY THE CONSTRUCTION.

CONTRACTOR SHALL PROPERLY LOCATE AND IDENTIFY ALL UTILITIES (MECHANICAL, PLUMBING AND/OR ELECTRICAL) PRIOR TO DEMOLITION. ALL THE EXISTING UTILITIES MUST BE REMOVED OR RELOCATED.

AS-BUILT PLANS ARE NOT AVAILABLE. THEREFORE, THE INFORMATION IN THESE PLANS MAY NOT BE ACCURATE. IF THERE IS A DISCREPANCY BETWEEN THESE PLANS AND THE FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER-OF-RECORD PRIOR TO PROCEEDING WITH THE WORK. NOT ALL THE ITEMS TO BE DEMOLISHED ARE SHOWN IN THESE PLANS. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING A WALK-THRU OF THE PROJECT WITH THE INTENT OF IDENTIFYING POSSIBLE ITEMS, NOT OR INCORRECTLY ADDRESSED, WHICH REQUIRE REMOVAL AND/OR RELOCATION.

DO NOT CUT OR ALTER ANY STRUCTURAL MEMBERS WITHOUT WRITTEN AUTHORIZATION OF THE ENGINEER-OF-RECORD UNLESS INDICATED ON THE STRUCTURAL DRAWINGS.

THE USE OF EXPLOSIVE IS NOT PERMITTED.

PROPER PROTECTION OF EXISTING WINDOWS AND DOORS IS REQUIRED BY THE CONTRACTOR PRIOR TO DEMOLITION. ANY DAMAGE RESULTING FROM THE DEMOLITION SHALL BE REPAIRED BY THE CONTRACTOR AT NOT ADDITIONAL COST TO THE OWNER.

CONTRACTOR SHALL TAKE PROPER PRECAUTIONS TO PREVENT WATER LEAKS INSIDE THE BUILDING DURING THE DEMOLITION TAKE PLACE.

NOTIFY OWNER AND ENGINEER-OF-RECORD IMMEDIATELY IF ANY PORTION OF EXISTING STRUCTURE, WHICH IS NOT TO BE DEMOLISHED, IS DAMAGED. CONTRACTOR SHALL PAY FOR ALL COST OF REPAIRS, INCLUDING DESIGN AND SPECIFICATION EXPENSES.

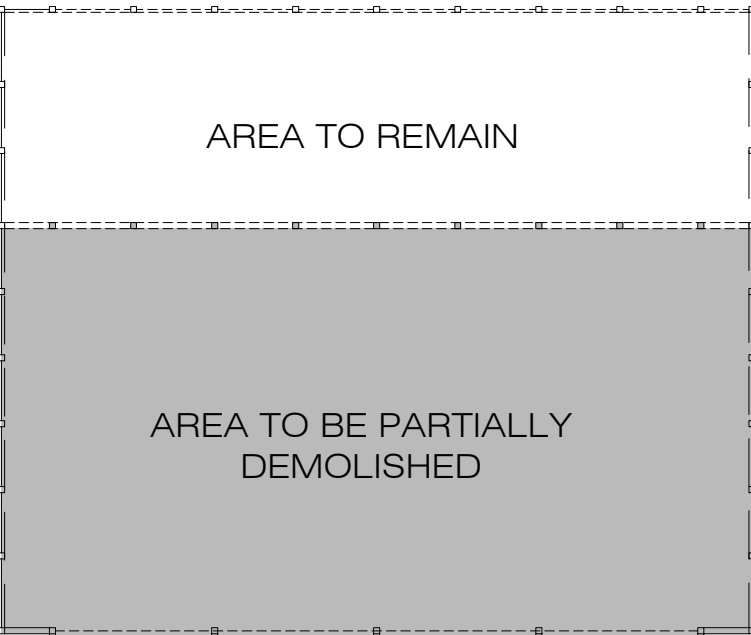
PROVIDE SAFETY FEATURES DURING WORK AS REQUIRED BY OSHA.

GENERAL CONTRACTOR SHALL DEMOLISH IN AN ORDERLY AND CAREFUL MANNER.

GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY REQUIRED TEMPORARY SHORING PRIOR TO DEMOLITION.

LEGEND

- EXIST. CONC. WALLS AND COLUMNS TO BE PARTIALLY DEMOLISHED, 6'-0" ABOVE TIPPING FLOOR LEVEL.
- EXIST. CONC. WALLS TO BE COMPLETELY DEMOLISHED
- EXIST. CONC. WALLS AND COLUMNS TO REMAIN
- RAIN WATER FLOW



KEY PLAN

100% SUBMITTAL



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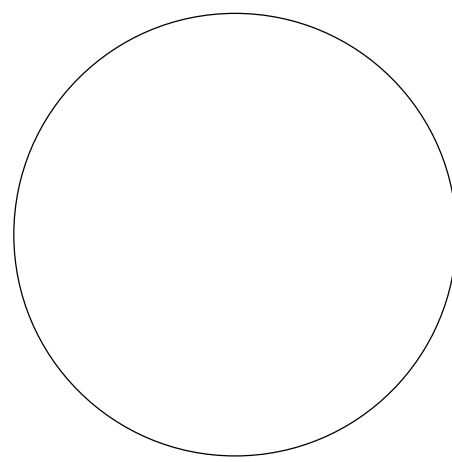
CLIENT:

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2525 SW 62ND STREET
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NO:	DATE:
	REMARKS:

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

FLOOR PLAN
DEMOLITION

(BLDG.3)

PROJECT NO.:

ISSUE DATE:

SPL 1021.001

DRAWN BY:

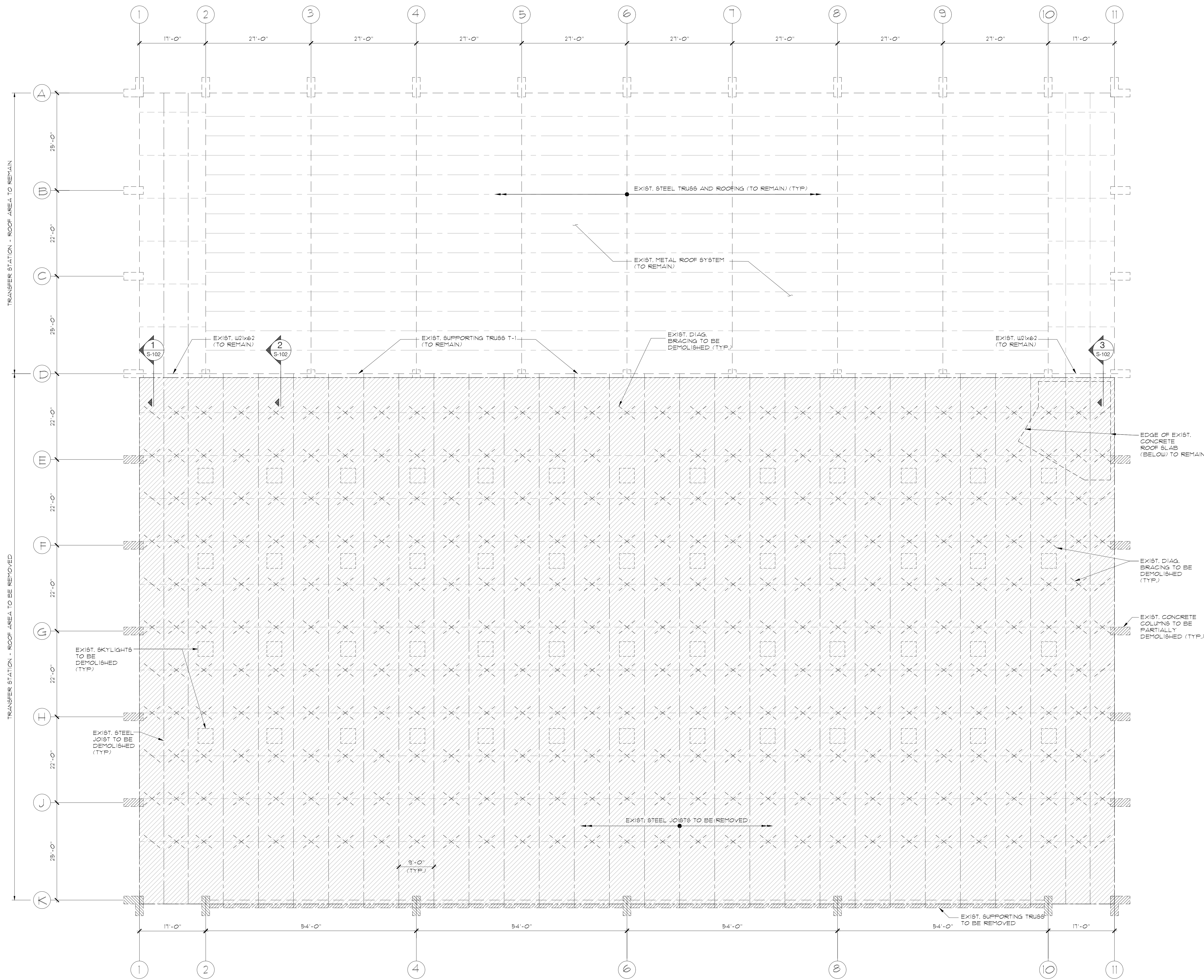
CHECKED BY:

M.M.P.

P.M.B.

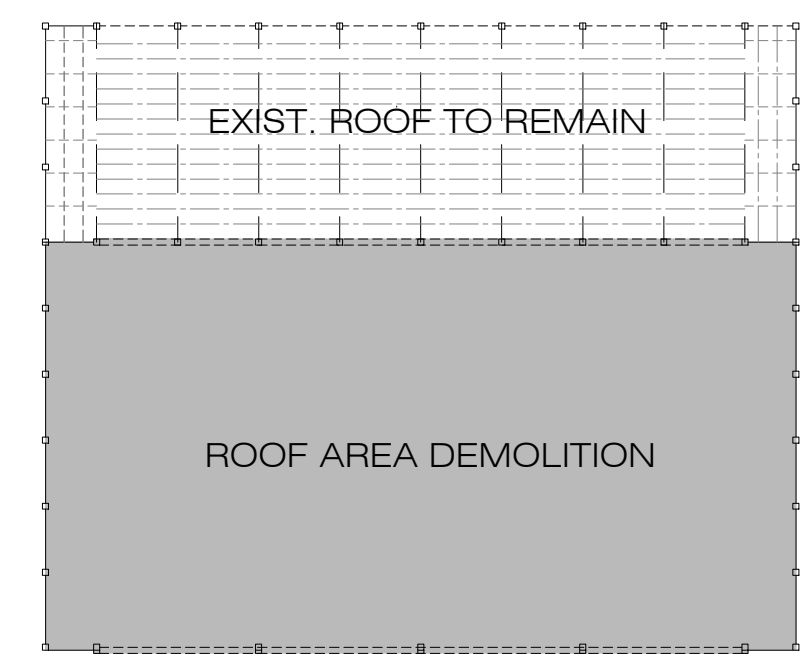
SHEET NUMBER:

S-201D



ROOF FRAMING PLAN DEMOLITION
SC: 3/32" = 1'-0"

- LEGEND**
- EXIST. ROOFING SYSTEM (METAL SIDING, METAL DECKING, SKYLIGHTS, STEEL JOIST, STEEL BEAMS, GIRDERS, ETC.) TO BE DEMOLISHED, U.O.N. EXIST. CONC. WALLS AND COLUMNS TO BE PARTIALLY DEMOLISHED, 6" ABOVE TIPPING FLOOR LEVEL.
 - EXIST. ROOF SYSTEM TO REMAIN.



KEY PLAN

100% SUBMITTAL

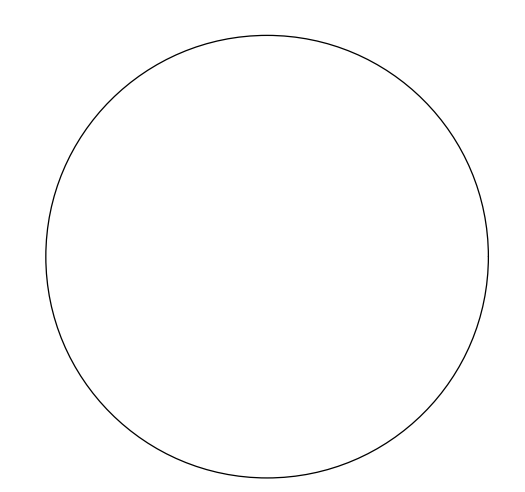


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MIAMI, FLORIDA 33186
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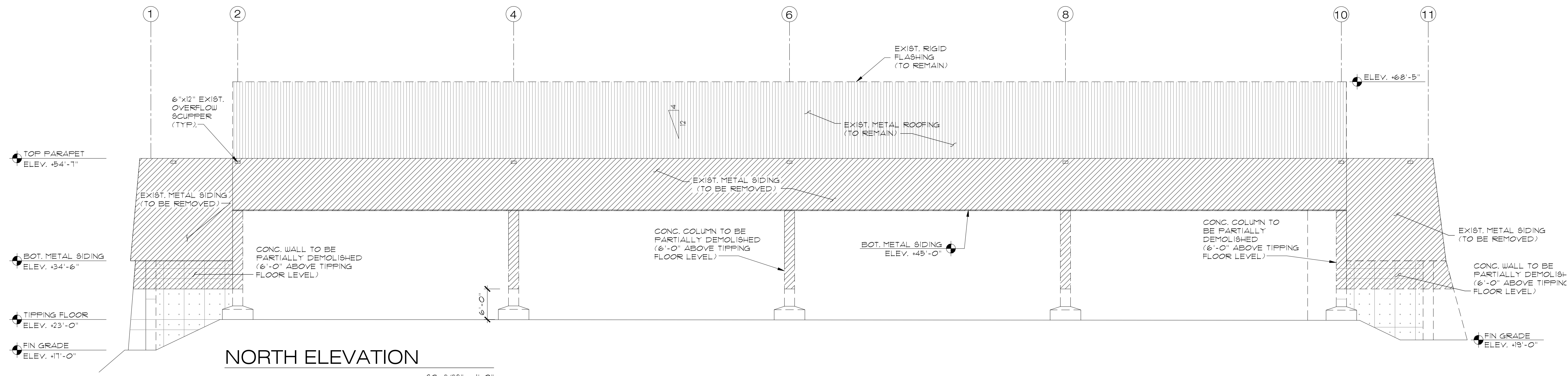
9/09/2024	MODIFICATION DUE TO OWNER REQUEST
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NO:	DATE: REMARKS:
REVISIONS:	

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
**ROOF FRAMING PLAN
DEMOLITION**
(BLDG.3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

S-202D

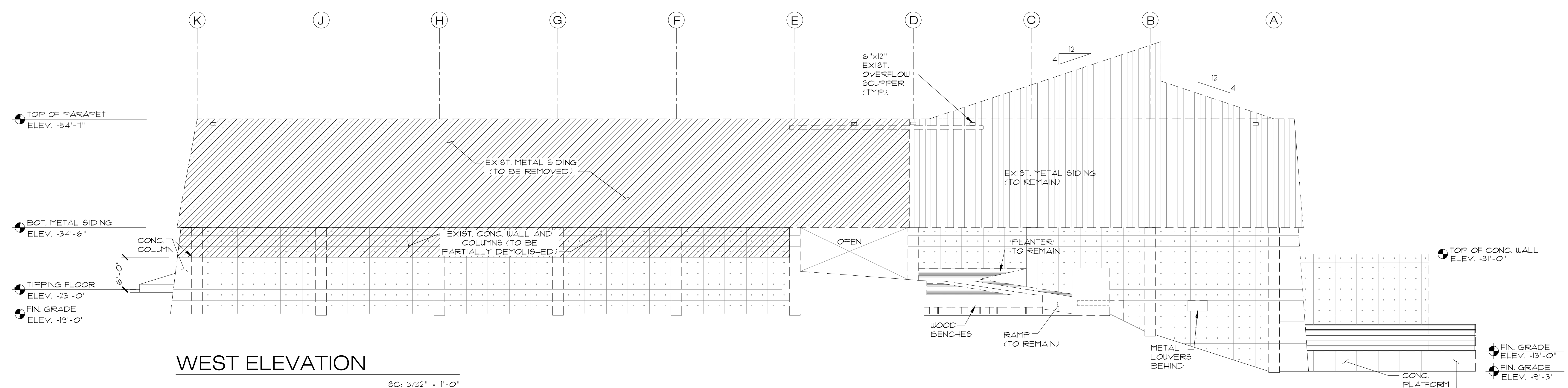


NORTH ELEVATION

SC: 3/32" = 1'-0"

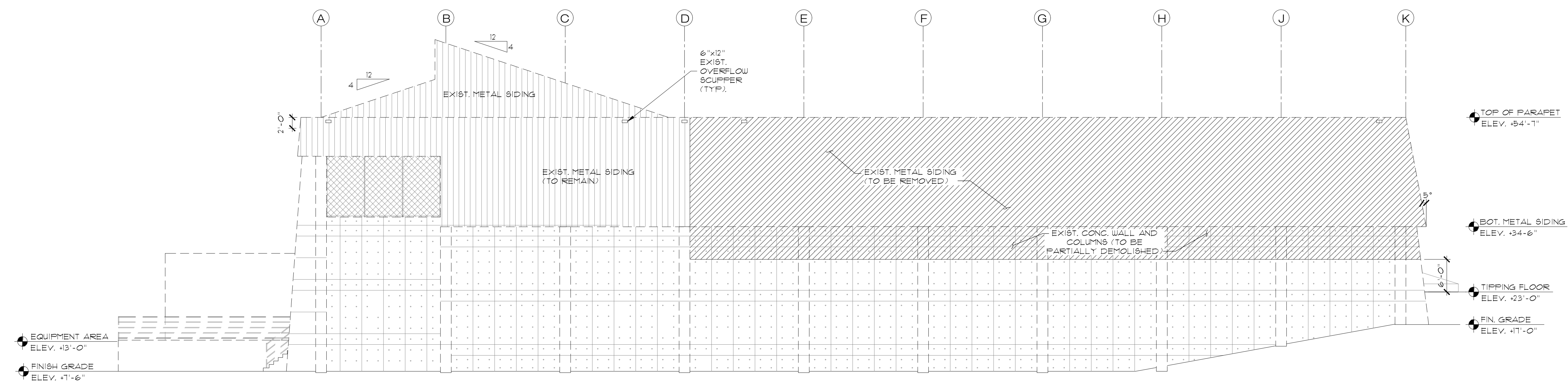
LEGEND

	EXIST. METAL SIDING, METAL ROOFING SYSTEM AND STRUCTURAL ROOF TO BE REMOVED AND EXIST. CONCRETE WALL AND COLUMNS TO BE PARTIALLY DEMOLISHED (6'-0" ABOVE TIPPING FLOOR LEVEL)
	EXIST. METAL ROOF AND METAL SIDING TO REMAIN
	EXIST. CONCRETE WALL AND COLUMNS TO REMAIN



WEST ELEVATION

SC: 3/32" = 1'-0"



EAST ELEVATION

SC: 3/32" = 1'-0"

NOTE
NO DEMOLITION WILL TAKE PLACE FOR THE SOUTH ELEVATION.

100% SUBMITTAL



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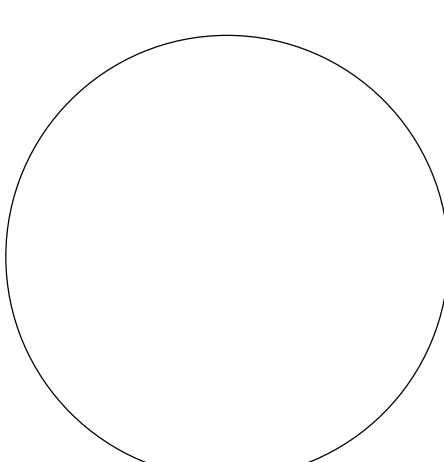


CLIENT:
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2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

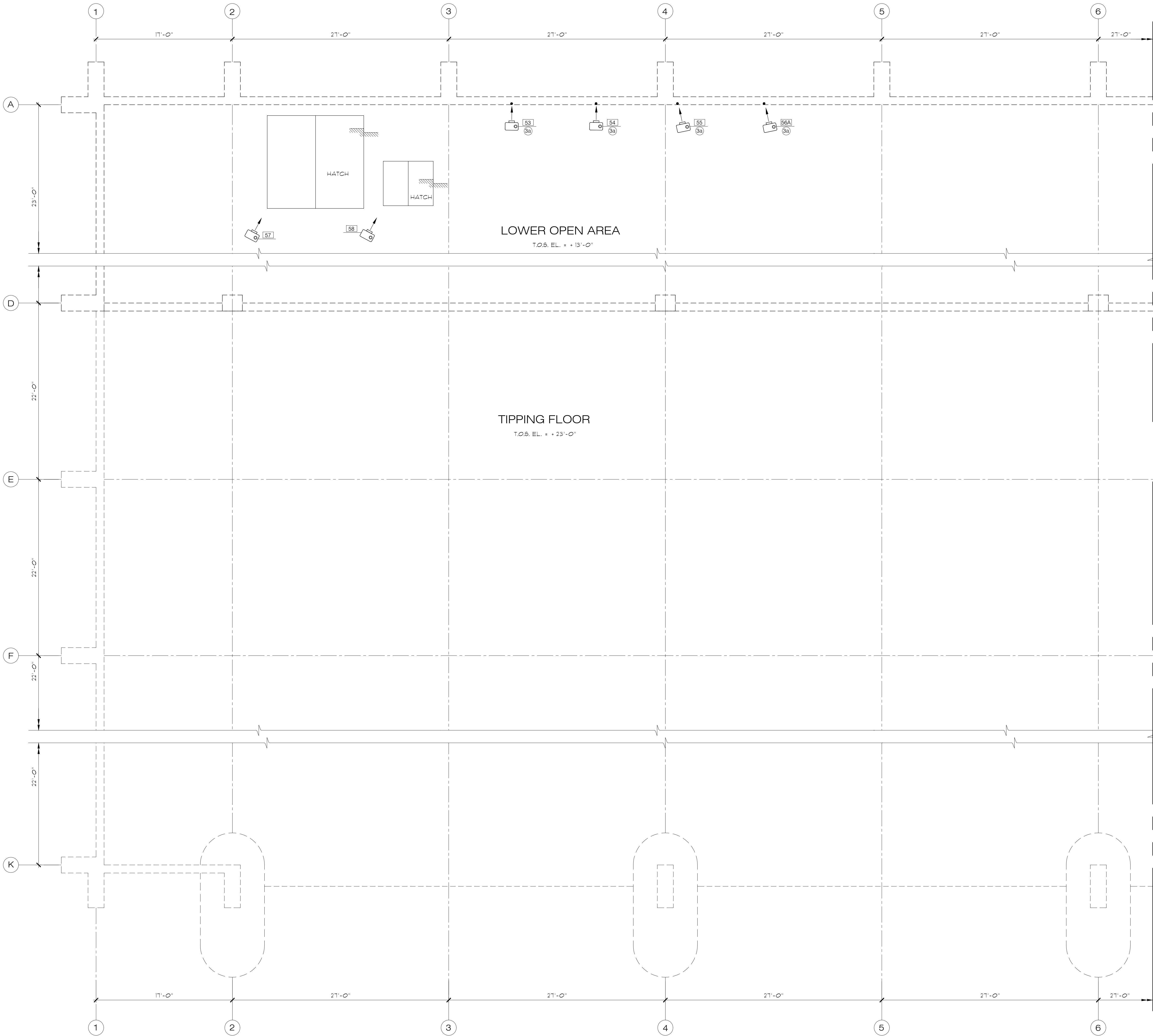
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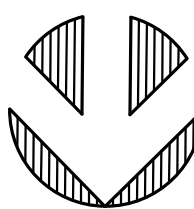
ELEVATIONS
DEMOLITION PLAN

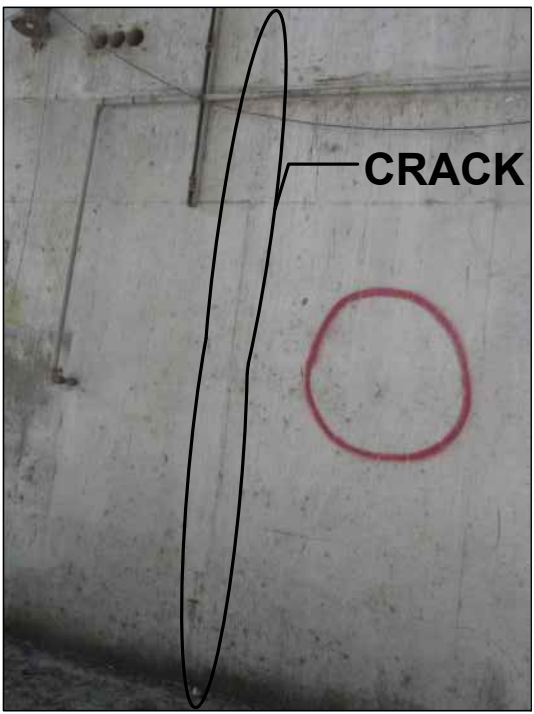
(BLDG.3)

PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

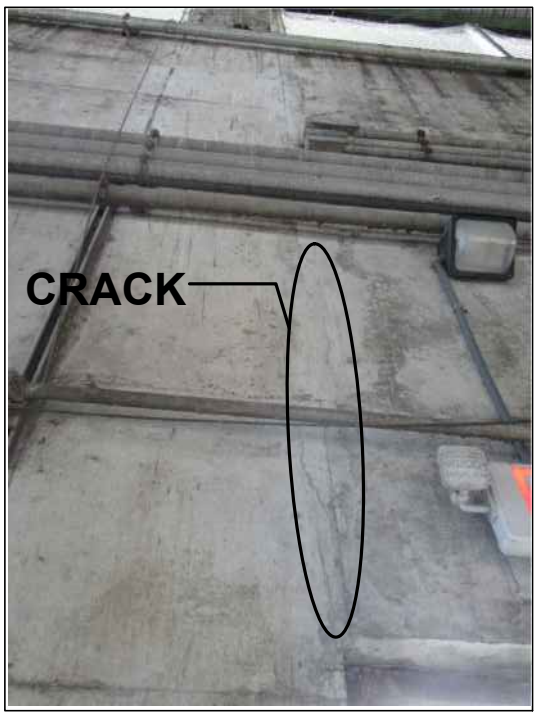
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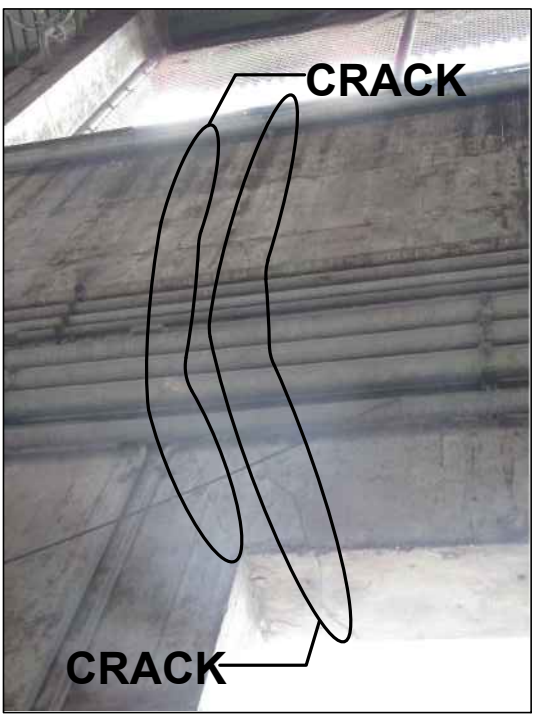
 **TIPPING FLOOR PLAN (AREA 1)**
(BLDG. 3)
SC: 3/16" = 1'-0"



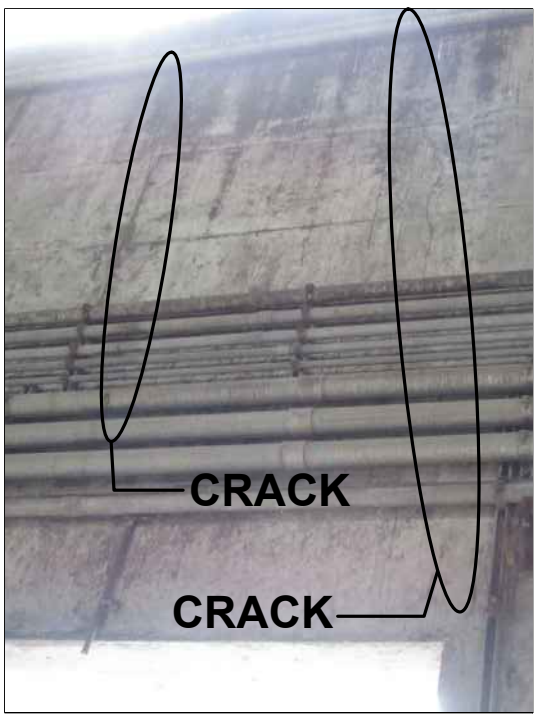
53 | IMAGE
NTS



54 | IMAGE
NTS



55 | IMAGE
NTS



56A | IMAGE
NTS



57 | IMAGE
NTS



58 | IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

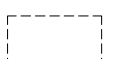
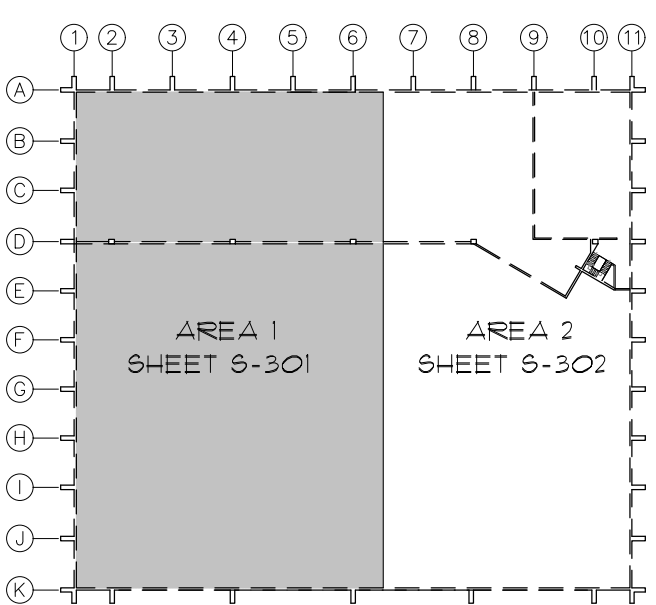
 EXIST. CONCRETE WALL AND COLUMNS TO REMAIN.

 PHOTO DIRECTION

 IMAGE ID.

 REPAIR TYPE

- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3a EPOXY INJECTION-CRACKS REPAIR
- 3b PENETRANT SEALER-CRACKS REPAIR
- 4a NO EXPOSED REBARS-SPALLS REPAIR
- 4b EXPOSED REBARS-SPALLS REPAIR
- 5 REPAIR FOR STEEL RAILING
- 6 REPAIR FOR CONCRETE SLAB
- 7 MOISTURE REMOVAL
- 8 JOINT REPAIR



KEY PLAN
SC: NTS

100% SUBMITTAL



OJITO & ASSOCIATES

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MIAMI, FLORIDA 33186
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BOTAS Engineering, Inc.

