

WORK ORDER No. 12 FOR PROFESSIONAL SERVICES

TO: A&P Consulting Transportation Engineers
10305 N.W. 41 Street, Suite 115
Miami, Florida 33178
(305) 592-7283

DATE: November 15, 2017

The City of Doral authorizes the firm of A&P Consulting Transportation Engineers to provide professional engineering services for NW 21st Street Drainage Improvements. The work should be performed in accordance with the contract provisions contained in the Continuing Professional Services Agreement between A&P Consulting Transportation Engineers and the City of Doral dated January 20, 2015, and the attached Proposal submitted by your firm for the above referenced project.

SCOPE OF SERVICES AND SCHEDULE:

The scope of the project will be as described in the attached proposal from A&P Consultant Transportation Engineers dated November 14, 2017 for the performance of NW 21st Street Drainage Improvements. The schedule requires NW 21st Street Drainage Improvements are to be completed within 6 weeks of the notice to proceed. All limitations of time set forth in this Work Order are of the essence. The performance of services associated with this Work Order will be executed on a Time and Materials basis with a not to exceed amount of \$14,965.05.

You are required by the Continuing Service Agreement to begin work subsequent to the execution of this Work Order, or as directed otherwise. If you fail to begin work subsequent to the execution of this Work Order, the City of Doral will be entitled to disqualify the Proposal, and revoke the award.

Work Order incorporates the terms and conditions set forth in the Continuing Services Agreement dated January 20, 2015 between the parties as though fully set forth herein. In the event that any terms or conditions of this Work Order conflict with the Continuing Services Agreement, the provisions of this specific Work Order shall prevail and apply. Work Order is not binding until the City of Doral agrees and approves this Work Order.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in three (3) counterparts, each of which shall, without proof or accounting for the other counterpart be deemed an original Contract.

CONSULTANT: A&P Consulting Transportation Engineers

BY: [Signature]
NAME: Rithel M. Sierra, PE
TITLE: Senior Project Manager

OWNER: City of Doral

BY: [Signature]
NAME: Edward Rojas
TITLE: City Manager

WITNESSES:

1. [Signature]
2. [Signature]

SEAL:



AUTHENTICATION:

BY: [Signature]
NAME: Connie Diaz
TITLE: City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY FOR THE SOLE USE
OF THE CITY OF DORAL:

BY: [Signature]
NAME: WEISS, SEROTA, HELFMAN,
COLE, & BIERMAN, PL
TITLE: City Attorney



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CONSULTANT WORK ORDER PROPOSAL

November 14, 2017

Dear Mr. Collings-Bonfill:

A&P Consulting Transportation Engineers, Corp. proposes to provide the services identified below for the project entitled "**NW 21st Street Drainage Improvements**", **Civil Engineering Services**, pursuant to its Professional Service Agreement with the City of Doral.

I. GENERAL

The Consultant is to provide all project management, investigation, analysis, permitting, utility coordination, and civil engineering services necessary for drainage improvements and the development of the NW 21st Street including but not limited to adding new inlets and manholes, if necessary to address ponding site issues; and incidental milling & resurfacing from **NW 82nd Avenue to NW 83rd Avenue**. All maps, plans and designs are to be prepared with English values in accordance with the FDOT Plans Preparation Manual and CADD Production Criteria Handbook. The Consultant is to provide a CD containing all CADD project files to the City at the conclusion of the project.

II. SCOPE OF WORK

Construction Plans

Prepare Roadway, Drainage, Traffic Control, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the project for the purposes of construction:

Key Sheet

Summary of Pay Items

Drainage Map (to be included in Drainage Report Only)

Includes the development of a pre-development drainage map including delineation of drainage areas, flow characteristics, and existing drainage systems (inlet, pipes, French drains, slab covered trenches, swales, outfall, etc.).

Summary of Drainage Structures

Plan Sheets

Drainage Structure Sheets

Traffic Control Detail Sheet

Utility Adjustment Sheets

Quality Assurance / Quality Control

Supervision

Drainage Analysis

Analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.



Design of Storm Drains

Design and Plan production of stormwater manhole and catch basins including hydraulic analysis. Identify in drawings all existing drainage structures, pipes, slab covered trenches, and outfall to be cleaned, or replaced if necessary, and quantify in bid line item.

Coordinate fully with the appropriate permitting agencies and the City of Doral's staff. All activities and submittals should be coordinated through the City's Project Manager.

French Drain Design

Research existing French Drains within project limits that are to remain. Calculate length of French Drain required according to level of service requirements (using ICPR analysis). The Level of Service requirements are as follows:

Drainage tributary areas will include the streets and 20' frontages of private property on either side.

