

Revised August 24th, 2021

July 26th, 2021

July 15th, 2021

In accordance with Resolution No. 2020-054, RFP #FY 2018-2019-012 Continuing Professional Architectural and Engineering Services and Other Services, the following scope of services is provided by The Corradino Group, Inc. (CONSULTANT) as requested by the CITY to provide Civil Engineering Services for the Design of Sewage Lift Stations 10, 11 and 15 Replacements and Improvements (under Civil).

Mr. Aqeel Abdool-Ghany, PE
Assistant City Engineer
City of Hallandale Beach
630 Northwest 2nd Street
Hallandale Beach, FL 33009

Re: City of Hallandale Beach – Professional Engineering Services for the Design of Sewage Lift Stations 10, 11 and 15 Replacements and Improvements


Dear Mr. Abdool-Ghany:

As requested, The Corradino Group, Inc. (CORRADINO) is pleased to submit this revised proposal to assist the City of Hallandale Beach (CITY) with the provision of Professional Engineering Services for the Design of Sewage Lift Stations 10, 11 and 15 Replacements and Improvements. This proposal provides maximized resources based on the concurrent development of the three (3) sewage lift station improvement projects as part of one construction procurement solicitation for reduced costs.

This proposal includes the following sections: Background, Scope of Work, Schedule, Deliverables, Compensation, and Understandings. The attachments include a Preliminary Engineer's Opinion of Probable Cost.

We appreciate the opportunity to provide our proposal for these services and look forward to supporting the CITY on this very important project. If you have any questions, please do not hesitate to contact me at 305.898.8051 or via email at rregalado@corradino.com. Thank you.

Sincerely,
THE CORRADINO GROUP, INC.



Robert Regalado
Senior Vice President

cc: Austin P'Pool / CORRADINO w / encl

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August 24th, 2021

City of Hallandale Beach

Resolution N. 2020-054, RFP #FY 2018-2019-012 Continuing Professional Architectural and Engineering Services and Other Services

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Work Authorization

Civil Engineering Services for the Design of Sewage Lift Stations 10, 11 and 15 Replacements and Improvements

BACKGROUND

The City of Hallandale (CITY) owns, operates and maintains a wastewater collection and transmission system that includes fifteen (15) sewage lift stations, over twelve (12) miles of force mains, approximately fifty-seven (57) miles of gravity sewers, and nearly 1,200 manholes within a wastewater service area having four distinct geographic systems by basins designated as East, Central, West, and Three Islands. A network of CITY Lift Stations (and privately owned Lift Stations that include Lift Station 16 on Ocean Drive and the Gulfstream Park Lift Station) transmits flows to the City of Hollywood's sanitary sewer system for treatment and disposal at the Southern Regional Wastewater Treatment Plant (SRWWTP) via four (4) separate metered connections. Based on visual inspection during recent site visits, these flows consist of sanitary and infiltration and inflow (I/I) flows that are currently being hydraulically modeled by the CITY. Currently, the CITY is undertaking wastewater system upgrades to address the need for capacity related, renewal and replacement (R&R), and regulatory driven improvements.

DESCRIPTION OF SERVICES

CORRADINO and its subcontractors shall perform the engineering design (civil, mechanical, structural, electrical, and geotechnical), landscape architecture, topographic surveying, public outreach/information, regulatory permitting support, and engineering services during construction

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(limited construction services) for the replacement to Sewage Lift Stations 10, 11, and 15 with new Broward County Standard Lift Stations.

The scope of work shall include the replacement of each pump station with a Broward County Standard Lift Station based on modeling information to be provided by the CITY. The design of this project will consider future system expansion or improvements, utility relocations, roadway improvements, resurfacing, and applicable CITY sewer main replacement criteria and standards. In summary, the following describes the three (3) sewage lift station (LS) projects:

:

- Replacement of LS 10 with Broward County Standard Lift Station Wet Well and Valve Vault
 - Installation of new electrical main disconnect safety switch with fuses, control panel supported on concrete pads with main and emergency circuit breaker, pump motor connection box wiring, raceway and grounding system.
 - Upgrade to Two Submersible Pumps to be sized based on modeling provided by the City
 - Installation of force main to replace the existing force main. (up to 50-LF to connect to existing.)
- Replacement of LS 11 with Broward County Standard Lift Station Wet Well and Valve Vault
 - Installation of new electrical main disconnect safety switch with fuses, control panel supported on concrete pads with main and emergency circuit breaker, pump motor connection box wiring, raceway and grounding system.
 - Upgrade to Two Submersible Pumps to be sized based on modeling provided by the City
 - Installation of force main to replace the existing force main. (up to 50-LF to connect to existing.)
 - Coordination with TECO Peoples Gas for possible relocation of utility.
- Replacement of LS 15 with Broward County Standard Lift Station Wet Well and Valve Vault
 - Installation of new electrical main disconnect safety switch with fuses, control panel supported on concrete pads with main and emergency circuit breaker, pump motor connection box wiring, raceway and grounding system.
 - Upgrade to Two Submersible Pumps to be sized based on modeling provided by the City
 - Installation of force main to replace the existing force main. (up to 50-LF to connect to existing.)

Services to be provided shall include, but are not limited to, the following activities:

- Preparation of the Topographic Surveys
- Geotechnical Investigations (Testing and Analysis)

- Development of Complete Engineering Plans for the Replacement of Existing Lift Station 10 located at 298 Sunset Drive, Existing Lift Station 11 located at 490 Sunset Drive, and Existing Lift Station 15 located at 430 Holiday Dr. Plans shall be submitted to the CITY at 30%, 60%, 90% and 100% for review.
- Preparation of Contract and Bid Documents
- Preparation of and procurement of Dry-Run Permitting Packages.
- Limited Construction Support Services for the provision of engineering services during construction.