8550 SW 25th Lane, Suite #202 • Coral Gables, FL 33134
Tel: 305-465-8911 • Fax: 305-465-8912



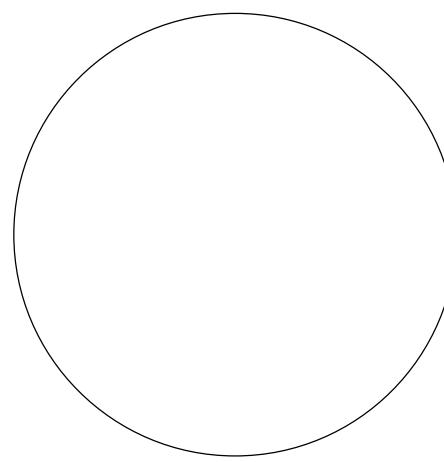
CLIENT:

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DEPARTMENT OF
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REMARKS:	REVISIONS:

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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

**FLOOR PLAN
(AREA 1 of 2)**

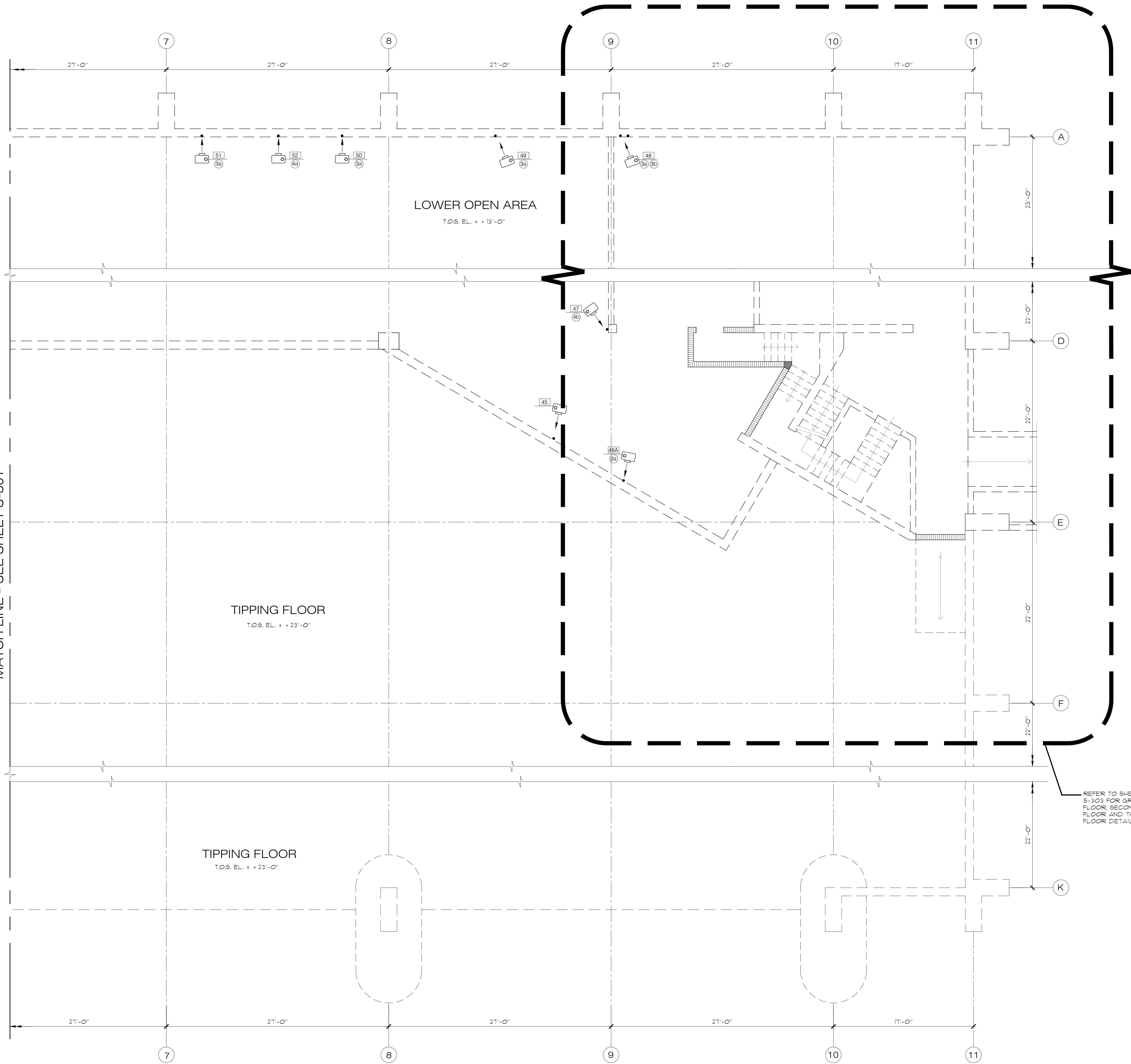
(BLDG. 3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-301

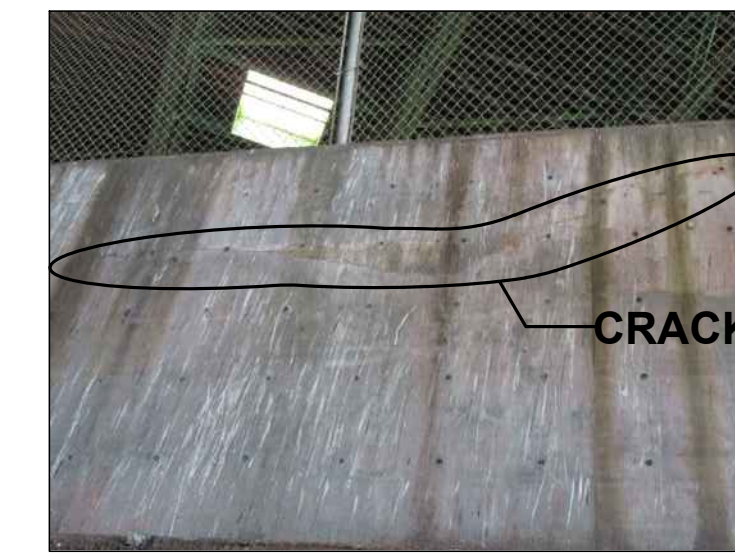
MATCH LINE - SEE SHEET S-301



TIPPING FLOOR PLAN (AREA 2)
(BLDG. 3)
SC: 3/16" = 1'-0"



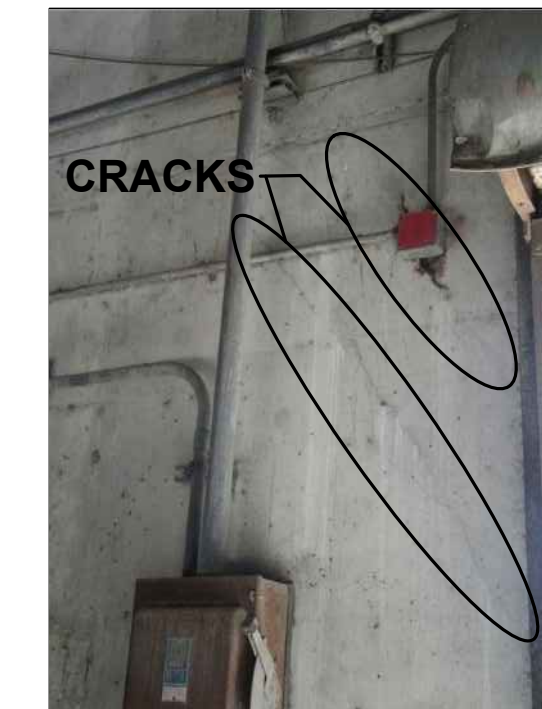
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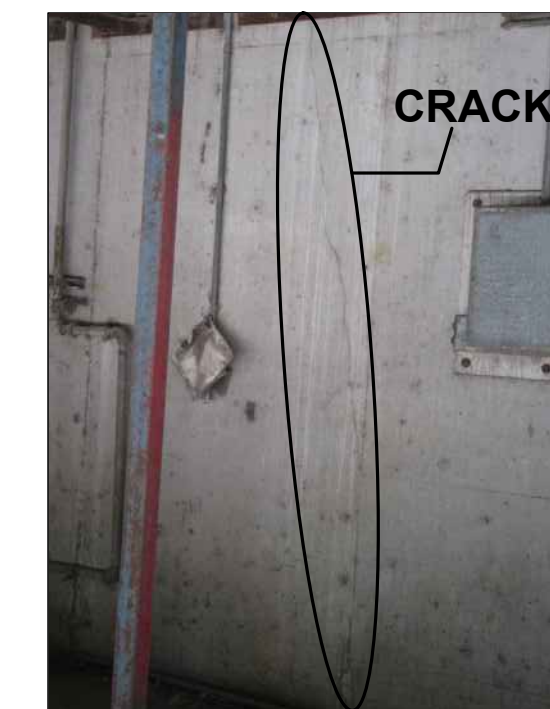
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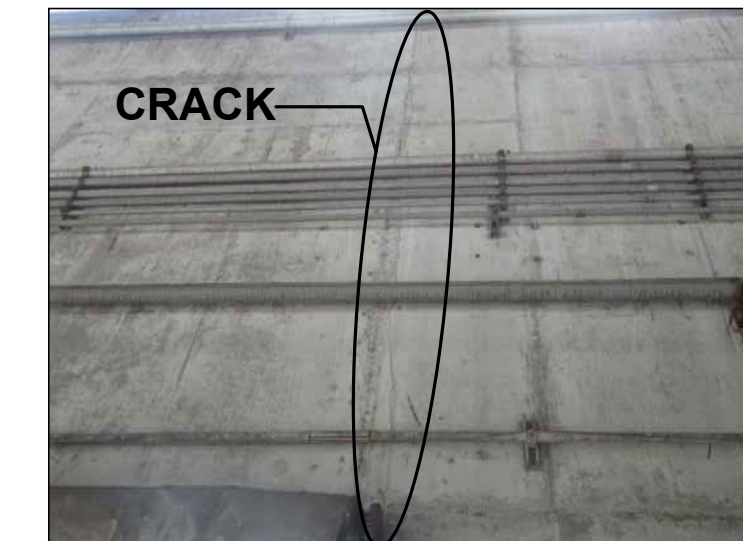
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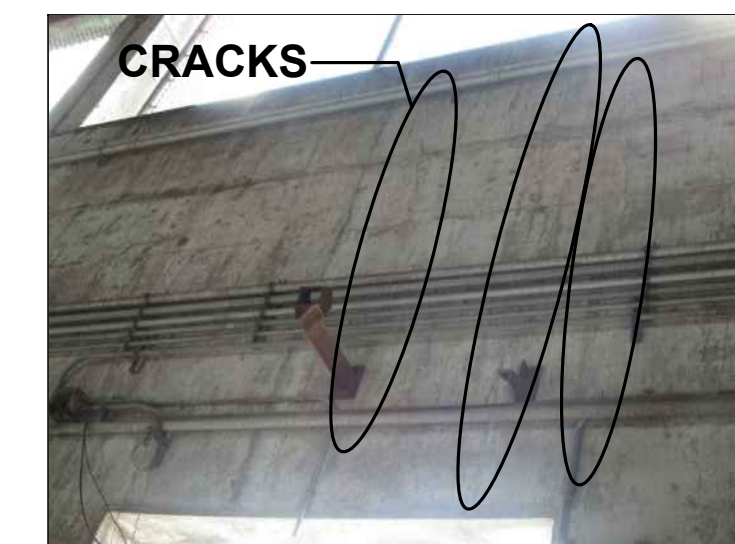
48 IMAGE
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49 IMAGE
NTS



50 IMAGE
NTS



51 IMAGE
NTS



52 IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

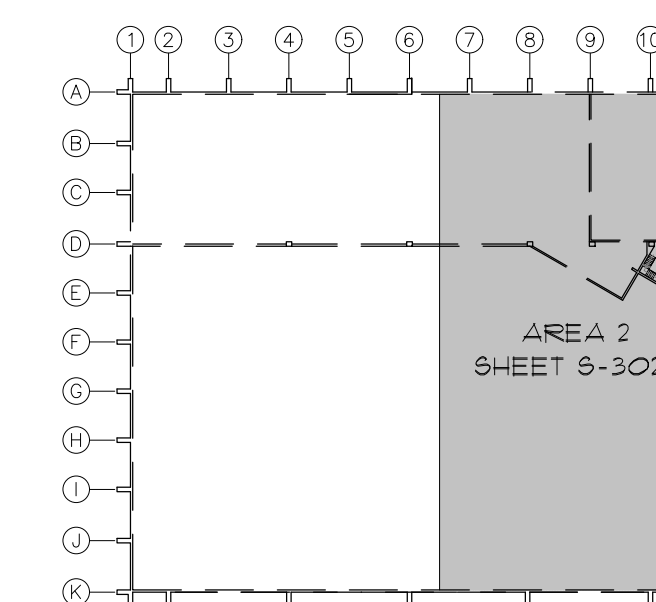
EXIST. CONCRETE WALL AND COLUMNS TO REMAIN.

PHOTO DIRECTION

X = IMAGE I.D.

Y = REPAIR TYPE

- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3a EPOXY INJECTION-CRACKS REPAIR
- 3b PENETRANT SEALER-CRACKS REPAIR
- 4a NO EXPOSED REBARS-SPALLS REPAIR
- 4b EXPOSED REBARS-SPALLS REPAIR
- 5 REPAIR FOR STEEL RAILING
- 6 REPAIR FOR CONCRETE SLAB
- 7 MOISTURE REMOVAL
- 8 JOINT REPAIR



KEY PLAN
SC: NTS

100% SUBMITTAL



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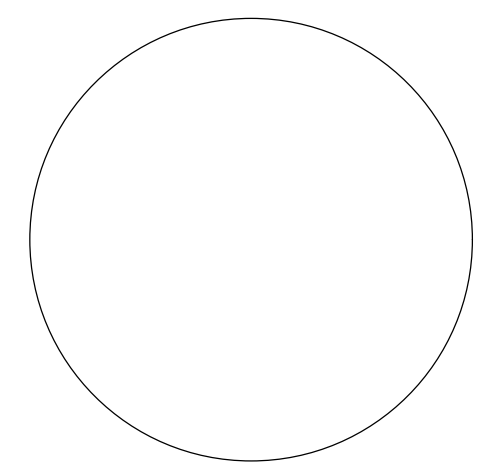
CLIENT:

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PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

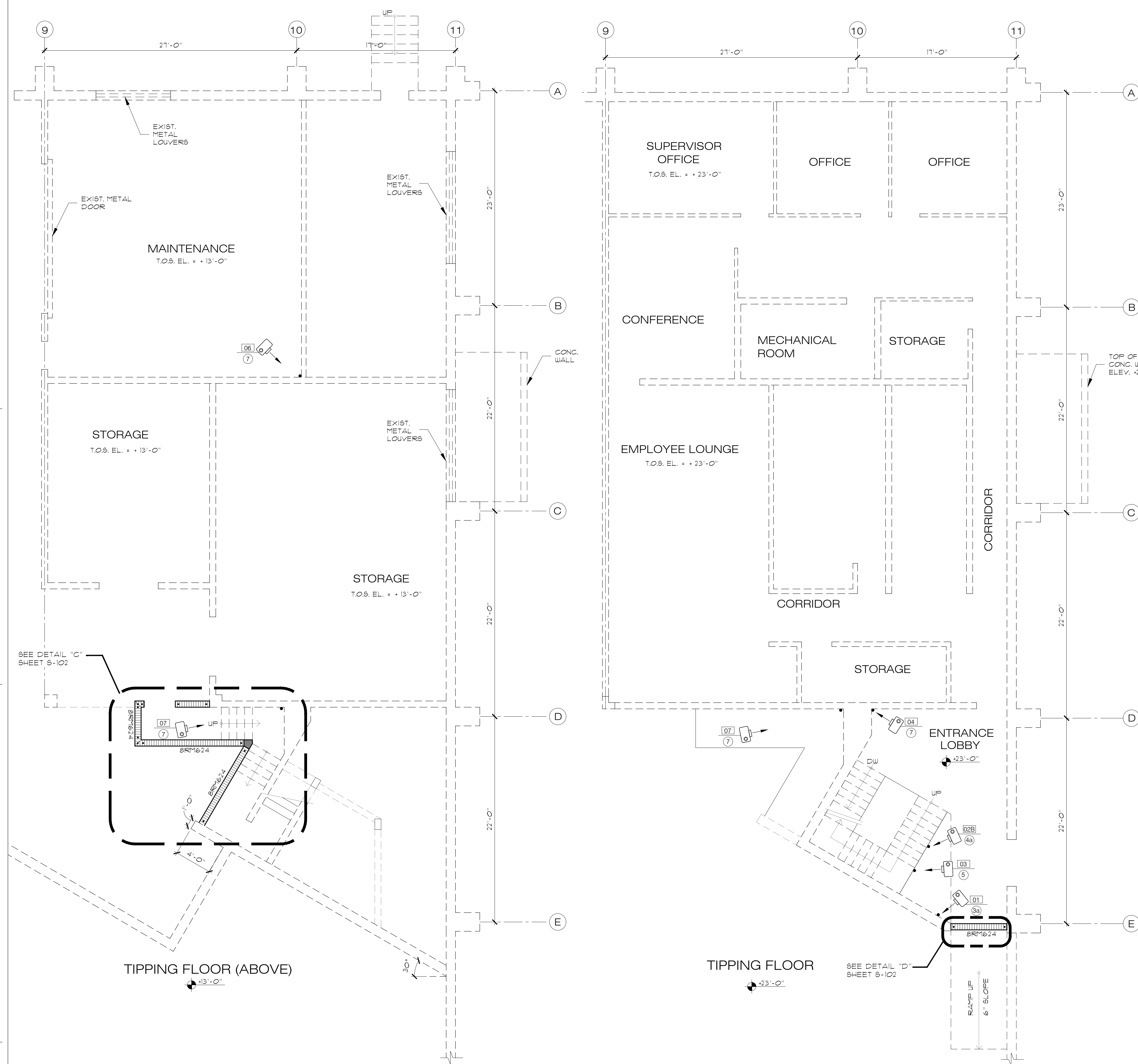
FLOOR PLAN
(AREA 2 of 2)

(BLDG. 3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

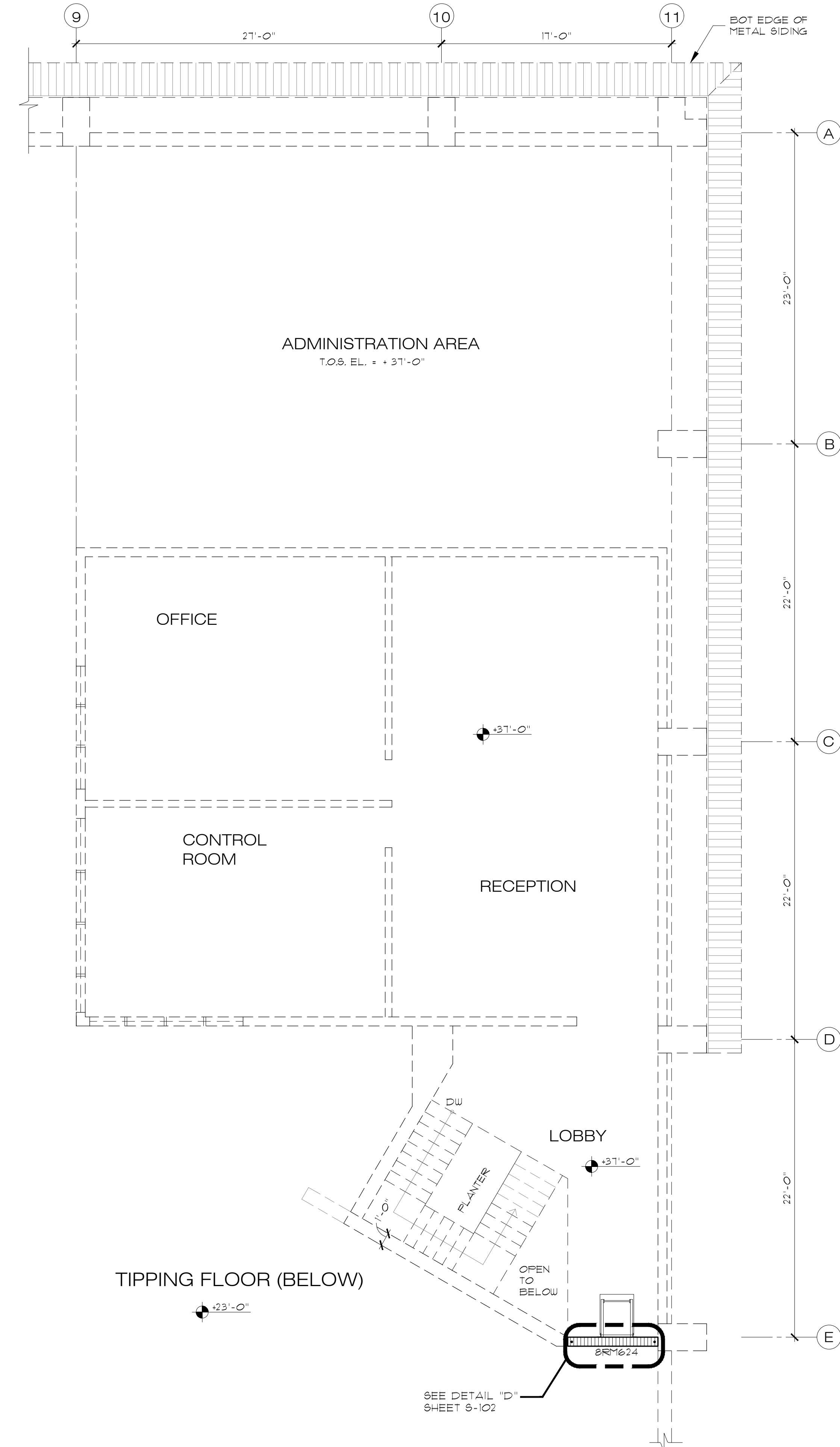
SHEET NUMBER:

S-302



MAINTENANCE AREA GROUND FLOOR
(ELEV. +13'-0")
SC: 3/16" = 1'-0"

EMPLOYEE AREA SECOND FLOOR
(ELEV. +23'-0")
SC: 3/16" = 1'-0"



ADMIN. AND LOBBY AREA THIRD FLOOR
(ELEV. +37'-0")
SC: 3/16" = 1'-0"



06 IMAGE
NTS



07 IMAGE
NTS



01 IMAGE
NTS



02B IMAGE
NTS



03 IMAGE
NTS



04 IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

- EXIST. CONCRETE WALL AND COLUMNS TO REMAIN.
- PHOTO DIRECTION
X = IMAGE I.D.
Y = REPAIR TYPE
- 1 ROOF REPAIR
 - 2 CORRODED METAL REPAIR
 - 3A EPOXY INJECTION-CRACKS REPAIR
 - 3B PENETRANT SEALER-CRACKS REPAIR
 - 4A NO EXPOSED REBARS-SPALLS REPAIR
 - 4B EXPOSED REBARS-SPALLS REPAIR
 - 5 REPAIR FOR STEEL RAILING
 - 6 REPAIR FOR CONCRETE SLAB
 - 7 MOISTURE REMOVAL
 - 8 JOINT REPAIR

100% SUBMITTAL



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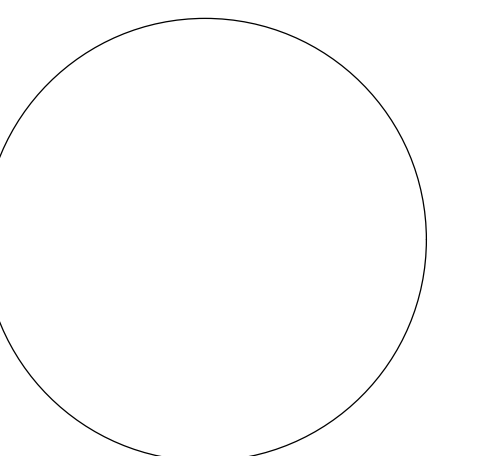
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

CONFIDENTIAL :

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9/09/2024	MODIFICATION DUE TO OWNER REQUEST
11/30/2023	BLDG DEPT. REVIEW COMMENTS
6/30/2023	ADDED SHEET PER 40-YEAR RECERTIFICATION REPORT
2/07/2023	REVIEW COMMENTS
NO:	DATE:
REMARKS:	

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

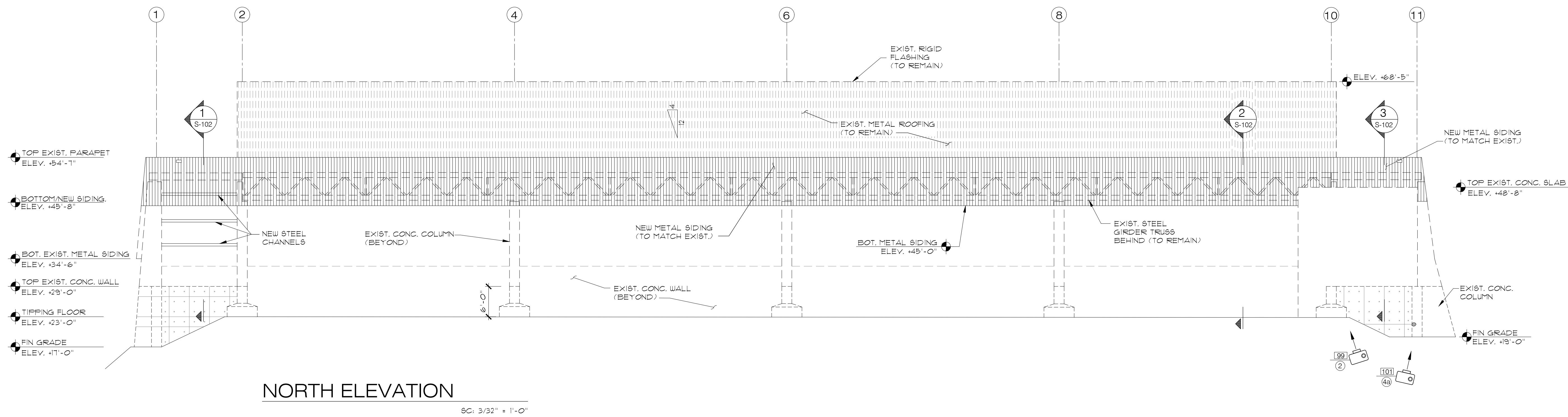
ADMINISTRATION AREA

(BLDG.3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-303

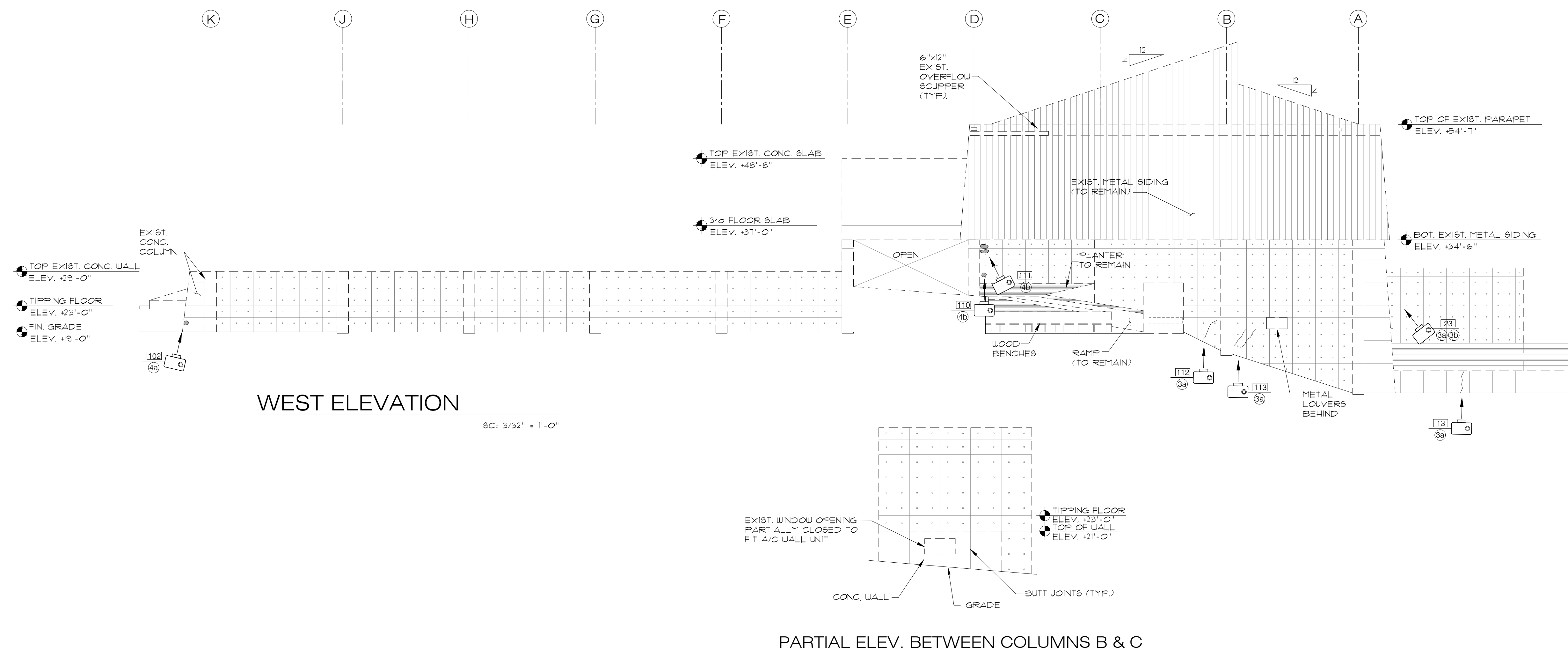


99 IMAGE
NTS



101 IMAGE
NTS

EXISTING CONDITION PHOTOS



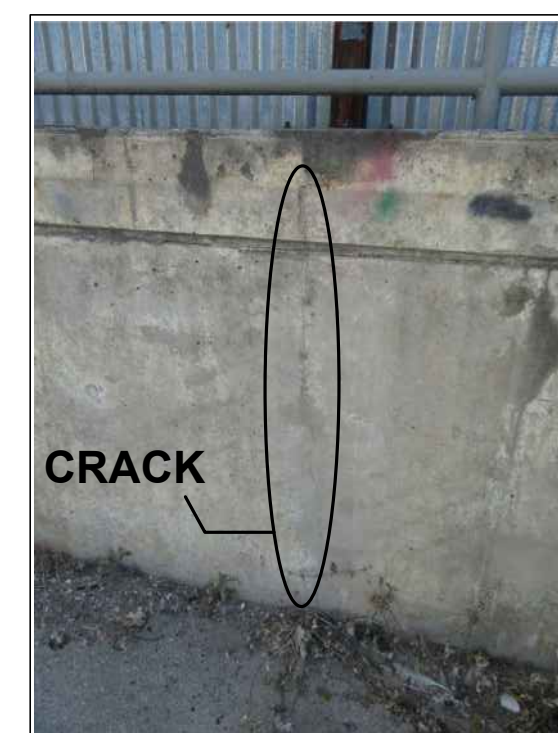
WEST ELEVATION

8" = 3/32" = 1'-0"

