

**RESOLUTION NO. 2023-**

**A RESOLUTION OF THE VILLAGE OF PINECREST,  
FLORIDA, AUTHORIZING THE VILLAGE MANAGER TO  
ENTER INTO AN AGREEMENT WITH METRIC  
ENGINEERING FOR STORMWATER DESIGN SERVICES  
FOR THREE (3) RESIDENTIAL DRAINAGE LOCATIONS;  
PROVIDING FOR AN EFFECTIVE DATE.**

WHEREAS, Metric Engineering is one of several firms that have been selected by the Village based on an RFQ for Civil Engineering Services; and

WHEREAS, this project will allow for the drainage design and permitting for 3 residential drainage locations ( (1) SW 130 Terr Cul de Sac, (2) SW 69 Ave from 96 St to 98 St, (3) SW 72 Ave from 98 St to 96 St).;

NOW, THEREFORE, BE IT RESOLVED BY THE VILLAGE COUNCIL OF THE VILLAGE OF PINECREST, FLORIDA, AS FOLLOWS:

Section 1. That the Village Manager is hereby authorized to enter into an agreement with *Metric Engineering* for stormwater design services for 3 residential drainage locations ( (1) SW 130 Terr Cul de Sac, (2) SW 69 Ave from 96 St to 98 St, (3) SW 72 Ave from 98 St to 96 St).

Section 2. This resolution shall be effective immediately upon adoption.

PASSED AND ADOPTED this 13th day of June, 2023.

\_\_\_\_\_  
Joseph M. Corradino, Mayor

Attest:

\_\_\_\_\_  
Priscilla Torres, CMC  
Village Clerk

Approved as to Form and Legal Sufficiency:

\_\_\_\_\_  
Mitchell Bierman  
Village Attorney



Yocelyn Galiano, ICMA-CM  
Village Manager  
manager@pinecrest-fl.gov

VILLAGE OF PINECREST  
Office of the Village Manager

DATE: June 6, 2023  
TO: The Honorable Mayor and Members of the Village Council  
FROM: Yocelyn Galiano, ICMA CM, Village Manager  
RE: Resolution for Agreement for Stormwater Design Services

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Attached for your consideration, please find a design proposal dated April 12 10, 2023 from Metric Engineering for data collection, design, permitting, and post-design services and support for 3 residential drainage locations ( (1) SW 130 Terr Cul de Sac, (2) SW 69 Ave from 96 St to 98 St, (3) SW 72 Ave from 98 St to 96 St). The subject consultant is one of several firms that have been selected by the Village based on an RFQ for Civil Engineering Services.

This project will allow for the drainage design and permitting for these three locations that have experienced repetitive drainage incidents.

I hereby respectfully recommend the Village Council adopt the attached resolution authorizing the Village Manager to execute an agreement for engineering design services for the aforementioned areas with Metric Engineering in the amount of \$138,935.





April 12, 2023

David Mendez, P.E.  
Public Works Director  
Village of Pinecrest  
10800 Red Road  
Pinecrest, FL 33156

**Reference: VILLAGE OF PINECREST RESIDENTIAL DRAINAGE IMPROVEMENTS – LOCATION 1: SW 130<sup>TH</sup> TERRACE CUL-DE-SAC, LOCATION 2: 9640 SW 69<sup>TH</sup> AVE. (& SW 69<sup>TH</sup> AVE. FROM SW 96<sup>TH</sup> ST. TO SW 98<sup>TH</sup> ST.), AND LOCATION 3: 9720 SW 72<sup>ND</sup> AVE.**

Mr. Mendez:

Thank you for the opportunity to present this proposal for professional engineering services associated with the design and permitting for the required roadway and drainage improvements. This proposal is for the proposed drainage improvements for three separate locations within the Village of Pinecrest. Locations and some photos of each project site can be found at:

<https://www.google.com/maps/d/u/0/edit?mid=11GgsVygs4M8zAJT11TG8KT-lbpZQEuc&usp=sharing>

The total estimated project length is 1200 linear feet. Fees were calculated based on the Village's standard design rates based on linear footage of project length. A kmz file is provided with this proposal indicating the limits of each project area and a pdf of the limits of each project area are also shown in the exhibits on the survey proposal. These limits were determined based on our field reviews with you on March 15<sup>th</sup> and review of flooding photos provided by you. This proposal defines the scope of work, schedule, compensation, and scope of work exclusions for the professional engineering services associated with this project.

Respectfully Submitted,

A handwritten signature in blue ink that reads 'J. Bloomfield'.

Jessica G. Bloomfield, P.E.

Project Manager  
METRIC ENGINEERING, INC.  
Cell: (850) 596-1526



## I. SCOPE OF WORK

The Scope of Work is comprised of the following essential tasks:

Task 1 – Data Collection and Evaluation

Task 1-1 General Data Collection (Metric)

Task 1-2 Surveying and Mapping (Manny Vera)

Task 1-3 Utility Designates (Manny Vera)

Task 1-4 Subsurface Utility Engineering (Manny Vera)

Task 1-5 Geotechnical Investigations (TSFGeo)

Task 2 – Design Plans and Specifications

Task 2-1 Drainage Analysis, Recommendations and Documentation (Metric)

Task 2-2 Design Plans and Specifications (Metric)

Task 3 – Permitting (Metric)

Task 4 – Post-design Services (Metric)

### **Task 1 – Data Collection and Evaluation**

#### ***Task 1-1 General Data Collection***

Metric Engineering staff will coordinate with the Village staff and obtain all available data and information needed for this project. The anticipated data and information to be collected from the Village will include:

- GIS data and atlas maps
- Photographs of the Historical Flooding
- Available reports and data within the project limits, if any
- Hydraulic models (ICPR 3/XPSWMM), if any
- All other data that will assist Metric Engineering in the analysis and design of the project

Metric Engineering staff will review and evaluate all information collected from the Village. Metric Engineering staff will also perform a field review to observe the existing roadway, drainage, and site conditions. Then Metric Engineering will evaluate the existing drainage systems and determine potential drainage improvements for each of the project locations. Our recommendations will be presented to the Village for concurrence and final plans will be developed based on the approved drainage approach.