The scope of work shall be divided into three (3) tasks as follows:

TASK 1.0 – TOPOGRAPHIC SURVEY AND GEOTECHNICAL ENGINEERING

Task 1.1 – Topographic Surveying

CORRADINO will provide a topographic survey of the project as performed by a surveying subconsultant in accordance with the CITY survey standards for the development of construction plans for the preliminary and final design documents. Relevant topographic features, right of way lines, property lines, pavement, sidewalk curbs, and existing structures will be included in the survey. Said survey shall confirm benchmarks and spot elevations on selected structures.

Deliverables:

- Topographic Survey (via electronic delivery in .pdf and .dwf format and one (1) hard copy signed and sealed by a Florida licensed surveyor)

Task 1.2 - Geotechnical Engineering

The geotechnical subconsultant shall perform the subsurface investigation as subcontracted and managed by CORRADINO. The goals and objectives of the geotechnical investigation shall include the following:

- Identify soil types are within project area
- Identify the characteristics and properties of the soils present
- Use available soil characteristics, properties and potential project geometrics to identify possible geotechnical concerns
- Provide geotechnical recommendations for engineering design

Upon completion of the geotechnical investigation, a geotechnical report shall be prepared. The report shall include the following:

- Brief description of soil conditions observed in the field and in the laboratory
- Conclusions and recommendations regarding:
 - Primary geotechnical engineering concerns and mitigating measures, as applicable
 - Site preparation and grading including treatment of weak, porous, compressible, and expansive surface soils and the construction of fills.
 - Preparation of subgrade and aggregate base for pavement areas
 - Pavement sections

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The geotechnical investigation and report shall be signed and sealed by a Florida Registered Professional Engineer.

Deliverables:

- Geotechnical Report (via electronic delivery in .pdf and .dwf format and one (1) hard copy signed and sealed by a Florida licensed surveyor)

TASK 2.0 – ENGINEERING DESIGN AND REGULATORY PERMITTING

CORRADINO shall prepare and submit design plans to the CITY for the following phases:

Task 2.1 - Draft Final Engineering Report (FER) - 30% Design Submittal

CORRADINO shall prepare, for review and approval by the CITY, “30% Design Documents” for the Project. The 30% design submittal shall consist of 24’ x 36’ engineering plans and other documents illustrating the scale (1:40) and relationship of project components including:

- Location Plan and Vicinity Map
- Preliminary routing showing pipe corridor options (Pipeline Horizontal Alignment)
- Location of existing utilities
- Identification of any permanent and temporary easements needed
- Pipe material selection
- Road Moratorium Status
- Opinion of Probable Cost (OPC) (CITY Standard / 30% contingency)
- Technical Specifications (Table of Contents Only)
- Geotechnical Engineering report and final design recommendations
- Topographic Survey File(s)

A 30% Design Review Workshop with the CITY will be conducted to review the 30% design submittal.

Deliverables:

- 30% Design Submittal (three (3) hard copies 24x36)
- Updated OPC (via electronic delivery in .pdf format)
- 30% Design Review Workshop Meeting Minutes (via electronic delivery in .pdf format)

Task 2.2 - 60% Design Submittal

The 60% Design Submittal will incorporate the applicable review comments obtained from the 30% Design Review Workshop and include:

- Plan and profile of proposed pipe
- Pavement restoration limits
- Proposed valve types and tie-in locations

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- 60% Design Submittal drawings including cover sheet, project location, index of drawings, plan and profile drawings and standard details
- Updated OPC (the CITY Standard / 20% contingency)
- Draft Technical Specifications following the Construction Specifications Institute (CSI) numbering system

A 60% Design Review Workshop will be conducted once the 60% design has been submitted. At this meeting, the integration of previous comments/input from the 30% Design Review Workshop will be discussed. The Project Manager and Engineer of Record (EOR) will attend the workshop.

Deliverables:

- 60% Design Submittal (via electronic delivery in .pdf format)
- Draft Technical Specifications (via electronic delivery in .pdf format)
- Updated OPC (via electronic delivery in .pdf format)

Task 2.3 - 90% Design Submittal

The 90% Design Submittal will incorporate the applicable review comments obtained from the 60% Design Review Workshop and include:

- Incorporation of applicable comments from 60% submittal review
- Update and finalization of horizontal and vertical alignments
- Updated Technical Specifications
- 90% Design drawings including cover sheet, table of contents, project locations, plan and profile drawings and details.
- Pavement restoration limits
- Updated OPC (the CITY Standard / 10% contingency)

CORRADINO will also provide a detailed Maintenance of Traffic (MOT) Plans containing the CITY standards that apply to the project.

Technical specifications will be completed using the CITY standard specifications. The CITY will provide CORRADINO with this template at the onset of the project.

A 90% Design Review Workshop will be conducted once the 90% design has been submitted. At this meeting, the integration of previous comments/input from the 60% Design Review Workshop will be discussed.

Deliverables:

- 90% Design Submittal (via electronic delivery in .pdf format)
- Draft Technical Specifications (via electronic delivery in .pdf format)
- Updated OPC (via electronic delivery in .pdf format)

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Task 2.4 - Permit Package

CORRADINO will provide regulatory coordination support that include pre-application meetings with the permitting agencies having jurisdiction on this project to go over details about their requirement, as well as to expedite the permit submittal process to know the status of current and future planned projects. CORRADINO will submit one (1) request for information per agency regarding current and planned projects within the project boundaries. CORRADINO will prepare the Permit Packages to be submitted to the permitting/ regulatory agencies. The permit package will be submitted by CORRADINO.

CORRADINO will provide signed and sealed drawings for permit applications and prepare the response to review comments. Appropriate agency review comments will be incorporated into the 100% documents.