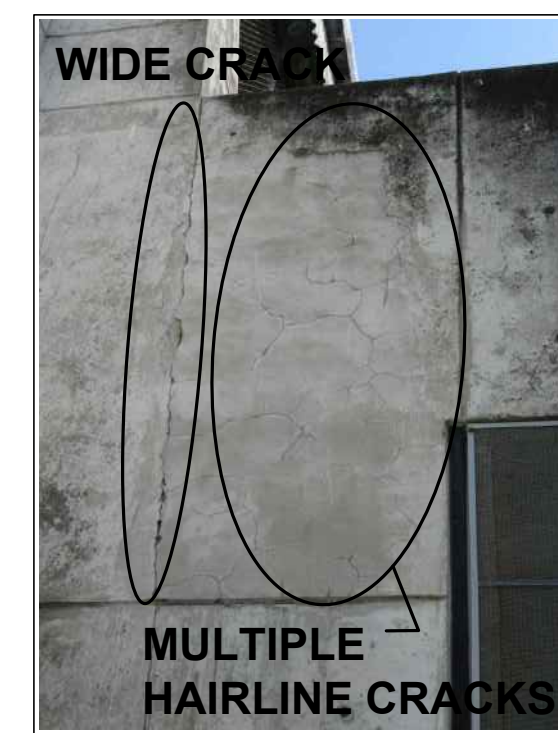
PARTIAL ELEV. BETWEEN COLUMNS B & C



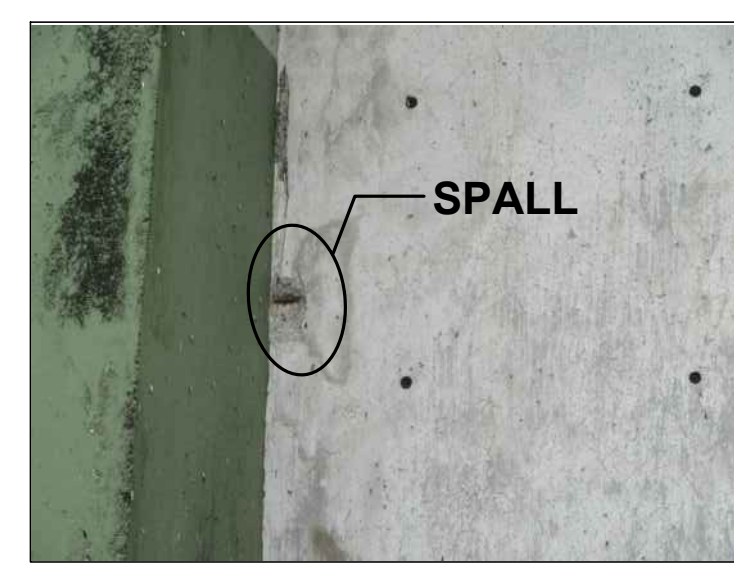
102 IMAGE
NTS



113 IMAGE
NTS



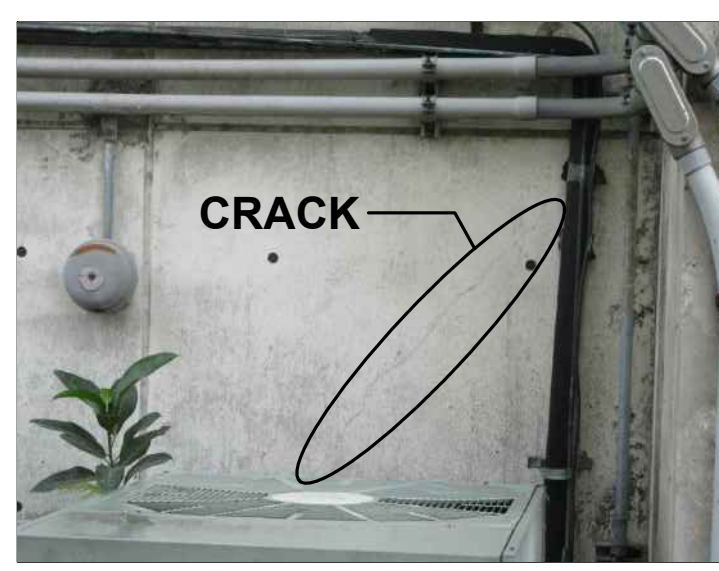
23 IMAGE
NTS



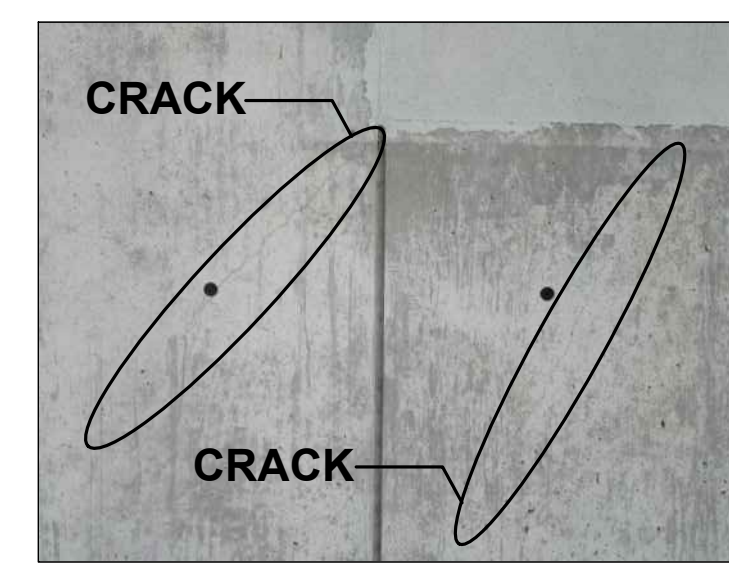
110 IMAGE



111 IMAGE
NTS



112 IMAGE
NTS



113 IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

- PHOTO DIRECTION
IMAGE I.D.
REPAIR TYPE

- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3a EPOXY INJECTION-CRACKS REPAIR
- 3b PENETRANT SEALER-CRACKS REPAIR
- 4a NO EXPOSED REBAR-SFALLS REPAIR
- 4b EXPOSED REBAR-SFALLS REPAIR
- 5 REPAIR FOR STEEL RAILING
- 6 REPAIR FOR CONCRETE SLAB
- 7 MOISTURE REMOVAL
- 8 JOINT REPAIR

100% SUBMITTAL



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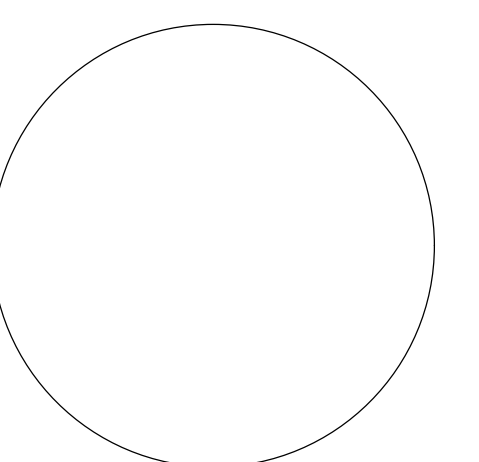
CLIENT:

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PROJECT NO. EDP-SW-18577-24

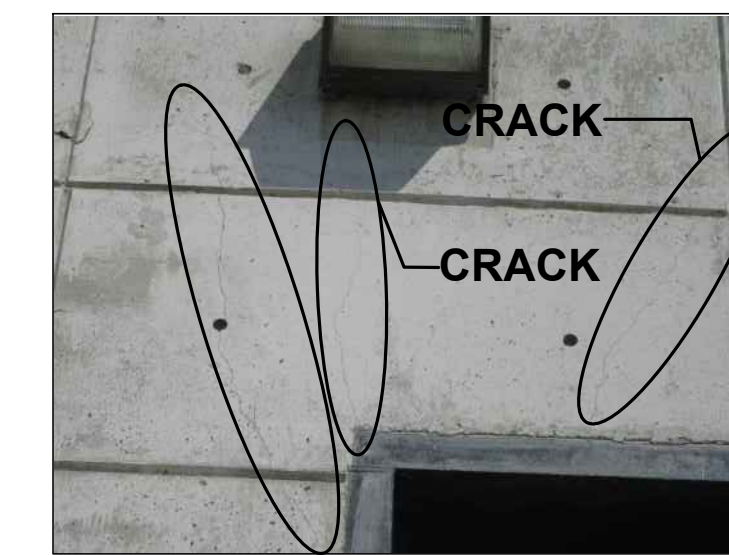
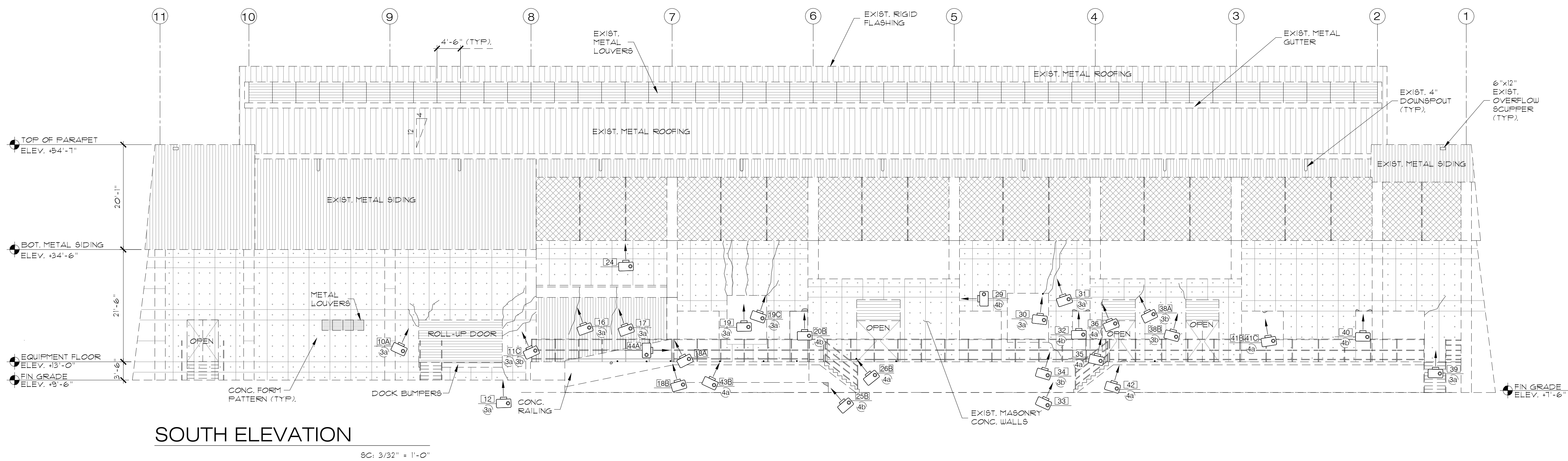
DRAWING TITLE:

ELEVATIONS
(1 of 3)

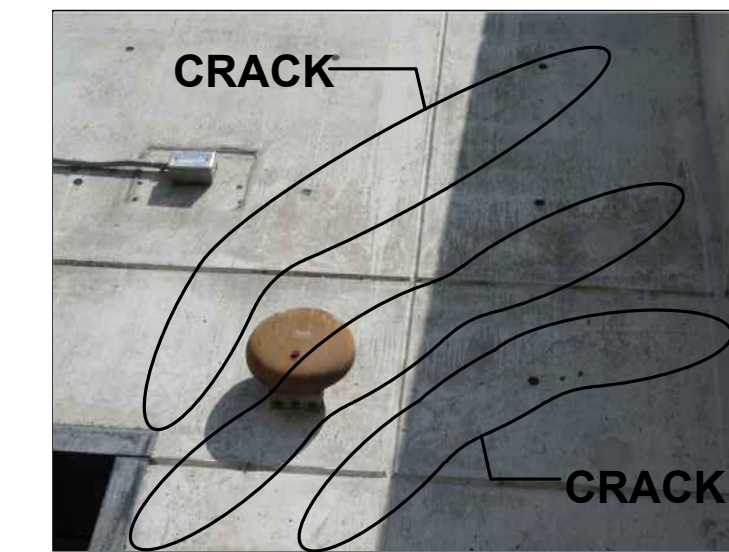
(BLDG.3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

S -304



10A IMAGE
NTS



11C IMAGE
NTS

SOUTH ELEVATION

SC: 3/32" = 1'-0"



12 IMAGE
NTS



16 IMAGE
NTS



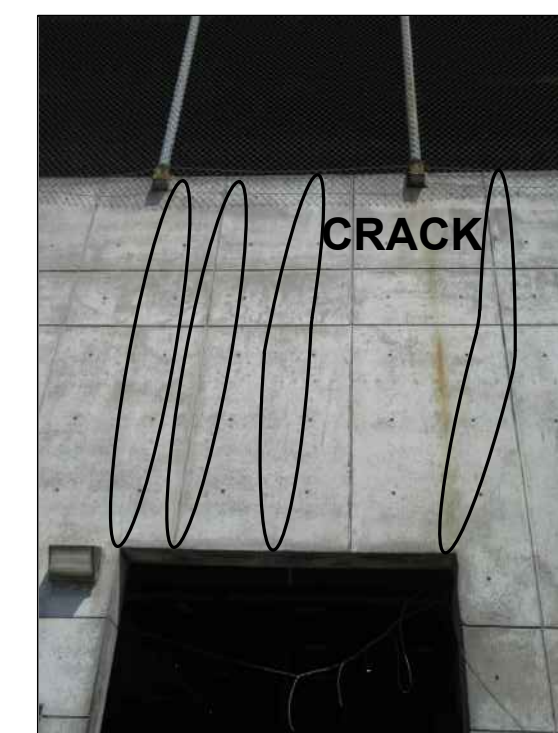
17 IMAGE
NTS



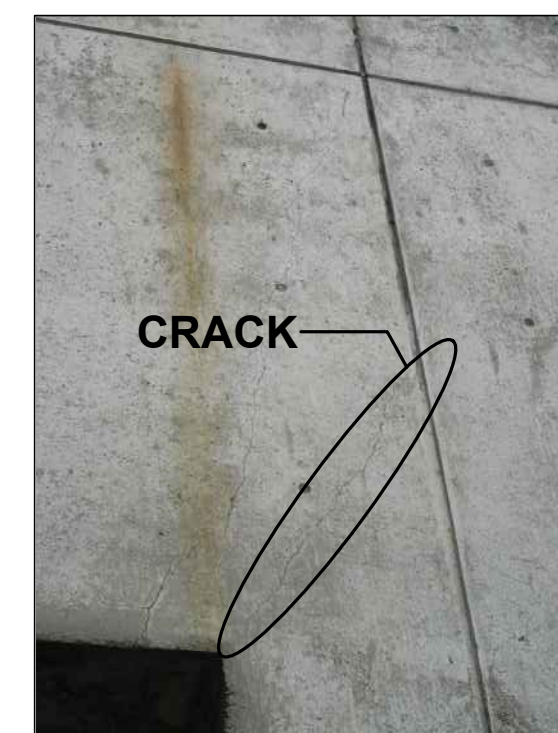
18A IMAGE
NTS



18B IMAGE
NTS



19 IMAGE
NTS



19C IMAGE
NTS



20B IMAGE
NTS



24 IMAGE
NTS



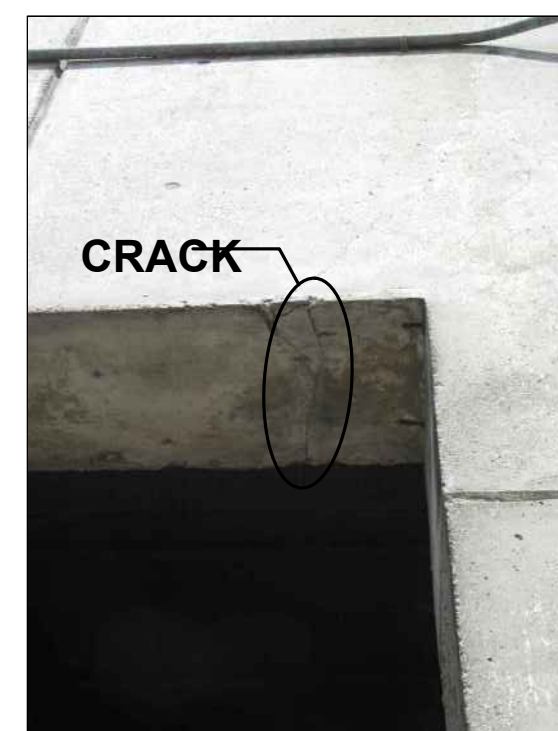
25B IMAGE
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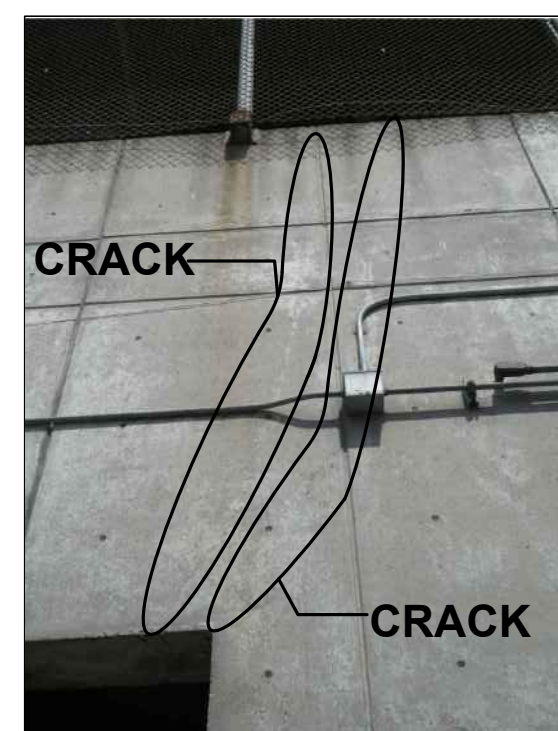
26B IMAGE
NTS



29 IMAGE
NTS



30 IMAGE
NTS



31 IMAGE
NTS



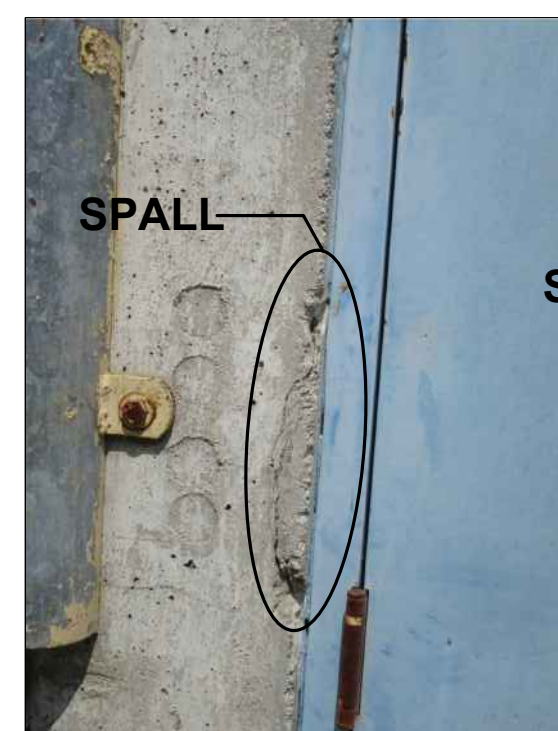
32 IMAGE
NTS



33 IMAGE
NTS



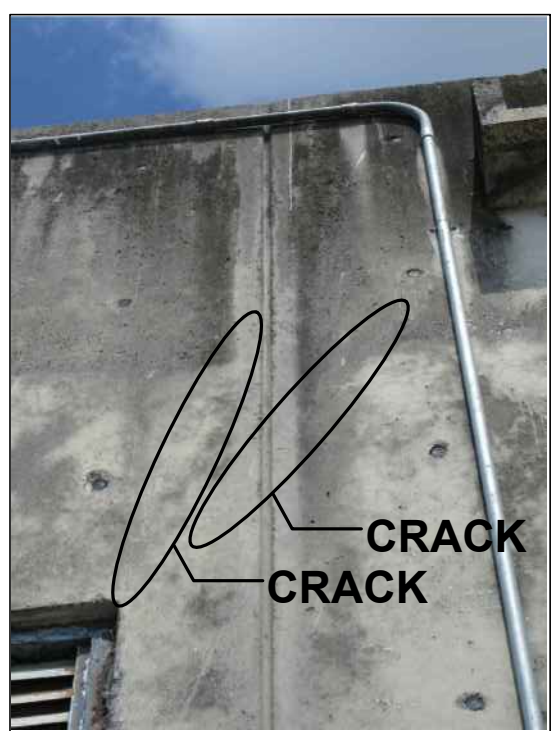
34 IMAGE
NTS



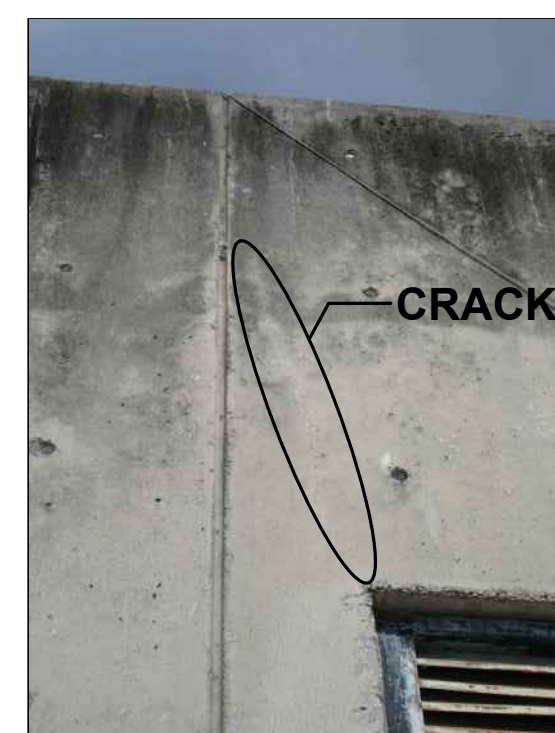
35 IMAGE
NTS



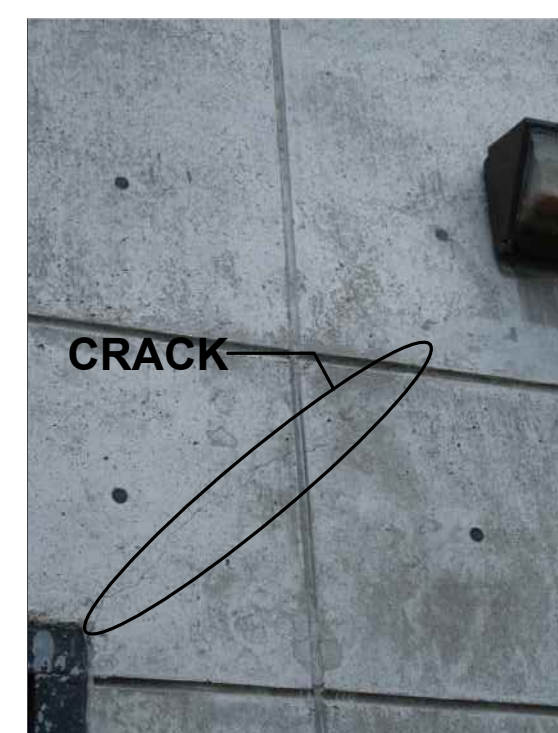
36 IMAGE
NTS



38A IMAGE
NTS



38B IMAGE
NTS



39 IMAGE
NTS



40 IMAGE
NTS



41B IMAGE
NTS



41C IMAGE
NTS



42 IMAGE
NTS



43B IMAGE
NTS



44A IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

PHOTO DIRECTION
[X] = IMAGE I.D.
[Y] = REPAIR TYPE

- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3a EPOXY INJECTION-CRACKS REPAIR
- 3b PENETRANT SEALER-CRACKS REPAIR
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- 8 JOINT REPAIR

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BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

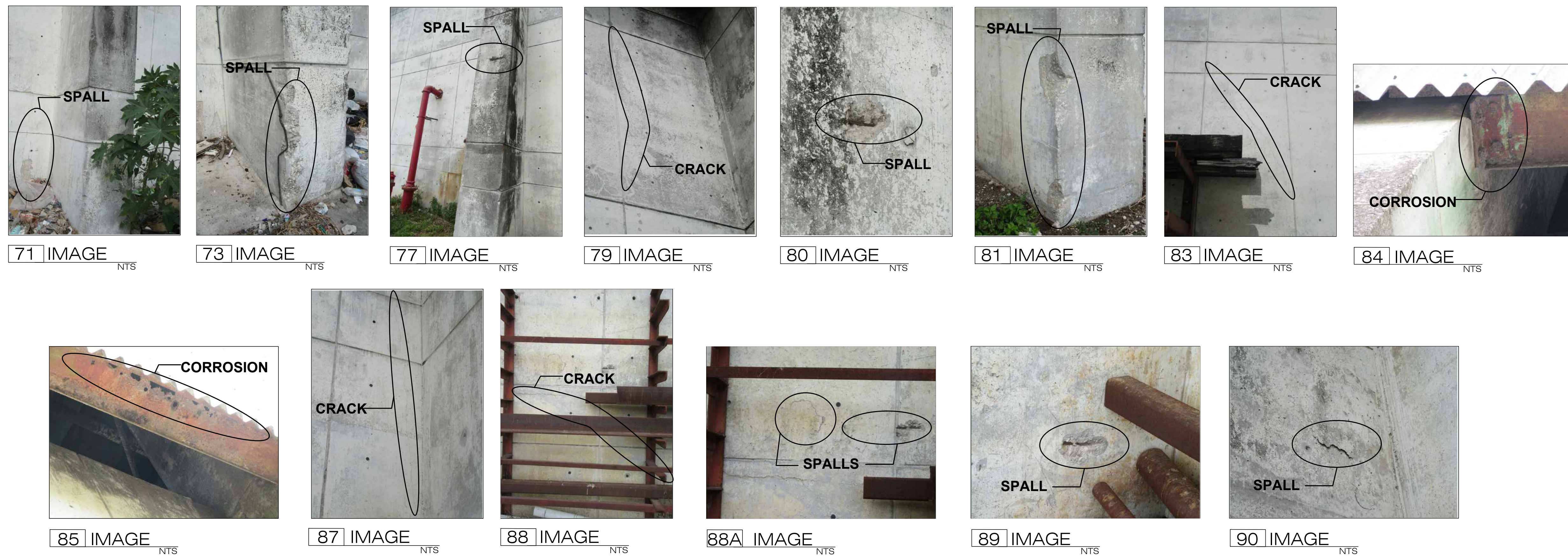
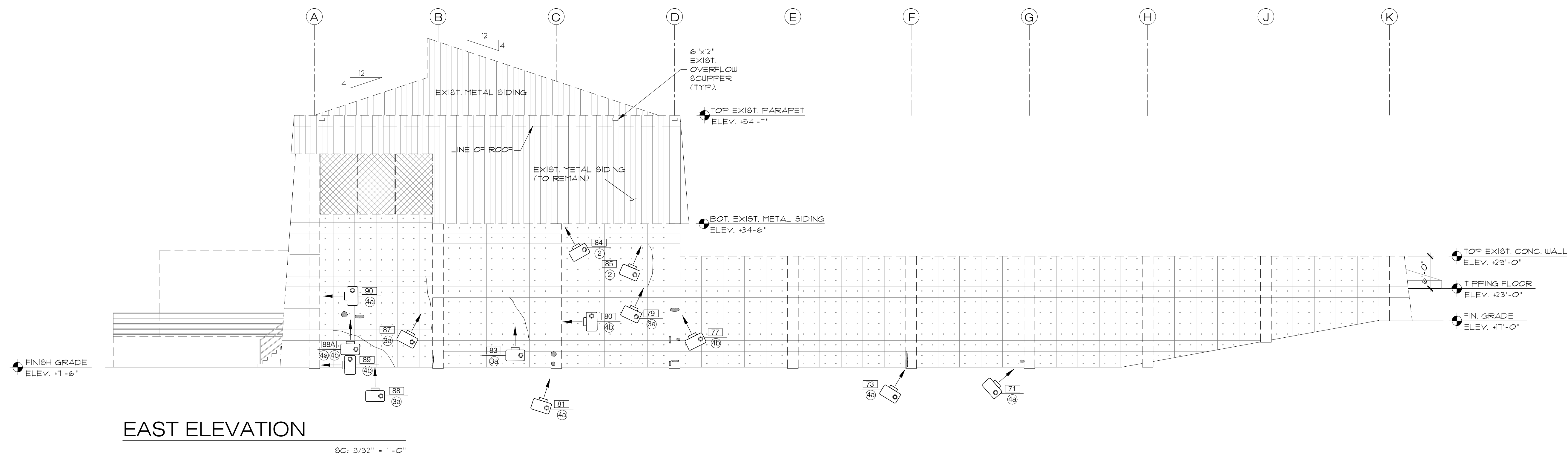
DRAWING TITLE:

ELEVATIONS
(2 of 3)

(BLDG.3)

PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

S -305



EXISTING CONDITION PHOTOS

LEGEND

- PHOTO DIRECTION
[X] = IMAGE ID.
[Y] = REPAIR TYPE
- 1 ROOF REPAIR
 - 2 CORRODED METAL REPAIR
 - 3a EPOXY INJECTION-CRACKS REPAIR
 - 3b PENETRANT SEALER-CRACKS REPAIR
 - 4a NO EXPOSED REBARS-SPALLS REPAIR
 - 4b EXPOSED REBARS-SPALLS REPAIR
 - 5 REPAIR FOR STEEL RAILING
 - 6 REPAIR FOR CONCRETE SLAB
 - 7 MOISTURE REMOVAL
 - 8 JOINT REPAIR

100% SUBMITTAL



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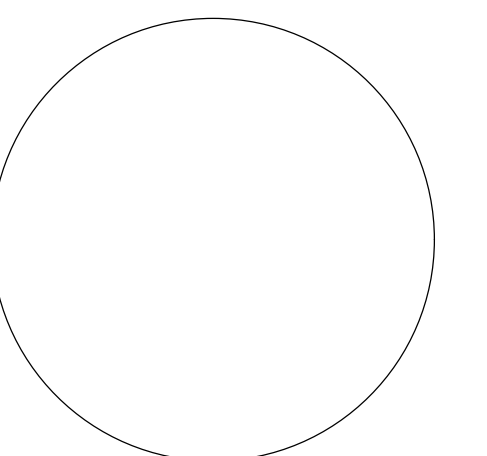
CLIENT:

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DEPARTMENT OF
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REVISIONS:	

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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

ELEVATIONS
(3 of 3)

(BLDG.3)

PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S -306

BUILDING 3 - DEFICIENCIES AND REPAIR										
PLAN LOCATION	SHEET NUMBER	LOCATION DESCRIPTION	IMAGE ID	QUANTITY	DEFICIENCY DESCRIPTION	REPAIR TYPE	REPAIR DETAIL	LENGTH (FT) (PER DEFICIENCY)	WIDTH (FT)	DEPTH (IN)
LOWER OPEN AREA										
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	53	1	CRACK	3a	SEE SHEET S-100	20'-0"	-	-
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	54	1	CRACK	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	55	2	CRACKS	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	56A	2	CRACK	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	57	1	DEBRIS INSIDE	TO BE CLEANED	-	-	-	-
LOWER OPEN AREA	S-301	CONVEYOR PIT/SOUTH WALL	58	1	DEBRIS INSIDE	TO BE CLEANED	-	-	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/DIAG. WALL	45	-	CORRODED/ABANDONED STEEL BRACKETS	NONE	-	-	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/DIAG. WALL	46A	1	CRACK	3a	SEE SHEET S-100	50'-0"	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/DIAG. WALL	47	1	SPALL (CRACKED CORNER TO BE REMOVED, CLEANED AND REPLACEMENT)	4b	SEE SHEET S-100	3'-0"	2'-0"	10"
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	48	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	48	1	CRACK	3b	SEE SHEET S-100	5'-0"	2'-0"	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	49	1	CRACK	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	50	1	CRACK	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	51	3	CRACKS	3a	SEE SHEET S-100	13'-0"	-	-
LOWER OPEN AREA	S-302	CONVEYOR PIT/SOUTH WALL	52	1	SPALL	4a	SEE SHEET S-100	1'-0"	1'-6"	3"
GROUND FLOOR										
GROUND FLOOR	S-303	MAINTENANCE AREA	06	1	MOISTURE	7	SEE SHEET S-100	5'-0"	2'-0"	-
GROUND FLOOR	S-303	STAIRS BELOW TIPPING FLOOR	07	1	MOISTURE	7	SEE SHEET S-100	15'-0"	4'-0"	-
SECOND FLOOR										
SECOND FLOOR	S-303	ENTRANCE LOBBY	01	1	CRACK	3a	SEE SHEET S-100	4'-0"	-	-
SECOND FLOOR	S-303	ENTRANCE LOBBY	02B	1	SPALL	4a	SEE SHEET S-100	0'-6"	0'-6"	2"
SECOND FLOOR	S-303	ENTRANCE LOBBY	03	1	RAILING POST SPALL	5	SEE SHEET S-101	2'-0"	0'-6"	8"
SECOND FLOOR	S-303	STAIRS	04	1	MOISTURE	7	SEE SHEET S-100	4'-0"	2'-0"	-
NORTH ELEV.										
NORTH ELEVATION	S-304	COLUMN BASE AND STEEL PLATE	99	1	CORROSION	2	SEE SHEET S-100	-	-	-
NORTH ELEVATION	S-304	CONC. COLUMN - NW	101	1	SPALL	4a	SEE SHEET S-100	1'-2"	0'-8"	1"
WEST ELEV.										
WEST ELEVATION	S-304	CONC. PLATFORM	13	1	CRACK	3a	SEE SHEET S-100	4'-0"	-	-
WEST ELEVATION	S-304	CONVEYOR PIT	23	1	CRACKS	3a	SEE SHEET S-100	8'-0"	-	-
WEST ELEVATION	S-304	CONVEYOR PIT	23	MULTIPLE	CRACKS	3b	SEE SHEET S-100	8'-0"	4'-0"	-
WEST ELEVATION	S-304	COLUMN	102	1	SPALL	4a	SEE SHEET S-100	0'-6"	0'-6"	2"
WEST ELEVATION	S-304	WALL	110	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-4"	0'-3"	2"
WEST ELEVATION	S-304	WALL	111	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	2'-0"	2'-0"	2"
WEST ELEVATION	S-304	WALL	112	1	CRACK	3a	SEE SHEET S-100	6'-0"	-	-
WEST ELEVATION	S-304	WALL	113	2	CRACKS	3a	SEE SHEET S-100	4'-0"	-	-
SOUTH ELEV.										
SOUTH ELEVATION	S-305	LOADING CORNER (TOP LEFT)	10A	3	CRACKS	3a	SEE SHEET S-100	3'-0"	-	-
SOUTH ELEVATION	S-305	LOADING CORNER (TOP RIGHT)	11C	2	CRACKS	3a	SEE SHEET S-100	4'-0"	-	-
SOUTH ELEVATION	S-305	LOADING CORNER (TOP RIGHT)	11C	1	CRACK	3b	SEE SHEET S-100	2'-0"	-	-
SOUTH ELEVATION	S-305	LOADING CORNER (BOTTOM RIGHT)	12	1	CRACK	3a	SEE SHEET S-100	4'-0"	-	-
SOUTH ELEVATION	S-305	STORAGE AREA	16	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	STORAGE AREA	17	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	STORAGE AREA	18A	-	METAL DOOR	ALREADY REPAIRED	-	-	-	-
SOUTH ELEVATION	S-305	STORAGE AREA	18B	1	MISSING ONE (1) ANCHOR BOLT	-	INSTALL 5/8" DIA. ANCHOR BOLT	-	-	-
SOUTH ELEVATION	S-305	CONVEYOR PIT	19	4	CRACKS	3a	SEE SHEET S-100	13'-0"	-	-
SOUTH ELEVATION	S-305	CONVEYOR PIT	19C	1	CRACK	3a	SEE SHEET S-100	6'-0"	-	-
SOUTH ELEVATION	S-305	CONVEYOR PIT	20B	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	1'-0"	0'-8"	6"

NOTE:
FOR INFORMATION REGARDING REPAIR TYPE, REFER TO SHEET S-100 AND S-101

LEGEND

X

Y

PHOTO DIRECTION

X

Y

IMAGE ID

REPAIR TYPE

1

2

3a

3b

4a

4b

5

6

7

8

ROOF REPAIR

CORRODED METAL REPAIR

EPOXY INJECTION-CRACKS REPAIR

PENETRANT SEALER-CRACKS REPAIR

NO EXPOSED REBARS-SPALLS REPAIR

EXPOSED REBARS-SPALLS REPAIR

REPAIR FOR STEEL RAILING

REPAIR FOR CONCRETE SLAB

MOISTURE REMOVAL

JOINT REPAIR

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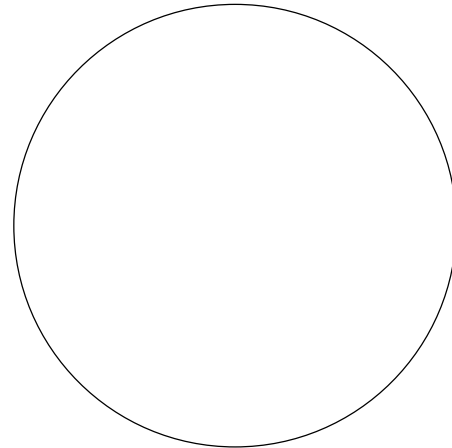
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	6/30/2023	ADDED SHEET PER 40-YEAR RECERTIFICATION REPORT
	2/07/2023	REVIEW COMMENTS
NO:	DATE:	REMARKS:

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

DEFICIENCIES
AND REPAIRS
(1 of 2)
(BLDG.3)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-307

BUILDING 3 - DEFICIENCIES AND REPAIR										
PLAN LOCATION	SHEET NUMBER	LOCATION DETAIL	IMAGE ID	QUANTITY	DEFICIENCY DESCRIPTION	REPAIR TYPE	REPAIR DETAIL	LENGTH (FT) (PER DEFICIENCY)	WIDTH (FT)	DEPTH (IN)
SOUTH ELEVATION	S-305	CONVEYOR PIT	24	2	CHAIN LINK FENCE CORRODED GALV. POST	REPLACE GALV. POST AND WELD IT TO SUPPORT	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	CONC. LOW WALL	25B	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	2'-0"	1'-0"	8"
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	26B	1	SPALL	4a	SEE SHEET S-100	0'-8"	0'-3"	2"
SOUTH ELEVATION	S-305	TRANSFORMER VAULT	29	11	SPALLS (EXPOSED REBAR)	4b	SEE SHEET S-100	1'-0"	0'-4"	3"
SOUTH ELEVATION	S-305	TRANSFORMER VAULT	29	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	2'-0"	0'-4"	3"
SOUTH ELEVATION	S-305	CONVEYOR PIT	30	1	CRACK	3a	SEE SHEET S-100	2'-0"	-	-
SOUTH ELEVATION	S-305	CONVEYOR PIT	31	2	CRACKS	3a	SEE SHEET S-100	13'-0"	-	-
SOUTH ELEVATION	S-305	CONVEYOR PIT	32	2	SPALLS (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-10"	0'-4"	3"
SOUTH ELEVATION	S-305	TRANSFORMER VAULT	33	-	VEGETATION GROWTH	-	REMOVE VEGETATION	-	-	-
SOUTH ELEVATION	S-305	TRANSFORMER VAULT	34	1	CRACK	3b	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	35	1	SPALL	4a	SEE SHEET S-100	0'-10"	0'-3"	2"
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	36	1	SPALL	4a	SEE SHEET S-100	0'-4"	0'-4"	2"
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	38A	2	CRACKS	3b	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	38B	1	CRACK	3b	SEE SHEET S-100	10'-0"	-	-
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	39	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEVATION	S-305	SWITCH GEAR ROOM	40	2	SPALLS (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-10"	0'-4"	3"
SOUTH ELEVATION	S-305	CONVEYOR PIT	41B	1	SPALL (EXTERIOR)	4a	SEE SHEET S-100	0'-5"	0'-3"	2"
SOUTH ELEVATION	S-305	CONVEYOR PIT	41C	1	SPALL (INTERIOR)	4a	SEE SHEET S-100	0'-8"	0'-6"	2"
SOUTH ELEVATION	S-305	GUARDRAIL	42	2	GUARDRAIL HORIZONTAL GALV. TUBES ARE BENT	-	STRAIGHTEN HORIZONTAL TUBES	-	-	-
SOUTH ELEVATION	S-305	GUARDRAIL	42	1	SPALL	4a	SEE SHEET S-100	1'-0"	0'-4"	2"
SOUTH ELEVATION	S-305	GUARDRAIL	43B	1	SPALL	4a	SEE SHEET S-100	2'-0"	1'-0"	4"
SOUTH ELEVATION	S-305	GUARDRAIL	44A	2	HORIZ. GALV. TUBES - ARE BENT	-	STRAIGHTEN HORIZ. TUBE	-	-	-
EAST ELEV.										
EAST ELEVATION	S-306	COLUMN	71	1	SPALL	4a	SEE SHEET S-100	2'-0"	0'-8"	1"
EAST ELEVATION	S-306	COLUMN	73	1	SPALL	4a	SEE SHEET S-100	3'-0"	0'-6"	2"
EAST ELEVATION	S-306	COLUMN	77	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	1'-0"	0'-3"	3"
EAST ELEVATION	S-306	WALL	79	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
EAST ELEVATION	S-306	COLUMN	80	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-10"	0'-3"	3"
EAST ELEVATION	S-306	COLUMN CORNER	81	1	SPALL	4a	SEE SHEET S-100	2'-0"	0'-8"	3"
EAST ELEVATION	S-306	WALL	83	1	CRACK	3a	SEE SHEET S-100	7'-0"	-	-
EAST ELEVATION	S-306	BEAM	84	-	CORROSION	2	SEE SHEET S-100	1'-0"	1'-0"	-
EAST ELEVATION	S-306	BEAM	85	-	CORROSION	2	SEE SHEET S-100	20'-0"	1'-0"	-
EAST ELEVATION	S-306	WALL	87	1	CRACK	3a	SEE SHEET S-100	11'-0"	-	-
EAST ELEVATION	S-306	WALL	88	1	CRACK	3a	SEE SHEET S-100	12'-0"	-	-
EAST ELEVATION	S-306	WALL	88A	1	SPALL	4a	SEE SHEET S-100	0'-8"	0'-6"	2"
EAST ELEVATION	S-306	WALL	88A	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-6"	0'-2"	3"
EAST ELEVATION	S-306	COLUMN	89	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-8"	0'-4"	3"
EAST ELEVATION	S-306	COLUMN	90	1	SPALL	4a	SEE SHEET S-100	2'-0"	2'-0"	2"

NOTE:

FOR INFORMATION REGARDING REPAIR TYPE, REFER TO SHEET S-100 AND S-101

LEGEND

- X

Y

1

2
- PHOTO DIRECTION
- X

Y
- IMAGE ID.
- REPAIR TYPE
- 1

2

3a

3b

4a

4b

5

6

7

8
- 1

2

3a

3b

4a

4b

5

6

7

8
- ROOF REPAIR
- CORRODED METAL REPAIR
- EPOXY INJECTION-CRACKS REPAIR
- PENETRANT SEALER-CRACKS REPAIR
- NO EXPOSED REBARS-SPALLS REPAIR
- EXPOSED REBARS-SPALLS REPAIR
- REPAIR FOR STEEL RAILING
- REPAIR FOR CONCRETE SLAB
- MOISTURE REMOVAL
- JOINT REPAIR

100% SUBMITTAL



OJITO & ASSOCIATES

11952 SW 134 COURT
MIAMI, FLORIDA 33186
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BOTAS Engineering, Inc.
8550 SW 25th Lane, Suite #202 • Coral Gables, FL 33134
Tel: 305-465-9911 • Fax: 305-465-9912



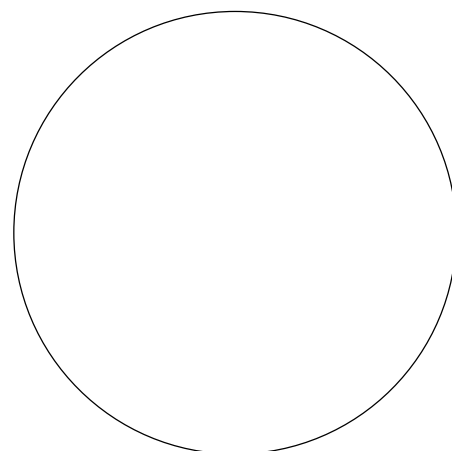
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

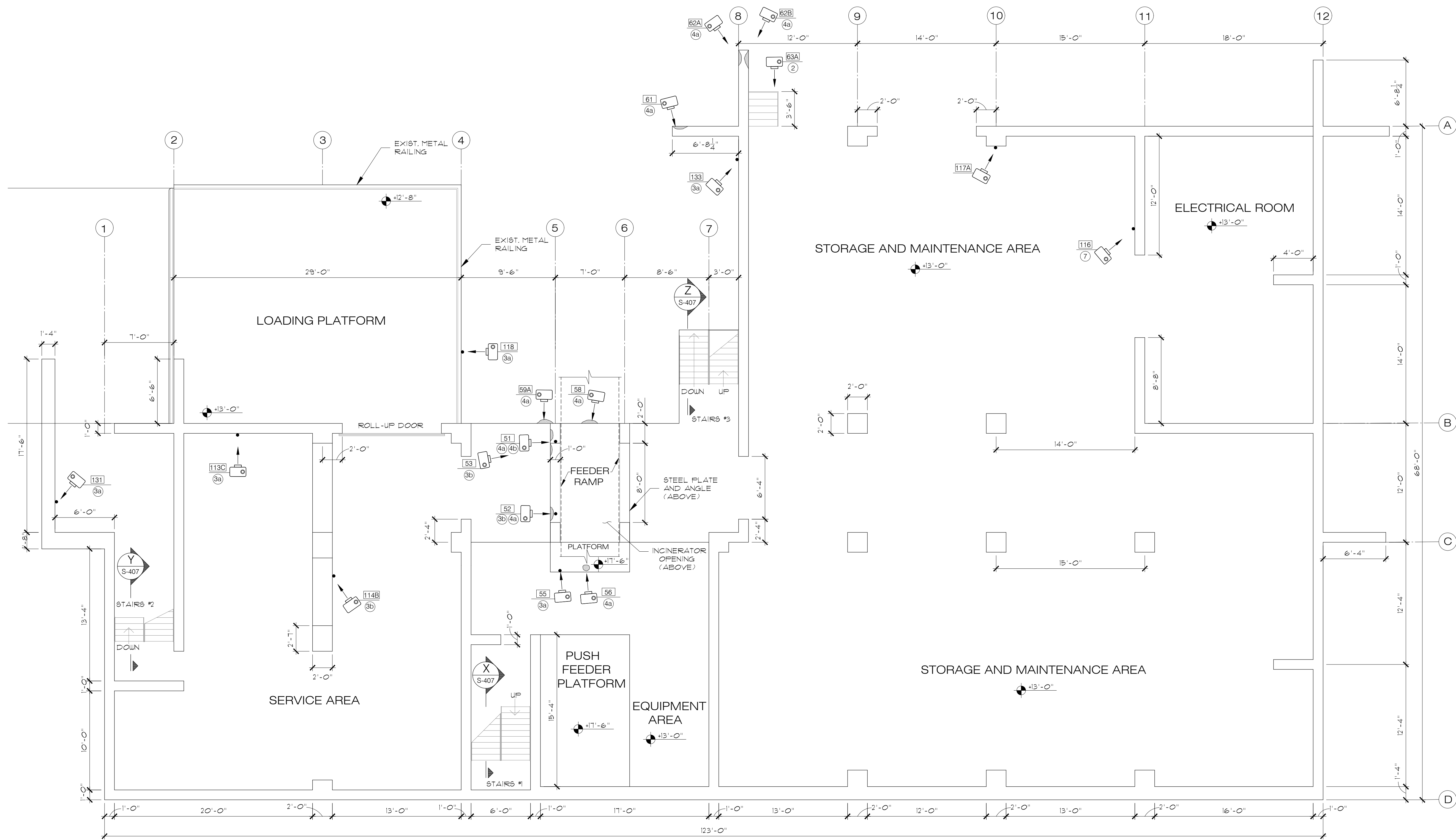
DRAWING TITLE:

DEFICIENCIES
AND REPAIRS
(2 of 2)
(BLDG.3)

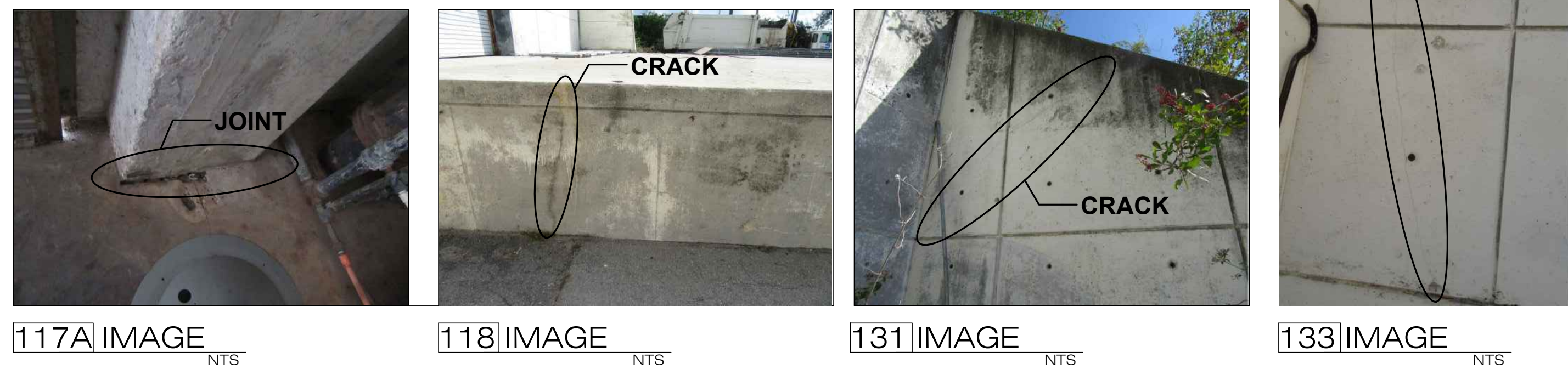
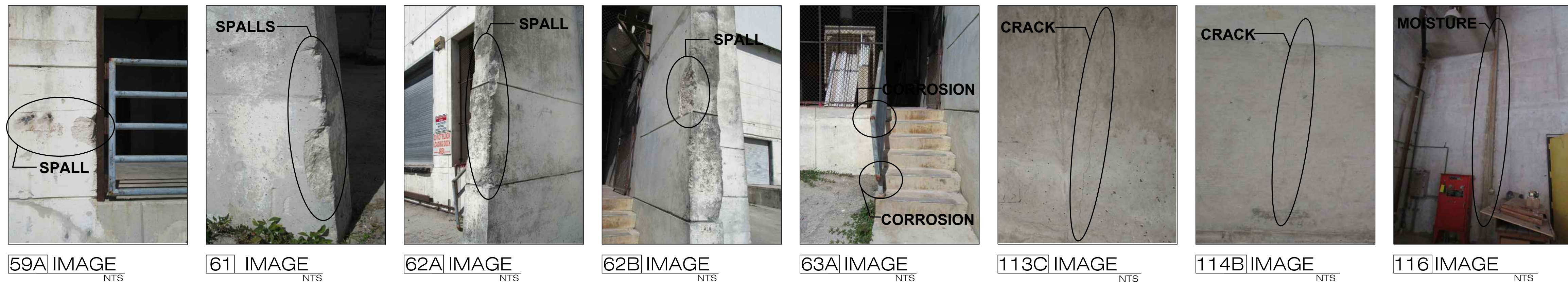
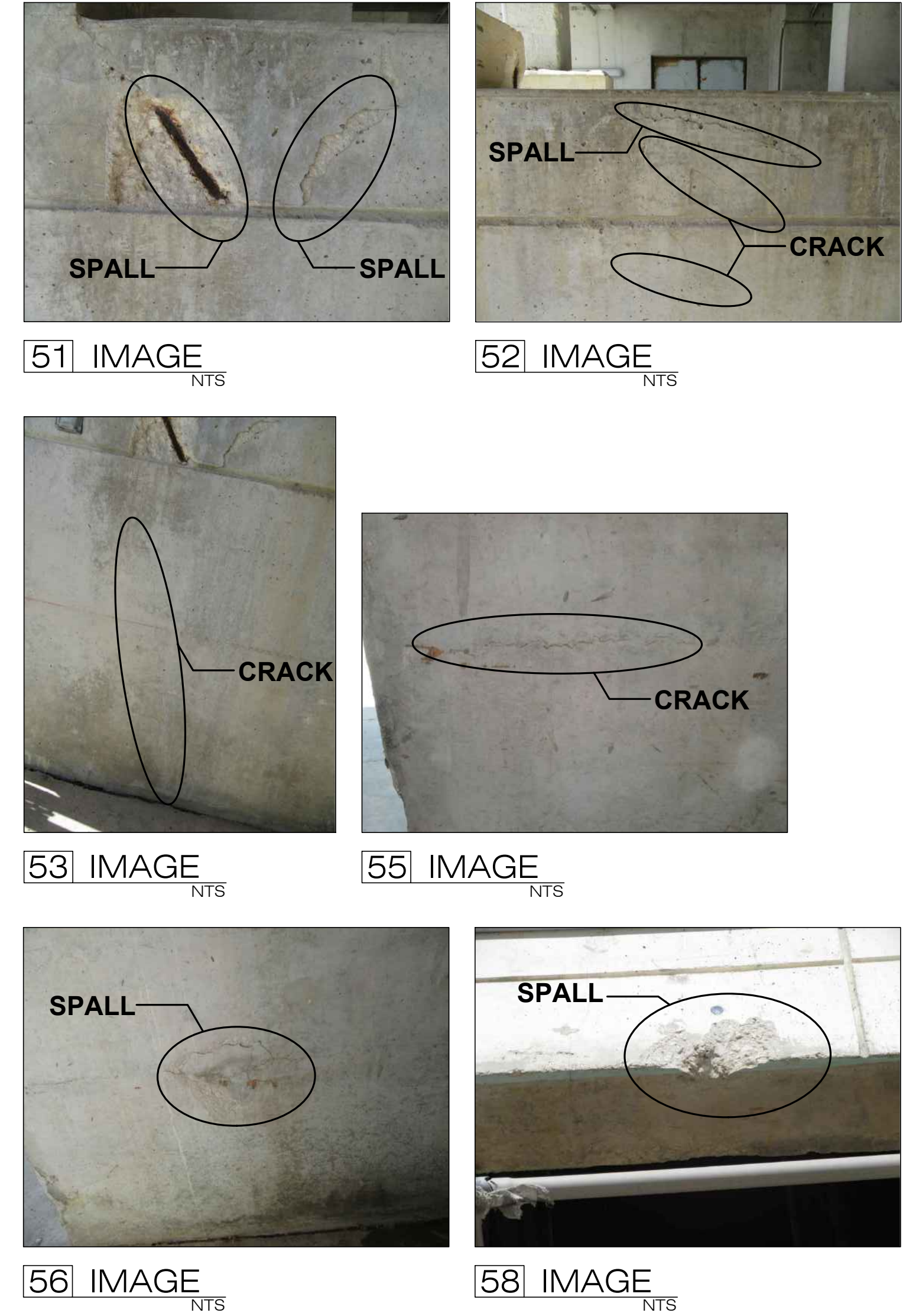
PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-308



GROUND FLOOR PLAN (ELEV. +13'-0")
(BLDG. 4)
SC: 3/16" = 1'-0"



EXISTING CONDITION PHOTOS

- LEGEND
- PHOTO DIRECTION
[X] = IMAGE ID.
[Y] = REPAIR TYPE
- 1 ROOF REPAIR
 - 2 CORRODED METAL REPAIR
 - 3a EPOXY INJECTION-CRACKS REPAIR
 - 3b PENETRANT SEALER-CRACKS REPAIR
 - 4a NO EXPOSED REBARS-SPALLS REPAIR
 - 4b EXPOSED REBARS-SPALLS REPAIR
 - 5 REPAIR FOR STEEL RAILING
 - 6 REPAIR FOR CONCRETE SLAB
 - 7 MOISTURE REMOVED
 - 8 JOINT REPAIR

100% SUBMITTAL



OJITO & ASSOCIATES

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MIAMI, FLORIDA 33186
WWW.OJITO.COM



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Tel: 305-468-8811 Fax: 305-468-8812

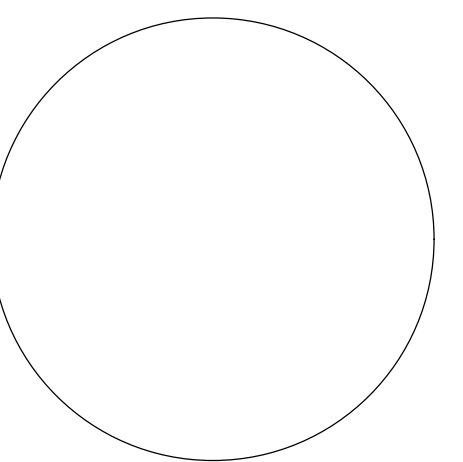


CLIENT:
MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

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PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
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SOUTH DADE LANDFILL

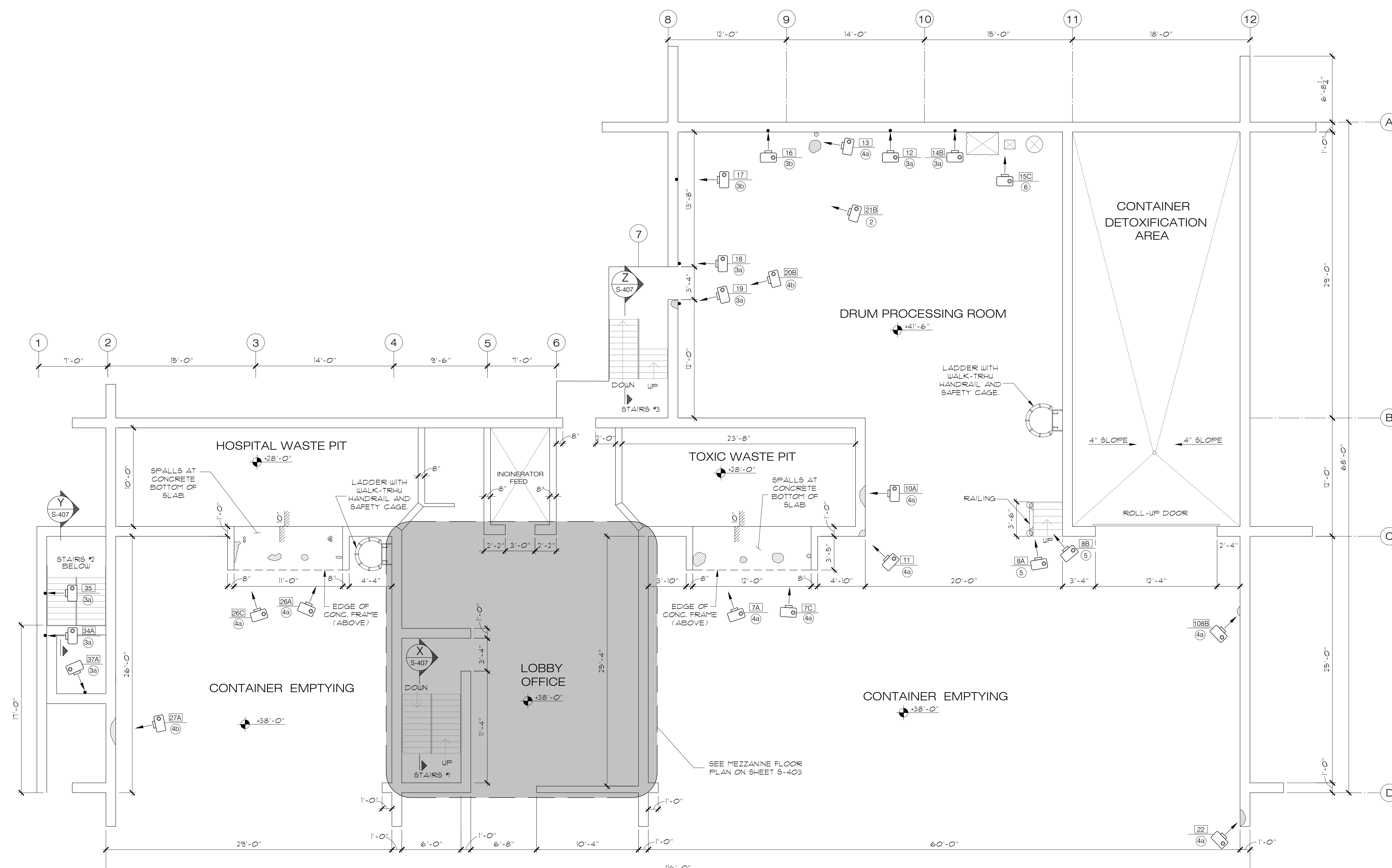
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

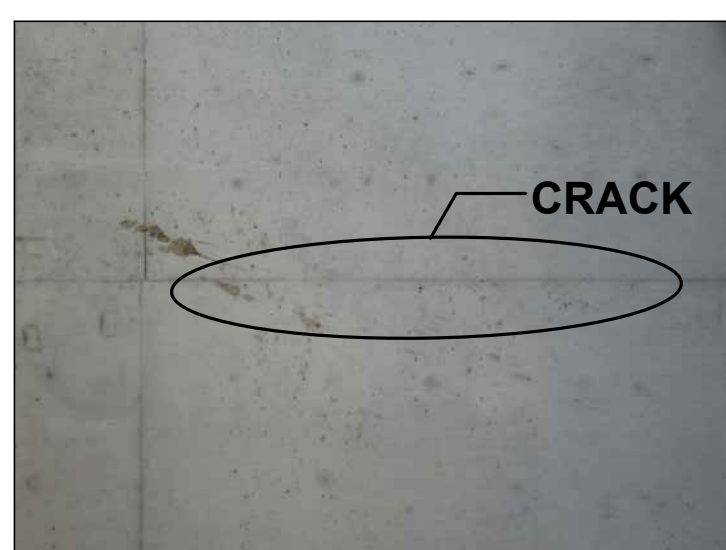
GROUND FLOOR
PLAN
(BLDG.4)

PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.
SHEET NUMBER:	

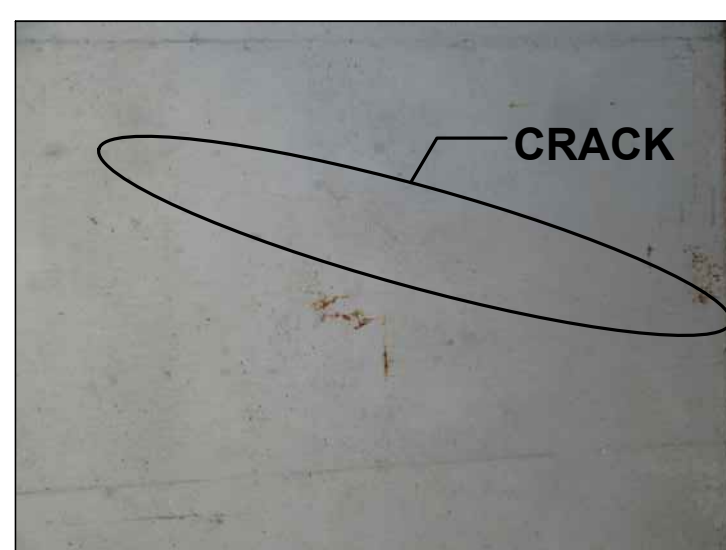
S-401



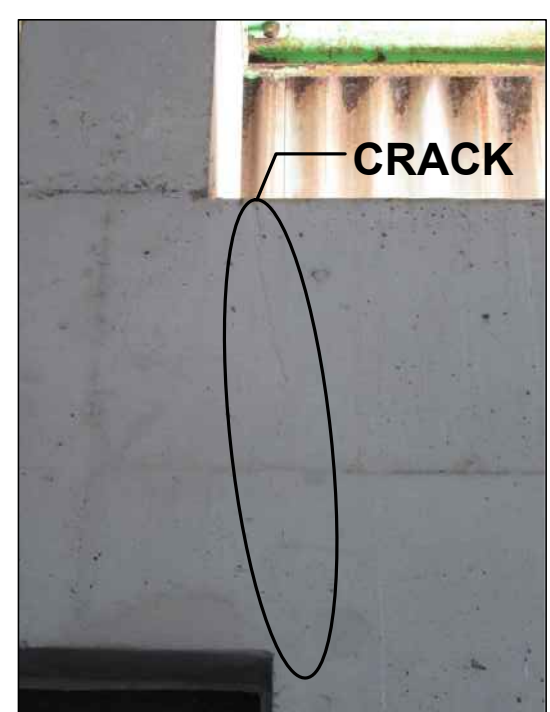
THIRD FLOOR PLAN (ELEV. +38'-0")
(BLDG. 4)
SC: 3/16" = 1'-0"



