

**PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY**

Meeting Date:	May 16, 2023	[X]	Consent	[]	Regular
		[]	Workshop	[]	Public Hearing

Department:	Engineering & Public Works Department
Submitted By:	Engineering & Public Works Department
Submitted For:	Roadway Production Division

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: a Consultant Service Authorization (CSA) to the Annual Intersection Improvements Services Contract (R2020-0542) dated June 2, 2020 (Contract) with Propel Engineering Inc. (PEI) in the amount of \$103,207.98 for the High Ridge Road and Hypoluxo Road Intersection Improvements (Project).

SUMMARY: Approval of this CSA will provide the professional services necessary to add a northbound to eastbound right turn lane, and upgrade the existing signal at the intersection . The Contract was presented to the Goal Setting Committee (GSC) on May 1, 2019. The GSC applied Affirmative Procurement Initiatives of a 20% minimum mandatory Small Business Enterprise (SBE) participation and an SBE evaluation preference. PEI agreed to 89% SBE participation for the Contract. They agreed to 90.15% SBE participation for this CSA. Prior to this meeting date, approximately \$1,049,245 has been encumbered under this Contract. PEI has an office located in Palm Beach County (County) and is a certified SBE company. **This Project is included in the Five-Year Road Program. District 2 (YBH)**


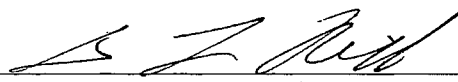
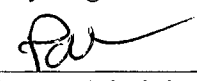
Background and Justification: On June 2, 2020, the Board of County Commissioners (BCC) approved the Contract with PEI to provide the professional services for Annual Intersection Improvements throughout the County. The fee, as detailed in **Exhibit B** of the attached CSA, has been negotiated as just and reasonable compensation as follows:

Basic Services (Lump Sum)	\$79,562.28	(Master Plan, Geometry, Roadway, Drainage, and Signal Analysis and Plans, Utility Coordination, Survey, Permitting, Signing and Pavement Marking, and Structures)
Reimbursable Services (Not to Exceed)	\$12,165.00	(Geotechnical Services)
Optional Services (Not to Exceed)	<u>\$11,480.70</u>	(Post Design, Structural Post Design)
Total:	\$103,207.98	

After reviewing the attached CSA and finding it in proper order, the Engineering Department recommends BCC approval.

Attachments:

1. Location Map
2. CSA with Exhibits A, B, C, D & Ebix Insurance Compliance (2)

 Recommended by: YBH/TEL	 _____ County Engineer	4/19/2023 _____ Date
Approved By:	 _____ Assistant County Administrator	4/25/23 _____ Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2023	2024	2025	2026	2027
Capital Expenditures	\$ 143,208	-0-	-0-	-0-	-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	-0-	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	\$ 143,208	-0-	-0-	-0-	-0-
# ADDITIONAL FTE POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-

Is Item Included in Current Budget? Yes No
 Does this item include the use of federal funds? Yes No

Budget Account No:
 Fund 3504 Dept 361 Unit 1997 Object 6505

Recommended Sources of Funds/Summary of Fiscal Impact:

Road Impact Fee Zone 4 Fund
 High Ridge Rd & Hypoluxo Rd Intersection Improvements

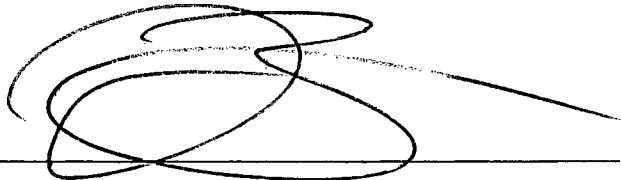
Consultant Service Authorization (CSA)

• Basic Services	\$ 79,562.28
• Reimbursable	\$ 12,165.00
• Optional Services	\$ 11,480.70
Total Consultant Service Authorization (CSA)	\$ 103,207.98

Estimated Staff Costs

• Roadway Production	\$ 20,000.00
• Roadway Production: Right-of-Way	\$ 5,000.00
• Survey	\$ 5,000.00
• Traffic	\$ 10,000.00
Total Staff Costs	\$ 40,000.00

Fiscal Impact \$ 143,207.98



C. Departmental Fiscal Review:

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Dev. and Control Comments:

Shirley M. ... 4/19/2023
 OFMB 9A 4/19
 MD 4/19

John S. ... 4/24/23
 Contract Dev. and Control
 MD 4/21/23

B. Approved as to Form and Legal Sufficiency:

[Signature] 4/25/2023
 Assistant County Attorney

C. Other Department Review:

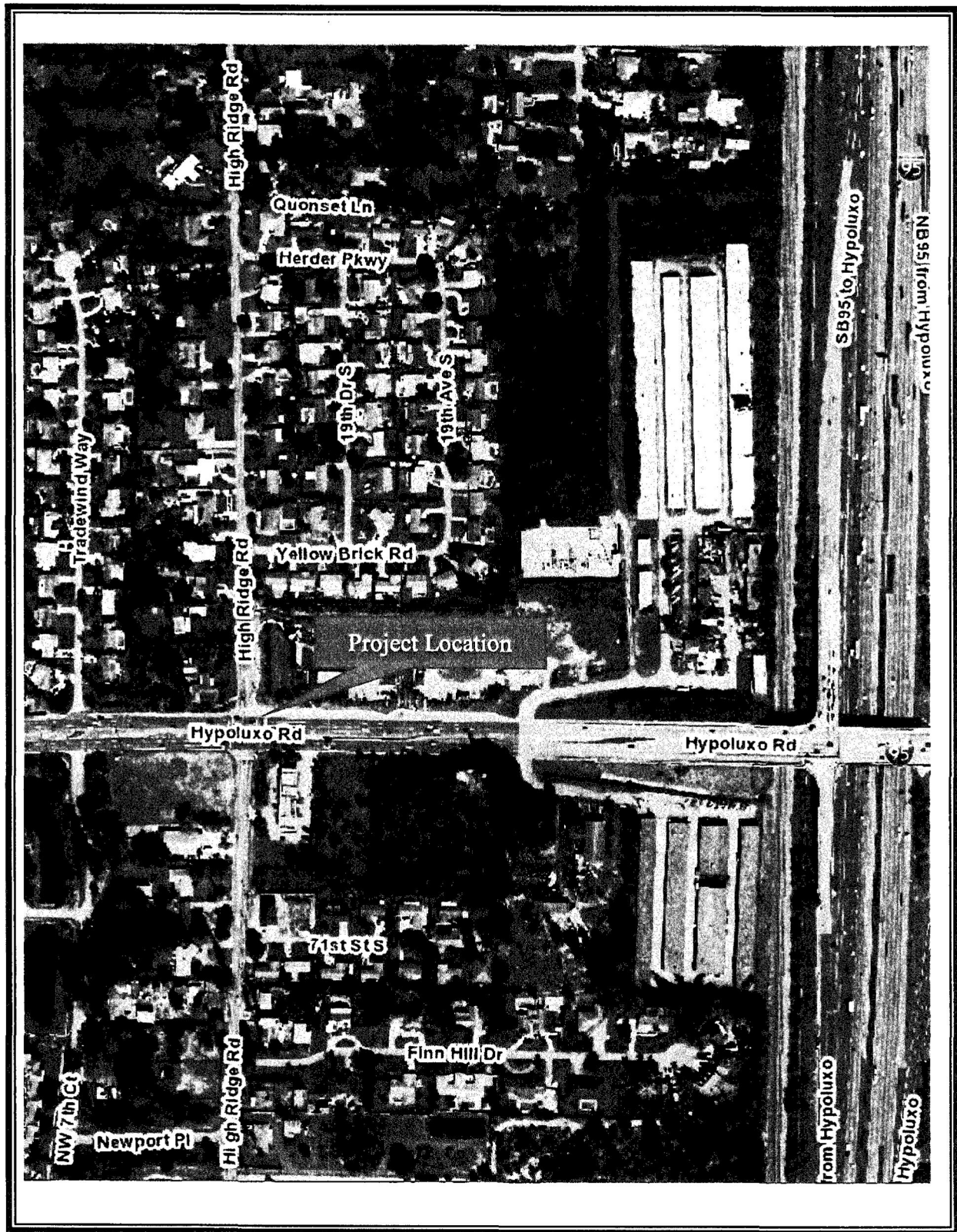
 Department Director

This summary is not to be used as a basis for payment.

PROJECT LOCATION

HIGH RIDGE ROAD AND HYPOLUXO ROAD INTERSECTION IMPROVEMENTS

Palm Beach County Project #2022101



LOCATION MAP

ATTACHMENT 1

CONSULTANT SERVICE AUTHORIZATION
UNDER THE ANNUAL INTERSECTION IMPROVEMENTS SERVICES CONTRACT

Project Name: **High Ridge Road and Hypoluxo Road Intersection Improvements**

Project No: **2022101**

Commission District No.: **2**

SBE Participation for this authorization is **90.15%**

SBE Participation to date for this Contract is **93.69%**

SBE Commitment is **89%**

This authorization is under the EBO Ordinance.

PALM BEACH COUNTY

BOARD OF COUNTY COMMISSIONERS

Account No.: **3504-361-1997-6505**

Consultant Service Authorization (CSA) to the Annual Intersection Improvements Services Contract dated June 2, 2020, (R2020-0542) (CONTRACT), between the COUNTY and the CONSULTANT identified herein is for the services described in **EXHIBIT A** and **EXHIBIT B** for this CSA.

1. CONSULTANT: Propel Engineering, Inc.

2. Address: 2711 Vista Parkway, Suite B-7, West Palm Beach, FL 33411

3. CONSULTANT shall begin work promptly on the requested Services, per the schedule attached as part of **EXHIBIT A**.

4. Scope of Services to be provided by CONSULTANT: Provide professional engineering services to design the High Ridge Road and Hypoluxo Road Intersection Improvements project. Design additional turn lanes and signal upgrades in accordance with the attached **EXHIBIT A** dated March 16, 2023.

5. The compensation to be paid CONSULTANT for providing the requested services as detailed in **EXHIBIT B** shall be:

<input checked="" type="checkbox"/> Basic Services in a lump sum fee of	\$79,562.28
<input checked="" type="checkbox"/> Reimbursable Expenses capped at	\$12,165.00
<input checked="" type="checkbox"/> Optional Services capped at	<u>\$11,480.70</u>
Totaling	\$103,207.98

OEBO Schedules 1 & 2 **EXHIBIT C**

Project History **EXHIBIT D**

6. All terms of the CONTRACT shall apply to this CSA.


Attachment 2


CONSULTANT SERVICE AUTHORIZATION
UNDER THE ANNUAL INTERSECTION IMPROVEMENTS SERVICES CONTRACT

IN WITNESS WHEREOF, this CSA is accepted as of the date signed by the COUNTY below, subject to the terms and conditions of the aforementioned CONTRACT.

CONSULTANT: **Propel Engineering, Inc.**
Federal ID: 46-3316950

Approved as to Terms and Conditions

Signed: 

By: 

Typed Name: Majharul Alam

Typed Name: Morton L. Rose, P.E.