Deliverables:

- Regulatory Agency Requests for Information (via electronic delivery in .pdf format)
- Final permitted drawings (Four (4)) hard copy sets of full-size drawings
- Drawing Set Revisions (up to three (3) revisions)
- Regulatory Agency review comment responses (via electronic delivery in .pdf format)
- Permit applications (.pdf)

Task 2.5 - 100% Design Submittal

CORRADINO will develop the bid-ready drawings and specifications based on comments from the regulatory review. These completed documents will be submitted to the CITY for preparation of the bid contract package.

CORRADINO will also provide an updated OPC (the CITY Standard / 10% contingency), according to THE CITY standard.

Deliverables:

- 100% Design Drawings (three (3) hard copies in 24x36)
- Final Technical Specifications, (One (1) hard copies and CD with CAD and Word Documents)
- Updated OPC (via electronic delivery in .pdf format)

TASK 3.0 - LIMITED CONSTRUCTION SUPPORT SERVICES

CORRADINO will provide the following Limited Construction Support Services to consist of engineering services during construction, as described below, for an estimated construction duration of up to six (6) months:

Task 3.1 - Attendance at Pre-Bid Meeting and Pre-Construction Meeting

CORRADINO will attend one (1) pre-bid document review meeting and one (1) pre-construction meeting. The CITY will provide notification to CORRADINO of the scheduled meeting locations, times, and dates prior to the meeting.

Deliverables:

- Review commentary of the City's Pre-Bid Meeting and Pre-Construction Meeting notification documents, as applicable (via electronic delivery in .pdf format)

Task 3.2 - Responses to Requests for Information (RFIs) and Contract Document Clarification (CDCs)

At the CITY's request, CORRADINO will review and prepare responses to RFIs and CDCs. The CITY will maintain a log of all RFIs and CDCs, processing, and distribution to the Contractor. It is understood that the City's construction manager will respond to and/or reject RFI's that are addressed in the contract documents.

Deliverables:

- RFIs and CDCs responses as requested by the CITY (via electronic delivery in .pdf format)

Task 3.4 - Review of Shop Drawing Submittals

At the CITY's request, CORRADINO will review the following submittals including:

- Shop Drawings and Samples as directed by the CITY. Status log maintenance and distribution will be performed by the CITY.

Deliverables:

- Submittal review comments (via electronic delivery in .pdf format)

Task 3.5 - EOR Certification Inspections and Final Project Construction

CORRADINO will provide specialized inspection services by various EOR design disciplines on a periodic basis, as needed, for specific reviews required to adequately observe the construction work necessary to certify completion of the project in accordance with the contract documents and applicable permits.

Deliverables:

- Final Project Certification, signed and sealed by the Engineer of Record (via electronic delivery in .pdf format)

Task 3.6 – Construction Inspections

Upon the CITY's direction, inspection services will be provided by CORRADINO as needed for specific inspections required to adequately observe the construction work necessary to certify completion of the project in accordance with the contract documents and applicable permits. For purposes of estimating this scope of services, inspection was limited to 3 days per week during the anticipated duration of the project's construction (up to 6 months)

The construction inspection activities are anticipated to require the following:

- Preparation of construction report observations relative to the contractor's work progress and working conditions (site, weather, etc.), as well as issues encountered, as applicable to be used by the EOR for permit certification purposes.
- Taking of Pre-Construction, Construction and Post-Construction photographs
- Reporting of on-site contractor and subcontractor personnel/equipment
- Monitoring and recording of on-site material deliveries
- Review of contractor pay request and progress schedule review commentary
- Recording of Schedule milestone adherences
- Recording of Occurrence of acknowledged unforeseen conditions
- Recording of Dispute reporting (MDWASD, Contractor, Subcontractor, Residents, etc.)
- Recording of Observations of construction quality, safety procedures and non-compliance work
- Review of Contractor as-builts

This proposal's costs are based on an understanding that the CITY shall provide project management and construction management services to interface between the Owner, Engineer and Inspector. The City is solely responsible to accept, transmit, approve and/or deny Contractor change order requests and shop drawing submittals and will utilize the completeness of CORRADINO's inspection reports to ensure a well-documented review.

Deliverables (via email):

- Inspection Reports (pdf format)
- Meeting minutes
- Pre-Construction, Construction and Post-Construction photographs (peg format)
- Contractor pay request and progress schedule review commentary (pdf format)
- Review of Contractor as-builts (pdf format)

TASK 4 – PUBLIC OUTREACH/INVOLVEMENT

In collaboration with the CITY, CORRADINO will provide public outreach/involvement (PI) services during the Design Phase to inform local community members and stakeholders about the upcoming project upon authorization from the CITY. Our approach is limited to interface with the directly impacted property owner stakeholders as early in the project as possible. We would provide numerous services associated with informing the public about the work to be done during Design, as well as create a base for awareness of what would occur during Construction. Outreach

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services for this project would include project/corridor research and creating a stakeholder database and notifications as part of a Limited Public Involvement Plan (i.e., not including creating project collateral documents, coordination with elected officials, municipalities and potentially affected agencies, media relations, planning public meetings, and performing presentations). Each of these services would provide corresponding deliverables where applicable, which we would perform effective quality control on prior to submission.

Task 4.1 – Project/Corridor Research:

As part of Task 2.1 – Basis of Design Report, CORRADINO will perform all necessary research to familiarize ourselves with the corridor, and therefore readily identify potentially affected stakeholders, as well as potential impacts and inquiries. We will review project plans, project scope, and renderings/maps of the project area.

Deliverables:

- There are no deliverables for this task as this effort results in some of the below tasks and the deliverables associated with them.