Metric Engineering will also coordinate with the following engineering subconsultants: surveyors, geotechnical engineers, and subsurface utility engineers. Metric Engineering will also review the subconsultant's deliverables and provide comments before the documents are finalized.



### ***Task 1-2 Surveying and Mapping***

Metric Engineering will retain M.G. Vera & Associates, Inc. (MGV) to perform surveying and mapping services for approximately 1200 linear feet of roadway to support the design. For surveying and mapping scope of services, please refer to **Attachment A** for the Survey Proposal prepared by MGV.

### ***Task 1-3 Utility Designates***

In addition to survey efforts described in Task 1-2, MGV will call in utility locates and perform Level B designates on all buried utilities in the projects' limits. These survey designates will be included in the survey deliverable cadd files. For utility designates scope of services, please refer to **Attachment A** for the Survey Proposal prepared by MGV.

### ***Task 1-4 Subsurface Utility Engineering***

Metric Engineering will retain M.G. Vera & Associates, Inc. to provide subsurface utility engineering services (SUE) for 1200 linear feet of roadway to support the design. Refer to **Attachment A** for the Survey Proposal prepared by MGV.

### ***Task 1-5 Geotechnical Investigations***

Metric Engineering will retain Tierra South Florida, Inc (TSFGeo) to perform geotechnical investigations services to support the design. The purpose of the geotechnical services is to determine site drainage and roadway base characteristics. These services will include field and laboratory testing. Please refer to **Attachment B** for the Geotechnical Proposal prepared by TSFGeo.

## **Task 2 – Design Plans and Specifications**

### ***Task 2-1 Drainage Analysis and Documentation***

The proposed drainage improvements will be determined for each location based on survey and geotechnical data, additional field reviews and discussions with the Village. Drainage improvements will likely consist of the following improvements: regrading features within the right-of-way to create positive drainage or swale systems, construction of piped systems or exfiltration systems, or trench drains. The recommended improvements may also consist of work on private property which will need to be coordinated with the property owner(s).

Metric Engineering will use the data and existing condition information collected to develop hydrologic/hydraulic models of the project areas. Metric Engineering will prepare a Drainage Report summarizing the data and hydrologic/hydraulic analysis. An electronic copy of the



Drainage Report will be provided to the Village for review and comments received from the Village will be implemented in the next submittal. Metric Engineering will submit one electronic copy of the final Drainage Report to the Village. The final Drainage Report will be used as supporting documentation to prepare the required permit applications in Task 3.

### ***Task 2-2 Design Plans and Specifications***

Metric Engineering will use the information collected from Task 1 and Task 2 to develop construction contract documents (plans and specifications) for the proposed drainage improvements along each of the project limits. The plans and specifications will include necessary paving limits and pavement markings.

The following plan sheets may be prepared (although not limited to the following list):

- Key Sheet
- Summary of Pay Items and Quantities
- Typical Section(s)
- General Notes/Pay Items
- Survey Control Plan Sheets
- Roadway and Drainage Plan Sheets
- Drainage Structure Sheets
- Special Details
- Stormwater Pollution Details
- Traffic Control Notes and Details

All maps, plans, and designs are to be prepared with English Units, and elevations will be based on the North American Vertical Datum of 1988 (NAVD88). OpenRoads Designer CONNECT will be used to produce plans on 11" X 17" size sheets. Metric Engineering will provide a CD containing PDFs and all CADD project files to the Village at the conclusion of the project.

To the maximum extent practical, technical specifications will be included within the plans. It is assumed that the drawings will be included with the construction bid documents.

Metric Engineering will prepare 60 and 100 percent construction plans and specifications to the Village. Metric Engineering will also provide a Construction Cost Estimate for the 60 and 100 percent submittals. Metric Engineering will attend a meeting with Village staff after the 60 percent submittal to receive and discuss comments from the Village review. After the comments from the 60 percent submittal are incorporated, Metric Engineering will provide one set of the final plans and specifications electronically for bidding purposes and one set of the signed and sealed plans and specifications electronically. It is assumed that the Village will provide the contractors with the final construction documents during the bidding process.



### **Task 3 – Permitting**

The following permits are anticipated to be a part of this project, if exfiltration systems are utilized:

- Environmental Resource Permit (ERP) from the South Florida Water Management District (SFWMD)
- Miami-Dade County Regulatory and Environmental and Economic Resource (RER) Class II Permit

Metric Engineering will attend a pre-application meeting with the SFWMD and one meeting with RER. Metric Engineering will use the information from Tasks 1 and 2 to prepare the permit application and obtain approval from the SFWMD and RER. Metric Engineering understands that the Village will pay for all applicable permit fees; however, we will assist the Village in obtaining waivers for permit fees. Metric Engineering will review and address requests for additional information (RAI) from SFWMD and RER.