Title: President

Title: Division Director

Date: 04/17/2023



ATTEST WITNESS:

Signed: Zahra Persaud

Typed Name: Zahra Persaud

Title: Administrative Assistant

Date: 4/17/2023

CONSULTANT SERVICE AUTHORIZATION
UNDER THE ANNUAL INTERSECTION IMPROVEMENTS SERVICES CONTRACT

{SIGNATURE PAGES CONTINUED}

COUNTY: **Palm Beach County**, a Political
Subdivision of the State of Florida, by and
through its Board of County Commissioners

Signed: _____

Typed Name: Gregg K. Weiss

Title: Mayor

Date: _____

ATTEST:

Joseph Abruzzo
Clerk of the Circuit Court & Comptroller

By: _____
Deputy Clerk

Approved as to Form and Legal Sufficiency

By: _____

Typed Name: Yelizaveta B. Herman

Title: Assistant County Attorney

N:\ROADWAY\CCNA\ANNUALS\INTERSECTION\Propel\2022\2022101 High Ridge and Hypoxo\2022101 CSA.docx



*OK to proceed as
to scope & fee.*
K. Finell



High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

Palm Beach County Project No. 2022101



SCOPE AND FEES

11/07/2022

Revised: 12/14/22

01/12/23

03/16/2023 ✓



SCOPE OF SERVICES

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements Palm Beach County Project #2022101

PROJECT LIMITS

Propel Engineering, Inc. will provide engineering and surveying services required in connection with the proposed improvements to the High Ridge Road & Hypoluxo Road intersection. The limits of the project will be as follow:

- High Ridge Road from approximately five hundred feet (500') south of Hypoluxo Road to the point of curve at the north leg of the intersection.
- Hypoluxo Road from the point of curve at the west leg of the intersection to the point of curve at the east leg of the intersection.

PROJECT DESCRIPTION

Services will include preparation of complete roadway construction plans and improvement to curb and gutter, curb ramps, and signing and pavement marking.

The scope consists of the following improvements:

1. Addition of a northbound to eastbound right turn lane along High Ridge Road. The length of the turn lane should be approximately two hundred eighty feet (280').
2. Replace the existing strain pole signal with a mast arm at the High Ridge Road and Hypoluxo Road intersection.
3. Mill and resurface the existing High Ridge Road and Hypoluxo Road within the project limits.

Plans will be prepared in accordance with the following standards:

- Palm Beach County Thoroughfare Roadway Design Procedures (February 2021)
- Palm Beach County Thoroughfare Roads Typical Sections (April 2018)
- Palm Beach County Traffic Signal Installation Standards and Details (2022)
- Palm Beach County Typical for Pavement Markings, Signing & Geometrics (No. T-P-21)
- FDOT Design Manual (2022 FDM)
- AASHTO "Geometrics Design of Highway and Streets" (2018)
- Florida Greenbook (2018 Edition)
- FDOT Drainage Manual (2022)
- MUTCD, 2009 WITH REVISION 1&2 (May 2012)

BASIC SERVICES

1 Plans Preparation

Roadway plans with aerial background will be prepared in accordance with the approved Typical Section and the approved Master Plan.

Construction plans will be prepared on a 11" x 17" sheet and at a 1" = 40' scale for the horizontal and a 1" = 4' for the vertical. Separate plan and profile sheets will be prepared.



The following plan sheets are anticipated:

- 1- Cover Sheet
- 2- General Notes
- 3- Typical Sections
- 4- Typical Section/Miscellaneous Details
- 5- Summary of Pay Items
- 6- Roadway Plans
- 7- Roadway Profiles
- 8- Cross Sections

The following plan submittals will be included: Master Plan, 35%, 65%, 96%, 100% and Final Plan. Plan submittal will include PDF, one hard copy and all electronic files.

2 Permitting

PROPEL will prepare and process needed documents for permitting from the following agencies:

- South Florida Water Management District (SFWMD) – drainage permit

3 Utilities Coordination

Propel Engineering, Inc. will assist Palm Beach County in the utility coordination effort as follows:

- 1- Provide Plans to Palm Beach County for Utility Coordination.
- 2- Attend two utility coordination meetings, prepare meeting minutes, and follow up on action items.
- 3- Plot utility information on plans for inclusion in the construction plan package.
- 4- Prepare utility conflict matrix and coordinate with utility owners through Palm Beach County.

4 Drainage Design

The design and preparation of drainage plans will be accomplished in substantial conformance with SFWMD. A drainage report will be prepared to document the design. Permit packages will be prepared by the Consultant with provisions for responses to Requests for Additional Information (RAI) from reviewing agencies. The drainage design will be based on the following:

- 1- Water quantity and quality will generally be provided using exfiltration trenches.
- 2- Conduct inlet spread analysis.
- 3- Provide a drainage report documenting the design for County and permitting agency use.
- 4- Prepare drainage structure sheets.
- 5- Prepare summary of drainage structures sheets.
- 6- Include drainage maps with an aerial background in the roadway plans.
- 7- Prepare exfiltration trenches details, as necessary.

5 Pavement Marking and Signing Plans

Pavement Marking and Signing Plans will be prepared to conform to the proposed roadway improvements in accordance with Palm Beach County Standards. These plans will be prepared as a separate set of documents and include:



- 1- Cover Sheet
- 2- General Notes
- 3- Summary of Quantity Sheets
- 4- Plan Sheets
- 5- One Signing and Pavement Marking Detail

- 6 **Signalization Plans**
 Signal design will include four mast arms, one for each approach. Signalization Plans will be prepared to conform to the proposed roadway improvements in accordance with FDOT and Palm Beach County Standards. These plans will be prepared as a separate set of documents and include:
 - 1- Cover sheet
 - 2- General Notes
 - 3- Summary of Quantity Sheets
 - 4- Plan Sheets
 - 5- One Guide Sign Work Sheet
 - 6- Mast Arm Tabulation Sheet

- 7 **Structural Design Services**
 FDOT Standard structural analysis will be performed for the installation of the four mast arms, one for each approach.

- 8 **Meetings**
 The following meetings are anticipated throughout the design duration:
 - 1- Two progress meetings with County for Project Manager.
 - 2- Two design meetings with County for Roadway Lead Engineer.
 - 3- One pre-application meeting with SFWMD for Project Manager.

Reimbursable Services

- 1 **Geotechnical Services**
 The geotechnical services will be conducted by Tierra South Florida, Inc. PROPEL will coordinate the needed services for both the roadway borings and the Standard Penetration Test (SPT). Hydraulic conductivity tests will also be part of the services. See attached scope of services from Tierra South Florida, Inc.

Optional Services

- 1 **Post Design Services**
 PROPEL will provide post design services as needed during the construction phase.