Task 4.2 – Create a Stakeholder Database: (N/A)

Task 4.3 – Create a Limited Public Involvement Plan: (N/A)

Task 4.4 – Create Project Collateral Documents: (N/A)

Task 4.5 – Coordination with Elected Officials, Municipalities and Affected Agencies: (N/A)

Task 4.6 – Stakeholder Notification: (N/A)

Task 4.7 – Media Relations: (N/A)

Task 4.8 – Plan and Host Public Meetings: (N/A)

Task 4.9 – Perform Presentations: (N/A)

SCHEDULE

CORRADINO shall provide a detailed project design schedule for this project with a start date to coincide with the written Notice to Proceed (NTP) that considers the timing and information to be provided by the CITY's consultants performing the following:

- Wastewater system's hydraulic analysis (submersible pump selections/capacities)
- Instrumentation Engineering (RTU improvements).

CORRADINO shall complete the design phase for this project in 9-12 months and in accordance with the design project schedule.

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COMPENSATION

The services described herein shall be performed on a Lump Sum fee and not-to-exceed basis in the amount of **\$472,970.00**. Progress payment requests shall be submitted based on percent complete on a monthly basis. Reimbursable expenses for this contract include mileage, tolls, parking, and limited reproduction. Fees for limited construction support services shall be accounted for in the total compensation. Any services not specifically included in this agreement will be considered as an additional service upon proper notification to be negotiated with the City.

Sewage Lift Stations 10, 11 and 15 Replacements

Description	Amount
Sewage Lift Stations 10, 11, and 15 Improvements & Replacements	
Civil, Mechanical, and Structural Engineering, Public Outreach/Information, and Regulatory Permitting Support, Construction Inspection	\$393,010.00
Electrical Engineering (Subconsultant)	\$49,087.00
Geotechnical Engineering (Subconsultant)	\$4,050.00
Landscape Architecture (Subconsultant)	\$4,473.00
Topographic Surveying (Subconsultant)	\$18,597.00
Direct Expenses (Reimbursable)	\$4,000.00
Total	\$472,970.00

UNDERSTANDINGS

This scope of work and deliverables are based on the following assumptions:

- This proposal is based on the concurrent development of the three (3) sewage lift station improvement projects as part of one construction procurement solicitation to be awarded to one Contractor for execution.
- CORRADINO shall utilize the CITY's latest standard forms, construction contracts, standard design details, design criteria, and policies in completing the Design Plans, Specifications and Permits.
- CORRADINO shall be provided with all available as-built record drawings of existing utilities from the CITY, as well as shall request the provision of other identified utilities as-built record drawings.
- Regarding the CITY's existing pump stations, it was confirmed that as-built record plans are not available.

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- The CITY shall provide the proposed pump stations' design criteria (flow and pressure requirements, GPM and TDH) for the selection of the submersible pumps as per the recommendations of the final, calibrated wastewater system hydraulic analysis being performed by the CITY's consultant (Hazen). This hydraulic analysis is understood to define the working and transient pressures in sufficient detail to allow for design purposes.
- CORRADINO will be entitled to reasonably rely upon the information and data provided by the CITY or obtained from generally acceptable sources within the industry without independent verification.
- Provided hydraulic analysis will define working and transient pressures in sufficient detail to allow for design to proceed. This data will be provided to CORRADINO. No hydraulic modeling is included.
- The landscape architecture design shall provide for a proposed Planting Plan for modest improvements to match existing conditions within the proposed site plan's limits of construction in sufficient detail for bidding and installation by qualified contractors.
- The electrical engineering design will be based on the CITY's standards, NEC, and NFPA; and utilizing existing electrical service to meet the needs of the new Control Panel and Main Disconnect Switch incorporating an emergency connection compatible with the CITY's portable electrical generators for temporary connection purposes.
- Existing utility as-built information, as available, shall be utilized in the design plans. The Contractor is responsible for verifying all existing utility materials, sizes, locations, and elevations.
- By-Pass pumping design is not included and is considered means and methods provided by the selected contractor. By-Pass pumping specifications shall be included.
- Technical specifications will be prepared in MS Word and follow CITY's format and requirements and will be provided.
- Opinion of Probable Cost Estimates (OPCE) will be prepared in accordance with the City's provided template.

Attachment 1

**Civil, Mechanical, Structural Engineering, Public
Outreach/Information and Regulatory Permitting
Support Services Labor and Expenses**

Attachment 2
Preliminary Engineer's Opinion of Probable Costs

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 10, No. 11, and No. 15

530 Sunset Drive, Hallandale Beach, FL 33309

430 Holiday Drive, Hallandale Beach, FL 33309

490 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX

July 22, 2021

ft Station N	DESCRIPTION				TOTAL
					COST

<u>GENERAL REQUIREMENTS AND BY-PASS</u>					
1	LS 10				\$52,000.00
2	LS 11				\$50,000.00
3	LS 15				\$50,000.00
General Requirements Subtotal					\$152,000.00

<u>DEMOLITION & REHABILITATION</u>					
4	LS 10				\$68,500.00
5	LS 11				\$74,750.00
6	LS 15				\$76,000.00
Demolition Subtotal					\$219,250.00

<u>CIVIL</u>					
7	LS 10				\$260,080.00
8	LS 11				\$255,580.00
9	LS 15				\$254,580.00
Civil Subtotal					\$770,240.00

<u>MECHANICAL</u>					
10	LS 10				\$126,400.00
11	LS 11				\$123,350.00
12	LS 15				\$136,400.00
Mechanical Subtotal					\$386,150.00

<u>ELECTRICAL</u>					
13	LS 10				\$99,400.00
14	LS 11				\$101,800.00
15	LS 15				\$101,800.00
Electrical Subtotal					\$303,000.00

Subtotal A - Construction Costs					\$1,830,640.00
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PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 10, No. 11, and No. 15