### **Task 4 – Post-design Services**

We anticipate that all three locations on this project will be constructed concurrently; however, they may be constructed completely independently. As part of this task, Metric Engineering will attend a project pre-construction meeting, if needed. Metric Engineering will also review and approve applicable shop drawings and technical submittals required by the Contract Documents. For scoping purposes, Metric Engineering will review and approve shop drawings or technical submittals required by the Contract Documents. The review includes up to one (1) re-submittal review for correction and revision by the Contractor per submittal package. The review will include a comparison of the Contractor's submitted documents to the requirements of the Contract Documents. In addition, any substantial deviation from the project requirements will be documented and returned to the Contractor and the Village with instructions on how to proceed based on the severity and nature of the deficiencies encountered. Once the Contractor has substantially met the project requirements, Metric Engineering will approve the submittal package in writing and provide the results to the Contractor and the Village. This task will not include the review and approval of material substitutions or evaluation of bid alternates, or value engineering.

Metric Engineering will answer and address the contractor's Requests for Information (RFI) which requires interpretation of the plans and specifications. This task includes only RFIs that are directly related to any original products specified by Metric Engineering for the construction of this project and excludes interpretation of any documents originally created by the Village, the Contractor, or their sub-contractors and suppliers. Metric Engineering will prepare and maintain a submittal and RFI log, which will document and track the dates and results of all reviews. The log will be periodically updated and will be reviewed during the construction progress meetings.



At the end of construction, Metric Engineering will prepare and submit to the SFWMD and RER a letter certifying that construction was completed in compliance with the design plans and close out the permits.

## II. SCHEDULE

Metric Engineering shall submit the deliverables and perform the work outlined in the Scope of Work in accordance with the schedule depicted in the table below. Tasks 1 through 3 for these projects will be completed within approximately nine (9) months after receiving notice to proceed (NTP). Metric Engineering will prepare an anticipated schedule after receiving NTP. Submittal dates may be adjusted accordingly based on the delivery of survey, utility, and geotechnical information and permitting agency review periods. The work associated with Task 4 will be completed in accordance with the bidding, contract award, and construction schedules.

<b>Schedule of Deliverables</b>	
<b>Project Activity Description and Deliverable</b>	<b>Months from NTP</b>
Task 1 – Data Collection and Evaluation	-
Task 1-1 General Data Collection	1
Task 1-2 Surveying and Mapping	3
Task 1-3 Utility Designates	3
Task 1-4 Subsurface Utility Engineering	4
Task 1-5 Geotechnical Investigations	3
Task 2 – Design Plans and Specifications	-
Task 2-1 Drainage Analysis and Documentation	6
Task 2-2 Design Plans and Specifications	7
Task 3 – Permitting	9
Task 4 – Post-design Services	TBD



### III. COMPENSATION

Metric Engineering, Inc. will be compensated for the scope of work outlined in Task 1 through Task 3, \$61,800 on a lump sum basis. Task 1-4 Subsurface Utility Engineering includes a not-to-exceed amount of \$6,000 to perform vacuum excavation services if needed (12 test holes - \$500 per test hole). Task 4 will be compensated on a time and material basis (limiting amount of \$18,000). The total fee for all tasks is \$138,935. The table below outlines the estimated fee schedule for the required deliverables.

<b>Summary of Compensation</b>	
<b>Project Activity Description and Deliverable</b>	<b>Fee Amount</b>
Task 1 – Data Collection and Evaluation	-
Task 1-1 General Data Collection (Metric)	\$ 4,800
Task 1-2 Surveying and Mapping (MGV)	\$ 21,000
Task 1-3 Utility Designates (MGV)	\$ 16,000
Task 1-4 Subsurface Utility Engineering (MGV) (Limiting Amount, \$500 per test hole x 12 test holes)	\$ 6,000
Task 1-5 Geotechnical Investigations (TSFGeo)	\$ 16,135
Task 2 – Design Plans and Specifications	-
Task 2-1 Drainage Analysis, Recommendations and Documentation (Metric)	\$ 10,200
Task 2-2 Design Plans and Specifications (Metric)	\$ 37,200
Task 3 – Permitting (Metric)	\$ 9,600
Task 4 – Post-design Services (Metric)	\$ 18,000
Metric Total	\$ 79,800
<b>TOTAL</b>	<b>\$ 138,935</b>

Metric Engineering will submit monthly invoices to the Village for the percent of work completed during each month for the lump sum tasks and hours spent each month for the time and material tasks.



#### IV. SCOPE OF WORK EXCLUSIONS

The services outlined below are not included as part of the scope of work, although additional service orders can be executed to assist the Village with these services if necessary:

1. Water quality modeling
2. Environmental assessment including contamination
3. Title search or ownership determination
4. Prepare a public outreach program
5. Consumptive use or dewatering permits
6. Tree disposition plans or tree permits
7. Irrigation design
8. Stormwater pump station design
9. Utility relocation design
10. Permit fees
11. Attend public workshops or meetings
12. Update the current Stormwater Master Plan
13. Advertise and administer bid and contract award
14. Reproduce construction contract documents for bidding purposes
15. Prepare and distribute Addendums
16. CEI inspection services
17. Attend Commission meetings
18. Prepare as-built plans
19. Any work items not included in the Scope of Work

Metric Engineering looks forward to assisting the Village with this important project to alleviate historical and future flooding concerns. If you have any questions or need additional information, please do not hesitate to contact Robert Linares, PE, at (305) 968-7843.

Sincerely,  
**Metric Engineering, Inc.**

A handwritten signature in blue ink, appearing to read 'R. Linares'.