SCOPE OF SERVICES

**For
Post Design**

**High Ridge Rd. & Hypoluxo Rd. Intersection Improvements
Palm Beach County Project #2022101**

Propel Engineering, Inc. proposes to provide additional professional services required in connection with the Post Design Services for the above project. It shall be Propel's responsibility to utilize appropriate engineering judgment, practices, and principles during the prosecution of the work. These services are intended to provide construction support including engineering assistance, shop drawing reviews, responses to Requests for Information (RFI), site visits, and meetings, which will be required to satisfactorily complete construction. Propel will also provide as-built plans to PBC format for signalization plans.



November 7, 2022, Rev 1 1/3/23 Rev 2 1/9/23

Propel Engineering, Inc.
2711 Vista Parkway, Suite B-7
West Palm Beach, FL 33411
Phone Cell (561)866-5730
Attn: Mr. Maj Alam, PE, PMP
email: maj@propel-engineering.com

**RE: Proposal for Right Turn Lane and Mast Arm
Hypoluxo Road and High Ridge Road
Lake Worth, FL
TSF Proposal No. 2211-639**

Dear Maj:

Tierra South Florida, Inc (TSFGEO) is pleased to transmit our geotechnical services proposal for the above-referenced project. The project, as we understand it, will new mast arm and right turn lane improvements at the intersection of Hypoluxo Road and High Ridge Road in Lake Worth, Florida. TSF proposes field testing as noted in Table 1 below:

Table 1 – Proposed Field Testing	
Location	Proposed Services
Mast Arms	2 Borings to 30 feet
Turn Lane	3 Borings to 10 feet
Drainage	1 BHP test (Percolation Test)

Samples will be classified with laboratory testing for verification. A Report will be prepared to provide engineering data for design.

MOT will be provided as required to perform the field work. MOT will typically entail crew with MOT equipment such as cones, barricades, portable signs, and support vehicle. Lane closures are expected at locations where there will be access or utility conflict issues. MOT, where required, will be performed per applicable FDOT standard index 102-600. Test locations will be provided by Propel.

Please note that some damage could occur to the lawn/grass during field work. We will take all precautions to minimize damage. However, we assume that landscape damage, if any, will be repaired by others.

Proposal for Intersection Improvement
Hypoluxo and High Ridge
Lake Worth, FL
TSF Proposal No. 2211-639 R2
Page 2

Prior to drilling at the project site, TSFgeo will notify the local utility companies and request that underground utilities be marked. Our experience, however, is that the utility companies will not mark privately owned utilities. Our proposal assumes that private utility lines, if any, will be located in the field by others prior to mobilization of the drill rig. TSFgeo will recommend a utility line locating service upon request.

Our fee is based on the assumption that boring locations are open and accessible to our truck-mounted drill rig. Upon completion of the field-testing, a report will be issued which contains the exploration data, soil parameters for strain pole design and construction consideration.

ESTIMATED FEES

It is proposed that the fee for the performance of the services outlined above be determined on a unit price basis in accordance with the attached Fee Schedule (attachments). **Our fee is based on the assumption that boring locations are open and accessible to our truck-mounted drill rig.** The estimated fee for the project is \$ **10,165.00**. Our estimated fees breakdown for the project is attached.

Our estimate covers the work needed to present our findings and recommendations in a formal report. Not included are reviews of drawings, preparation of construction specifications, special conferences, and any other work requested after the submittal of our report.

Boring, sampling, and testing requirements are a function of the subsurface conditions encountered. Therefore, the estimated fee previously indicated is approximate, and compensation for the exploration will be based on the actual work and tests performed. We will endeavor to keep the exploration cost at a minimum consisting with good engineering practice.

SCHEDULE AND AUTHORIZATION

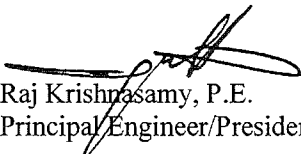
TSFGEO will proceed with the work immediately upon approval, and after utilities are cleared. With our present schedule, upon utility clearance, the fieldwork is expected to take about 2 to 3 days to complete. The written report can be submitted in about 3 weeks after completion of the field exploration. Verbal preliminary results can be made to appropriate parties prior to submittal of the written report. For our records, please sign and fax/email a copy of this proposal to our office.

Proposal for Intersection Improvement
Hypoluxo and High Ridge
Lake Worth, FL
TSF Proposal No. 2211-639 R2
Page 3


We appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you should have any questions concerning our proposal, please contact our office.

Please contact our office if you have any questions.

Respectfully submitted,
TSFGeo, Inc.



Raj Krishnasamy, P.E.
Principal Engineer/President

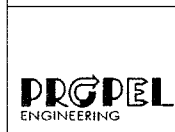


Ramakumar Vedula, P.E.
Principal Engineer

Attachments
Fee Estimate

PBC Project 2022101 - High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

ID	Task Name	Duration	Start	Finish	2023				2024				2025			
					Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct	Jan	Apr	Jul	Oct
1	Project Duration	555 days	Tue 5/16/23	Mon 6/30/25												
2	Board of County Commissioners Award	0 days	Tue 5/16/23	Tue 5/16/23												
3	Notice to Proceed (NTP)	0 days	Tue 5/23/23	Tue 5/23/23												
4	Perform Field Survey	56 days	Wed 5/24/23	Wed 8/9/23												
5	Submit Design Survey for PBC Comments	21 days	Thu 8/10/23	Thu 9/7/23												
5	Implement PBC Design Survey Comments	10 days	Fri 9/8/23	Thu 9/21/23												
7	PBC Review and Approve Survey	21 days	Fri 9/22/23	Fri 10/20/23												
8	Phase I	162 days	Mon 10/23/23	Tue 6/4/24												
9	Phase IA - Initial Utility Contact Plans	10 days	Mon 10/23/23	Fri 11/3/23												
10	Phase IC - Master Plan	50 days	Mon 10/23/23	Fri 12/29/23												
11	PBC Review and Approve Phase IC - Master Plan	21 days	Mon 1/1/24	Mon 1/29/24												
12	Phase ID - 35% Plans	50 days	Tue 1/30/24	Mon 4/8/24												
13	PBC Review Phase ID - 35% Plans	21 days	Tue 4/9/24	Tue 5/7/24												
14	PBC Approve Phase ID - 35% Plans	20 days	Wed 5/8/24	Tue 6/4/24												
15	Phase II	96 days	Wed 6/5/24	Wed 10/16/24												
16	Phase IIA - Utility Pothole Coordination Plans	10 days	Wed 6/5/24	Tue 6/18/24												
17	Phase IIB - First Utility Coordination Plans	10 days	Wed 6/5/24	Tue 6/18/24												
19	Phase IIC - Pothole Underground Utilities at Possible Conflict Points	10 days	Wed 6/19/24	Tue 7/2/24												
19	Phase IID - 65% Plans	45 days	Wed 7/3/24	Tue 9/3/24												
20	PBC Review and Approve Phase IID - 65% Plans	21 days	Wed 9/4/24	Wed 10/2/24												
21	Phase IIE - Stake Existing and Proposed Right-of-Way	0 days	Wed 10/2/24	Wed 10/2/24												