530 Sunset Drive, Hallandale Beach, FL 33309

430 Holiday Drive, Hallandale Beach, FL 33309

490 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX

July 22, 2021

ft Station N	DESCRIPTION			TOTAL
				COST

B - OTHER DIRECT COSTS		
Maintenance of Traffic (% of Subtotal)	5%	\$91,532.00
Mobilization & Demobilization (% of Subtotal)	10%	\$183,064.00
Subtotal B - Other Direct Costs		\$274,596.00
Construction Subtotal (A + B)		\$2,105,236.00
C - CONTINGENCY & DEDICATED ALLOWANCE		
Dedidcated Allowance - Off Duty Police	DA	\$18,000.00
Dedidcated Allowance -Diesel-Diesel By-Pass	DA	\$48,000.00
Contingency - For unforeseen conditions, minor construction changes, and quantity adjustmens as ordered by the Engineer	25%	\$457,660.00
Dedicated Allowance: Permit Fees	3%	\$54,919.20
Subtotal C - Contingency & Dedicated Allowance		\$578,579.20
TOTAL VALUE OF ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS (A+B+C)		\$2,683,815.20

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 10

530 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST

<u>GENERAL REQUIREMENTS AND BY-PASS</u>					
1	Clear & Grub Site, Debris Disposal, Site Prep	L.S.	1	\$2,000.00	\$2,000.00
2	Startup & Testing	L.S.	1	\$10,000.00	\$10,000.00
3	Sewage Bypass operation including aboveground bypass piping, fittings and mobilization. Two (2) Independent Systems may be required	E.A.	1	\$40,000.00	\$40,000.00
General Requirements Subtotal					\$52,000.00

<u>DEMOLITION & REHABILITATION</u>					
4	Existing Sanitary Manhole to be Cored (1) 8" hole, re-work flow channels and accommodate for pipe installation	L.S.	1	\$8,000.00	\$8,000.00
5	Demolition and Removal of Existing Wet Well and Associated Pumping Equipment and Piping	L.S.	1	\$40,000.00	\$40,000.00
6	Abandon, Grout, and Fill Existing 8" PVC Gravity Main	L.F.	50	\$150.00	\$7,500.00
7	Removal of existing Mains	L.F.	10	\$50.00	\$500.00
8	Removal of abandoned Gas Main	LF	0	\$30.00	\$0.00
9	Removal of Pavement	S.Y.	0	\$25.00	\$0.00
10	Miscellaneous Demolition and Disposal (Mechanical)	L.S.	1	\$2,500.00	\$2,500.00
11	Demolition and Removal of Electrical Equipment	L.S.	1	\$10,000.00	\$10,000.00
12	Removal of (3) Trees	E.A.	0	\$1,000.00	\$0.00
Demolition Subtotal					\$68,500.00

<u>CIVIL</u>					
18	Furnish & Install New 8' Dia. Wet Well	EA	1	\$55,000.00	\$55,000.00
19	Furnish & Install New Valve Vault Structure	L.S.	1	\$37,500.00	\$37,500.00
20	Furnish & Install New Standard Sanitary Manholes	EA	2	\$9,500.00	\$19,000.00
21	Furnish & Install New 8" PVC C-900 Gravity Mains	L.F.	120	\$200.00	\$24,000.00
22	Furnish & Install New 6" DI Force Main	L.F.	100	\$125.00	\$12,500.00
24	New Water Service (inc. Backflow)	L.S.	1	\$3,000.00	\$3,000.00
25	Excavation and Backfilling for installation of new pipes (Gravity and Force Main)	C.Y.	500	\$32.00	\$16,000.00
26	Excavation for new wet well and valve vault	C.Y.	200	\$40.00	\$8,000.00
27	Wet Well and Manhole Surface Protection Coating	S.F.	500	\$32.00	\$16,000.00
28	Wet Well Vent w/ Odor Cartridge	L.S.	1	\$1,300.00	\$1,300.00
29	Aluminum H-20 Rated Hatches 72"x72"	E.A.	1	\$15,000.00	\$15,000.00
30	Aluminum H-20 Rated Hatches 42"x64"	E.A.	1	\$12,000.00	\$12,000.00
31	Furnish and Install Reinforced Concrete Slabs for wet well, valve vault, electrical panel, junction box and water meter	C.Y.	15	\$850.00	\$12,750.00

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 10

530 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
34	Asphalt	S.Y.	800	\$12.00	\$9,600.00
35	Milling and Resurfacing Asphalt	S.Y.	670	\$4.00	\$2,680.00
36	Solid White Pavement Striping	L.S.	1	\$2,000.00	\$2,000.00
38	Light Pole Relocation	L.S.	1	\$500.00	\$500.00
39	Install 5" Dia. X 36" high removable bollard	E.A.	5	\$550.00	\$2,750.00
40	Concrete Wheel Stop	E.A.	1	\$500.00	\$500.00
41	Sod Restoration and Landscaping	L.S.	1	\$10,000.00	\$10,000.00
Civil Subtotal					\$260,080.00

<u>MECHANICAL</u>					
42	F&I of Lift Station Equipment & Fittings (complete) Including (2)Submerible Pumps (Size TBD), Guiderail, Instrumentation, Sensors, Gauges, Floats, Base Elbow, Flange	L.S.	1	\$ 100,000.00	\$100,000.00
43	6" Plug Valve	E.A.	4	\$ 2,600.00	\$10,400.00
44	6" Check Valve	E.A.	2	\$ 2,600.00	\$5,200.00
45	6" X 6" Tee	E.A.	1	\$ 450.00	\$450.00
46	6" 90° Bend	E.A.	1	\$ 425.00	\$425.00
47	6" 45° Bend	E.A.	1	\$ 425.00	\$425.00
48	4" Internal Discharge Piping	L.S.	1	\$ 2,500.00	\$2,500.00
49	Valve Vault Sump Pump & Piping	E.A.	1	\$ 1,250.00	\$1,250.00
50	F&I Meter Box, Backflow Preventer Assembly, Hose Bibb, Water Pipe, & Water Meter	L.S.	1	\$3,750.00	\$3,750.00
51	Miscellaneous Mechanical installations	L.S.	1	\$2,000.00	\$2,000.00
Mechanical Subtotal					\$126,400.00