Robert  
Linares, PE  
Executive  
Vice  
President

# **Attachment A**



13960 SW 47<sup>th</sup> St, Miami, FL 33175  
t: 305.221.6210 | f: 305.221.1295  
[www.mgvera.com](http://www.mgvera.com)

March 31, 2023

### Survey/SUE Scope of Service

Jessica Bloomfield, PE  
Metric  
13940 SW 136<sup>th</sup> Street - Miami, FL - 33186

Project: Village of Pinecrest Subdivision Drainage Survey  
Limits: See Attached Sketch (SW 69<sup>th</sup> Avenue, SW 72<sup>nd</sup> Avenue. and SW 130<sup>th</sup> Terrace)

MGV appreciates the opportunity to perform our Design Survey and SUE (Subsurface Utility Engineering) services on this project. Below is the scope of services. In addition to the specific scope items, all survey work shall adhere to Standards of Practices for Land Surveyors Rule 5J-17 F.A.C., Florida Statue 472.027 and SUE work will follow ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

#### Horizontal/Vertical Control

Establish horizontal control on the Florida State Plane Coordinate System, East Zone, and North American Datum (NAD) of 1983 / 1990 Adjustment utilizing GPS/RTK FPRN methods as needed to complete these scope of services.

Utilizing RTK/GPS FPRN methods, establish site specific vertical control on NAVD 88 vertical datum as needed to complete these scope of services.

Note: Horizontal/Vertical control will be placed in the survey database along with the signed and sealed topographic survey.

#### Survey Baseline/Existing RW

The Historic survey baseline and right of ways will be established and all intersecting side-streets as per recorded instruments including platted and / or dedicated rights of ways, etc. as indicated on the attached sketch. Survey baselines and r/w will be placed in the survey database along with the signed and sealed topographic survey.

#### Topographic Survey / DTM (3D)

Topographic and DTM Survey will be performed within the approximate design survey limits as indicated on the attached sketch. All above ground features and improvements, break-lines, high and low points will be located with sufficient density of points in order to create a DTM. All topographic features will be located including: existing lighting, pavement markings, trees, pedestrian ramps, driveways, visible above ground utilities, sodded and paved areas, pedestrian ramps, drainage structures, etc. All Topographic / DTM Surveys will follow and meet all applicable standards & guidelines and delivered in the appropriate CADD format.

Note:

- A signed and sealed 11" x 17" Topographic Survey will be provided.
- A tree survey (DBH, scientific name, canopy height-width, etc.) is not included in these scope of services.

## **Drainage Survey**

A Drainage Survey will be performed within the project limits. Survey will identify the type of structure, rim elevation, pipe invert elevation, pipe materials, direction, size and condition.

Note:

- *In cases where a structure is full of water and or sediment, MGV will visit said structures a maximum of 2 visits; if structures is still un-accessible, said structure will be reported to the Project Manager. Structure cleanout will be performed by Village of Pinecrest Maintenance crews.*

## **Underground Utilities**

MGV will provide Quality Level B Utility Designates within the existing r/w for the project limits utilizing electromagnetic detection systems including GPR (Ground Penetrating Radar).

Once the design team has reviewed the existing subsurface utility information, MGV will provide up to 12 Quality Level A Locates on specific utilities as directed by the EOR.

Quality Level B Designates and Quality Level A Locates will be provided in an overall Cadd file. In addition to the utility designation line work, the cadd file will include for each Test Hole: horizontal location, depth of cover, size, type, elevations, material, and general direction of each found utility.

Note: If additional test holes are required, an addendum will be provided to cover the additional test holes.

MGV will notify Sunshine One-Call 48 hours in advance of performing the utility locates (test holes). A non-destructive vacuum excavation system will be utilized to expose the utilities or perform exploratory test holes. Test holes performed will be of minimum size (usually 1' by 1'). Backfill of test holes will be performed utilizing material removed. Test holes performed in the street will be patched utilizing cold patch. Basic maintenance of traffic (signs, cones) will be included.

## **Subsurface Utility Designating and Locating Conditions and Understandings**

The utility designates and locates are for design purposes only. The Florida One Call must be notified forty-eight (48) hours in advance of any excavation.

Accuracy of Geophysical Mapping techniques, although highly reliable, are subject to outside interference. A few examples are: Soil condition, material conductivity, depth of utility, and various other geological anomalies that may distort or hinder electromagnetic and GPR frequencies.

MGV will make every effort possible utilizing state of the art technology to designate and locate underground utilities; however there are no guarantees that all underground utilities or structures will be detected.

MGV will not access confined spaces and is not included in this fee estimate. If accessing confined spaces are required, MGV will notify the client to discuss options. Additional fees may be applicable.

## **Additional Clarifications and Understandings**

If cap rock or an obstruction is encountered during the test hole phase and further vacuum excavation cannot be completed or performed without the potential for utility damage, MGV will consider the test hole completed, measure the depth to the top of the cap rock or obstruction reached, survey the location and consider the test hole completed and invoice accordingly.

The below fee includes only backfill of test holes utilizing material removed in natural ground or cold patch within asphalt pavement or concrete in sidewalks for the approximate 1' x 1' test hole. If additional restoration is required, MG Vera will provide an additional proposal to cover the additional expense.

Basic maintenance of traffic (signs, cones) is included, but if advanced MOT is required, MGV will provide a cost estimate to cover these additional expenses.

This estimate does not include fees for signed and sealed MOT plans.

This estimate does not include permits or permit fees.

**Work Zone Safety**

Work zone survey safety will be provided as required by applicable standards.

**Fees(SW 69<sup>th</sup> Ave, SW 72<sup>nd</sup> Ave., SW 130<sup>th</sup> Terr.):**

**Survey (Lump SUM):** **\$21,000.00**

**Quality Level B Utility Designation(Lump SUM):** **\$16,000.00**

**Test Holes (Limiting Amount) – 12 Test Holes** **\$6,000.00**

**(\$500.00/test hole- Minimum 5 per request)**

**Includes necessary survey support**

We look forward to providing our services and please contact me if you have any questions or require additional information.