- a. 5 year storm (rational method) up to 24 hour duration – either with no overflow or positive discharge. No ponding (Volumetric design).
- b. 5 year storm 1 hour storm event w/infiltration if using a flood routing approach – no overflow, no ponding.

Drainage Design Documentation Report

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions. This report will provide documentation of the existing drainage and permit conditions within the project area, identification of the drainage and/or permit requirements, analysis of alternative solutions (based on level of improvement and cost), and recommendations of a preferred alternative to be evaluated further to alleviate or eliminate the drainage problem.

Field Reviews

Perform site visits during dry weather and rainfall events to determine the effectiveness of the existing drainage system. Provide dated photographic documentation.

Technical Meetings

Meet with City staff and residents to compile complaints complaint data.

Quality Assurance / Quality Control

Submit QA/QC set for all design work at each phase submittal.

Supervision

Includes all efforts required to supervise all technical drainage design activities.

Coordination

Coordinate with relevant agencies and all disciplines during design process. Provide the necessary coordination with the geotechnical sub-consultant to complete drainage analysis and report. The



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Consultant shall verify with Miami-Dade County DRER the contaminated areas where infiltration trenches or other drainage improvements are not permitted without environmental remediation.

Utilities

The CONSULTANT shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring no conflicts exist between utility facilities and the City's construction project. The CONSULTANT shall certify all utility negotiations have been completed with arrangements made for utility work to be undertaken.

Identify Existing Utility Agency Owners (UAO)s

Identify all utilities in the corridor; check with the City of Doral Public Works for Permits, Sunshine State One Call, Subsurface Utility Engineering (SUE) (commonly known as Soft Digs) Report, Design Location Survey, and Existing Plans; and conduct field visits to observe existing utilities.

Make Utility Contacts

Send plans and letters to each utility company, requesting their proposed system betterments and markups the plans.

Collect and Review Plans and Data from UAO(s)

Analyze and include relevant data in construction documents as necessary.

Utility Design Meeting

At a minimum of 3 weeks prior to the meeting, the CONSULTANT shall transmit two complete sets of 90% plans to each UAO having facilities located within the project limits, and one set to the City. The CONSULTANT shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The CONSULTANT shall be prepared to discuss drainage, maintenance of traffic (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable interest requests, discuss the utility work by highway contractor option with each utility, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and maintenance of traffic with each UAO. The intent of this meeting shall be to identify and resolve conflicts between utilities and proposed construction prior to completion of the plans, including utility adjustment details. Also recommend resolution between known utility conflicts with proposed construction plans as practical. The CONSULTANT shall keep accurate minutes of all meetings and distribute a copy to all attendees.

Review Utility Markups and Work Schedules and Processing of Schedules and Agreements

Review utility marked up plans individually as they are received for content and coordinate review with the designer.

Utility Coordination / Followup

This includes follow-up, interpreting plans, and assisting and the completion of the UAO(s) work schedule and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the project schedule. Ensure



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the resolution of all known conflicts. This task can be applied to all phases of the project. Prepare at each submittal phase an updated utility coordination matrix.

Utility Constructability Review

Review utility schedules against construction contract time, and phasing for compatibility.

Certification / Close-out

This includes hours for transmitting utility files to the UAO(s) and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate City's representative the following:

All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, technical special provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.

OR

An on-site inspection was made and no utility work will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

Survey

See attached Exhibit B with Scope of Work from our sub-consultant Longitude Surveyors, LLC.

Geotechnical

See attached Exhibit B with Scope of Work from our sub-consultant HR Engineering Services, Inc.



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III. SUBCONSULTANTS

The below listed Sub-Consultants will assist in the performance of the Work.

Sub-Consultant Name	Specialty or Expertise
Longitude Surveyors, LLC	Survey
HR Engineering Services, Inc	Geotechnical

IV. SCHEDULE OF WORK – TIME OF PERFORMANCE

Consultant shall submit the Deliverables and perform the Work as depicted in the tables below

SCHEDULE OF DELIVERABLES				
Task or Activity ID #	Task Name and/or Activity Description	Duration (weeks)	Projected Start Date	Projected Finish Date*
1	Preliminary Investigations, Field Reviews, Technical Meetings	2	NTP	NTP + 2 weeks
2	Topographical Survey	2	NTP	NTP + 2 weeks
3	60% Roadway, Drainage, Permit Agency Coordination, and Technical Meetings	2	NTP +2 weeks	NTP + 4 weeks
4	100% Roadway and Drainage and Final Permits.	2	NTP + 4 weeks	NTP + 6 weeks
Total Project Duration = 6 weeks				

- An updated schedule, indicating actual delivery dates, based on the listed durations, will be provided to the City upon receipt of NTP. The above durations include 2 weeks duration for review time by the City between each submittal.