<u>ELECTRICAL</u>					
52	Install Electrical Conduit to Meter Box	L.F.	80	\$60.00	\$4,800.00
53	240 V Pump Control Panel sized for (2) pumps	L.S.	1	\$50,000.00	\$50,000.00
54	NEMA 4X Main Disconnect Switch	E.A.	1	\$8,200.00	\$8,200.00
55	Install New SCADA RTU Panel and Antenna Cabinet	L.S.	1	\$7,500.00	\$7,500.00
56	Junction Boxes, Receptacle	L.S.	1	\$5,000.00	\$5,000.00
57	New transformer 7.5 KVA (480/240-120VAC)	E.A.	1	\$2,400.00	\$2,400.00
58	Power & Signal Wiring	L.F.	300	\$7.00	\$2,100.00
59	New Electrical Equipment Appurtenances	L.S.	1	\$12,000.00	\$12,000.00
60	Equipment Support Rack	E.A.	1	\$7,400.00	\$7,400.00
61	Installation of Electrical Drop	L.S.	1	\$3,000.00	\$3,000.00
61	Installation of FPL Conduits	L.S.	1	\$10,500.00	\$10,500.00
Electrical Subtotal					\$99,400.00

Subtotal A - Construction Costs					\$606,380.00
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PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 10

530 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
B - OTHER DIRECT COSTS					
	Maintenance of Traffic (% of Subtotal)			5%	\$30,319.00
	Mobilization & Demobilization (% of Subtotal)			10%	\$60,638.00
				Subtotal B - Other Direct Costs	\$90,957.00
				Construction Subtotal (A + B)	\$697,337.00
C - CONTINGENCY & DEDICATED ALLOWANCE					
	Dedidcated Allowance - Off Duty Police			DA	\$6,000.00
	Dedidcated Allowance -Diesel-Diesel By-Pass			DA	\$16,000.00
	Contingency - For unforeseen conditions, minor construction changes, and quantity adjustmens as ordered by the Engineer			25%	\$151,595.00
	Dedicated Allowance: Permit Fees			3%	\$18,191.40
				Subtotal C - Contingency & Dedicated Allowance	\$191,786.40
				TOTAL VALUE OF ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS (A+B+C)	\$889,123.40

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 11

430 Holiday Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST

<u>GENERAL REQUIREMENTS AND BY-PASS</u>					
1	Clear & Grub Site, Debris Disposal, Site Prep	L.S.	1	\$0.00	\$0.00
2	Startup & Testing	L.S.	1	\$10,000.00	\$10,000.00
3	Sewage Bypass operation including aboveground bypass piping, fittings and mobilization. Two (2) Independent Systems may be required	E.A.	1	\$40,000.00	\$40,000.00
General Requirements Subtotal					\$50,000.00

<u>DEMOLITION & REHABILITATION</u>					
4	Existing Sanitary Manhole to be Cored (1) 8" hole, re-work flow channels and accommodate for pipe installation	L.S.	1	\$8,000.00	\$8,000.00
5	Demolition and Removal of Existing Wet Well and Associated Pumping Equipment and Piping	L.S.	1	\$40,000.00	\$40,000.00
6	Abandon, Grout, and Fill Existing 8" PVC Gravity Main	L.F.	50	\$150.00	\$7,500.00
7	Removal of existing Mains	L.F.	10	\$50.00	\$500.00
8	Removal of abandoned Gas Main	LF	0	\$30.00	\$0.00
9	Removal of Pavement	S.Y.	250	\$25.00	\$6,250.00
10	Miscellaneous Demolition and Disposal (Mechanical)	L.S.	1	\$2,500.00	\$2,500.00
11	Demolition and Removal of Electrical Equipment	L.S.	1	\$10,000.00	\$10,000.00
12	Removal of (3) Trees	E.A.	0	\$1,000.00	\$0.00
Demolition Subtotal					\$74,750.00

<u>CIVIL</u>					
18	Furnish & Install New 8' Dia. Wet Well	EA	1	\$55,000.00	\$55,000.00
19	Furnish & Install New Valve Vault Structure	L.S.	1	\$37,500.00	\$37,500.00
20	Furnish & Install New Standard Sanitary Manholes	EA	2	\$9,500.00	\$19,000.00
21	Furnish & Install New 8" PVC C-900 Gravity Mains	L.F.	120	\$200.00	\$24,000.00
22	Furnish & Install New 4" DI Force Main	L.F.	80	\$100.00	\$8,000.00
24	New Water Service (inc. Backflow)	L.S.	1	\$3,000.00	\$3,000.00
25	Excavation and Backfilling for installation of new pipes (Gravity and Force Main)	C.Y.	500	\$32.00	\$16,000.00
26	Excavation for new wet well and valve vault	C.Y.	200	\$40.00	\$8,000.00
27	Wet Well and Manhole Surface Protection Coating	S.F.	500	\$32.00	\$16,000.00
28	Wet Well Vent w/ Odor Cartridge	L.S.	1	\$1,300.00	\$1,300.00
29	Aluminum H-20 Rated Hatches 72"x72"	E.A.	1	\$15,000.00	\$15,000.00
30	Aluminum H-20 Rated Hatches 42"x64"	E.A.	1	\$12,000.00	\$12,000.00
31	Furnish and Install Reinforced Concrete Slabs for wet well, valve vault, electrical panel, junction box and water meter	C.Y.	15	\$850.00	\$12,750.00