Sincerely,  
Manuel G. Vera & Associates, Inc.



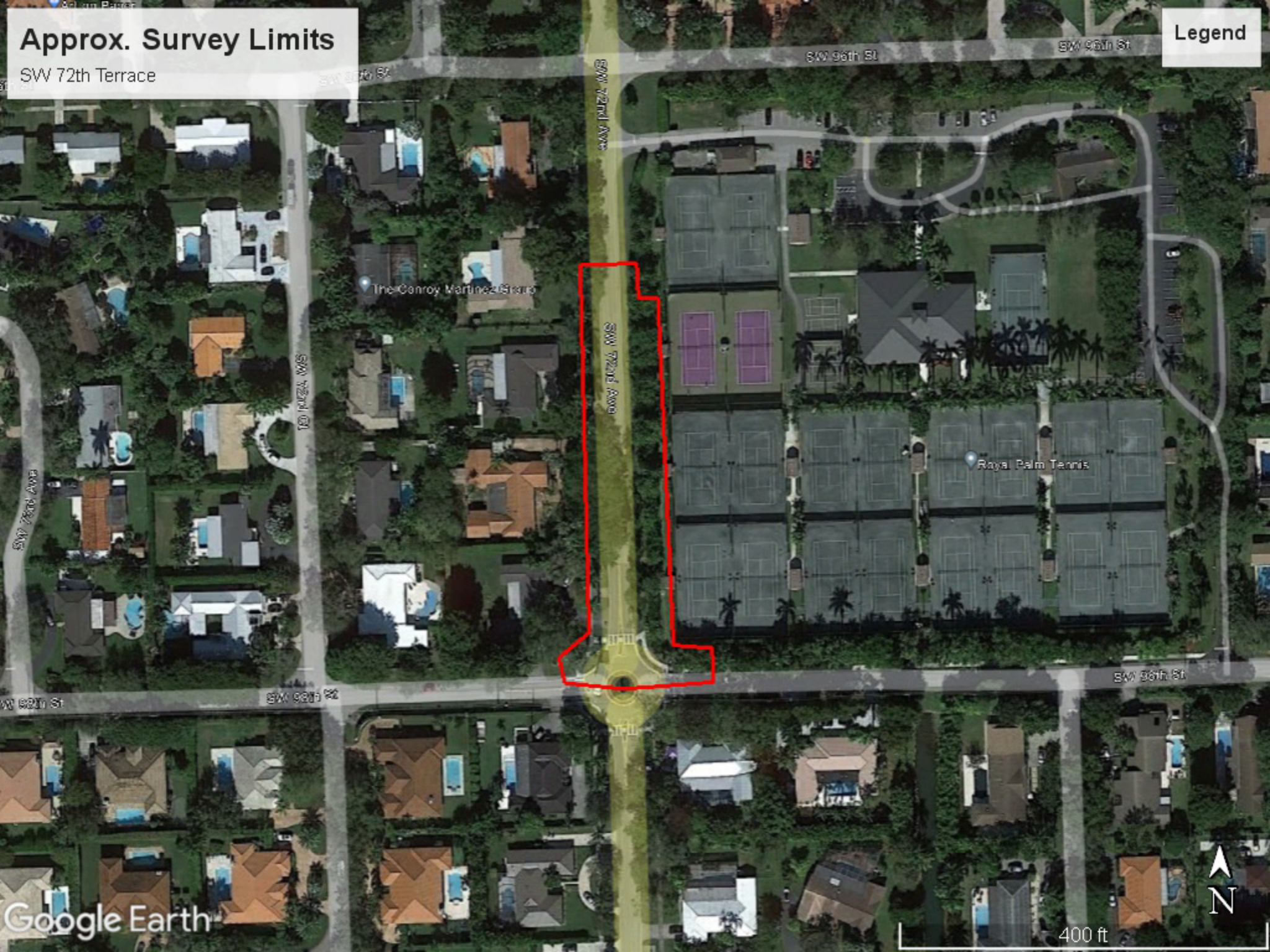
Mark R. Sowers, PSM



# Approx. Survey Limits

SW 72th Terrace

Legend



The Conroy Martinez Group

Raya Palm Tennis

Google Earth

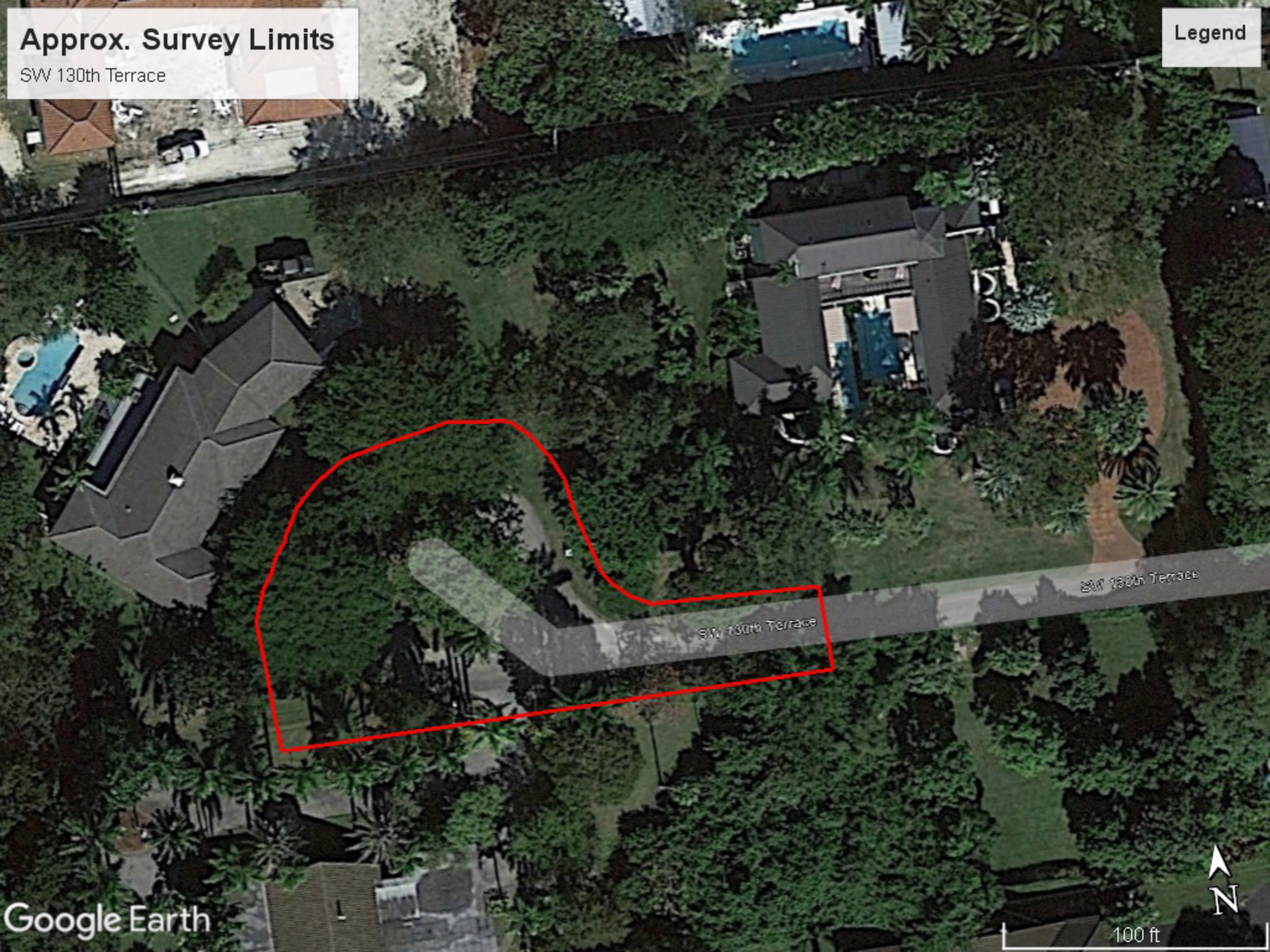


400 ft

# Approx. Survey Limits

SW 130th Terrace

Legend



# **Attachment B**



April 5, 2023

Metric Engineering  
13940 SW 136<sup>th</sup> Street  
Miami, Florida

Attn: Ms. Kaitlin Chokshi, E.I.  
Email: [kaitlin.chokshi@metriceng.com](mailto:kaitlin.chokshi@metriceng.com)

RE: **Proposal for Geotechnical Services**  
**Village of Pinecrest Residential Drainage Improvements**  
**Pinecrest, Florida**  
**TSFGEO Proposal No. 2303-189**

Dear Kaitlin:

TSFGEO is pleased to transmit our geotechnical services proposal for the above-referenced project. Based on information provided to this office, this project will consist of drainage improvements along SW 72<sup>nd</sup> Ave., SW 69<sup>th</sup> Ave., and SW 130<sup>th</sup> Terrace in Pinecrest, Florida. This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

### PROPOSED SCOPE OF WORK

Based on our understanding of the project, we anticipate that the following services will be required:

Proposed Field Testing	
Location	Proposed Services
Drainage Improvements	Borehole Permeability (BHP) Tests - Three (3) BHPs at 5 feet - Three (3) BHPs at 10 feet - Three (3) BHPs at 15 feet - Three (3) BHPs at 20 feet Three (3) Asphalt Pavement Cores

Prior to drilling at the project site, TSFGEO will notify the local utility companies and request that underground utilities be marked (Sunshine State One Call). **Our experience, however, is that the utility companies will not mark privately owned utilities. Our proposal assumes that the Client will locate private utility lines, if any, in the field or clear boring locations of utility**