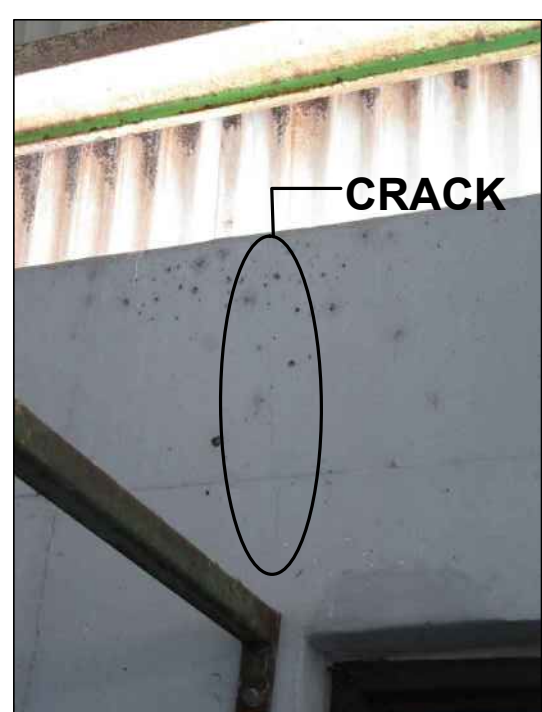
16 IMAGE
NTS



17 IMAGE
NTS



18 IMAGE
NTS



19 IMAGE
NTS



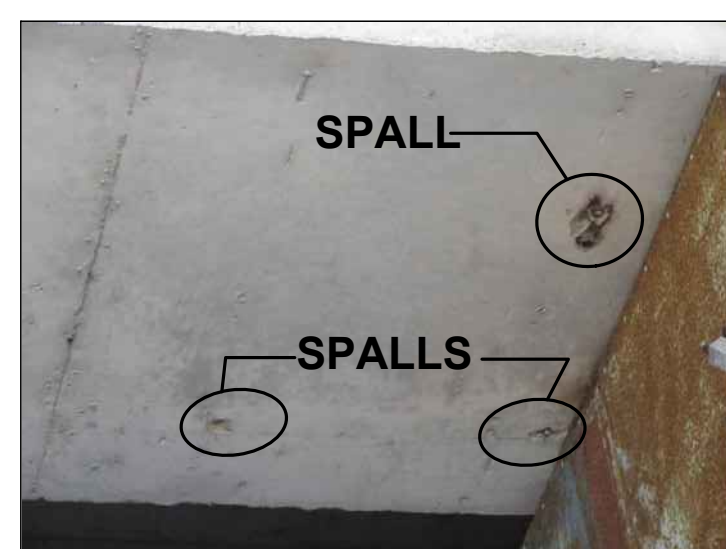
20B IMAGE
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21B IMAGE
NTS



22 IMAGE
NTS



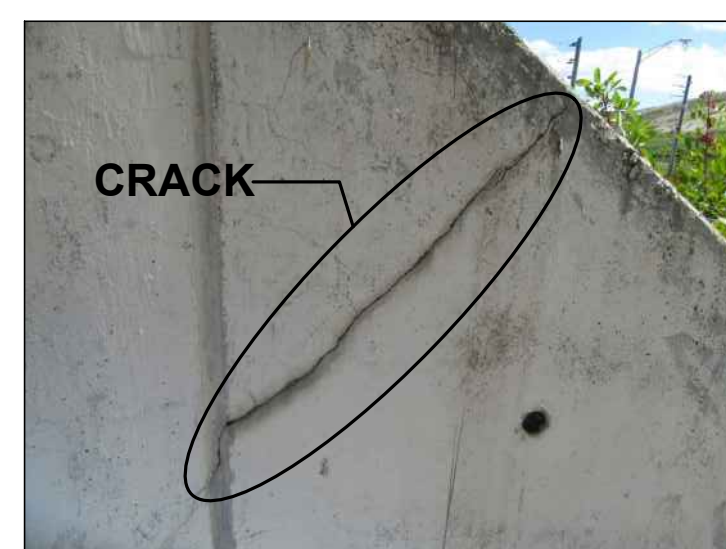
26A IMAGE
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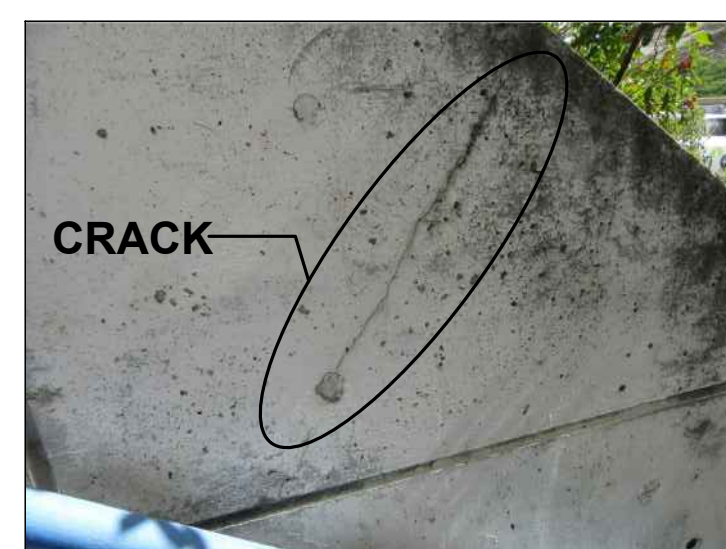
26C IMAGE
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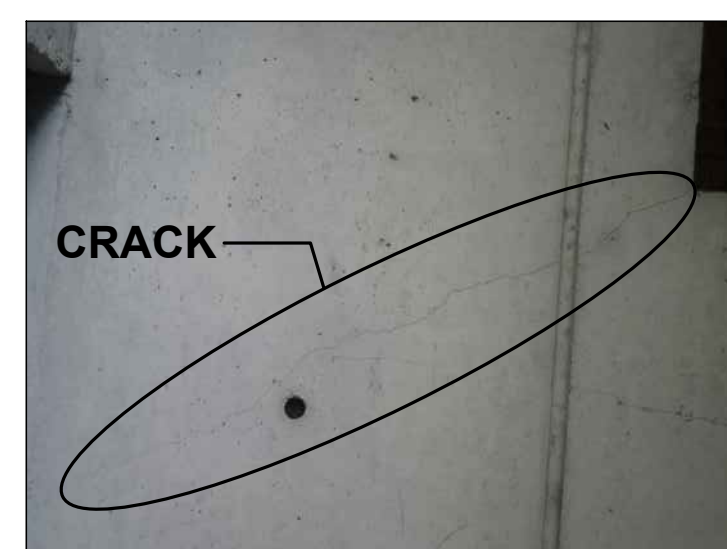
27A IMAGE
NTS



34A IMAGE
NTS



35 IMAGE
NTS

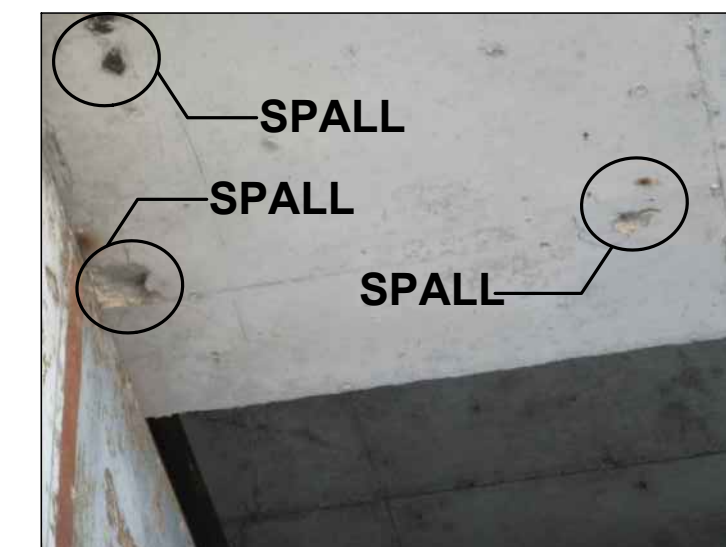


37A IMAGE
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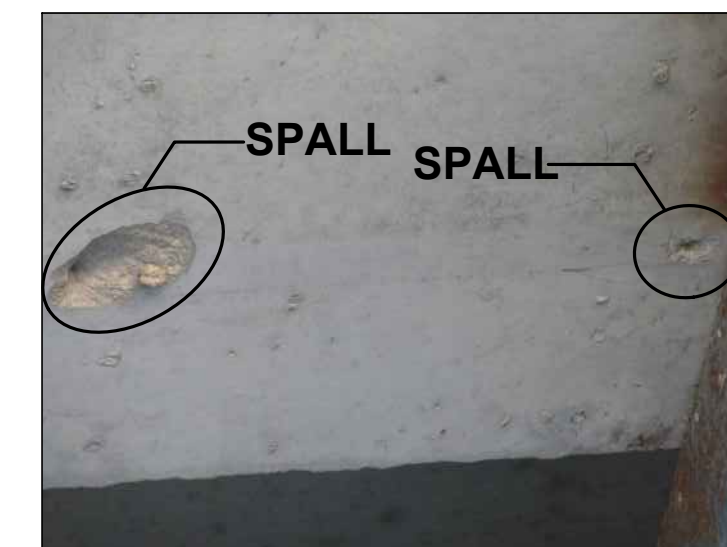


108B IMAGE
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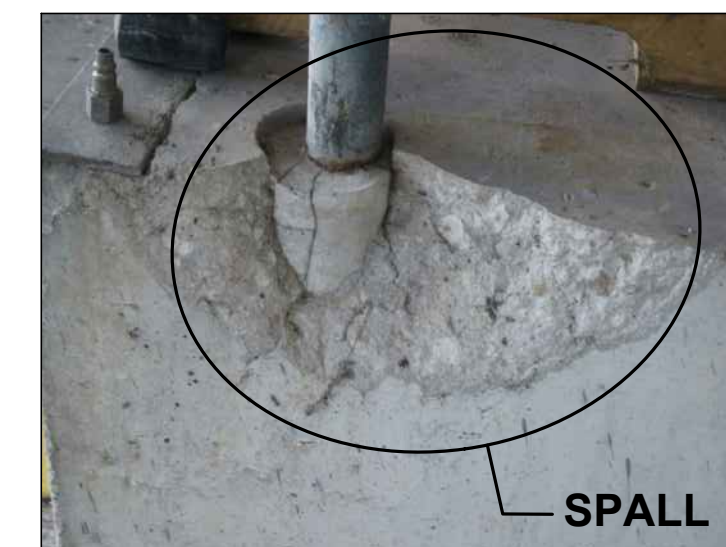
EXISTING CONDITION PHOTOS



7A IMAGE
NTS



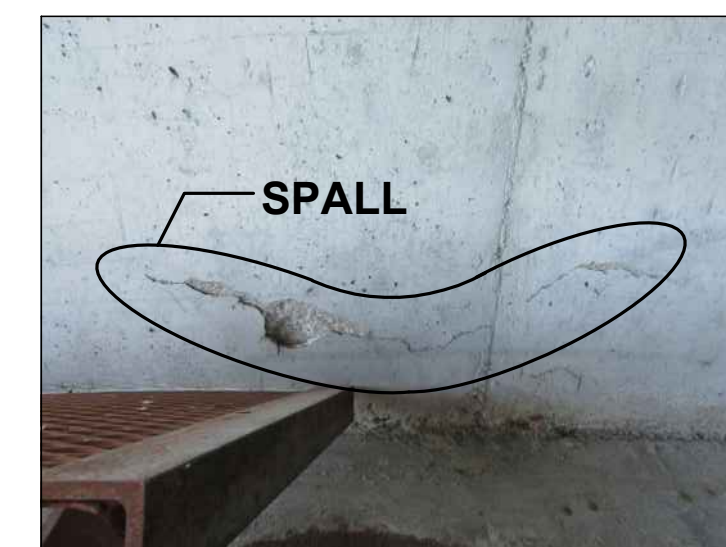
7C IMAGE
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8A IMAGE
NTS



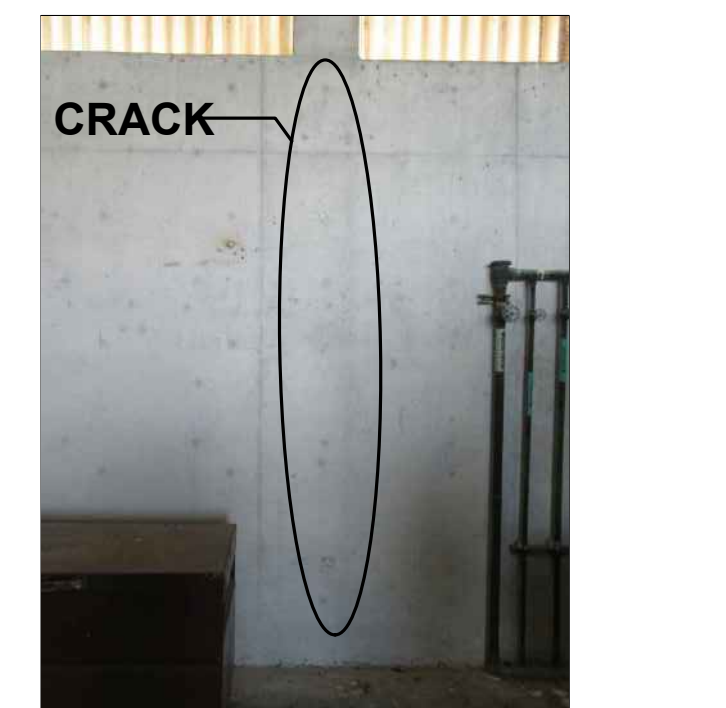
8B IMAGE
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10A IMAGE
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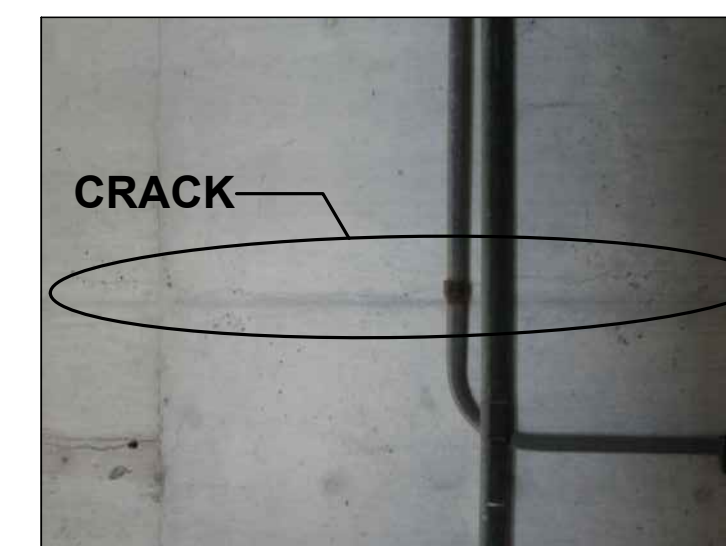
11 IMAGE
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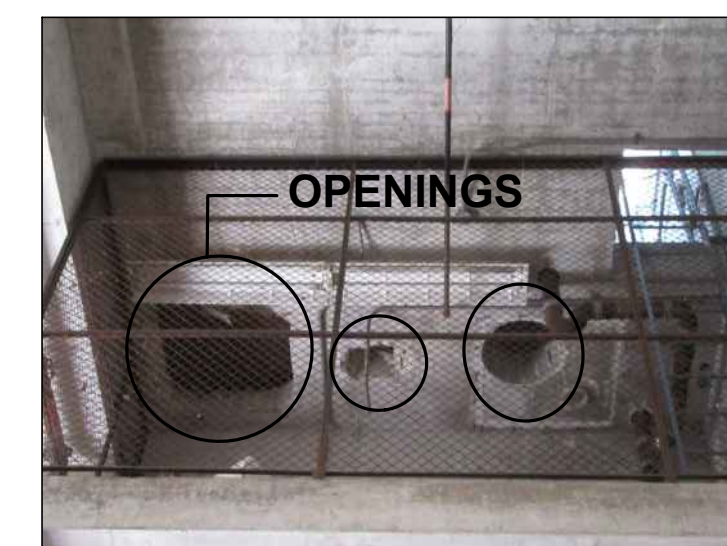
12 IMAGE
NTS



13 IMAGE
NTS



14B IMAGE
NTS



15C IMAGE
NTS

LEGEND

- PHOTO DIRECTION
X - IMAGE I.D.
Y - REPAIR TYPE
- 1 ROOF REPAIR
 - 2 CORRODED METAL REPAIR
 - 3A EPOXY INJECTION-CRACKS REPAIR
 - 3B PENETRANT SEALER-CRACKS REPAIR
 - 4A NO EXPOSED REBAR-SPALLS REPAIR
 - 4B EXPOSED REBAR-SPALLS REPAIR
 - 5 REPAIR FOR STEEL RAILING
 - 6 REPAIR FOR CONCRETE SLAB
 - 7 MOISTURE REMOVED
 - 8 JOINT REPAIR

100% SUBMITTAL



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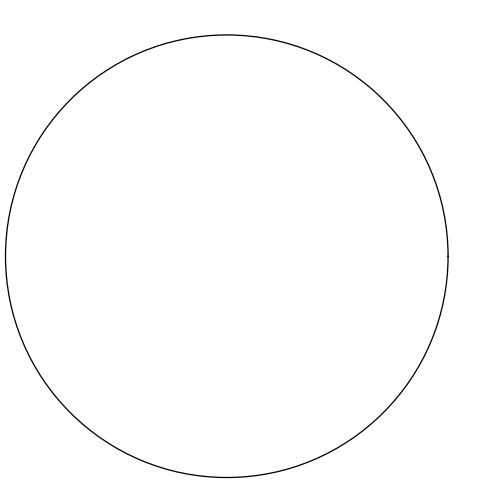


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CLIENT:
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2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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23707 SW 97TH AVENUE
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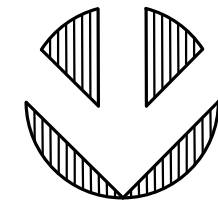
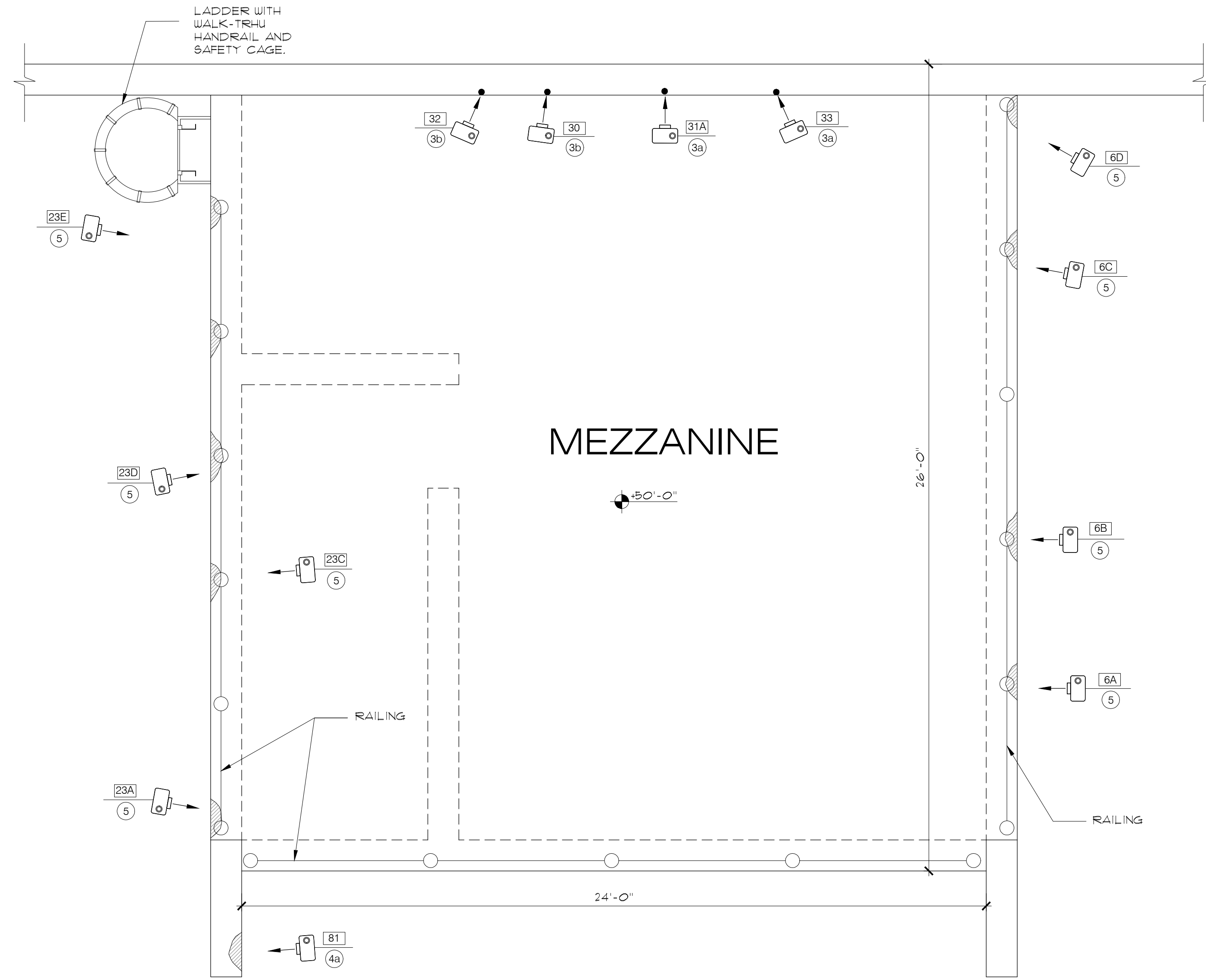
DRAWING TITLE:

THIRD FLOOR
PLAN
(BLDG.4)

PROJECT NO.: SPL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-402



THIRD FLOOR MEZZANINE PLAN (ELEV. +50'-0")
(BLDG. 4)

6" = 3'-0" = 1'-0"



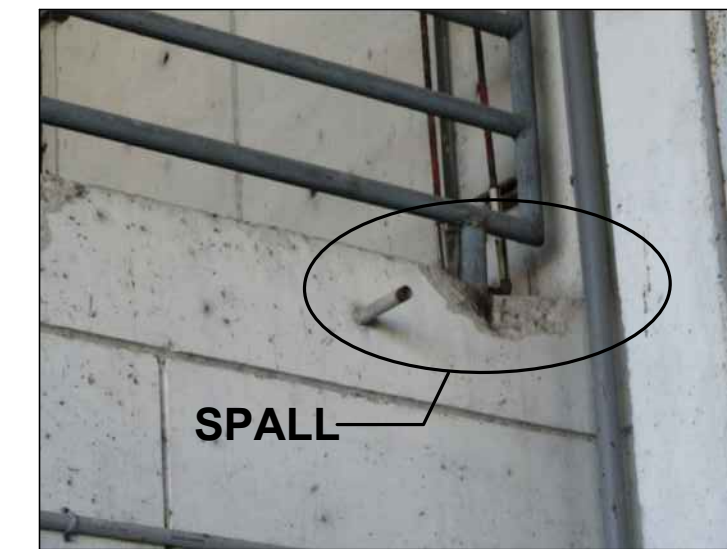
6A IMAGE
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6B IMAGE
NTS



6C IMAGE
NTS



6D IMAGE
NTS



23A IMAGE
NTS



23C IMAGE
NTS



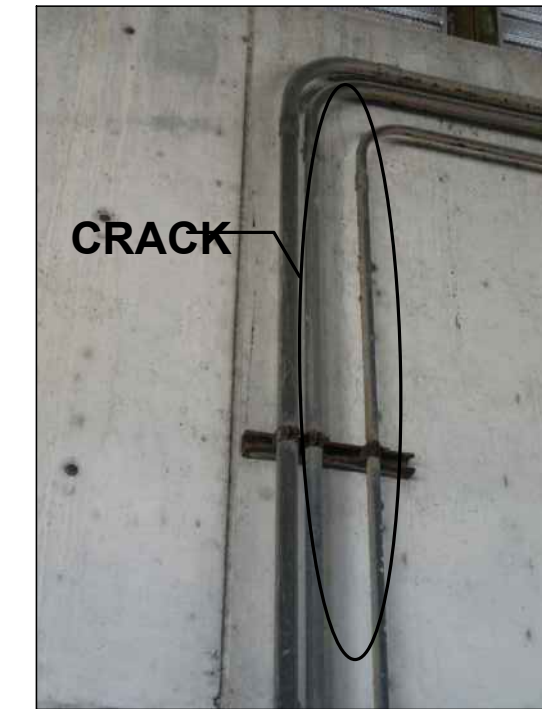
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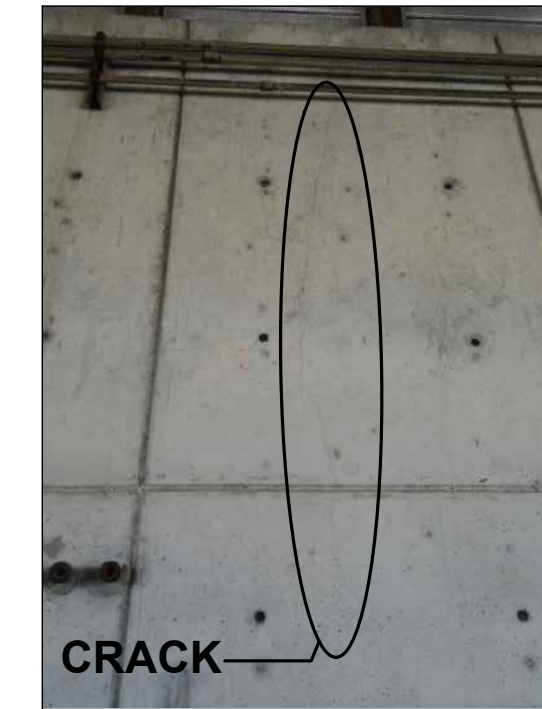
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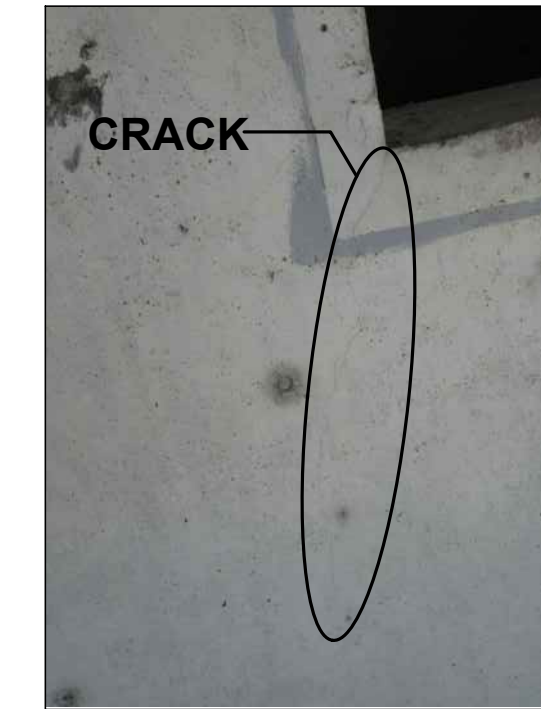
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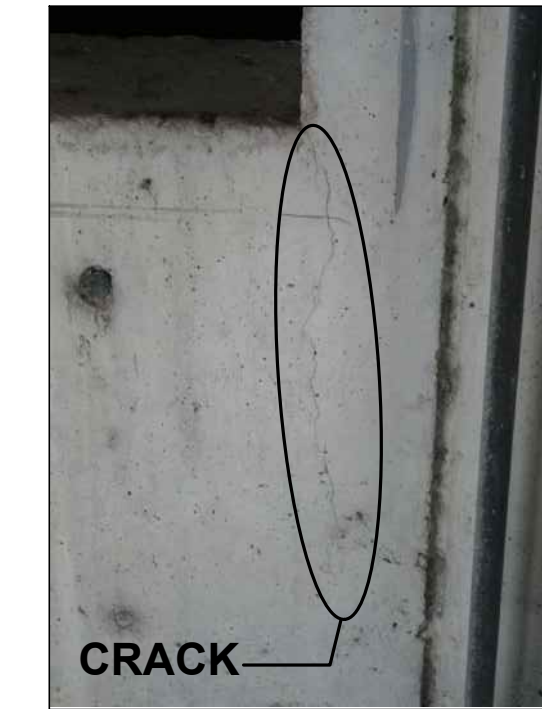
30 IMAGE
NTS



31A IMAGE
NTS



32 IMAGE
NTS



33 IMAGE
NTS

EXISTING CONDITION PHOTOS

LEGEND

PHOTO DIRECTION
X = IMAGE I.D.
Y = REPAIR TYPE

- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3a EPOXY INJECTION-CRACKS REPAIR
- 3b PENETRANT SEALER-CRACKS REPAIR
- 4a NO EXPOSED REBARS-SPALLS REPAIR
- 4b EXPOSED REBARS-SPALLS REPAIR
- 5 REPAIR FOR STEEL RAILING
- 6 REPAIR FOR CONCRETE SLAB
- 7 MOISTURE REMOVED
- 8 JOINT REPAIR

100% SUBMITTAL



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Tel: 305-468-8800 • Fax: 305-468-8802



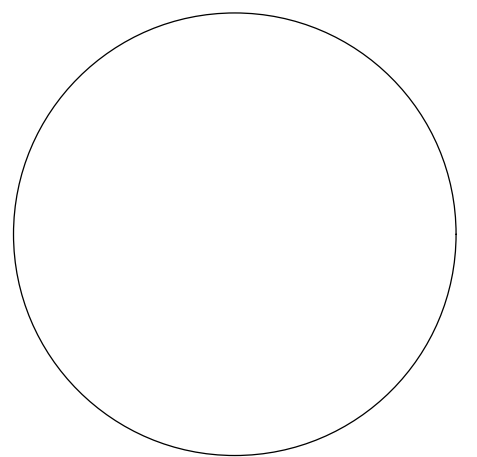
CLIENT:

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DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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MEZZANINE
PLAN
(BLDG.4)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-403



OJITO & ASSOCIATES

11952 SW 134 COURT
MIAMI, FLORIDA 33186
WWW.OJITO.COM



8550 NW 25th Lane, Suite #202 • Coral Gables, FL 33134
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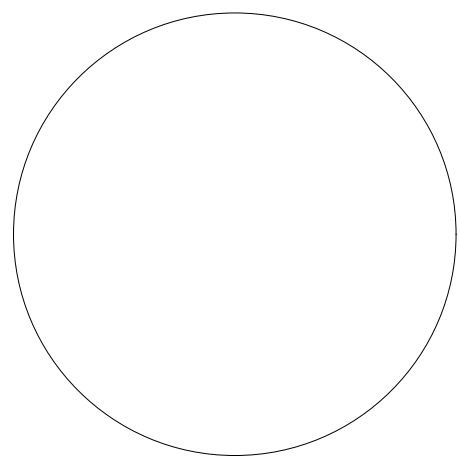
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

CONFIDENTIAL :