V. COMPENSATION

Consultant shall perform the Work detailed in this Proposal for a Total Time and Material Basis (Limited Amount) fee of fourteen thousand nine hundred sixty five dollars and five cents (\$14,965.05).



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SUMMARY OF COMPENSATION

<i>Task or Activity ID #</i>	<i>Major Task Name and/or Activity Description</i>	<i>Fee Amount</i>	<i>Fee Basis</i>
1, 3-5	<i>Professional Engineering Services (including Landscape)</i>		
	<i>Construction Documents (60% Submittal)</i>	\$ 6,159.03	<i>Time & Materials</i>
	<i>Construction Documents (100% Submittal)</i>	\$ 4,106.02	<i>Time & Materials</i>
	Subtotal Professional Fees	\$ 10,265.05	<i>Time & Materials</i>
1	<i>Topographical Survey</i>	\$ 3,500.00	<i>Time & Materials, (One time submittal upon delivery)</i>
2	<i>Geotechnical</i>	\$1,200.00	<i>Time & Materials, (One time submittal upon delivery)</i>
	Total	\$ 14,965.05	

*Note: Compensation should match the Task, Activities, and/or Deliverables identified.



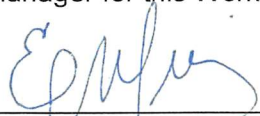
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VI. PROJECT MANAGER

CONSULTANT'S Project Manager for this Work Order assignment will be **Eithel M. Sierra, P.E.**

Submitted by:



Eithel M. Sierra, P.E.
A&P Consulting Transportation Engineers, Corp.

Reviewed and approval in concept
recommended by:

Eugene Collings-Bonfill, Project Manager
Chief of Engineering



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EXHIBIT A
FEE PROPOSAL
PRIME CONSULTANT

Name of Consultant

Project Information Sheet

Financial Project Identification Number: <u>TBD</u>		Federal Aid Project Identification Number: <u>TBD</u>		
Name of Prime / Subconsultant: <u>A&P Consulting Transportation Engineers, Corp</u>		County: <u>Miami-Dade</u>		
Project Description: <u>NW 21st St. from NW 82nd Ave to NW 83rd Ave.</u>				
Begin Milepost: _____	End Milepost: _____	Project Length: _____	Feet	
Number of Lanes: <u>5</u>	Typical Section: <u>Urban</u> (Urban / Rural / Int.)	Lane Configuration: <u>Undivided</u> (Divided / Undivided)		
Project Type: <u>Minor</u> (Minor / Major)	Access Management Classification: _____	Roadway Classification: <u>NHS</u> (NHS/FHS/Off Sys.)		
CAP Level: _____	TCP Level: <u>1</u>	Survey Level: _____		
Design Variations: 1. _____	Design Exceptions: 1. _____			
2. _____	2. _____			
3. _____	3. _____			
4. _____	4. _____			
5. _____	5. _____			
Proposed Design Contract Time: <u>6</u> months/days		Date of Negotiation: _____		
Project Activity:	Estimated By:		Negotiated By: (name - firm)	
	Consultant	City of Doral	Consultant	City of Doral
3. Project Common & Project General Tasks				
4. Roadway Analysis				
5. Roadway Plans				
6a. Drainage Analysis				
6b. Drainage Plans				
7. Utilities				
8. Environmental Permits				
9. Structures Summary				
10. Structures - Bridge Development Report				
11. Structures - Temporary Bridge				
12. Structures - Short Span Concrete				
13. Structures - Medium Span Concrete				
14. Structures - Structural Steel				
15. Structures - Segmental Concrete				
16. Structures - Movable Span				
17. Structures - Retaining Walls				
18. Structures - Miscellaneous				
19. Signing and Pavement Marking Analysis				
20. Signing and Pavement Marking Plans				
21. Signalization Analysis				
22. Signalization Plans				
23. Lighting Analysis				
24. Lighting Plans				
25. Landscape Architecture Analysis				
26. Landscape Architecture Plans				
27. Survey				
28. Photogrammetry				
29. Mapping				
30. Terrestrial Mobile LiDAR				
31. Architecture Development				
32. Noise Barriers Impact Design Assessment				
33. Intelligent Transportation Systems Analysis				
34. Intelligent Transportation Systems Plans				
35. Geotechnical				