**conflicts prior to mobilization of the drill rig. TSFGeo can recommend a utility line locating service upon request.**

**Maintenance of Traffic (MOT) may be required to perform this work.**

Upon completion of the field exploration, some laboratory testing and visual classifications will be performed on selected samples.

The results of all drilling and laboratory testing will be evaluated by a geotechnical engineer. A report will be issued that contains the exploration data and a discussion of site and subsurface conditions, along with a discussion of some construction considerations.

### **ESTIMATED FEES**

It is proposed that the fee for the performance of the services outlined above is determined on a unit fee basis and that the work be performed pursuant to TSFGeo's General Conditions enclosed herewith and incorporated into this proposal. Our fees for the above scope of work will be **\$16,134.49.**

**The above estimate assumes that the site is open and accessible to our truck-mounted drill rig.** Our estimate covers the work needed to provide drilling services and geotechnical report. Not included are reports, reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

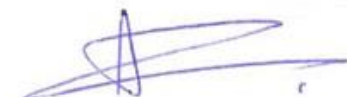
### **SCHEDULE AND AUTHORIZATION**

TSFGeo will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within a few days of project approval (weather permitting and permit approval) and after utilities have been cleared. The fieldwork is expected to take about 2 to 3 days to complete. The test results can be submitted about 3 weeks after completion of the field exploration. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report.