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SIGNED AND SEALED

11/30/2023	BLDG DEPT.	REVIEW COMMENTS
6/30/2023	ADDED SHEET PER 40-YEAR	REVIEW COMMENTS
2/07/2023	REVIEW COMMENTS	REMARKS:
NO:	DATE:	REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

ROOF PLAN AND
ROOF WIND
PRESSURES
(BLDG.4)

PROJECT NO.:

ISSUE DATE:

SPL 1021.001

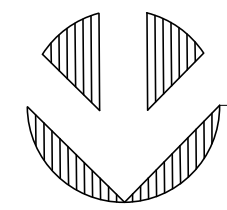
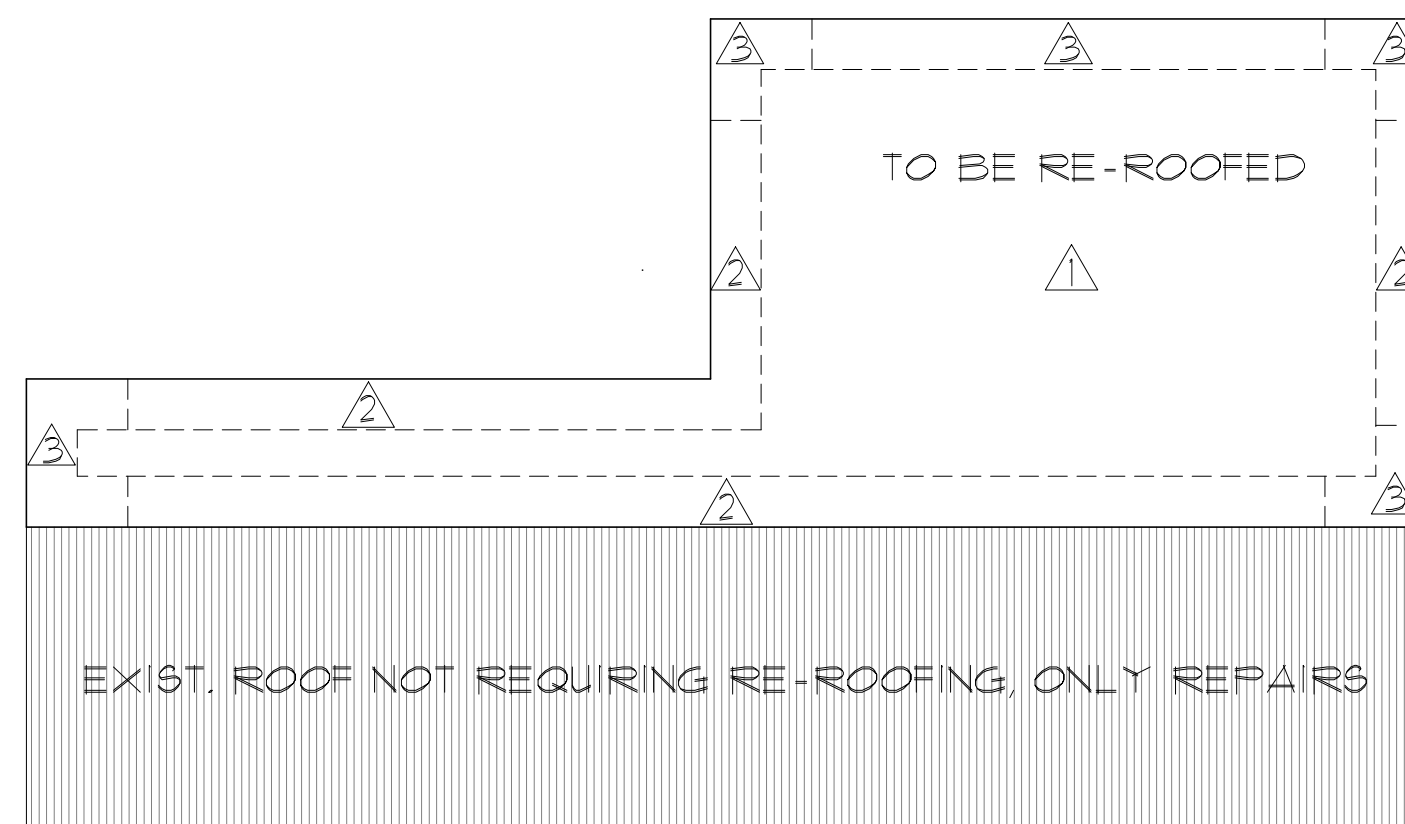
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ROOF WIND PRESSURE PLAN

SC: 1/16" = 1'-0"

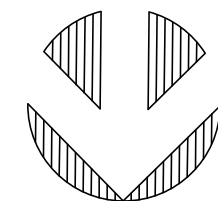
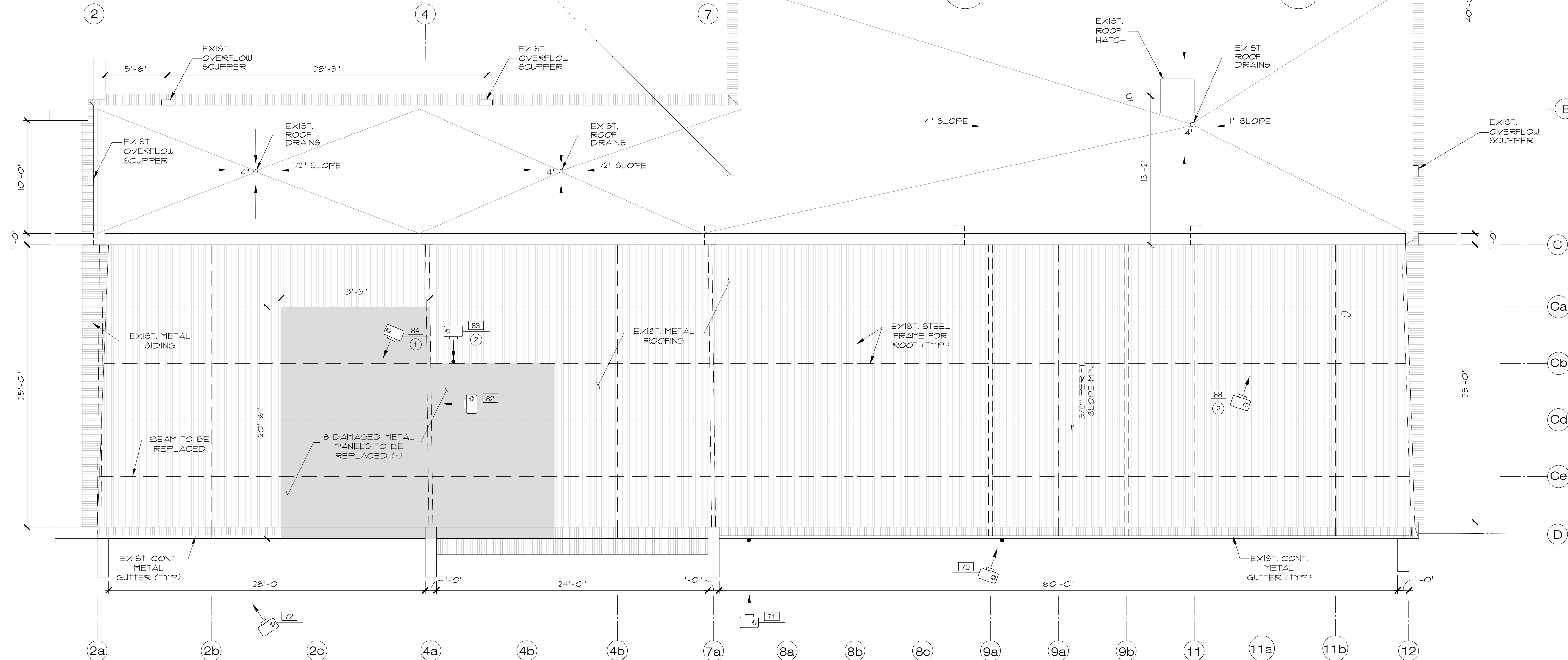
NOMINAL DESIGN WIND PRESSURE ZONE						
AREA	NOMINAL DESIGN WIND PRESSURE ZONE (*)			ULTIMATE DESIGN WIND PRESSURE ZONE		
	1	2	3	1	2	3
BLDG 4 (PARTIAL)	131.0	177.0	246.0	218.3	285.0	410.0

(*) NOMINAL PRESSURE = ULTIMATE PRESSURE x 0.6

NOTE:

- NEGATIVE PRESSURES ARE OUTWARD PRESSURES/AWAY FROM SURFACE.

MODIFY BITUMEN ROOF SYSTEM ON POLYISOCYANURATE TAPERED INSULATION OVER EXIST. CONC. SLAB. REFER TO ARCH. PLANS FOR ROOF SYSTEM DETAILS.



ROOF PLAN
(BLDG. 4)

SC: 3/16" = 1'-0"

(*) NOTE TO CONTRACTOR

FOR ROOF REPAIRS, CONTRACTOR SHALL MATCH EXISTING METAL DECK CONFIGURATION WITH THE NEW METAL DECK USED FOR REPAIR. THE NEW METAL DECK SHALL HAVE AN APPROVED NOA TO BE SUBMITTED TO THE EOR FOR REVIEW AND APPROVAL. A METAL DECK WITH AN NOA 723-092104 HAS BEEN SELECTED. HOWEVER, IF THE SECTION DOES NOT MATCH THE EXISTING METAL DECK, NOTIFY ENGINEER-OF-RECORD.

LEGEND

PHOTO DIRECTION

X - IMAGE 1D.
Y - REPAIR TYPE

- ROOF REPAIR
- CORRODED METAL REPAIR
- EPOXY INJECTION-CRACKS REPAIR
- PENETRANT SEALER-CRACKS REPAIR
- NO EXPOSED REBARS-SPALLS REPAIR
- EXPOSED REBARS-SPALLS REPAIR
- REPAIR FOR STEEL RAILING
- REPAIR FOR CONCRETE SLAB
- MOISTURE REMOVED
- JOINT REPAIR



70 | IMAGE
NTS



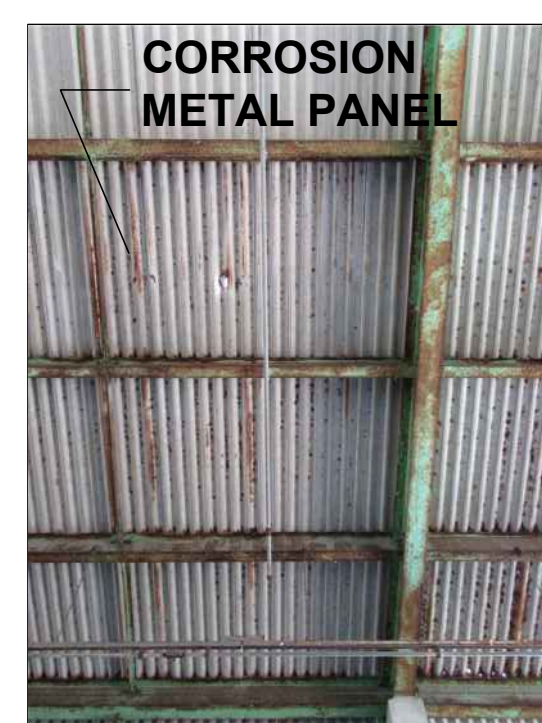
71 | IMAGE
NTS



72 | IMAGE
NTS



82 | IMAGE
NTS



83 | IMAGE
NTS



84 | IMAGE
NTS



88 | IMAGE
NTS

EXISTING CONDITION PHOTOS

100% SUBMITTAL



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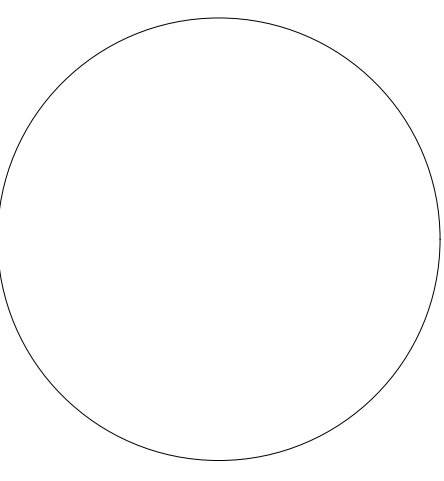
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DRAWING TITLE:

STAIRS

(BLDG.4)

PROJECT NO.:

ISSUE DATE:

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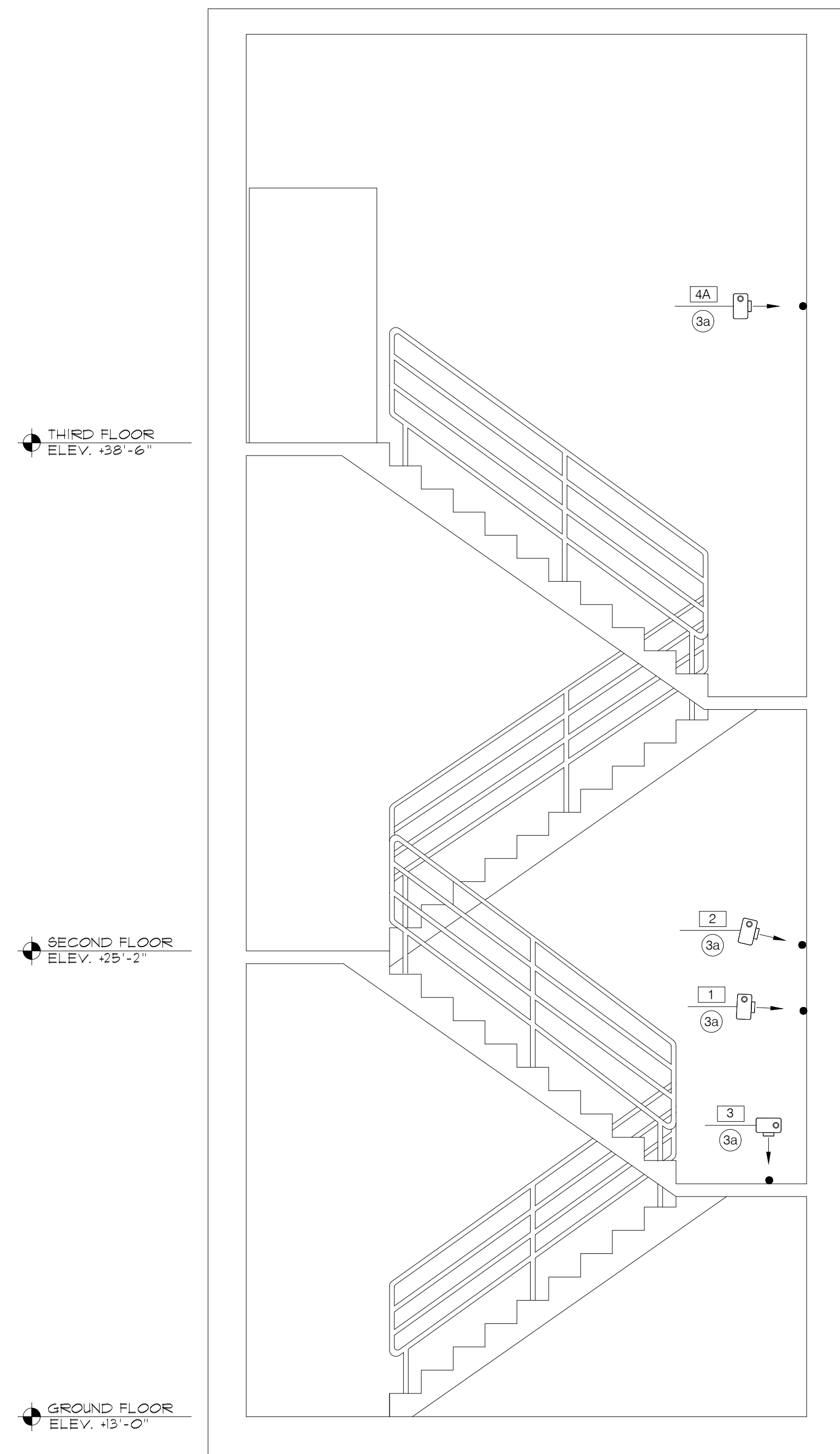
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M.M.P.

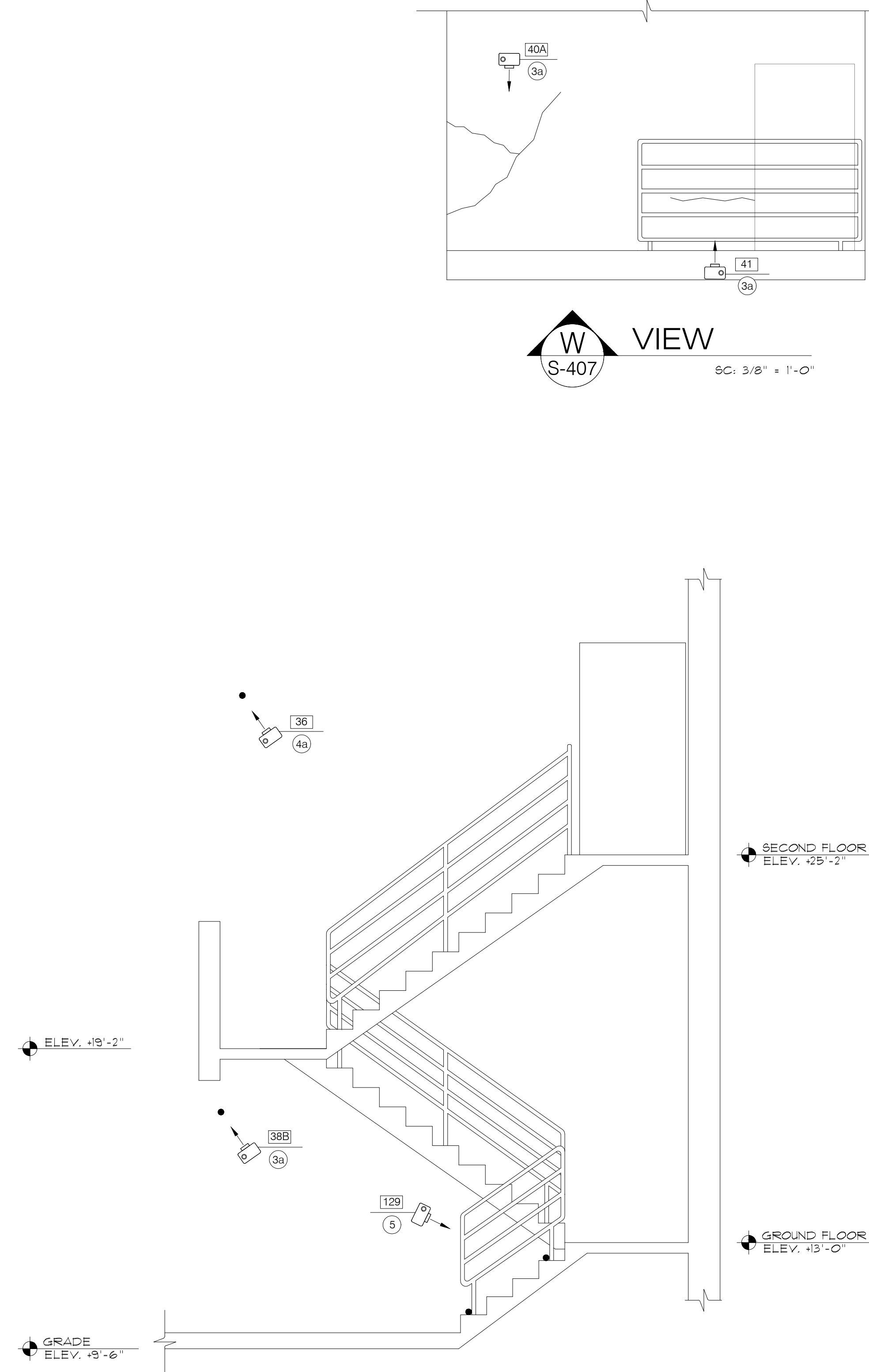
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SHEET NUMBER:

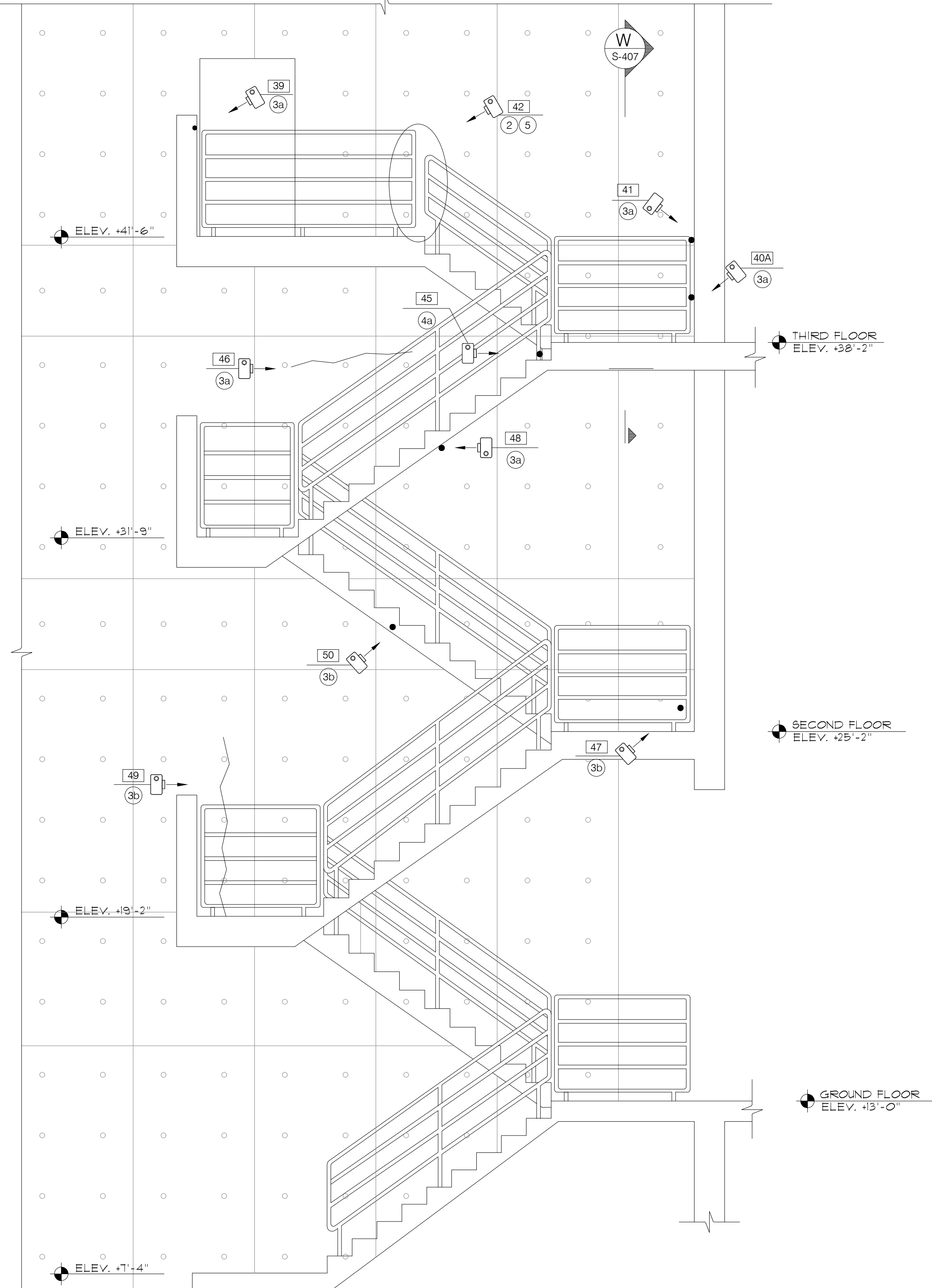
S-407



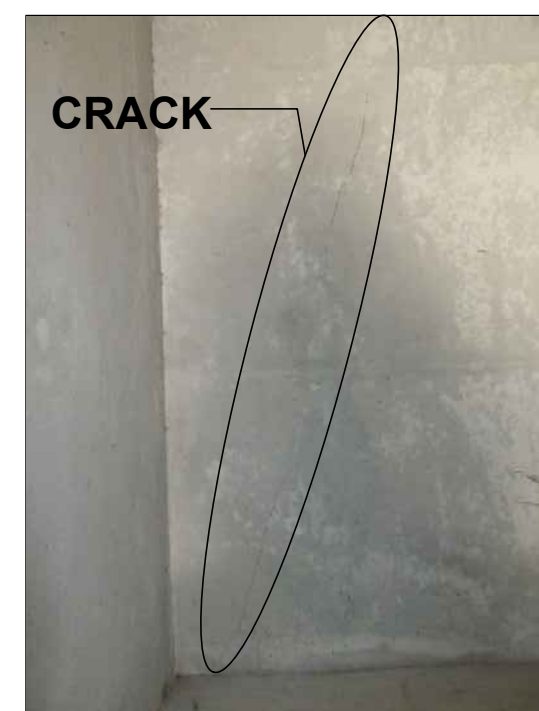
SECTION
X
S-407
STAIR #1
SC: 3/8" = 1'-0"



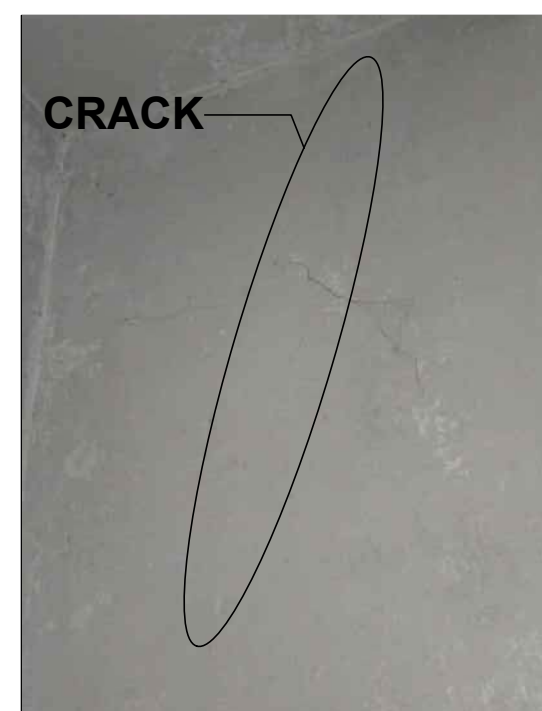
SECTION
Y
S-407
STAIR #2
SC: 3/8" = 1'-0"



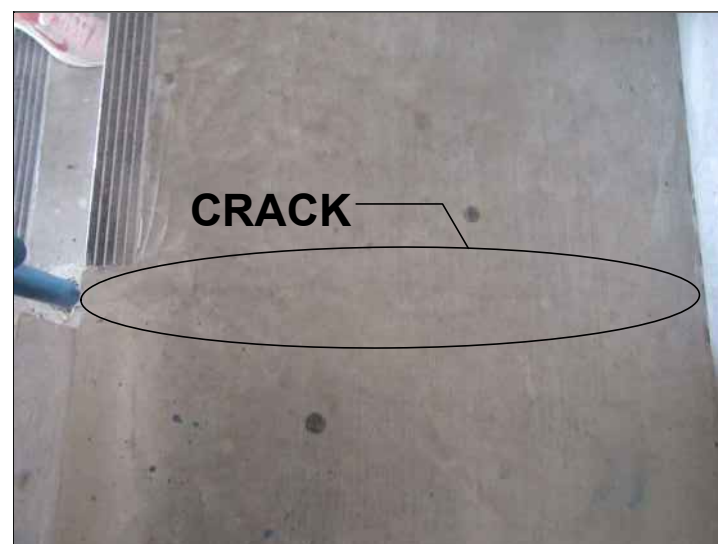
SECTION
Z
S-407
STAIR #3
SC: 3/8" = 1'-0"