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - FIRM TOTAL

Financial Project Number: TBD

Project Name: NW 21st St. from NW 82nd Ave to NW 8

FAP Number: TBD

Date: 11/14/2017

Name of Consultant: A&P Consulting Transportation Engineers

WORK ACTIVITY	EMPLOYEE CLASSIFICATION															TOTAL STAFF HOURS		ON CADD
	Hours from "Summary" sheet														RANGE			
	Firm Total	Principal Engineer	Project Manager	Senior Engineer	Project Engineer	CADD Technician	Engineering Technician	Clerical	0	0	0	0	0	0	0	PERCENT		
3. Project General and Project Common Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4. Roadway Analysis	4	0	1	0	1	1	1	0	0	0	0	0	0	0	0	4	4	
5. Roadway Plans	14	0	2	1	4	4	2	1	0	0	0	0	0	0	14	15		
6a. Drainage Analysis	38	1	6	3	11	10	6	1	0	0	0	0	0	0	38	42		
6b. Drainage Plans	20	0	3	2	6	5	3	1	0	0	0	0	0	0	20	22		
7. Utilities	15	0	2	1	5	4	2	1	0	0	0	0	0	0	15	17		
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
9. Structures - Misc. Tasks, Dwg, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTALS	91	1	14	7	27	24	14	4	0	0	0	0	0	0	91	100		
Field Survey Estimate:															FIRM TOTAL			
0 4-man crew days																		

Notes:

- This worksheet provides the distribution of a firm's total staff hours for a project.
- Percentages for staff hour distribution by classification are entered below in rows 63 to 96 of this sheet.
- Total Staff Hours (column O) may not match staff hours from Summary worksheet (column D) due to rounding. Staff hours calculated for employee classifications are to be adjusted so totals in columns B and O match.
- Formulas under "Total Staff Hours Range" (columns O & P) may be adjusted to provide desired range.

ESTIMATE OF WORK EFFORT FOR TECHNICAL PROPOSALS - FIRM TOTAL

Financial Project Number: TBD

Project Name NW 21st St. from NW 82nd Ave to NW 85

FAP Number: TBD

Date: 11/14/2017

Name of Consultant: A&P Consulting Transportation Engineers

Staff Hour Distribution Percentages - Firm Total														
	Hours from Summary sheet Firm Total	Principal Engineer	Project Manager	Senior Engineer	Project Engineer	CADD Technician	Engineering Technician	Clerical	0	0	0	0	0	Total
3. Project General and Project Common Tasks	0													0.00%
4. Roadway Analysis	4	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
5. Roadway Plans	14	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
6a. Drainage Analysis	38	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
6b. Drainage Plans	20	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
7. Utilities	15	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
8. Environmental Permits, Compliance & Clearances	0	2.0%	15.0%	8.0%	30.0%	25.0%	15.0%	5.0%						100.00%
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0													0.00%
10. Structures - Bridge Development Report	0													0.00%
11. Structures - Temporary Bridge	0													0.00%
12. Structures - Short Span Concrete Bridge	0													0.00%
13. Structures - Medium Span Concrete Bridge	0													0.00%
14. Structures - Structural Steel Bridge	0													0.00%
15. Structures - Segmental Concrete Bridge	0													0.00%
16. Structures - Movable Span	0													0.00%
17. Structures - Retaining Walls	0													0.00%
18. Structures - Miscellaneous	0													0.00%
19. Signing & Pavement Marking Analysis	0													0.00%
20. Signing & Pavement Marking Plans	0													0.00%
21. Signalization Analysis	0													0.00%
22. Signalization Plans	0													0.00%
23. Lighting Analysis	0													0.00%
24. Lighting Plans	0													0.00%
25. Landscape Architecture Analysis	0													0.00%
26. Landscape Architecture Plans	0													0.00%
27. Survey (Field & Office Support)	0													0.00%
28. Photogrammetry	0													0.00%
29. Mapping	0													0.00%
30. Terrestrial Mobile LIDAR	0													0.00%
31. Architecture Development	0													0.00%
32. Noise Barriers Impact Design Assessment	0													0.00%
33. Intelligent Transportation Systems Analysis	0													0.00%
34. Intelligent Transportation Systems Plans	0													0.00%
35. Geotechnical	0													0.00%

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: NW 21st St. from NW 82nd Ave to NW 83rd Ave. Consultant Name: A&P Consulting Transportation Engineers, Cor
 County: Miami-Dade Consultant No.: 65-770583
 FPN: TBD Date: 11/14/2017
 FAP No.: TBD Estimator: Ethel M. Sierra, PE