Task		External Milestone		Manual Summary Rollup		Path Predecessor Summary Task	
Split		Inactive Task		Manual Summary		Path Predecessor Normal Task	
Milestone		Inactive Milestone		Start-only		Critical	
Summary		Inactive Summary		Finish-only		Critical Split	
Project Summary		Manual Task		Deadline		Progress	
External Tasks		Duration-only		Path Predecessor Milestone Task			

ESTIMATE OF WORK EFFORT AND COST - PRIME CONSULTANT

Name of Project: High Ridge Rd. & Hypoluxo Rd. Intersection Improvements Consultant Name: Propel Engineering, Inc.
 County: Palm Beach Consultant No.: 1930010909
 PBC Project Number: PBC#2022101 Estimator: MA

Staff Classification	Hours From "SH Summary - Firm"	Project Manager	Senior Engineer	Project Engineer	Engineering Intern	CADD/Computer Technician	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$67.00	\$62.00	\$47.00	\$33.00	\$30.00			
4. Roadway Analysis	114	22	29	40	11	12	114	\$5,875	\$51.54
5. Roadway Plans	91	9	18	30	18	16	91	\$4,203	\$46.19
6a. Drainage Analysis	24	5	6	9	2	2	24	\$1,256	\$52.33
6b. Drainage Plans	22	2	4	6	5	5	22	\$979	\$44.50
7. Utilities	53	5	13	25	5	5	53	\$2,631	\$49.64
8. Environmental Permits	44	4	11	21	4	4	44	\$2,189	\$49.75
18. Structures - Miscellaneous	32	3	8	14	3	4	32	\$1,574	\$49.19
19. Signing & Pavement Marking Analysis	26	3	7	12	2	2	26	\$1,325	\$50.96
20. Signing & Pavement Marking Plans	22	2	6	8	3	3	22	\$1,071	\$48.68
21. Signalization Analysis	86	9	22	37	9	9	86	\$4,273	\$49.69
22. Signalization Plans	34	3	9	15	4	3	34	\$1,686	\$49.59
Total Staff Hours	548	67	133	217	66	65	548		
Total Staff Cost		\$4,489.00	\$8,246.00	\$10,199.00	\$2,178.00	\$1,950.00		\$27,062.00	\$49.38

Raw Labor Cost = \$27,062.00
 Approved Multiplier = \$2.94
 Total Staff Cost with Multiplier = \$79,562.28

Basic Services		
Prime (for Roadway, Drainage, Utility, Permitting, Signing & Pavement Marking, & Signal):	Propel Engineering, Inc.	\$79,562.28
TOTAL BASIC SERVICES ESTIMATED FEES:		\$79,562.28

Reimbursables		
Prime (for Permit Fees):	Propel Engineering, Inc.	\$2,000.00
Subconsultant (for Geotechnical):	Tierra South Florida, Inc.	\$10,165.00
TOTAL REIMBURSABLES ESTIMATED FEES:		\$12,165.00

Optional Services		
Prime (for Post Design):	Propel Engineering, Inc.	\$11,480.70
TOTAL OPTIONAL SERVICES ESTIMATED FEES:		\$11,480.70

\$103,207.98

Project Activity 4: Roadway Analysis

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
4.1	Typical Section Package	EA	1	8	8	One typical section
4.5	Horizontal /Vertical Master Design Files	LS	1	40	40	Right turn lane and the intersection Design
4.9	Cross Section Design Files	LS	1	8	8	Cross sections at every 50 ft
4.15	Design Report	LS	1	8	8	1 design report.
4.16	Quantities	LS	1	8	8	Develop quantites
4.17	Cost Estimate	LS	1	16	16	1initial at 65%@7hrs + 3 updates (96%, 100%, & Final@ 3hrs each =16 hrs
Roadway Analysis Technical Subtotal					88	
4.20	Field Reviews	LS	1	18	18	3 field reviews x 2 attendees x (3 hr rev)
4.22	Technical Meetings	LS	1	8	8	Meetings are listed below
Roadway Analysis Nontechnical Subtotal					26	
4. Roadway Analysis Total					114	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	
Subtotal Technical Meetings					
Phase Review Meetings	EA	2	4	8	
Total Meetings				8	

Project Activity 5: Roadway Plans

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
5.1	Key Sheet		Sheet	1	4	4	One Roadway Keysheet
5.2	Summary of Pay Items Including Quantity Input		Sheet	1	8	8	One sheet
5.3.1	Typical Sections		EA	1	6	8	
5.3.2	Typical Section Details		EA	1	4	4	Sidewalk Connection detail
5.4	General Notes/Pay Item Notes		Sheet	1	4	8	One project specific general notes
5.5	Summary of Quantities Sheets (Combook)		Sheet	2	4	8	total 2 sheets estimated for Earthwork, SOD, miscellaneous pavement, curb and gutter, sidewalk, and detectable warnings, turnouts -- summary boxes for all components
5.9	Profile Sheet	40 scale	Sheet	1	4	8	40 Scale required 1 sheets
5.9	Plan Sheet	40 scale	Sheet	2	8	16	40 Scale required 2 sheets
5.15	Special Details		EA	1	4	4	Estimated one special detail
5.18	Cross Sections		EA	10	2	20	at 50 ft spacing
5.22	Utility Adjustment Sheets		Sheet	0	0	0	no utility adjustment sheet
5.23	Project Network Control Sheet(s)		Sheet	1	1	1	Provided by survey
5.25	Utility Verification Sheet(s) (SUE Data)		Sheet	1	4	4	one sheet
Roadway Plans Technical Subtotal						91	
5. Roadway Plans Total						91	