1 IMAGE
NTS



2 IMAGE
NTS



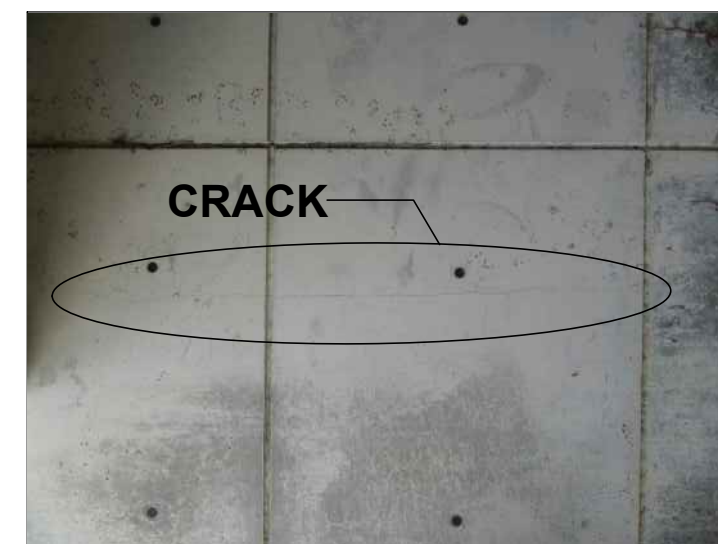
3 IMAGE
NTS



4A IMAGE
NTS



36 IMAGE
NTS



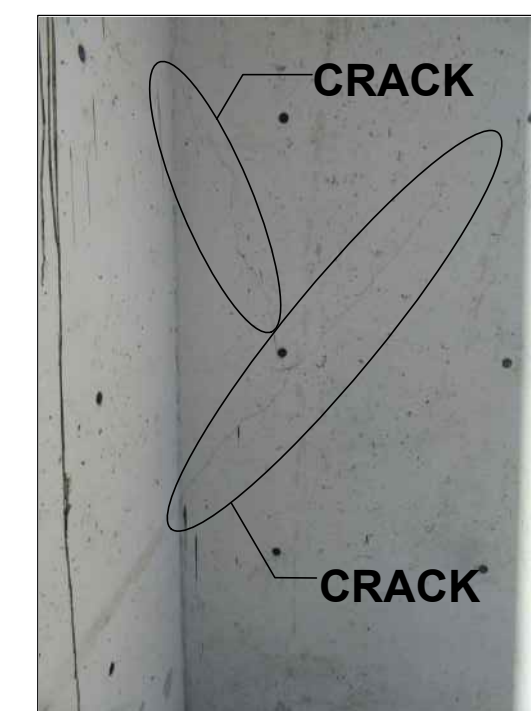
38B IMAGE
NTS



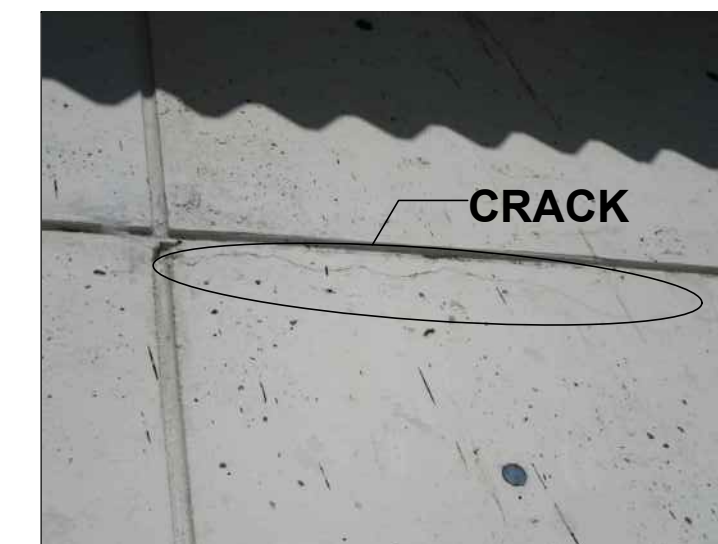
129 IMAGE
NTS



39 IMAGE
NTS



40A IMAGE
NTS



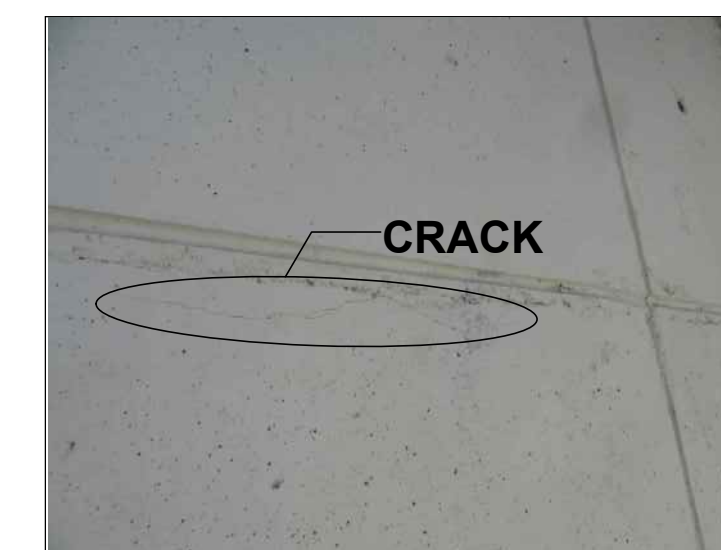
41 IMAGE
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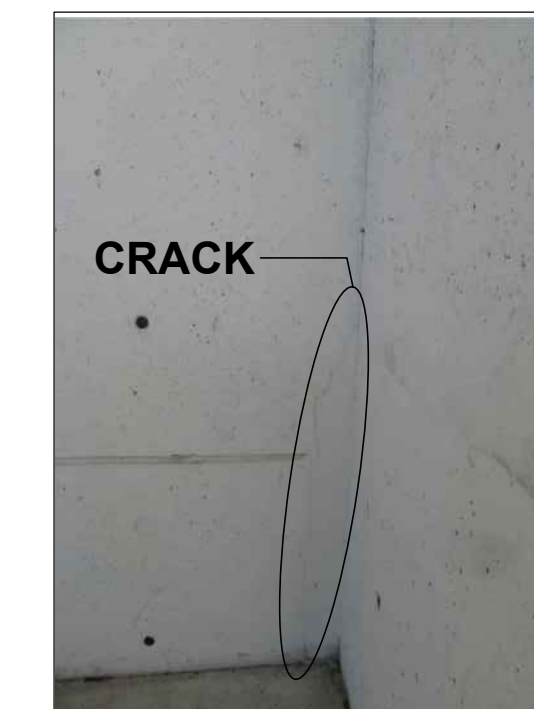
42 IMAGE
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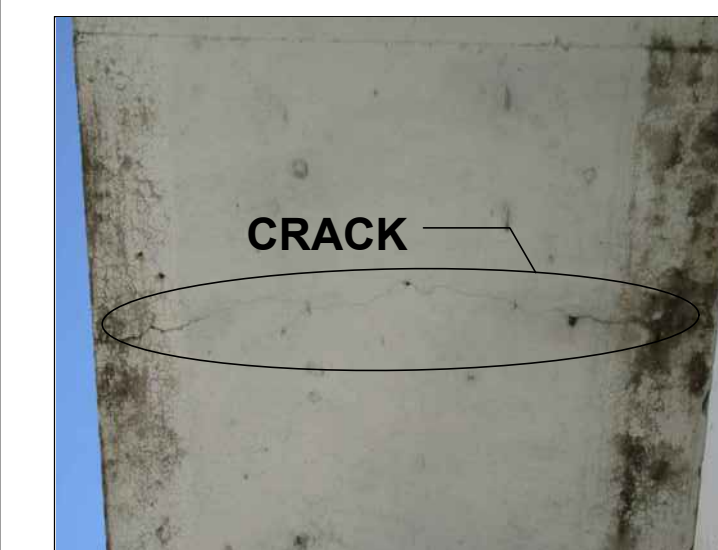
45 IMAGE
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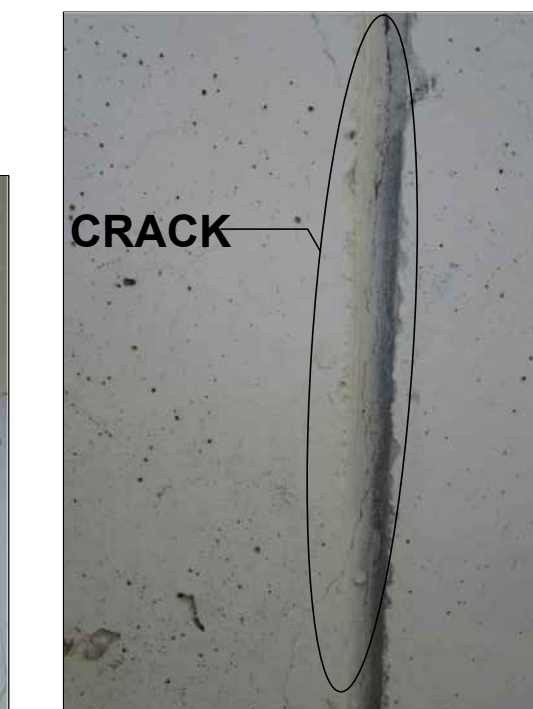
46 IMAGE
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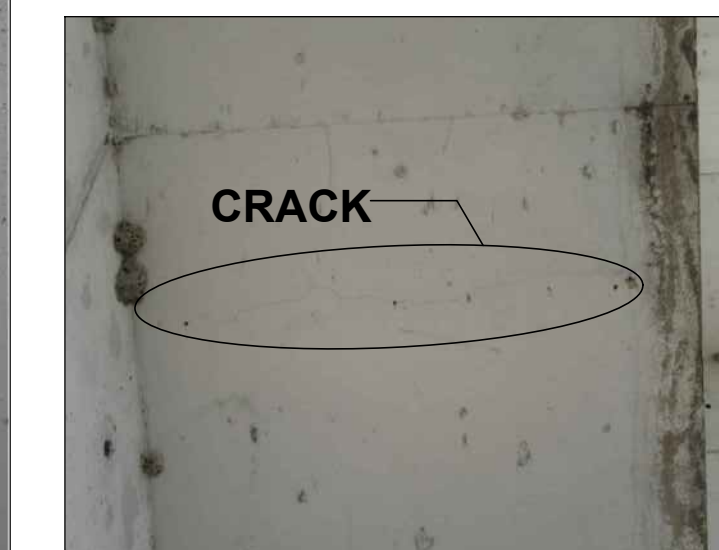
47 IMAGE
NTS



48 IMAGE
NTS



49 IMAGE
NTS



50 IMAGE
NTS

LEGEND

PHOTO DIRECTION
X IMAGE ID.
Y REPAIR TYPE

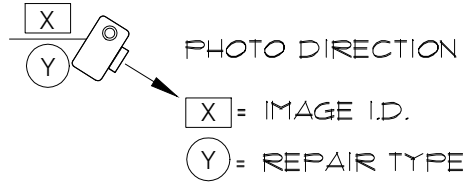
- 1 ROOF REPAIR
- 2 CORRODED METAL REPAIR
- 3A EPOXY INJECTION-CRACKS REPAIR
- 3B PENETRANT SEALER-CRACKS REPAIR
- 4A NO EXPOSED REBARS-SPALLS REPAIR
- 4B EXPOSED REBARS-SPALLS REPAIR
- 5 REPAIR FOR STEEL RAILING
- 6 REPAIR FOR CONCRETE SLAB
- 7 MOISTURE REMOVED
- 8 JOINT REPAIR

EXISTING CONDITION PHOTOS

100% SUBMITTAL

BUILDING 4 - DEFICIENCIES AND REPAIR										
PLAN LOCATION	SHEET NUMBER	LOCATION DETAIL	IMAGE ID	QUANTITY	DEFICIENCY DESCRIPTION	REPAIR TYPE	REPAIR DETAIL	LENGTH (FT) (PER DEFICIENCY)	WIDTH (FT)	DEPTH (IN)
GROUND FLOOR										
GROUND FLOOR	S-401	FEEDER RAMP PLATFORM	51	1	SPALL	4a	SEE SHEET S-100	0'-8"	0'-2"	1"
GROUND FLOOR	S-401	FEEDER RAMP PLATFORM	51	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	0'-8"	0'-8"	3"
GROUND FLOOR	S-401	FEEDER RAMP EAST	52	1	SPALL	4a	SEE SHEET S-100	3'-0"	0'-2"	1"
GROUND FLOOR	S-401	FEEDER RAMP EAST	52	2	CRACKS	3b	SEE SHEET S-100	2'-0"	1'-0"	-
GROUND FLOOR	S-401	FEEDER RAMP EAST	53	1	CRACK	3b	SEE SHEET S-100	6'-0"	1'-0"	-
GROUND FLOOR	S-401	FEEDER RAMP/NORTH	55	1	CRACK	3a	SEE SHEET S-100	2'-0"	-	-
GROUND FLOOR	S-401	FEEDER RAMP/NORTH	56	1	SPALL	4a	SEE SHEET S-100	1'-0"	0'-8"	2"
GROUND FLOOR	S-401	FEEDER RAMP/SOUTH	58	1	SPALL	4a	SEE SHEET S-100	1'-0"	0'-6"	3"
GROUND FLOOR	S-401	FEEDER RAMP/SOUTH	59A	1	SPALL	4a	SEE SHEET S-100	1'-4"	1'-0"	4"
GROUND FLOOR	S-401	MAINT. AREA/EXT. COLUMN	61	1	SPALL	4a	SEE SHEET S-100	2'-0"	0'-10"	2"
GROUND FLOOR	S-401	MAINT. AREA/EXT. COLUMN	62A	1	SPALL	4a	SEE SHEET S-100	2'-0"	1'-0"	2"
GROUND FLOOR	S-401	MAINT. AREA/EXT. COLUMN	62B	1	SPALL	4a	SEE SHEET S-100	1'-4"	0'-4"	2"
GROUND FLOOR	S-401	MAINT. AREA/STAIRS	63A	-	CORROSION	2	SEE SHEET S-100	-	-	-
GROUND FLOOR	S-401	SERVICE AREA	113C	1	CRACK	3a	SEE SHEET S-100	10'-0"	-	-
GROUND FLOOR	S-401	SERVICE AREA (BEAM)	114B	1	CRACK	3b	SEE SHEET S-100	1'-0"	-	-
GROUND FLOOR	S-401	ELECTRICAL ROOM	116	-	MOISTURE	7	SEE SHEET S-100	15'-0"	2'-0"	-
GROUND FLOOR	S-401	STORAGE AREA	117A	-	JOINT MATERIAL TO BE REMOVED AND REPLACED	8	SEE SHEET S-101	8'-0"	-	-
GROUND FLOOR	S-401	LOADING PLATFORM (WEST SIDE)	118	1	CRACK	3a	SEE SHEET S-100	3'-4"	-	-
GROUND FLOOR	S-401	SERV. AREA/EAST WALL	131	1	CRACK	3a	SEE SHEET S-100	12'-0"	-	-
GROUND FLOOR	S-401	MAINT. AREA/EAST WALL	133	1	CRACK	3a	SEE SHEET S-100	10'-0"	-	-
THIRD FLOOR										
THIRD FLOOR	S-402	MAINTENANCE AREA/TOXIC WASTE PIT-UNDER SLAB	7A, 7C	5	SPALLS	4a	SEE SHEET S-100	0'-10"	0'-8"	2"
THIRD FLOOR	S-402	DRUM PROCESSING ROOM	8A	1	RAILING POST SPALL	5	SEE SHEET S-100 AND S-101	1'-0"	0'-8"	2"
THIRD FLOOR	S-402	DRUM PROCESSING ROOM	8B	1	RAILING POST SPALL	5	SEE SHEET S-100 AND S-101	-	-	-
THIRD FLOOR	S-402	ENTRANCE DRUM PROCESSING ROOM	10A	1	SPALL	4a	SEE SHEET S-100	1'-4"	0'-2"	1"
THIRD FLOOR	S-402	ENTRANCE DRUM PROCESSING ROOM (CORNER WALL)	11	1	SPALL	4a	SEE SHEET S-100	0'-6"	0'-2"	2"
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (SOUTH WALL)	12	1	CRACK	3a	SEE SHEET S-100	10'-0"	-	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (FLOOR SLAB)	13	1	SPALL	4a	SEE SHEET S-100	0'-10"	0'-8"	1"
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (SOUTH WALL)	14B	1	CRACK	3a	SEE SHEET S-100	8'-6"	-	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (FLOOR SLAB)	15C	1	3 FLOOR OPENINGS TO BE CLOSED	6	SEE SHEET S-101	8'-0"	4'-0"	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (SOUTH WALL)	16	1	CRACK	3b	SEE SHEET S-100	10'-0"	2'-0"	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (WEST WALL)	17	1	CRACK	3b	SEE SHEET S-100	6'-0"	2'-0"	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM-ABOVE DOOR EXIT STAIR #3	18	1	CRACK	3a	SEE SHEET S-100	2'-2"	-	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM-ABOVE DOOR EXIT STAIR #3	19	1	CRACK	3a	SEE SHEET S-100	2'-2"	-	-
THIRD FLOOR	S-402	DRUM PROCESSING ROOM-ABOVE DOOR EXIT STAIR #3	20B	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	2'-0"	2'-0"	4"
THIRD FLOOR	S-402	DRUM PROCESSING ROOM (BEAM EAST AND SOUTH WALL)	21B	-	CORROSION	2	SEE SHEET S-100	50'-0"	-	-
THIRD FLOOR	S-402	CONTAINER EMPTYING-COLUMN	22	1	SPALL	4a	SEE SHEET S-100	1'-8"	0'-10"	3"
THIRD FLOOR	S-402	ENTRANCE HOSPITAL/WASTE PIT	26A, 26C	5	SPALLS	4a	SEE SHEET S-100	0'-10"	0'-8"	2"
THIRD FLOOR	S-402	CONTAINER EMPTYING (EAST WALL)	27A	1	SPALL (EXPOSED REBAR)	4b	SEE SHEET S-100	1'-2"	0'-10"	4"
THIRD FLOOR	S-402	EAST WALL COLUMN-STAIR #2	34A	1	CRACK	3a	SEE SHEET S-100	3'-0"	-	-
THIRD FLOOR	S-402	EAST WALL - STAIR #2	35	1	CRACK	3a	SEE SHEET S-100	2'-0"	-	-
THIRD FLOOR	S-402	EAST WALL, LANDING -STAIR #2	37A	1	CRACK	3a	SEE SHEET S-100	3'-0"	-	-
THIRD FLOOR	S-402	CONTAINER EMPTYING (WEST WALL)	108B	1	SPALL	4a	SEE SHEET S-100	1'-0"	1'-0"	1"
THIRD FLOOR/MEZZANINE										
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/RAILING/WEST	6A, 6B, 6C AND 6D	4	RAILING POST SPALL	5	SEE SHEET S-101	-	-	-
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/RAILING/EAST	23A, 23C, 23D AND 23E	5	RAILING POST SPALL	5	SEE SHEET S-101	-	-	-
THIRD FLOOR/MEZZANINE	S-403	NORTH EAST COLUMN (ADJACENT TO MEZZANINE METAL SIDING)	81	1	SPALL	4a	SEE SHEET S-100	1'-6"	0'-10"	4"
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/SOUTH WALL	30	1	CRACK	3b	SEE SHEET S-100	1'-2"	2'-0"	-
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/SOUTH WALL	31A	1	CRACK	3a	SEE SHEET S-100	5'-0"	-	-
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/SOUTH WALL	32	1	CRACK	3b	SEE SHEET S-100	2'-0"	2'-0"	-
THIRD FLOOR/MEZZANINE	S-403	MEZZANINE/SOUTH WALL	33	1	CRACK	3a	SEE SHEET S-100	2'-0"	-	-
ROOF (PLAN)										
ROOF (PLAN)	S-404	METAL GUTTER-NORTH SIDE	70, 71 AND 72	-	BROKEN GUTTER	TO BE REPLACED	MATCH EXISTING	115'-0"	-	-
ROOF (PLAN)	S-404	STEEL FRAME METAL ROOF (BEAM MEZZANINE)	82	-	CORROSION	REPLACE BEAM	MATCH EXISTING BEAM SIZE	28'-0"	-	-
ROOF (PLAN)	S-404	METAL SIDING PANELS	84	1	CORROSION	1	SEE SHEET S-100	25'-0"	18'-0"	-
ROOF (PLAN)	S-404	STEEL FRAME METAL ROOF BEAM	83	-	CORROSION	2	SEE SHEET S-100	-	-	-
ROOF (PLAN)	S-404	STEEL FRAME METAL ROOF BEAM	88	1	CORROSION	2	SEE SHEET S-100	40'-0"	-	-

NOTE:
FOR INFORMATION REGARDING REPAIR TYPE, REFER TO SHEET S-100 AND S-101

- LEGEND
- 
- PHOTO DIRECTION
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 - 2 CORRODED METAL REPAIR
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 - 4a NO EXPOSED REBARS-SPALLS REPAIR
 - 4b EXPOSED REBARS-SPALLS REPAIR
 - 5 REPAIR FOR STEEL RAILING
 - 6 REPAIR FOR CONCRETE SLAB
 - 7 MOISTURE REMOVAL
 - 8 JOINT REPAIR

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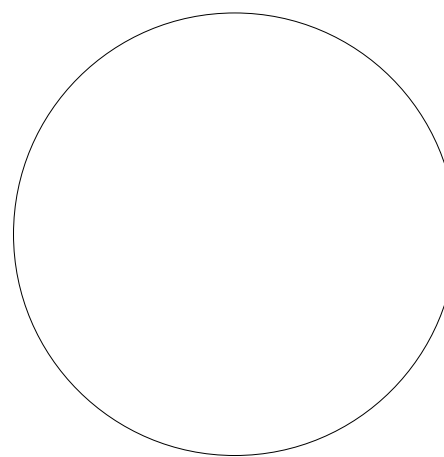
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DRAWING TITLE:

DEFICIENCIES
AND REPAIRS
(1 of 2)

(BLDG.4)

PROJECT NO.:

SFL 1021.001

ISSUE DATE:

DRAWN BY:

M.M.P.

CHECKED BY:

P.M.B.

SHEET NUMBER:

S-408

BUILDING 4 - DEFICIENCIES AND REPAIR										
PLAN LOCATION	SHEET NUMBER	LOCATION DETAIL	IMAGE ID	QUANTITY	DEFICIENCY DESCRIPTION	REPAIR TYPE	REPAIR DETAIL	LENGTH (FT) (PER DEFICIENCY)	WIDTH (FT)	DEPTH (IN)
NORTH ELEV.										
NORTH ELEV.	S-409	ROOF SIDING / STEEL FRAME	73	1	CORROSION	2	SEE SHEET S-100	14'-0"	-	-
NORTH ELEV.	S-409	STEEL FRAME METAL SIDING (BEAM)	71, 79 AND 80	2	CORROSION	2	SEE SHEET S-100	24'-0"	-	-
SOUTH ELEV.										
SOUTH ELEV.	S-409	EXIST. WALL OF INCINERATOR PIT	44	1	CRACK	3a	SEE SHEET S-100	3'-0"	-	-
SOUTH ELEV.	S-409	STEEL FRAME METAL ROOF (BEAM)	91	1	CORROSION	2	SEE SHEET S-100	8'-0"	-	-
SOUTH ELEV.	S-409	STEEL FRAME METAL ROOF (BEAM AND PANELS)	100A	4	CORROSION	2	SEE SHEET S-100	5'-0"	-	-
SOUTH ELEV.	S-409	SOUTH EAST CORNER-GROUND FLOOR AT CONC. GUARDRAIL	128	-	VEGETATION	-	REMOVE VEGETATION	-	-	-
EAST ELEV.										
EAST ELEV.	S-406	ROOF SIDING / STEEL FRAME	75 AND 76	3	CORROSION	2	SEE SHEET S-100	25'-0"	-	-
EAST ELEV.	S-406	STEEL FRAME METAL SIDING (BEAM)	98 AND 99	2	CORROSION	2	SEE SHEET S-100	5'-0"	-	-
EAST ELEV.	S-406	LOADING PLATFORM	125	1	REMOVE ALL LOOSE MATERIAL (CONC. AND STEEL) AND DEBRIS	-	TO BE CLEANED	-	-	-
WEST ELEV.										
WEST ELEV.	S-406	ROOF SIDING / STEEL FRAME	64 AND 65	1	CORROSION	2	SEE SHEET S-100	25'-0"	-	-
WEST ELEV.	S-406	ROOF SIDING / STEEL FRAME	66 AND 67	1	CORROSION	2	SEE SHEET S-100	25'-0"	-	-
STAIR #1										
STAIR #1	S-401	BACK WALL OF 1ST LANDING	1	1	CRACK	3a	SEE SHEET S-100	8'-0"	-	-
STAIR #1	S-401	TOP OF 1ST LANDING	2	1	CRACK	3a	SEE SHEET S-100	5'-0"	-	-
STAIR #1	S-401	FLOOR OF 1ST LANDING	3	1	CRACK	3a	SEE SHEET S-100	3'-0"	-	-
STAIR #1	S-401	BACK WALL OF 3RD LANDING	4A	1	CRACK	3a	SEE SHEET S-100	10'-0"	-	-
STAIR #2										
STAIR #2	S-401	EAST BLDG. WALL	36	3	SPALLS	4a	SEE SHEET S-100	1'-2"	0'-4"	2"
STAIR #2	S-401	BELOW 2ND LANDING	38B	1	CRACK	3a	SEE SHEET S-100	5'-0"	-	-
STAIR #2	S-401	GROUND FLOOR	129	2	RAILING POST SPALL	5	SEE SHEET S-101	-	-	-
STAIR #3										
STAIR #3	S-401	TOP CONC. GUARDRAIL/DRUM PROC. ROOM	39	1	CRACK	3a	SEE SHEET S-100	4'-0"	-	-
STAIR #3	S-401	THIRD FLOOR	40A	2	CRACK	3a	SEE SHEET S-100	5'-0"	-	-
STAIR #3	S-401	THIRD FLOOR	41	1	CRACK	3a	SEE SHEET S-100	3'-0"	-	-
STAIR #3	S-401	THIRD FLOOR	42	10	CORROSION ON RAILING	2 AND 5	SEE SHEET S-100 AND S-101	-	-	-
STAIR #3	S-401	UNDERNEATH LANDING 3RD FLOOR	45	1	SPALL	4a	SEE SHEET S-100	4'-0"	0'-2"	2"
STAIR #3	S-401	THIRD FLOOR (EAST WALL MID-LEVEL LANDING)	46	1	CRACK	3a	SEE SHEET S-100	2'-0"	-	-
STAIR #3	S-401	SECOND LEVEL LANDING (EAST WALL)	47	1	CRACK	3b	SEE SHEET S-100	4'-0"	2'-0"	-
STAIR #3	S-401	UNDERNEATH LANDING STAIR (THIRD FLOOR)	48	1	CRACK	3a	SEE SHEET S-100	4'-0"	-	-
STAIR #3	S-401	WALL SECOND FLOOR (MID-LEVEL LANDING)	49	1	CRACK	3b	SEE SHEET S-100	8'-0"	2'-0"	-
STAIR #3	S-401	UNDERNEATH LANDING STAIR (SECOND FLOOR)	50	1	CRACK	3b	SEE SHEET S-100	4'-0"	2'-0"	-

NOTE:
FOR INFORMATION REGARDING REPAIR TYPE, REFER TO SHEET S-100 AND S-101

- LEGEND
- X

Y

PHOTO DIRECTION

X = IMAGE ID

Y = REPAIR TYPE
- 1

ROOF REPAIR
- 2

CORRODED METAL REPAIR
- 3a

EPOXY INJECTION-CRACKS REPAIR
- 3b

PENETRANT SEALER-CRACKS REPAIR
- 4a

NO EXPOSED REBARS-SPALLS REPAIR
- 4b

EXPOSED REBARS-SPALLS REPAIR
- 5

REPAIR FOR STEEL RAILING
- 6

REPAIR FOR CONCRETE SLAB
- 7

MOISTURE REMOVAL
- 8

JOINT REPAIR

100% SUBMITTAL



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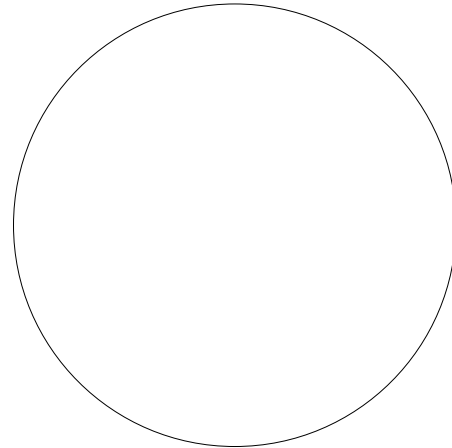
CLIENT:

MIAMI-DADE COUNTY
DEPARTMENT OF
SOLID WASTE MANAGEMENT

2525 SW 62ND STREET
MIAMI, FLORIDA 33147

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SIGNED AND SEALED

	11/30/2023	BLDG DEPT. REVIEW COMMENTS
	6/30/2023	ADDED SHEET PER 40-YEAR RECERTIFICATION REPORT
	2/07/2023	REVIEW COMMENTS
NO:	DATE:	REMARKS:

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:

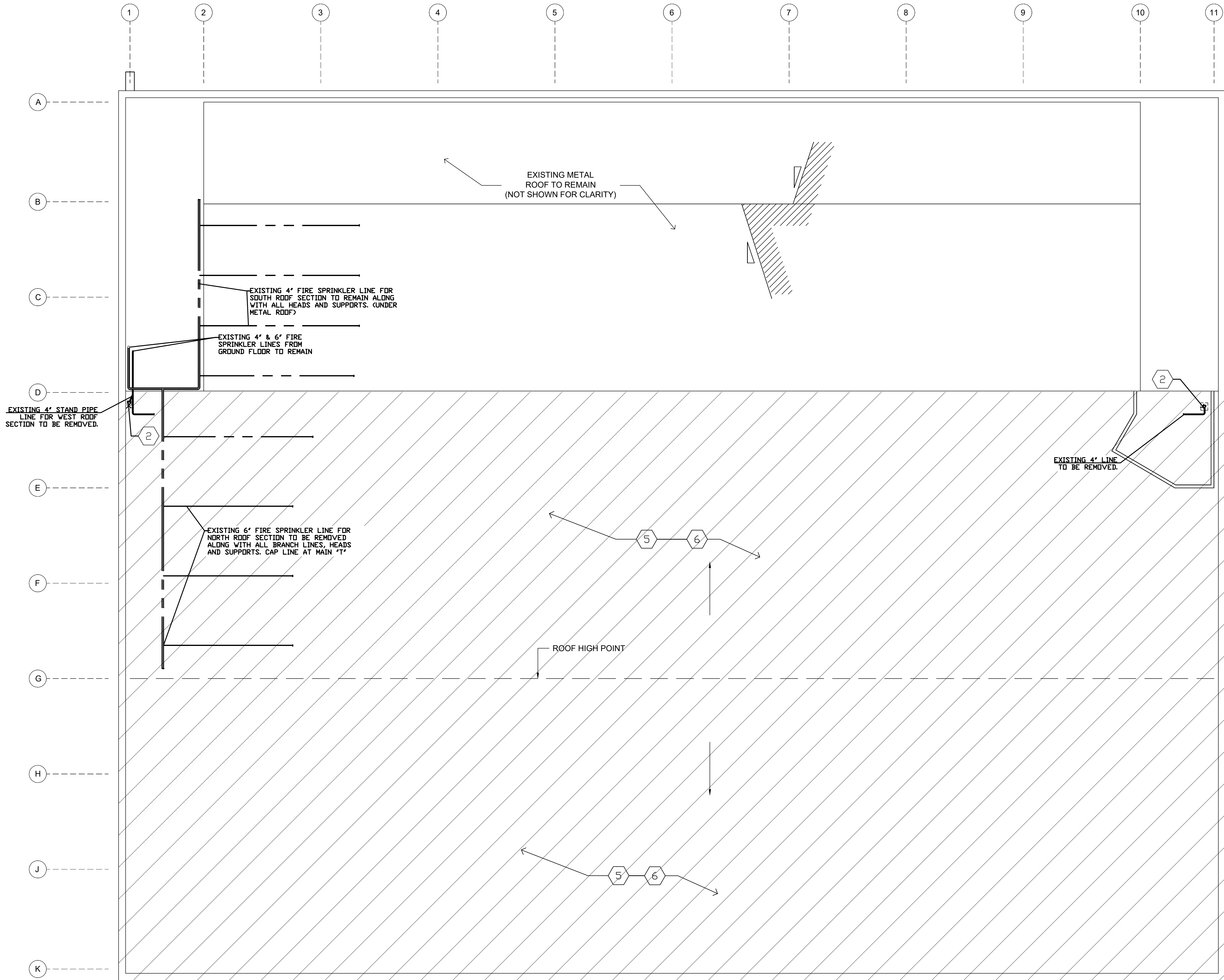
DEFICIENCIES
AND REPAIRS
(2 of 2)

(BLDG.4)

PROJECT NO.: SFL 1021.001	ISSUE DATE:
DRAWN BY: M.M.P.	CHECKED BY: P.M.B.