Staff Classification	Total Staff Hours From "SH Summary"	Principal Engineer	Project Manager	Senior Engineer	Project Engineer	CADD Technician	Engineering Technician	Clerical	0	0	0	0	0	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$190.75	\$187.48	\$139.43	\$130.47	\$66.70	\$81.52	\$52.20	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
3. Project General and Project Common Tasks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
4. Roadway Analysis	4	0	1	0	1	1	1	0	0	0	0	0	0	4	\$466	\$116.54
5. Roadway Plans	14	0	2	1	4	4	2	1	0	0	0	0	0	14	\$1,518	\$108.45
6a. Drainage Analysis	38	1	6	3	11	10	6	1	0	0	0	0	0	38	\$4,377	\$115.20
6b. Drainage Plans	20	0	3	2	6	5	3	1	0	0	0	0	0	20	\$2,254	\$112.72
7. Utilities	15	0	2	1	5	4	2	1	0	0	0	0	0	15	\$1,649	\$109.92
8. Environmental Permits, Compliance & Clearances	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
9. Structures - Misc. Tasks, Dwgs, Non-Tech.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
10. Structures - Bridge Development Report	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
11. Structures - Temporary Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
12. Structures - Short Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
13. Structures - Medium Span Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
14. Structures - Structural Steel Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
15. Structures - Segmental Concrete Bridge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
16. Structures - Movable Span	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
17. Structures - Retaining Walls	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
18. Structures - Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
19. Signing & Pavement Marking Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
20. Signing & Pavement Marking Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
21. Signalization Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
22. Signalization Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
23. Lighting Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
24. Lighting Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
25. Landscape Architecture Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
26. Landscape Architecture Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
27. Survey (Field & Office Support)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
28. Photogrammetry	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
29. Mapping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
30. Terrestrial Mobile LIDAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
31. Architecture Development	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
32. Noise Barriers Impact Design Assessment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
33. Intelligent Transportation Systems Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
34. Intelligent Transportation Systems Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
35. Geotechnical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	\$0	#DIV/0!
Total Staff Hours	91	1	14	7	27	24	14	4	0	0	0	0	0	91		
Total Staff Cost		\$190.75	\$2,624.72	\$976.01	\$3,522.69	\$1,600.80	\$1,141.28	\$208.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$10,265.05	\$112.80

Survey Field Days by Subconsultant
 4 - Person Crew.

SALARY RELATED COSTS: \$10,265.05
 OVERHEAD: \$0.00
 OPERATING MARGIN: 0% \$0.00
 FCCM (Facilities Capital Cost Money): 0.00% \$0.00
 EXPENSES: 0.00% \$0.00

- Notes:
 1. This sheet to be used by Prime Consultant to calculate the Grand Total fee.
 2. Manually enter fee from each subconsultant. Unused subconsultant rows may be hidden.

Survey (Field - If by Prime) 0 days @ \$ / day \$0.00
 SUBTOTAL: \$10,265.05

Subconsultant: Longitude Surveyors \$3,500.00
 Subconsultant: HR Engineering Service, Inc \$1,200.00

GRAND TOTAL: \$14,965.05

Project Activity 5: Roadway Plans

Estimator: Eithel M. Sierra, PE

NW 21st St. from NW 82nd Ave to NW 83rd Ave.
TBD

Representing	Print Name	Signature / Date
City of Doral	Eugene Collings, PE	
Consultant Name	Eithel M. Sierra, PE	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Key Sheet		Sheet	1	2	2	
5.2	Summary of Pay Items Including Quantity Input		Sheet	0	0	0	
5.3	Typical Section Sheets						
5.3.1	Typical Sections		EA	0	0	0	
5.3.2	Typical Section Details		EA	0	0	0	
5.4	General Notes/Pay Item Notes		Sheet	0	0	0	
5.5	Summary of Quantities Sheets		Sheet	2	2	4	Summary of quantities to tabulate Milling and Resurfacing quantities
5.6	Project Layout		Sheet	0	0	0	
5.7	Plan/Profile Sheet		Sheet	0	0	0	
5.8	Profile Sheet		Sheet	0	0	0	
5.9	Plan Sheet	1 = 40	Sheet	2	2	4	Cut Sheets to layout drainage structures and incidental Milling and Resurfacing, if needed
5.10	Special Profile		Sheet	0	0	0	
5.11	Back-of-Sidewalk Profile Sheet		Sheet	0	0	0	
5.12	Interchange Layout Sheet		Sheet	0	0	0	
5.13	Ramp Terminal Details (Plan View)		Sheet	0	0	0	
5.14	Intersection Layout Details		Sheet	0	0	0	
5.15	Special Details		EA	0	0	0	