PBC2022101_High_Ridge_Hypoluxo_Rd_Staff_Hours_Estimates_2022_12_14

5. Roadway Plans-Prime

Project Activity 6a: Drainage Analysis

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
6a.7	Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds)	Per Cell	0	0	0	
6a.11	French Drain Systems	Per Cell	1	8	8	estimated 2 cell required French Drain
6a.13	Drainage Design Documentation Report	LS	1	16	16	
Drainage Analysis Technical Subtotal					24	
6a. Drainage Analysis Total					24 ✓	

6b. Drainage Plans

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Scale	Units	No. of Units or Sheet	Hours/ Unit or Sheet	Total Hours	Comments
6b.1	Drainage Map		Sheet	1	8	1	
6b.5	Drainage Structure Sheet(s) (Per Structure)		EA	1	8	8	
6b.6	Miscellaneous Drainage Detail Sheets		Sheet	1	8	8	
Drainage Plans Technical Subtotal						22	
6. Drainage Plans Total						22 ✓	

Project Activity 7: Utilities

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements
PBC#2022101

Task No.	Task	Units	No of Units	Hours/ Unit	Total Hours	Comments
7.2	Identify Existing Utility Agency Owners (UAO(s))	LS	1	2	2	Identified all existing UAOs
7.3	Make Utility Contacts	LS	1	0	0	PBC will do this task
7.6	Individual/Field Meetings	LS	1	8	8	(1) Pre-Mtg Prep + (0) Travel Time + (1) Meeting Duration + (2) Prep. of Minutes = 4 Hours X (2) Meetings = 8 Hours
7.7	Collect and Review Plans and Data from UAO(s)	LS	1	6	6	
7.9	Utility Design Meeting and potholes	LS	1	8	8	(1) Pre-Mtg Prep + (0) Travel Time + (2) Meeting Duration + (1) Preparation of Minutes + 2 hrs for follow up = 6 Hours + 2hrs
7.10	Review Utility Markups & Work Schedules, and draw them in the plans	LS	1	21	21	(3) hours X (7) utility documents = 21 Hours Assist PBC Utility Coordinator
7.11	Utility Coordination/Followup	LS	1	6	6	
7.15	Contract Plans to UAO(s)	LS	0	0	0	PBC will do this task
7.16	Certification/Close-Out	LS	0	0	0	PBC will do this task
7. Utilities Total					53	

Project Activity 8: Environmental Permits

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
Environmental Permits, Compliances and Clearances						
8.1	Preliminary Project Research	LS	1	4	1	Review existing permits
Permits						
8.2	Field Work	4	1		1	
8.2.1	SFWMD Permit	LS	1	32	32	
8.2.2	Pre-Application Meeting with SFWMD and LWDD	EA	2	4	8	
8.3	FDOT Permit	LS	1	0	0	
8.4	FDOT 4f Coordination	LS	1	0	0	
Environmental Permits, Compliance, and Clearances/Reevaluations Technical Subtotal					44 ✓	

Project Activity 18: Miscellaneous Structures

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Unit	No. of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
	Concrete Box Culvert						
	Mast Arms						
18.9	Mast Arms	EA Design	4			24	Four (4) new mast arms assemblies: (NOTE: No Special Foundations Anticipated.)
18.10	Mast Arms Data Table Plan Sheets	Sheet	1	8	1	8	Four (4) new mast arms in one sheet = One (1) sheet
18.11	Mast Arm Special Details Plan Sheets	Sheet	0	0	0	0	
18. Structures - Miscellaneous Total					1	32 ✓	

Project Activity 19: Signing and Pavement Marking Analysis

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
19.3	Reference and Master Design File	LS	1	20	20	
19.7	Quantities	LS	1	6	6	2 hours per sheet * 3 sheets = 6 hours
Signing and Pavement Marking Analysis Technical Subtotal					26	
19. Signing and Pavement Marking Analysis Total					26	

Project Activity 20: Signing and Pavement Marking Plans

Estimator: MA

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
20.1	Key Sheet		Sheet	4	4		4	One keysheet
20.3	Tabulation of Quantities		Sheet	4	4		4	8 Hrs for 1st Tabulation sheet = 8 Hrs
20.4	General Notes/Pay Item Notes		Sheet	4	4		4	One general notes
20.6	Plan Sheet		Sheet	4	4		4	3 plan sheets using 40 scale
20.7	Typical Details		EA	4	4		4	one estimated
Signing and Pavement Marking Plans Technical Subtotal						5	22	
20. Signing and Pavement Marking Plans Total						5	22 ✓	

Project Activity 21: Signalization Analysis

Estimator: JV

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Units	No. of Units	Hours/ Units	Total Hours	Comments
21.2	Traffic Data Analysis	PI	1	6	6	One intersection
21.5	Reference and Master Signalization Design File	PI	1	36	36	one new signal at Hypoluxo & High Ridge Rd with new equipment
21.6	Reference and Master Interconnect Communication Design File	LS	1	6	6	signal interconnect design and integrate the intersection into the signal coordination plan . PBC provide the mark up. Propel to draw them
21.7	Overhead Street Name Sign Design	EA	2	3	6	Two signs
21.8	Pole Elevation Analysis	LS	1	0	4	
21.9	Traffic Signal Operation Report	LS	0	0	4	N/A
21.10	Quantities	LS	1	8	6	1 intersection
21.11	Cost Estimate	LS	1	0	4	
21.12	Technical Special Provisions	LS	1	0	4	If needed will be added as an SA
Signalization Analysis Technical Subtotal					70	
21.14	Field Reviews	LS	1	12	12	three field reviews: 1 Initial Field Review, 1 at 65% and 1 at 100%, 2 people per review, 3X2X2=12 hrs
21.15	Technical Meetings	LS	1	4	4	Meetings are listed below
Signalization Analysis Nontechnical Subtotal					16	
21. Signalization Analysis Total					86	