SHEET NUMBER:

S-409



1 BUILDING 3 - FIRE SPRINKLER DEMOLITION PLAN
SCALE: 3/32"=1'-0".



DEMOLITION NOTES**

- 1 REMOVE/REPLACE EXISTING DRAINAGE OR OVERFLOW SCUPPERS, COMPLETE, INCLUDING FLASHING, COUNTERFLASHING AND ANY OTHER COMPONENTS. (SEE SHEET P-101)
- 2 EXISTING, THROUGH THE ROOF FIRE DEPARTMENT CONNECTION TO BE RELOCATED. REMOVE EXISTING PITCH PAN & PIPE TO MAIN FIRE LINE (SOUTH OF GRIDLINE D) AND CAP UNTIL NEW CONNECTION. (SHEET FS101)
- 3 REMOVE ALL EXISTING ROOF DRAINS, COMPLETE, INCLUDING DRAIN, CLAMPING RING AND STRAINER (TYP.). (SEE SHEET P-101)
- 4 REMOVE ALL LIGHT FIXTURES OVER THE TIPPING FLOOR AREA. TAKE ALL CONDUITS AND CONDUCTORS TO THE NEAREST REMAINING JUNCTION BOX OR TO ELECTRICAL PANEL. (SEE SHEET E-101)
- 5 REMOVE EXISTING ROOF SYSTEM, COMPLETE, INCLUDING MODIFIED BITUMEN MEMBRANES, INSULATION, METAL DECKING, ANCHORS AND ANY OTHER COMPONENTS. (SHEET FS101 & P-101)
- 6 COMPLETE DEMOLITION: BETWEEN GRIDLINES 1 TO 11 AND GRIDLINES D TO K, IN ADDITION TO REMOVALS SPECIFIED HEREIN BEFORE. REMOVE ALL EXISTING LONG-SPAN STEEL JOISTS, STEEL CROSS BRACINGS AND ALL THEIR CONNECTIONS. REMOVE ALL STEEL BEAMS AND GIRDERS, ALL METAL WALL PANELS, PURLINS, SUPPORTS AND ANCHORS, PARAPETS AND ANY OTHER COMPONENTS. SAW-CUT AND REMOVE CONCRETE WALLS AND COLUMNS TO 6'-0" HEIGHT ABOVE TIPPING FLOOR LEVEL, EXCEPT AT GRIDLINE E, FROM GRIDS 10 TO 11, WHERE THE EXISTING STAIRS TO THE OFFICES WILL REMAIN. REFER TO SHEET A-102 FOR DETAILED INFORMATION REGARDING DEMOLITION AND NEW WORK IN THAT AREA. (SHEET FS101 & P-101)

**NOT ALL NOTES APPEAR IN ALL THE SHEETS. SEE SHEET NUMBER INDICATION

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BOTAS Engineering, Inc.
8835 NW 35th Lane, Suite #202 • Doral, FL 33172
Tel: 305-468-9801 • Fax: 305-468-9802

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CLIENT:
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4	9-09-24	SHEET ADDED PER OWNER
MODIFICATIONS		
NO.	DATE	REMARKS
REVISIONS:		

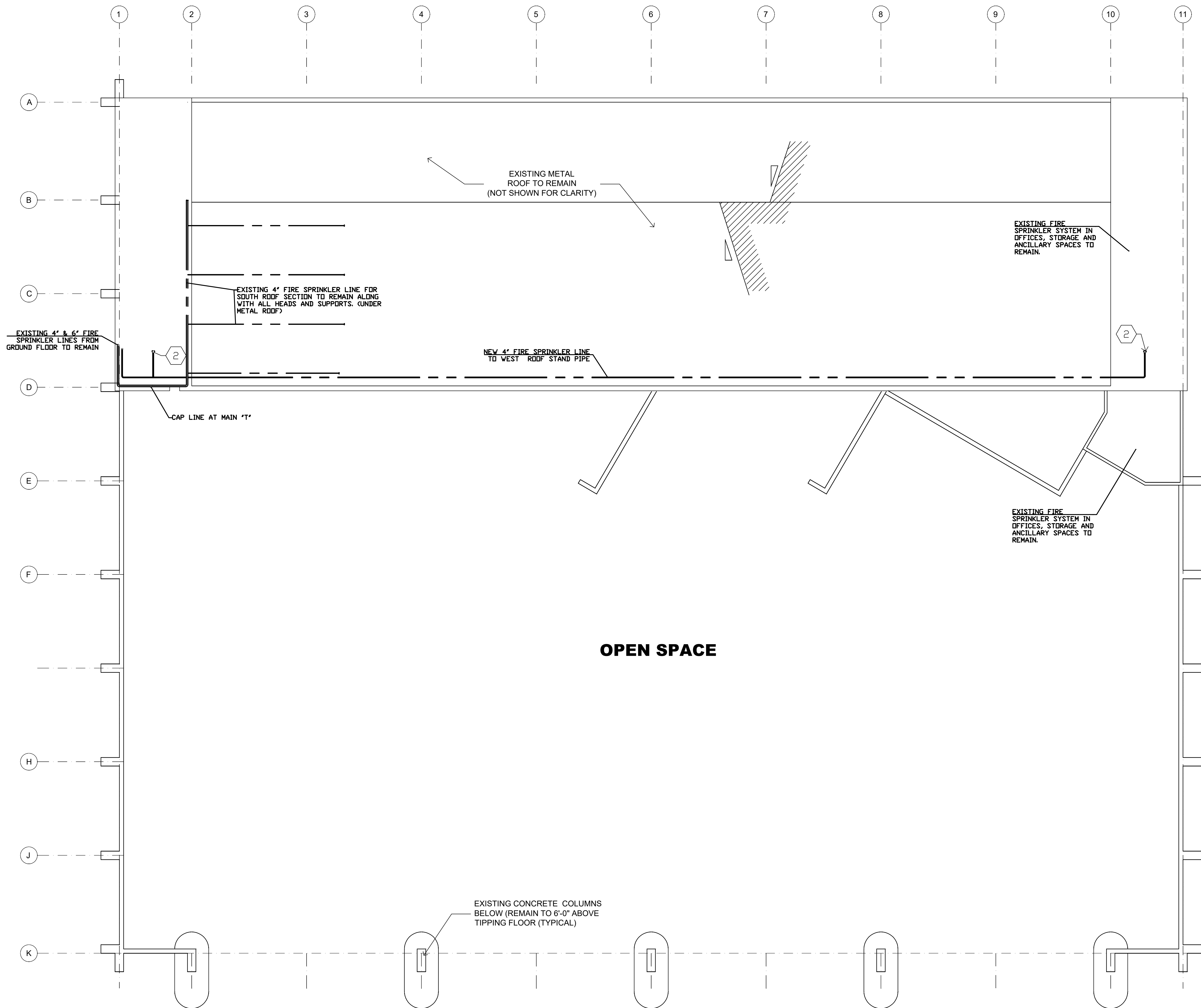
PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS FOR 40-YR. RECERTIFICATION OF BUILDINGS 3 AND 4 SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

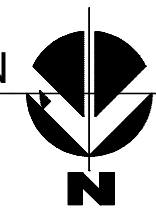
DRAWING TITLE:
BUILDING 3 -
SPRINKLER DEMOLITION
PLAN

PROJECT NO.: SFL 1021 001	ISSUE DATE: 08-30-2024
DRAWN BY: E.B.	CHECKED BY: R.C.M.
SHEET NUMBER:	

FS-101



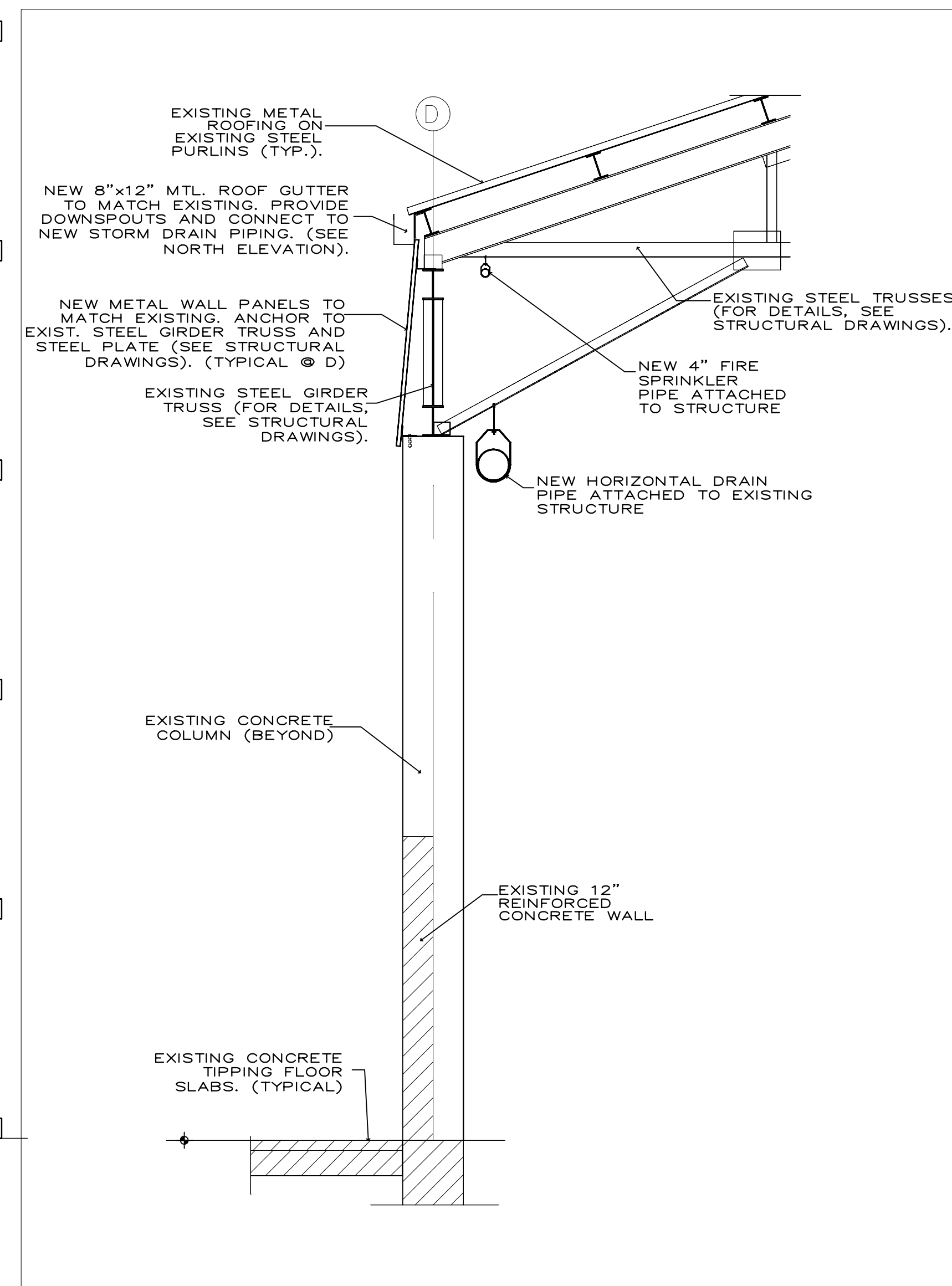
1 BUILDING 3 - NEW FIRE SPRINKLER PLAN
SCALE: 3/32"=1'-0"



NEW WORK NOTES**

- 1 PROVIDE NEW 6"x12" METAL DRAINAGE AND/OR OVERFLOW SCUPPERS AT NEW OR EXISTING LOCATIONS, AS SHOWN. PROVIDE NEW FLASHINGS, AND METAL COUNTER-FLASHINGS FOR A WATERPROOF INSTALLATION. ADJUST HEIGHT OF SCUPPERS AS NEEDED TO MAINTAIN CURRENT DRAINAGE CHARACTERISTICS. (SHEET P-102)
- 2 NEW/RELOCATED THROUGH-THE-ROOF FIRE DEPARTMENT CONNECTION. CONNECT TO EXISTING MAIN FIRE LINE OR FIRE STANDPIPE. PROVIDE NEW PITCH PAN, FLASHINGS AND ANY OTHER COMPONENTS FOR A WATERPROOF INSTALLATION. (SHEET P-102)
- 3 NEW 8"x8" GUTTER ALONG THE METAL ROOF EDGE. 6" DRAIN PIPES AT 27' O/C CONNECTED TO THE NEW HORIZONTAL DRAIN PIPE INSIDE THE BUILDING. (SHEET P-102)
- 4 NEW 8" HORIZONTAL DRAIN PIPE $\frac{1}{8}$ " PER FOOT SLOPE. ATTACH TO EXISTING STEEL STRUCTURE. (SHEET P-102)
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- 6 INSTALL NEW WALL LIGHT FIXTURES ON NEW STAIR ENCLOSURE. SEE LOCATION DETAIL (SHEET E-102)

**NOT ALL NOTES APPEAR IN ALL THE SHEETS. SEE SHEET NUMBER INDICATION



2 PIPE ATTACHEMENT DETAIL
SCALE: N.T.S.



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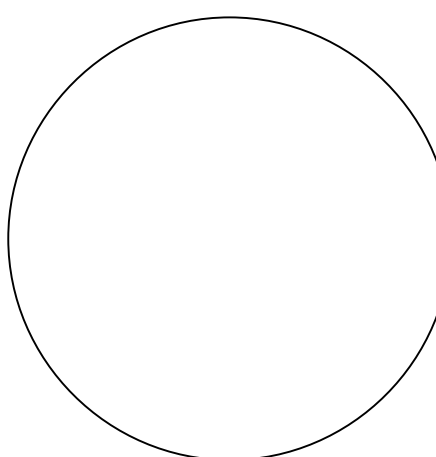


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4	9-09-24	SHEET ADDED PER OWNER MODIFICATIONS
NO:	DATE:	REMARKS:

REVISIONS:

PROJECT TITLE:
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FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

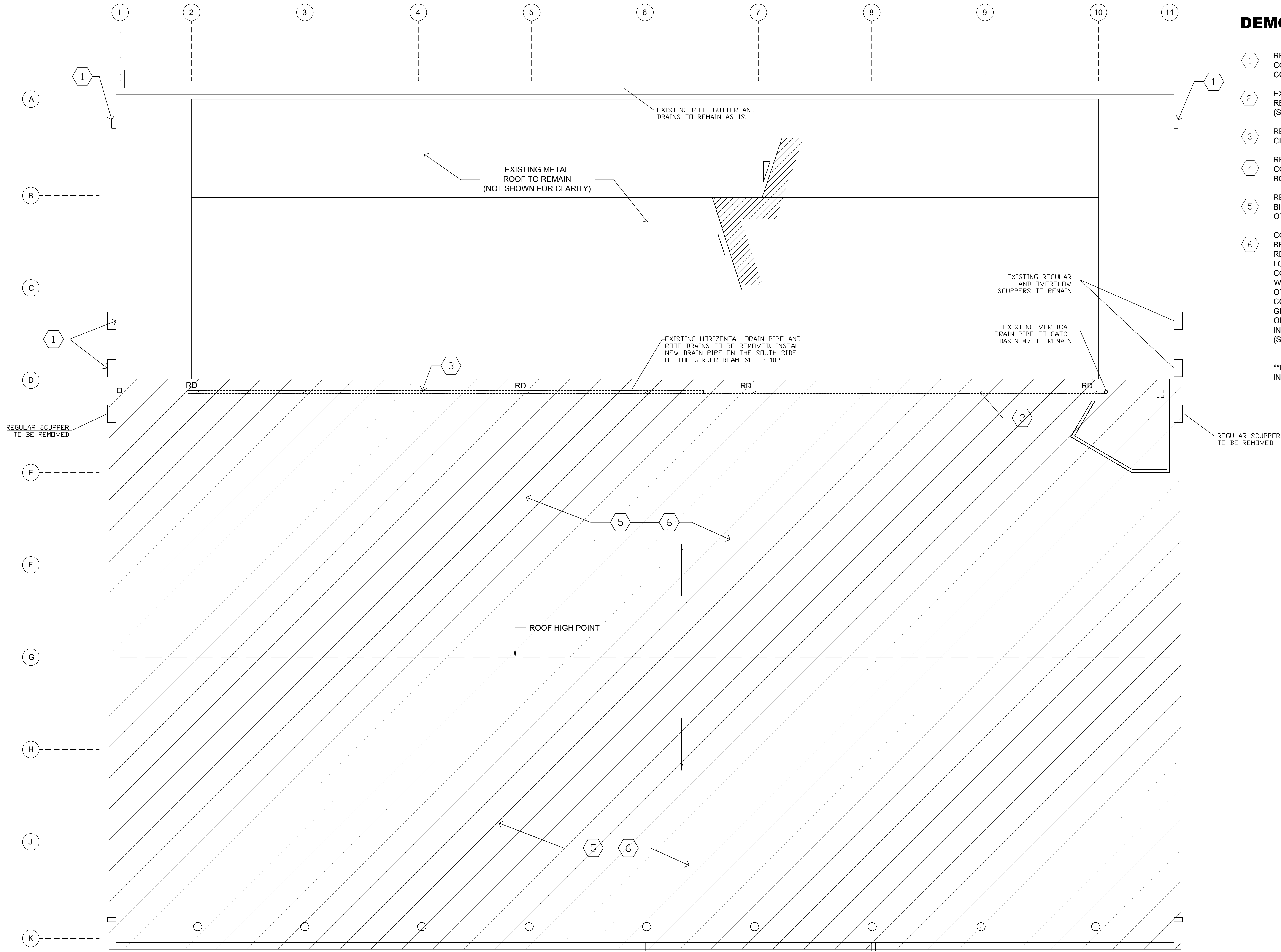
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - NEW FIRE
SPRINKLER PLAN

PROJECT NO.: SFL 1021-001	ISSUE DATE: 08-30-2024
DRAWN BY: E.B.	CHECKED BY: R.C.M.

SHEET NUMBER:

FS-102



1 BUILDING 3 - PLUMBING DEMOLITION PLAN
SCALE: 3/32"=1'-0".

DEMOLITION NOTES**

- 1 REMOVE/REPLACE EXISTING DRAINAGE OR OVERFLOW SCUPPERS, COMPLETE, INCLUDING FLASHING, COUNTERFLASHING AND ANY OTHER COMPONENTS. (SEE SHEET P-101)
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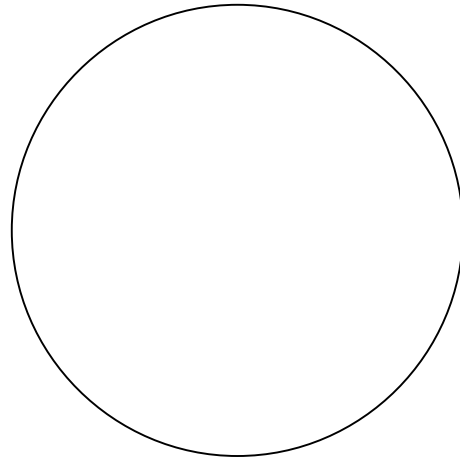
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4	9-09-24	SHEET ADDED PER OWNER
MODIFICATIONS		
NO.	DATE	REMARKS

REVISIONS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

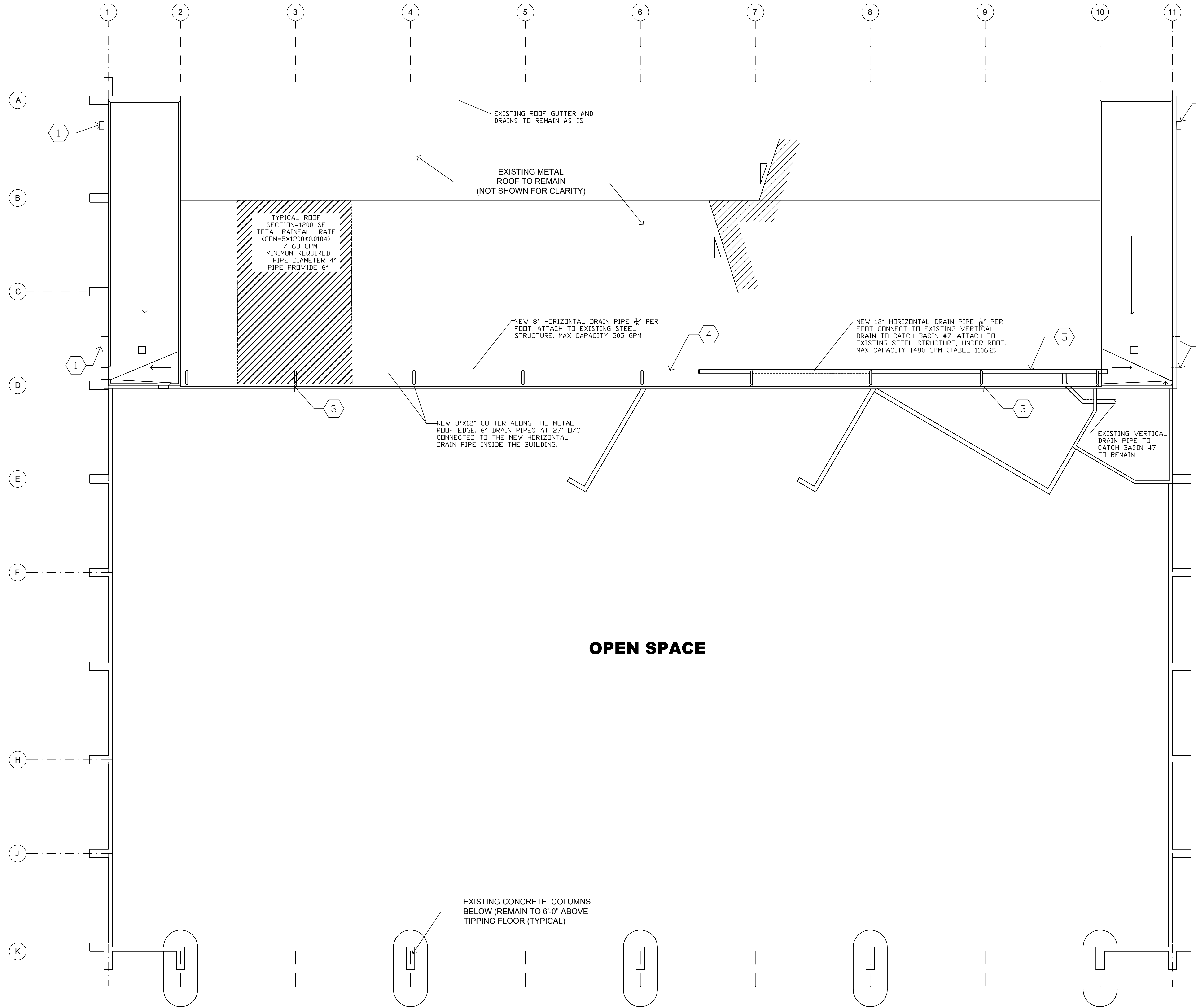
DRAWING TITLE:
BUILDING 3 -
PLUMBING DEMOLITION
PLAN

PROJECT NO.: SFL 1021 001	ISSUE DATE: 08-30-2024
DRAWN BY: E.B.	CHECKED BY: R.C.M.

SHEET NUMBER:

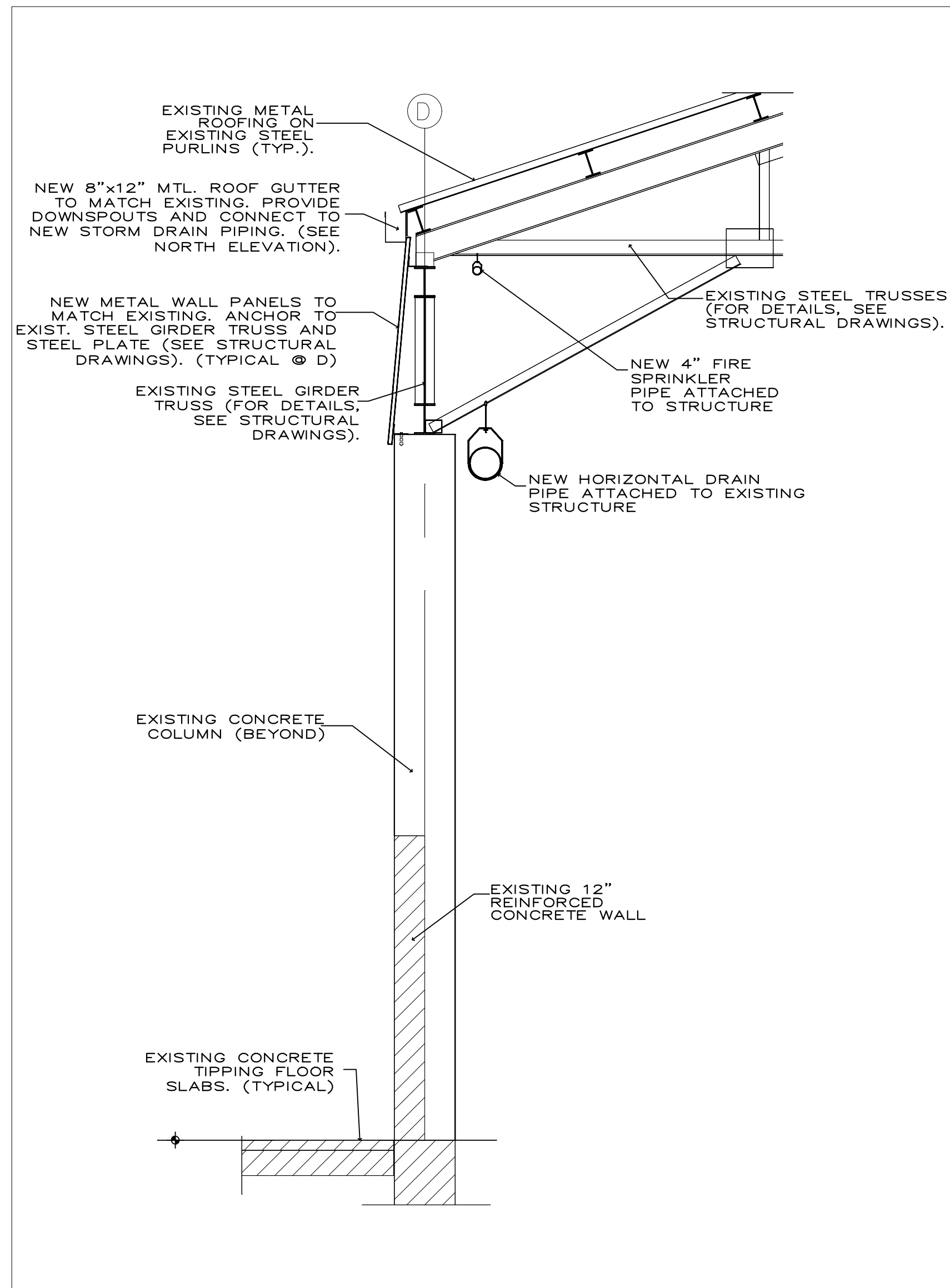
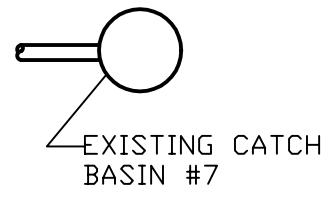
P-101

4



NEW WORK NOTES**

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 - 6 INSTALL NEW WALL LIGHT FIXTURES ON NEW STAIR ENCLOSURE. SEE LOCATION DETAIL (SHEET E-102)
- **NOT ALL NOTES APPEAR IN ALL THE SHEETS. SEE SHEET NUMBER INDICATION



1 BUILDING 3 - NEW PLUMBING PLAN
SCALE: 3/32"=1'-0".

2 PIPE ATTACHEMENT DETAIL
SCALE: N.T.S.



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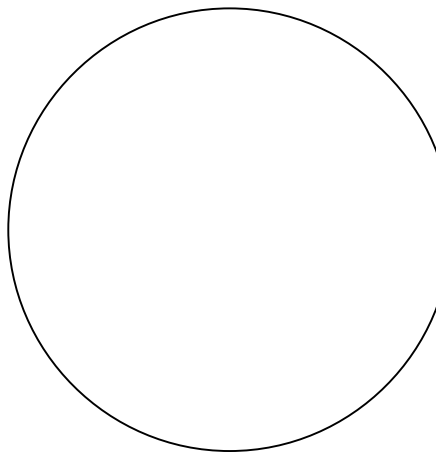


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4	9-09-24	SHEET ADDED PER OWNER MODIFICATIONS
NO:	DATE:	REMARKS:

PROJECT TITLE:
ROOF AND STRUCTURAL REPAIRS
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BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

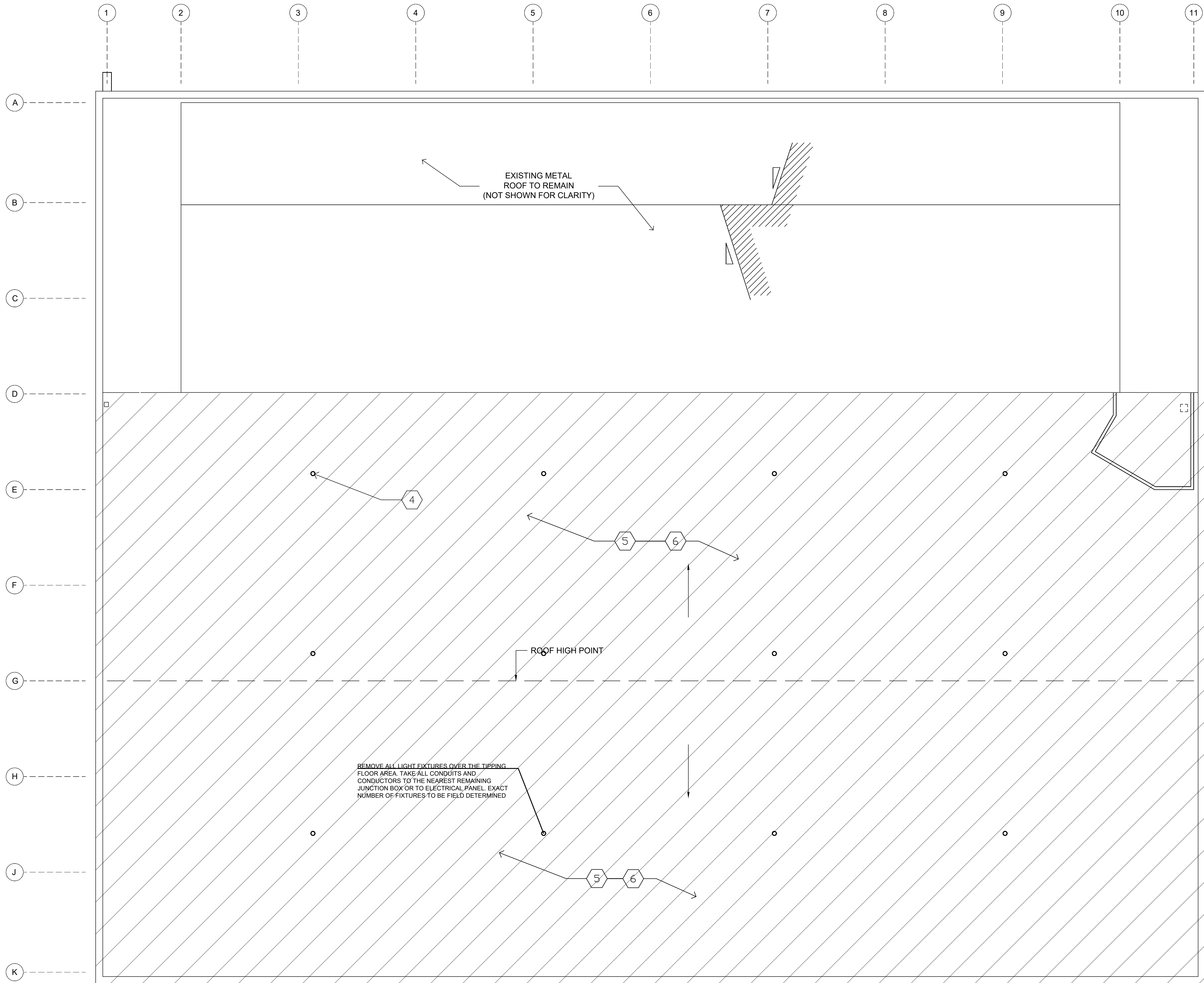
23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 - NEW
PLUMBING PLAN

PROJECT NO.: SFL 1021-001	ISSUE DATE: 08-30-2024
DRAWN BY: E.B.	CHECKED BY: R.C.M.

SHEET NUMBER:

P-102



1 BUILDING 3 - PLUMBING DEMOLITION PLAN
SCALE: 3/32"=1'-0".

DEMOLITION NOTES**

- 1 REMOVE/REPLACE EXISTING DRAINAGE OR OVERFLOW SCUPPERS, COMPLETE, INCLUDING FLASHING, COUNTERFLASHING AND ANY OTHER COMPONENTS. (SEE SHEET P-101)
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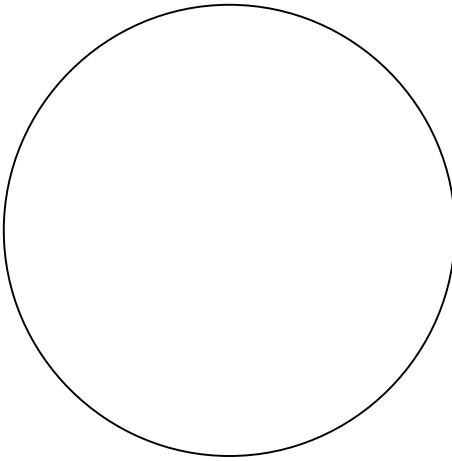
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NO.	DATE	REMARKS
REVISIONS:		

PROJECT TITLE:
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FOR 40-YR. RECERTIFICATION OF
BUILDINGS 3 AND 4
SOUTH DADE LANDFILL

23707 SW 97TH AVENUE
HOMESTEAD, FLORIDA 33032
PROJECT NO. EDP-SW-18577-24

DRAWING TITLE:
BUILDING 3 -
ELECTRICAL DEMOLITION
PLAN

PROJECT NO.: SFL 1021 001	ISSUE DATE: 08-30-2024.
DRAWN BY: E.B.	CHECKED BY: R.C.M.
SHEET NUMBER:	

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2 LIGHT FIXTURE LOCATION DETAIL