Project Activity 5: Roadway Plans

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.16	Cross-Section Pattern Sheet(s)		Sheet	0	0	0	
5.17	Roadway Soil Survey Sheet(s)		Sheet	0	0	0	
5.18	Cross Sections		EA	0	0	0	
5.19	Temporary Traffic Control Plan Sheets		Sheet	1	2	2	MOT for drainage and/or Milling and Resurfacing, if needed. Typical with reference to FDOT Index 600's
5.20	Temporary Traffic Control Cross Section Sheets		EA	0	0	0	
5.21	Temporary Traffic Control Detail Sheets		Sheet	0	0	0	
5.22	Utility Adjustment Sheets		Sheet	0	0	0	
5.23	Selective Clearing and Grubbing Sheet(s)		Sheet	0	0	0	
5.24	Project Network Control Sheet(s)		Sheet	0	0	0	
5.25	Environmental Detail Sheets		Sheet	0	0	0	
5.26	Utility Verification Sheet(s) (SUE Data)		Sheet	1	0	0	
Roadway Plans Technical Subtotal						12	
5.27	Quality Assurance/Quality Control		LS	%	5%	1	
5.28	Supervision		LS	%	5%	1	
5. Roadway Plans Total						14	

Project Activity 6a: Drainage Analysis

Estimator: Eithel M. Sierra, PE

NW 21st St. from NW 82nd Ave to NW 83rd Ave.
TBD

Representing	Print Name	Signature / Date
City of Doral	Eugene Collings, PE	
Consultant Name	Eithel M. Sierra, PE	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.1	Drainage Map Hydrology	Per Map	0	0	0	Show areas entering inlets (include in report)
6a.2	Base Clearance Report	Per Location	0	0	0	
6a.3	Pond Siting Analysis and Report	Per Basin	0	0	0	
6a.4	Design of Cross Drains	EA	0	0	0	
6a.5	Design of Ditches	Per Ditch Mile	0	0	0	
6a.6	Design of Stormwater Management Facility (Offsite or Infield Pond)	EA	0	0	0	
6a.7	Design of Stormwater Management Facility (Roadside Ditch as Linear Pond)	Per Cell	0	0	0	
6a.8	Design of Floodplain Compensation	Per Floodplain Basin	0	0	0	
6a.9	Design of Storm Drains	EA	10	1	10	Includes 4 new inlets, 2 manholes, and replace 4 existing structures top.
6a.10	Optional Culvert Material	EA	4	0.2	1	
6a.11	French Drain Systems	Per Cell	1	6	6	200 LF of French Drain will be needed.
6a.12	Drainage Wells	EA	0	0	0	
6a.13	Drainage Design Documentation Report	LS	1	14	14	
6a.14	Bridge Hydraulic Report	EA	0	0	0	

Project Activity 6a: Drainage Analysis

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.15	Temporary Drainage Analysis	LS	1	0	0	
6a.16	Cost Estimate	LS	1	0	0	
6a.17	Technical Special Provisions	LS	1	0	0	
6a.18	Other Drainage Analysis	LS	1	0	0	
Drainage Analysis Technical Subtotal					31	
6a.19	Field Reviews	LS	1	2	2	1 person x 1 field review x 2 hrs
6a.20	Technical Meetings	LS	0	0	0	Meetings are listed below
6a.21	Environmental Look-Around (ELA) Meeting	LS	0	0	0	
6a.22	Quality Assurance/Quality Control	LS	%	5%	2	
6a.23	Independent Peer Review	LS	%	0%	0	
6a.24	Supervision	LS	%	5%	2	
Drainage Analysis Nontechnical Subtotal					6	
6a.25	Coordination	LS	%	2%	1	
6a. Drainage Analysis Total					38	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	PM Attendance at Meeting Required?	Number
Base Clearance Water Elevation	EA	0	0	0		0
Pond Siting	EA	0	0	0		0
Agency	EA	0	2	0		0
Local Governments (cities, counties)	EA	0	2	0		0
FDOT Drainage	EA	0	0	0		0
Other Meetings	EA	0	0	0		0
Subtotal Technical Meetings				0		0
Progress Meetings (if required by FDOT)	EA	0	0	0	<i>PM attendance at Progress Meetings is manually entered on General Task 3</i>	--
Phase Review Meetings	EA	0	0	0	<i>PM attendance at Phase Review Meetings is manually entered on General Task 3</i>	--
Total Meetings				0	Total Project Manager Meetings (carries to Tab 3)	0

Carries to 6.19

Carries to Tab 3

6b. Drainage Plans

Estimator: Eithel M. Sierra, PE

NW 21st St. from NW 82nd Ave to NW 83rd Ave.