Technical Meetings	Units	No of Units	Hours/ Unit	Total Hours	
Palm Beach Traffic Design and FPL	EA	2	2	4	
Power Company (service point coordination)	EA	0	0	0	
Subtotal Technical Meetings				4	
Total Meetings				4	

Project Activity 22: Signalization Plans

Estimator: JV

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

PBC#2022101

Task No.	Task	Scale	Units	No of Units	Hours/ Unit	No. of Sheets	Total Hours	Comments
22.1	Key Sheet		Sheet	1	4	1	4	
22.3	Tabulation of Quantities		Sheet	1	8	1	8	
22.4	General Notes/Pay Item Notes		Sheet	1	4	1	4	
22.5	Plan Sheet	1	Sheet	1	6	1	6	One intersection at Hypoluxo & High Ridge Rd
22.6	Interconnect Plans		Sheet	1	4	1	4	
22.7	Traffic Monitoring Site		EA	0	0	0	0	N/A
22.8	Guide Sign Worksheet	1	EA	2	2	1	4	N/A
22.9	Special Details		Sheet	0	0	0	0	N/A
22.10	Special Service Point Details	1	EA	0	0	0	0	N/A
22.11	Mast Arm/Monotube Tabulation Sheet		PI	1	4	0	4	
22.12	Strain Pole Schedule		PI	0	0	0	0	N/A
22.13	TCP Signal (Temporary)		EA	0	0	0	0	N/A
22.14	Temporary Detection Sheet		PI	0	0	0	0	N/A
22.15	Utility Conflict Sheet		Sheet	0	0	0	0	N/A
22.16	Interim Standards		LS	0	0	0	0	N/A
Signalization Plans Technical Subtotal						6	34	
22. Signalization Plans Total						6	34	

Reimbursable Fees
Propel Engineering, Inc.

PERMIT APPLICATION FEE SCHEDULE

(Effective 8/7/2016)

Environmental Resource Permits

New Individual or Conceptual Permit (excludes Agriculture, Mitigation Bank)

- Project area < 10 acres; no wetlands or surface waters; no boat slips.....\$ 2,000
- Project area < 10 acres; < 1 acre wetland or surface water; < 10 boat slips.....\$ 3,500
- Project area < 40 acres; < 3 acres wetlands or surface waters; < 30 boat slips.....\$ 5,500
- Project area < 100 acres; < 10 acres wetlands or surface waters; < 50 boat slips..... \$ 7,500
- Project area < 640 acres; < 50 acres wetlands or surface waters; < 50 boat slips..... \$ 13,125
- Project area > 640 acres; > 50 acres wetlands or surface waters; > 50 boat slips..... \$ 25,000

New Individual Agriculture or Silviculture Permit

- Project area < 10 acres; < 1 acre wetland or surface water..... \$ 859
- Project area < 40 acres; < 3 acres wetlands or surface waters..... \$ 2,444
- Project area < 100 acres; < 10 acres wetlands or surface waters..... \$ 4,029
- Project area < 640 acres; < 50 acres wetlands or surface waters..... \$ 5,284
- Project area > 640 acres; > 50 acres wetlands or surface waters..... \$ 6,605

Individual or Conceptual Permit Major Modification (excludes Agriculture, Mitigation Banks)

- Project area < 10 acres; no wetlands or surface waters; no boat slips.....\$ 1,200
- Project area < 10 acres; < 1 acre wetland or surface waters; < 10 boat slips.....\$ 2,100
- Project area < 40 acres; < 3 acres wetlands or surface waters; < 30 boat slips.....\$ 3,300
- Project area < 100 acres; < 10 acres wetlands or surface waters; < 50 boat slips.....\$ 4,500
- Project area < 640 acres; < 50 acres wetlands or surface waters; < 50 boat slips..... \$ 7,875
- Project area > 640 acres; > 50 acres wetlands or surface waters; > 50 boat slips..... \$ 15,000

Individual Agriculture or Silviculture Permit Major Modification

- Project area < 10 acres; < 1 acre wetland or surface water..... \$ 515
- Project area < 40 acres; < 3 acres wetlands or surface waters.....\$ 1,466
- Project area < 100 acres; < 10 acres wetlands or surface waters.....\$ 2,417
- Project area < 640 acres; < 50 acres wetlands or surface waters.....\$ 3,170
- Project area > 640 acres; > 50 acres wetlands or surface waters.....\$ 3,963

Individual or Conceptual Permit Minor Modification (includes Mitigation Banks)

- Time Extension of Permit (not associated with SB/HB)..... \$ 500
- Time Extension of Permit (associated with SB/HB)..... \$ 0
- Minor errors not requiring technical review.....\$ 0
- Transfer of ownership.....\$ 0
- Transfer from construction to operation phase.....\$ 0
- All other minor modifications (Letter Modification)..... \$ 250

New Individual or Conceptual Permit for a Mitigation Bank

- Permit area < 100 acres.....\$ 7,500

Optional Services Fees
Propel Engineering

OPTIONAL SERVICES ESTIMATE OF FEES FOR POST DESIGN

Name of Project:
County:
PBC Project Number:

High Ridge Rd. & Hypoluxo Rd. Intersection Improvements
Palm Beach
PBC#2022101

Consultant Name: Propel Engineering, Inc.
Consultant No.: 1930010909

Staff Classification	Total Staff Hours	Project Manager	Senior Engineer	Project Engineer	Engineering Intern	CADD/Computer Technician	SH By Activity	Salary Cost By Activity	Average Rate Per Task
		\$67.00	\$62.00	\$47.00	\$33.00	\$30.00			
Post Design Services for roadway, drainage, signal, and structures	40	8	10	14	4	4	40	\$2,066	\$51.65
Signalization As-built Plans	16	2	2	6	2	3	16	\$729	\$45.56
Assist/Prepare Bid Package	16	2	2	2	2	3	16	\$729	\$45.56
Lighting (Photometric) Analysis	8		2	2	2	3	8	\$381	\$47.63
						3			
Total Staff Hours	80	13	16	28	12	11	80		
Total Staff Cost		\$871.00	\$992.00	\$1,316.00	\$396.00	\$330.00		\$3,905.00	\$48.81

Raw Labor Cost = \$3,905.00
 Approved Multiplier = \$2.94
Total Staff Cost with Multiplier = \$11,480.70

Geotechnical Fees
Tierra South Florida, Inc.