We at TSFGeo 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.

Respectfully submitted,

**TSFGeo**



Ramakumar Vedula, P.E.  
Principal Engineer



Sean Tromans, E.I.  
Staff Engineer

Attachments:

General Conditions  
Fee Schedule

<b>AUTHORIZED BY:</b>	<b>INVOICE TO:</b>
<b>Name:</b>	<b>Firm:</b>
<b>Title:</b>	<b>Name:</b>
<b>Date:</b>	<b>Address:</b>
	<b>Phone :</b>

**TSFGeo's General Conditions**

1. **SCOPE OF WORK:** Work means the specific geotechnical, analytical, testing or other service to be performed by Tierra South Florida, Inc. (TSFGeo) as set forth in TSFGeo's proposal, Client's acceptance of the scope of work and these General Conditions. Additional work ordered by Client shall also be subject to these General Conditions. "Client" refers to the person or business entity ordering the work to be done by TSFGeo. Client shall communicate these General Conditions to each and every third party to whom Client transmits any part of TSFGeo's work. TSFGeo shall have no duty or obligation to any third party greater than that set forth in TSFGeo's proposal, Client's acceptance of TSFGeo's proposal and these General Conditions. The ordering of work from TSFGeo, or the reliance on any of TSFGeo's work, shall represent acceptance of the terms of TSFGeo's proposal and these General Conditions, regardless of the terms of any subsequently issued document.
2. **RIGHT-OF-ENTRY** -The client will provide right-of-entry for TSFGeo and all necessary equipment in order to complete the work. While TSFGeo will take all reasonable precautions to minimize any damage to the property, it is understood by Client that in the normal course of work some damage may occur; the correction of which is not part of this agreement.
3. **DAMAGE TO EXISTING MAN-MADE OBJECTS** -The Client, will provide the location of all underground utilities or obstructions to TSFGeo who, in the prosecution of their work, will take all reasonable precautions to avoid damage or injury to any such subterranean structure or utility. The Owner agrees to hold TSFGeo harmless for any damages to subterranean structures which are not called to TSFGeo's attention and correctly shown on the plans furnished and will reimburse TSFGeo for any expenses in connection with any claims or suits including reasonable attorney fees at the trial and appellate levels.
4. **IN-PLACE MATERIALS TESTING** - TSFGeo will not be responsible for repair or damage to portions of structures designated for in-place materials testing. Repairs can be made for aesthetic reasons if requested in advance of the work to be performed. The cost for labor and materials would be charged.
5. **SAMPLE RETENTION** - TSFGeo will retain all soil and rock samples obtained for geotechnical explorations for 30 days. Samples subjected to Construction Materials and Laboratory testing are disposed of subsequent to testing. Further storage or transfer of samples can be made at Client's expense upon written authorization.
6. **DEFINITION OF RESPONSIBILITY (OBSERVATION SERVICES)** - The presence of our field representative will be for the purpose of providing observation and field testing. Our work does not include supervision or direction of the actual work of the contractor, his employees or agents. The contractor for this project should be so advised.
  - 6.1. The Contractor should also be informed that neither the presence of our field representative or the observation and testing by our firm shall excuse him in any way for defects discovered in his work. It is understood that TSFGeo will not be responsible for the Contractor's job or site safety on his project. That will be the sole responsibility of the contractor.
7. **STANDARD OF CARE** -Service performed by TSFGeo under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty, expressed or implied, is made.
  - 7.1. Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys or explorations are made by TSFGeo and that the data, interpretations and recommendations of TSFGeo are based solely on the information available to it. TSFGeo shall not be responsible for the interpretation by others of information developed.
8. **ORAL AGREEMENTS** -No oral agreement, guarantee, promise, representation or warranty shall be binding.
9. **OWNERSHIP OF DOCUMENTS** -All reports, boring logs, field data and notes, laboratory test data, calculations, estimates and other documents prepared by TSFGeo, as instruments of service, shall remain the property of TSFGeo until final payment is received and a letter of copyright transfer been executed.
10. **BASIS OF PAYMENT** -Payment is due within 30 days of date of invoice. Payments not made when due shall bear interest at eighteen (18) percent annum or at the maximum rate allowed by law from the date of the invoice until same is paid.
  - 10.1. If the Client fails to make any payment due to TSFGeo for service and/or expenses within 60 days of date of invoice, TSFGeo may, after giving seven days' written notice to Client, suspend services until all outstanding amounts have been paid to TSFGeo in full. Further, TSFGeo may, in addition to withholding services, or singularly, withhold reports, plans and other documents not paid in full by the Client. In the event that final payment for completed work is not made, TSFGeo shall request that all copyrighted documents which were submitted to client be returned and all information used in project plans be removed from project documents.
  - 10.2. In the event it is necessary to take legal action to effect collection, whether or not litigation is commenced, the Client agrees to reimburse TSFGeo for expenses in connection with any claims or suits, including reasonable attorney's fees, including but not limited to the trial and appellate levels.
  - 10.3. This contract shall be governed by the laws of the State of Florida.
11. **CONSTRUCTION REVIEW** - TSFGeo cannot accept responsibility for any design work unless the work includes services for construction review to determine whether or not the work performed is in substantial compliance with TSFGeo's conclusions and recommendations.
12. **INDEMNIFICATION** -TSFGeo agrees to hold harmless and indemnify Client from and against liability arising out of TSFGeo's negligent performance of the work. Client agrees to indemnify and hold TSFGeo harmless from all liability including all costs, attorney's fees and expenses of defense for any claims by any other person or corporation which may arise out of the performance or breach of this contract for which TSFGeo was not solely negligent.
13. **LIMITATION OF LIABILITY** -The Client/Owner agrees to limit TSFGeo's liability for negligent professional acts, errors or omissions, such that the total aggregate liability of TSFGeo shall not exceed \$50,000 or the total fee for the services rendered on this project; whichever is greater. The Owner further agrees to require the contractor and his subcontractors a similar limitation of liability suffered by the contractor or the subcontractors arising from TSFGeo's negligent professional acts, errors or omissions.
  - 13.1. If Client prefers to have higher limits on professional liability, TSFGeo agrees to increase the limits up to a maximum of \$1,000,000 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of 5 percent of our total fee. The additional charge for the higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.
14. **INSURANCE** -TSFGeo represents that it and its agents, staff and consultants employed by it are protected by Worker's Compensation insurance and Employer's Liability Insurance in conformance with applicable state laws. TSFGeo has such coverage under public liability and property damage insurance policies that TSFGeo deems to be adequate. A Certificate of Insurance can be supplied evidencing such coverage upon request.
  - 14.1. Within the limits and conditions of such insurance, TSFGeo agrees to indemnify and save client harmless from and against any loss, damage or liability arising from any negligent acts by TSFGeo, its agents, staff and consultants employed by it. TSFGeo shall not be responsible for any loss, damage or liability beyond the amounts, limits and considerations of such insurance. TSFGeo shall not be responsible for any loss, damage or liability arising from any acts by clients, its agents, staff and other consultants employed by it.
  - 14.2. Cost of the above coverage is included in our quoted fees. If additional coverage or increased limits of liability are required, TSFGeo will endeavor to obtain the requested insurance and charge separately for costs associated with additional coverage or increased limits.
15. **TERMINATION** -This agreement may be terminated by either party upon seven days written notice in the event of substantial failure by the other party to perform in accordance with the terms thereof. Such termination shall not be effective if the substantial failure has been remedied before expiration of the period specified in the written notice. In the event of termination, TSFGeo shall be paid for services performed to the termination notice date plus reasonable termination expenses.
  - 15.1. In the event of termination or suspension for more than three months, prior to completion of all reports contemplated by this Agreement, TSFGeo may complete a report on the services performed to the date of notice of termination or suspension. The expenses of termination or suspension shall include all direct costs for TSFGeo in completing such analyses, records and reports.
16. **CLIENT'S OBLIGATION TO NOTIFY TSFGeo** - Client represents and warrants that it has advised TSFGeo of any known or suspected hazardous materials or conditions, utility lines and pollutants at any site at which TSFGeo is to do work hereunder, and unless TSFGeo has assumed in writing the responsibility of locating subsurface objects, structures, lines or conduits, Client agrees to defend, indemnify and save TSFGeo harmless from all claims, suits, losses, costs and expenses, including reasonable attorney's fees as a result of personal injury, death or property damage occurring with respect to TSFGeo's performance of its work and resulting to or caused by contact with subsurface or latent objects, structures, lines or conduits where the actual or potential presence and location thereof were not revealed to TSFGeo by Client.
17. **HAZARDOUS MATERIALS** -This agreement shall not be interpreted as requiring TSFGeo to assume the status of an owner, operator, generator, storer, transporter, treater or disposal facility as those terms appear within RCRA or within any Federal or State statute or regulation governing the generation, transportation, treatment, storage and disposal of pollutants.