TBD

Representing	Print Name	Signature / Date
City of Doral	Eugene Collings, PE	
Consultant Name	Eithel M. Sierra, PE	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
6b.1	Drainage Map (Including Interchanges)		Sheet	0	0	0	
6b.2	Bridge Hydraulics Recommendation Sheets		Sheet	0	0	0	
6b.3	Summary of Drainage Structures		Sheet	1	5	5	
6b.4	Optional Pipe/Culvert Material		Sheet	1	1	1	
6b.5	Drainage Structure Sheet(s) (Per Structure)		EA	10	1	10	
6b.6	Miscellaneous Drainage Detail Sheets		Sheet	0	0	0	
6b.7	Lateral Ditch Plan/Profile		Sheet	0	0	0	
6b.8	Lateral Ditch Cross Sections		EA	0	0	0	
6b.9	Retention/Detention Ponds Detail Sheet(s)		Sheet	0	0	0	
6b.10	Retention Pond Cross Sections		EA	0	0	0	
6b.11	Erosion Control Plan Sheet(s)		Sheet	0	0	0	
6b.12	SWPPP Sheet(s)		Sheet	1	2	2	
Drainage Plans Technical Subtotal						18	
6b.13	Quality Assurance/Quality Control		LS	%	5%	1	
6b.14	Supervision		LS	%	5%	1	
6. Drainage Plans Total						20	

Project Activity 7: Utilities

Estimator: Eithel M. Sierra, PE

NW 21st St. from NW 82nd Ave to NW 83rd Ave.
TBD

Representing	Print Name	Signature / Date
City of Doral	Eugene Collings, PE	
Consultant Name	Eithel M. Sierra, PE	

NOTE: Signature Block is optional, per District preference

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.1	Utility Kickoff Meeting	LS			0	
7.2	Identify Existing Utility Agency Owners (UAO(s))	LS	1	1	1	Call Sunshine, prepare initial contact letters.
7.3	Make Utility Contacts	LS	1	2	2	Send Plans to UAO to obtain Utility information
7.4	Exception Processing	LS	1	0	0	N/A
7.5	Preliminary Utility Meeting	LS	1	0	0	
7.6	Individual/Field Meetings	LS	1	0	0	
7.7	Collect and Review Plans and Data from UAO(s)	LS	1	6	6	1 hrs per utility company (assumed 6 utilities will provide marked ups)
7.8	Subordination of Easements Coordination	LS	1	0	0	N/A
7.9	Utility Design Meeting	LS	1	0	0	
7.10	Review Utility Markups & Work Schedules, and Processing of Schedules & Agreements	LS	1	0	0	
7.11	Utility Coordination/Followup	LS	1	2	2	1 hrs x 2 utilities impacted = 2 hrs.
7.12	Utility Constructability Review	LS	1	2	2	1 hrs x 2 utilities impacted = 2 hrs.
7.13	Additional Utility Services	LS	1	0	0	
7.14	Processing Utility Work by Highway Contractor (UWHC)	LS	1	0	0	
7.15	Contract Plans to UAO(s)	LS	1	0	0	
7.16	Certification/Close-Out	LS	1	2	2	1 hrs x 2 utilities impacted = 2 hrs.
7.17	Other Utilities	LS	1	0	0	
7. Utilities Total					15	



A&P Consulting Transportation Engineers

10305 N.W. 41st Street, Suite 115
Miami, Florida 33178
Phone: (305) 592-7283
Fax: (305) 593-1594

EXHIBIT B
FEE PROPOSAL
SUB-CONSULTANTS



Monday, November 06, 2017

VIA EMAIL: EMSierra@APCTE.com
NW 21 STREET – NW 82 AVENUE.DOCX

Eithel M. Sierra, P.E.
Senior Project Engineer
A&P CONSULTING TRANSPORTATION ENGINEERS
10305 N.W. 41st Street, Suite 115
Miami, FL 33178

RE: Surveying services for NW 21 Street located within the City of Doral, FL

Dear Mr. Sierra,

We understand that the City of Doral is considering rehabilitating NW 21 Street, concentrating on drainage. Pursuant to this request, LONGITUDE SURVEYORS, LLC (LS), is pleased to submit the following proposal for your consideration.