**Proposal for Intersection Improvement
Hypoluxo and High Ridge
Lake Worth, FL
TSF Proposal No. 2211-639 R2
Page 4**

TIERRA SOUTH FLORIDA, INC.

	Unit	# of Units	Unit Price		Total
I. FIELD INVESTIGATION					
Mobilization of Men and Equipment Truck-Mounted Equipment	Trip	1	\$	450.00	\$ 450.00
Support Vehicle	Trip	1	\$	150.00	\$ 150.00
Standard Penetration Test Borings (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	60	\$	13.00	\$ 780.00
Grout-Seal Boreholes (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	60	\$	6.00	\$ 360.00
Casing Allowance (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	60	\$	7.00	\$ 420.00
Percolation Test	Each	1	\$	300.00	\$ 300.00
MOT	Day	1	\$	1800.00	\$ 1,800.00
II. LABORATORY TESTING					
Visual Examination by Staff Engineer	Hour	2	\$	110.00	\$ 220.00
Natural Moisture Content Tests	Test	3	\$	20.00	\$ 60.00
Full Grain-Size Analysis - (8 sieves)	Test	3	\$	75.00	\$ 225.00
Corrosion Series	Test	1	\$	190.00	\$ 190.00
III. FIELD ENGINEERING AND TECHNICAL SERVICES					
Site Recon./Utility Coordination/Traffic Control					
Sr. Engineering Technician	Hour	8	\$	75.00	\$ 600.00
IIIA. ENGINEERING AND TECHNICAL SERVICES					
Principal Engineer	Hour	2	\$	185.00	\$ 370.00
Senior Geotechnical Engineer	Hour	8	\$	175.00	\$ 1,400.00
Project Engineer, P.E.	Hour	16	\$	145.00	\$ 2,320.00
CADD Technician	Hour	8	\$	65.00	\$ 520.00
TSFGeo Geotechnical Services Schedule Estimate					
Task	Days	GEOTECHNICAL SERVICES		\$	10,165.00
TSF NTP	1				
TSF Mobilization	10				
TSF Field Work	2				
TSF Laboratory Testing	10				
TSF Draft Report Submittal	7				
TSF Draft Report Review Period	7				
TSF Update Draft Report	2				
TSF Submit Final Report	1				
	40				

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2022101

SOLICITATION/PROJECT NAME: High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

Prime Contractor: Propel Engineering, Inc.

Subcontractor: _____

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE

Date of Palm Beach County Certification (if applicable): 04/12/2020-04/11/2023

The undersigned affirms they are the following (select one from each column if applicable):

Column 1	Column 2	Column 3
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	3.02 General Highway Design				\$93,042.98

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$93,042.98

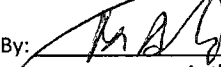
If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

_____ Price or Percentage: _____

Name of 2nd/3rd tier Subcontractor/subconsultant

Propel Engineering, Inc.

Print Name of Prime

By: 

Authorized Signature

Majharul Alam, PE, PMP

Print Name

President

Title

Date: 03/27/2023

N/A

Print Name of Subcontractor/subconsultant

By: _____

Authorized Signature

Print Name

Title

Date: _____

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: 2022101

SOLICITATION/PROJECT NAME: High Ridge Rd. & Hypoluxo Rd. Intersection Improvements

Prime Contractor: Propel Engineering, Inc. Subcontractor: Tierra South Florida, Inc.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): _____

The undersigned affirms they are the following (select one from each column **if applicable**):

Column 1	Column 2	Column 3
<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	<input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American	<input type="checkbox"/> Supplier
	<input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American	

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any **S/M/WBE** participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

Line Item	Item Description	Unit Price	Quantity/ Units	Contingencies/ Allowances	Total Price/Percentage
1	Geotechnical Engineering				\$10,165.00

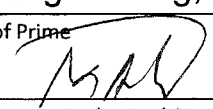
The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$10,165.00

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

_____ Price or Percentage: _____

Name of 2nd/3rd tier Subcontractor/subconsultant

Propel Engineering, Inc.

 Print Name of Prime
 By: 

 Authorized Signature
 Majharul Alam, PE, PMP

 Print Name
President

 Title
 Date: 03/21/2023

Tierra South Florida, Inc.

 Print Name of Subcontractor/subconsultant
 By: 

 Authorized Signature
 Dominique J. Bennett

 Print Name
Professional Services Manager

 Title
 Date: 03/21/2023



**Palm Beach County
Compliance Summary Report**

Vendor Number	Vendor Name	AM Best Rating	Insurance Carrier	Policy #	Eff. Date	Exp. Date	Coverage	Contract Number	Contract Name
DX00000506	Propel Engineering Inc.		Compliant					R2020-0542	Intersection Improvements Annual Services
		A++g , XV	Travelers Indemnity Company of America	6608R11126A	1/27/2023	1/27/2024	General Liability		
		Ag , XV	Hudson Insurance Company	PRB0619113864	4/7/2022	4/7/2023	Professional Liability		
		A++g , XV	Travelers Casualty and Surety Company	UB8R112544	1/27/2023	1/27/2024	Workers Comp		

Risk Profile : Standard - Professional Services
Required Additional Insured : Palm Beach County Board of County Commissioners
Ownership Entity :

EBIX Insurance Compliance