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 11

430 Holiday Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
34	Asphalt	S.Y.	800	\$12.00	\$9,600.00
35	Milling and Resurfacing Asphalt	S.Y.	670	\$4.00	\$2,680.00
36	Solid White Pavement Striping	L.S.	1	\$2,000.00	\$2,000.00
38	Light Pole Relocation	L.S.	1	\$500.00	\$500.00
39	Install 5" Dia. X 36" high removable bollard	E.A.	5	\$550.00	\$2,750.00
40	Concrete Wheel Stop	E.A.	1	\$500.00	\$500.00
41	Sod Restoration and Landscaping	L.S.	1	\$10,000.00	\$10,000.00
Civil Subtotal					\$255,580.00

<u>MECHANICAL</u>					
42	F&I of Lift Station Equipment & Fittings (complete) Including (2)Submerible Pumps (Size TBD), Guiderail, Instrumentation, Sensors, Gauges, Floats, Base Elbow, Flange	L.S.	1	\$ 100,000.00	\$100,000.00
43	4" Plug Valve	E.A.	4	\$ 2,200.00	\$8,800.00
44	4" Check Valve	E.A.	2	\$ 2,200.00	\$4,400.00
45	4" X 4" Tee	E.A.	1	\$ 400.00	\$400.00
46	4" 90° Bend	E.A.	1	\$ 375.00	\$375.00
47	4" 45° Bend	E.A.	1	\$ 375.00	\$375.00
48	4" Internal Discharge Piping	L.S.	1	\$ 2,000.00	\$2,000.00
49	Valve Vault Sump Pump & Piping	E.A.	1	\$ 1,250.00	\$1,250.00
50	F&I Meter Box, Backflow Preventer Assembly, Hose Bibb, Water Pipe, & Water Meter	L.S.	1	\$3,750.00	\$3,750.00
51	Miscellaneous Mechanical installations	L.S.	1	\$2,000.00	\$2,000.00
Mechanical Subtotal					\$123,350.00

<u>ELECTRICAL</u>					
52	Install Electrical Conduit to Meter Box	L.F.	120	\$60.00	\$7,200.00
53	240 V Pump Control Panel sized for (2) pumps	L.S.	1	\$50,000.00	\$50,000.00
54	NEMA 4X Main Disconnect Switch	E.A.	1	\$8,200.00	\$8,200.00
55	Install New SCADA RTU Panel and Antenna Cabinet	L.S.	1	\$7,500.00	\$7,500.00
56	Junction Boxes, Receptacle	L.S.	1	\$5,000.00	\$5,000.00
57	New transformer 7.5 KVA (480/240-120VAC)	E.A.	1	\$2,400.00	\$2,400.00
58	Power & Signal Wiring	L.F.	300	\$7.00	\$2,100.00
59	New Electrical Equipment Appurtenances	L.S.	1	\$12,000.00	\$12,000.00
60	Equipment Support Rack	E.A.	1	\$7,400.00	\$7,400.00
61	Installation of Electrical Drop	L.S.	1	\$3,000.00	\$3,000.00
61	Installation of FPL Conduits	L.S.	1	\$10,500.00	\$10,500.00
Electrical Subtotal					\$101,800.00

Subtotal A - Construction Costs					\$605,480.00
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PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 11

430 Holiday Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
B - OTHER DIRECT COSTS					
	Maintenance of Traffic (% of Subtotal)			5%	\$30,274.00
	Mobilization & Demobilization (% of Subtotal)			10%	\$60,548.00
				Subtotal B - Other Direct Costs	\$90,822.00
				Construction Subtotal (A + B)	\$696,302.00
C - CONTINGENCY & DEDICATED ALLOWANCE					
	Dedidcated Allowance - Off Duty Police			DA	\$6,000.00
	Dedidcated Allowance -Diesel-Diesel By-Pass			DA	\$16,000.00
	Contingency - For unforeseen conditions, minor construction changes, and quantity adjustmens as ordered by the Engineer			25%	\$151,370.00
	Dedicated Allowance: Permit Fees			3%	\$18,164.40
				Subtotal C - Contingency & Dedicated Allowance	\$191,534.40
				TOTAL VALUE OF ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS (A+B+C)	\$887,836.40

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 15

490 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST

<u>GENERAL REQUIREMENTS AND BY-PASS</u>					
1	Clear & Grub Site, Debris Disposal, Site Prep	L.S.	1	\$0.00	\$0.00
2	Startup & Testing	L.S.	1	\$10,000.00	\$10,000.00
3	Sewage Bypass operation including aboveground bypass piping, fittings and mobilization. Two (2) Independent Systems may be required	E.A.	1	\$40,000.00	\$40,000.00
General Requirements Subtotal					\$50,000.00

<u>DEMOLITION & REHABILITATION</u>					
4	Existing Sanitary Manhole to be Cored (1) 8" hole, re-work flow channels and accommodate for pipe installation	L.S.	1	\$8,000.00	\$8,000.00
5	Demolition and Removal of Existing Wet Well, Valve Vault and Associated Pumping Equipment and Piping	L.S.	1	\$45,000.00	\$45,000.00
6	Abandon, Grout, and Fill Existing 8" PVC Gravity Main	L.F.	50	\$150.00	\$7,500.00
7	Removal of existing Mains	L.F.	10	\$50.00	\$500.00
8	Removal of abandoned Gas Main	LF	0	\$30.00	\$0.00
9	Removal of Pavement	S.Y.	100	\$25.00	\$2,500.00
10	Miscellaneous Demolition and Disposal (Mechanical)	L.S.	1	\$2,500.00	\$2,500.00
11	Demolition and Removal of Electrical Equipment	L.S.	1	\$10,000.00	\$10,000.00
12	Removal of (3) Trees	E.A.	0	\$1,000.00	\$0.00
Demolition Subtotal					\$76,000.00