A. Scope of Work:

Longitude will perform a Topographic Survey including the following information:

- Right-of-way and property lines for the project area and adjacent properties will be shown graphically.
- A graphical baseline will be created and included.
- Location of all overhead utilities, sidewalks, curb and gutters, paved roads, fences, signs, manholes, catch basins, valves/valve boxes, trees and any other aboveground improvements within the Survey limits.
- Invert and grate elevations for all project storm and sanitary structures.
- Elevations will be taken equivalent to a 50-foot grid.
- Longitude will create a Digital Terrain Model (DTM).
- All elevations will be referenced to the National Geodetic Vertical Datum of 1929 (NGVD29).
- Control points will be set outside the project limits, in locations where they can be used by the contractor during construction.
- All control points will have Northing and Easting coordinates referenced to the Florida State Plane Coordinate System, based on the North American Datum of 1983/2011.

B. Survey Limits:

NW 21 Street from NW 82 Avenue to NW 83 Avenue to edge of pavement (see attached Exhibit).

C. Deliverables:

LS will deliver signed and sealed originals of the resulting Survey and an electronic copy of the resulting cad file.

D. Timeline:

Longitude has estimated fifteen business days to complete this task.

E. Fee:

The total professional fee to complete this task shall be a lump sum of \$3,500.00.

I understand and agree by signing below "I APPROVE AND ACCEPT" this proposal as a legal binding contract.

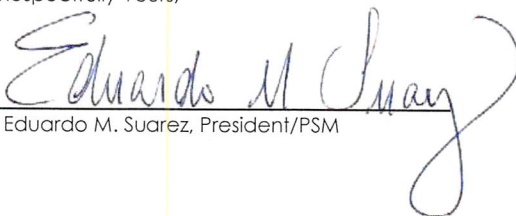
By: _____
(Authorized Signature)

(Typed or printed name)

Date: _____
Title: _____

On behalf of the firm, I thank you for the opportunity to present this proposal. We look forward to utilizing our best professional efforts on your behalf on this very important project.

Respectfully Yours,


Eduardo M. Suarez, President/PSM

PRICE PROPOSAL FOR GEOTECHNICAL SERVICES: (1) CONSTANT HEAD PERCOLATION TEST

NW 21st STREET, FROM NW 82nd AVENUE TO NW 83rd AVENUE

CITY OF DORAL, FLORIDA

HR ENGINEERING SERVICES, INC. (HRES)

HRES PROJECT No.: HR17-1339R

NOVEMBER 6, 2017

We propose the following field exploration for the project:

1. One (1) constant head percolation test. Test location to be determined by A & P.

We are assuming that a permit with the City of Doral is not required. We will call One Call Sunshine for underground utilities. Lane closure is required.

Reporting

1. Provide a report containing the percolation test results.

	UNITS	# OF UNITS	UNIT RATE	TOTAL \$
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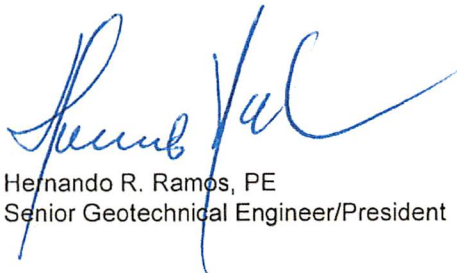
1. TRAFFIC CONTROL AND FIELD EXPLORATION: ROADWAY BORINGS AND PERCOLATION TESTING

1.1) Cones, Arrow Boards, Barricades: FDOT Index 612, 613	day	1	\$185.00	\$185.00
1.2) 1 Constant Head Percolation Test to 15 feet deep	each	1	\$350.00	\$350.00
1.3) Borehole Closing after performance: 15 feet	feet	15	\$5.00	\$75.00
1.4) Rig Mobilization	each	1	\$350.00	\$350.00
TOTAL FOR FIELD INVESTIGATION				\$960.00

2. TECHNICIAN SERVICES AND ENGINEERING FOR REPORTING

2.1) Senior Engineering Technician to layout test location and coordinate with underground utility personnel.	hour	3	\$65.00	\$195.00
2.2) Engineer Intern for data reduction	hour	1	\$90.00	\$45.00
TOTAL TECHNICIAN SERVICES AND ENGINEERING				\$240.00
TOTAL FOR FIELD INVESTIGATION				\$1,200.00

HR ENGINEERING SERVICES, INC.



Hernando R. Ramos, PE
Senior Geotechnical Engineer/President