Initial \_\_\_\_\_

TIERRA SOUTH FLORIDA, INC.

	Unit	# of Units		Unit Price		Total
<b>I. FIELD INVESTIGATION</b>						
Mobilization of Men and Equipment Truck-Mounted Equipment	Trip	3	\$	401.27	\$	1,203.81
Standard Penetration Test Borings (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	0	\$	22.93	\$	0.00
Grout-Seal Boreholes (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	0	\$	9.17	\$	0.00
Casing Allowance (By Truck-Mounted Equipment) 0 - 50 ft depth	L.F.	0	\$	7.00	\$	0.00
BHP (5', 10', 15')	Test	9	\$	552.96	\$	4,976.64
BHP (20')	Test	3	\$	900.00	\$	2,700.00
Auger Borings	L.F.	60	\$	12.00	\$	720.00
Pavement Cores	Core	3	\$	200.00	\$	600.00
MOT	Day	1	\$	1500.00	\$	1,500.00
<b>II. LABORATORY TESTING</b>						
Visual Examination by Staff Engineer	Hour	4	\$	74.95	\$	299.80
Natural Moisture Content Tests	Test	2	\$	20.00	\$	40.00
Full Grain-Size Analysis - (8 sieves)	Test	2	\$	75.00	\$	150.00
Grain-Size Analysis - Single Sieve	Test	2	\$	45.00	\$	90.00
Organic Content Tests	Test	2	\$	50.00	\$	100.00
Atterberg Limit Tests	Test	0	\$	80.00	\$	0.00
Environmental Tests (pH, sulfates, chlorides, resistivity)	Set	0	\$	195.00	\$	0.00
<b>III. FIELD ENGINEERING AND TECHNICAL SERVICES</b>						
Site Recon./Utility Coordination/Traffic Control						
Sr. Engineering Technician	Hour	12	\$	105.00	\$	1,260.00
<b>IIIA. ENGINEERING AND TECHNICAL SERVICES</b>						
Principal Engineer	Hour	4	\$	225.00	\$	900.00
Professional Engineer	Hour	8	\$	136.82	\$	1,094.56
CADD	Hour	6	\$	83.28	\$	499.68
<b>TOTAL FEE FOR GEOTECHNICAL SERVICES</b>					<b>\$</b>	<b>16,134.49</b>