<u>CIVIL</u>					
18	Furnish & Install New 8' Dia. Wet Well	EA	1	\$55,000.00	\$55,000.00
19	Furnish & Install New Valve Vault Structure	L.S.	1	\$37,500.00	\$37,500.00
20	Furnish & Install New Standard Sanitary Manholes	EA	2	\$9,500.00	\$19,000.00
21	Furnish & Install New 8" PVC C-900 Gravity Mains	L.F.	80	\$200.00	\$16,000.00
22	Furnish & Install New 6" DI Force Main	L.F.	50	\$100.00	\$5,000.00
24	New Water Service (inc. Backflow)	L.S.	1	\$3,000.00	\$3,000.00
25	Excavation and Backfilling for installation of new pipes (Gravity and Force Main)	C.Y.	500	\$32.00	\$16,000.00
26	Excavation for new wet well and valve vault	C.Y.	200	\$40.00	\$8,000.00
27	Wet Well and Manhole Surface Protection Coating	S.F.	500	\$32.00	\$16,000.00
28	Wet Well Vent w/ Odor Cartridge	L.S.	1	\$1,300.00	\$1,300.00
29	Aluminum H-20 Rated Hatches 72"x72"	E.A.	1	\$15,000.00	\$15,000.00
30	Aluminum H-20 Rated Hatches 42"x64"	E.A.	1	\$12,000.00	\$12,000.00
31	Furnish and Install Reinforced Concrete Slabs for wet well, valve vault, electrical panel, junction box and water meter	C.Y.	15	\$850.00	\$12,750.00

PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 15

490 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
34	Asphalt	S.Y.	800	\$12.00	\$9,600.00
35	Milling and Resurfacing Asphalt	S.Y.	670	\$4.00	\$2,680.00
36	Solid White Pavement Striping	L.S.	1	\$2,000.00	\$2,000.00
38	Light Pole Relocation	L.S.	1	\$500.00	\$500.00
39	Install 5" Dia. X 36" high removable bollard	E.A.	5	\$550.00	\$2,750.00
40	Concrete Wheel Stop	E.A.	1	\$500.00	\$500.00
41	Sod Restoration and Landscaping	L.S.	1	\$20,000.00	\$20,000.00
Civil Subtotal					\$254,580.00

<u>MECHANICAL</u>					
42	F&I of Lift Station Equipment & Fittings (complete) Including (2)Submerible Pumps (Size TBD), Guiderail, Instrumentation, Sensors, Gauges, Floats, Base Elbow, Flange	L.S.	1	\$ 110,000.00	\$110,000.00
43	6" Plug Valve	E.A.	4	\$ 2,600.00	\$10,400.00
44	6" Check Valve	E.A.	2	\$ 2,600.00	\$5,200.00
45	6" X 6" Tee	E.A.	1	\$ 450.00	\$450.00
46	6" 90° Bend	E.A.	1	\$ 425.00	\$425.00
47	6" 45° Bend	E.A.	1	\$ 425.00	\$425.00
48	4" Internal Discharge Piping	L.S.	1	\$ 2,500.00	\$2,500.00
49	Valve Vault Sump Pump & Piping	E.A.	1	\$ 1,250.00	\$1,250.00
50	F&I Meter Box, Backflow Preventer Assembly, Hose Bibb, Water Pipe, & Water Meter	L.S.	1	\$3,750.00	\$3,750.00
51	Miscellaneous Mechanical installations	L.S.	1	\$2,000.00	\$2,000.00
Mechanical Subtotal					\$136,400.00

<u>ELECTRICAL</u>					
52	Install Electrical Conduit to Meter Box	L.F.	120	\$60.00	\$7,200.00
53	240 V Pump Control Panel sized for (2) pumps	L.S.	1	\$50,000.00	\$50,000.00
54	NEMA 4X Main Disconnect Switch	E.A.	1	\$8,200.00	\$8,200.00
55	Install New SCADA RTU Panel and Antenna Cabinet	L.S.	1	\$7,500.00	\$7,500.00
56	Junction Boxes, Receptacle	L.S.	1	\$5,000.00	\$5,000.00
57	New transformer 7.5 KVA (480/240-120VAC)	E.A.	1	\$2,400.00	\$2,400.00
58	Power & Signal Wiring	L.F.	300	\$7.00	\$2,100.00
59	New Electrical Equipment Appurtenances	L.S.	1	\$12,000.00	\$12,000.00
60	Equipment Support Rack	E.A.	1	\$7,400.00	\$7,400.00
61	Installation of Electrical Drop	L.S.	1	\$3,000.00	\$3,000.00
61	Installation of FPL Conduits	L.S.	1	\$10,500.00	\$10,500.00
Electrical Subtotal					\$101,800.00

Subtotal A - Construction Costs					\$618,780.00
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PRELIMINARY COST ESTIMATE

UPGRADE SEWER LIFT STATION No. 15

490 Sunset Drive, Hallandale Beach, FL 33309

PROJECT PLANS COMPLETION PERCENTAGE: 0%

Proj# XXXX July 15, 2021

ITEM NO.	DESCRIPTION	QUANTITY		MATERIAL	TOTAL
		UNIT	NUMBER	UNIT COST	COST
B - OTHER DIRECT COSTS					
	Maintenance of Traffic (% of Subtotal)			5%	\$30,939.00
	Mobilization & Demobilization (% of Subtotal)			10%	\$61,878.00
				Subtotal B - Other Direct Costs	\$92,817.00
				Construction Subtotal (A + B)	\$711,597.00
C - CONTINGENCY & DEDICATED ALLOWANCE					
	Dedidcated Allowance - Off Duty Police			DA	\$6,000.00
	Dedidcated Allowance -Diesel-Diesel By-Pass			DA	\$16,000.00
	Contingency - For unforeseen conditions, minor construction changes, and quantity adjustmens as ordered by the Engineer			25%	\$154,695.00
	Dedicated Allowance: Permit Fees			3%	\$18,563.40
				Subtotal C - Contingency & Dedicated Allowance	\$195,258.40
				TOTAL VALUE OF ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS (A+B+C)	\$906,855.40