



March 1, 2018

Clece Aurelus, P.E.
Engineering Manager - ECSD
Department of Public Utilities
City of Hollywood
Hollywood, FL 33019

Re: 441 Corridor Septic to Sewer Conversion
City Project No.: 17-7087

Dear Mr. Aurelus,

EAC Consulting Inc. (EAC) is pleased to submit this fee proposal to provide civil engineering services for the above referenced project as part of our General Engineering Consultant Services contract (City Project No. 17-1325) with the City. We look forward to working with the City on this important infrastructure project.

PROJECT LIMITS

The project limits are as follows:

- Hollywood Boulevard (south) to Taft Street (north) and from FL Turnpike (west) to State Road 7 (SR-7) (east). Excludes Hollywood Blvd., FL Turnpike and SR-7
- Johnson Street (south) to Taft Street (north) and SR-7 (west) to N 56th Avenue (east). Excludes SR-7, N 56th Avenue & Johnson Street.
- Buchanan Street, from N 59th Avenue to SR-7
- N 59th Avenue, from Johnson Street to Buchanan Street

PROJECT UNDERSTANDING

The City has begun to implement their septic to sewer conversion program, which is targeted at eliminating septic tanks and providing a system that collects and conveys raw sewerage to its wastewater treatment plant.

It is our understanding that there are two (2) Basins (Basins W-13 & W-23) that have been delineated by the City through its planning process. EAC will be responsible for design Basin W-13 and portion of Basin W-23. The length of pipe associated with our scope of work has been estimated at **67,000 LF**.

Our understanding of the basin limits and the proposed collection system is as follows:

Basin W-13

- Basin W-13 lies between Taft Street (north), Arthur Street (south), FL Turnpike (west) and N 56th Avenue (east). This entire basin is to be designed to convey sewerage flows by gravity to a pump station under construction, located along McKinley Street and on the eastside of the intersection of SR-7 and McKinley Street.
- Sanitary sewer manholes at each intersection and an associated gravity conveyance system has been constructed by the City along SR-7 between Taft Street and Arthur Street with stub-out pipes that extend outside of the SR-7 Right-of-Way. Therefore, no work is being proposed with the SR-7 Right-of-Way.

Partial Basin W-23

- EAC will design a portion of Basin W-23 (Partial Basin W-23). The limits of this partial basin lies along the north side of Hollywood Blvd., from FL Turnpike to SR-7, then heads north on SR-7 to Buchanan Street, east along Buchanan Street to N 59th Avenue, north along N 59th Avenue to Johnson Street, east along Johnson Street to N 56th Avenue, north along N 56th Avenue Arthur Street, west along Arthur Street to east of FL Turnpike, south to Hollywood Blvd. where it closes the loop.
- The sewerage flows are to be directed to a proposed pump station (by the City) located along Buchanan Street and on the east side of the intersection of SR-7 and Buchanan Street.
- Sanitary sewer manholes at each intersection and a gravity conveyance system has been constructed by the City along SR-7 between Arthur Street and Hollywood Blvd. and along Hollywood Blvd. between SR-7 and N 61 Avenue. Manholes have been constructed with stub-out pipes that extend outside of the SR-7 Right of Way. Therefore, no work is being proposed with the SR-7 Right-of-Way.
- The City is currently constructing a gravity conveyance system along Johnson Street, from N 56th Avenue to SR-7.

SCOPE OF WORK

The City is requesting EAC Consulting, Inc. to provide services related to Pre-Design, Design, Permitting, Bid and Award Support and Construction Administration for gravity sewers design and construction within public right of way. Specifically, this work will occur within the Project Limits described above and based on the Project Understanding Section of this proposal.

The scope of work contained within this proposal will complement on-going neighborhood watermain upgrades currently being design by EAC under City Project No. 16-5137.

We have estimated that the length of gravity sewers required for this project is approximately 67,000 LF. Specifically, EAC will develop and deliver the following to the City:

- Sanitary Sewer Plans (Gravity Mains) plan and profile
- Roadway Restoration Plans for areas outside of limits captured under City Project No.

16-5137 [(Taft Street, from Turnpike to N 56th Avenue), (N 59th Avenue, from Johnson to Buchanan Street) & (Buchanan Street, from N 59th Avenue to SR-7). City has requested a 1-inch asphalt overlay on all streets in addition to roadway restoration in areas affected by open cut (trench) construction

- Signage and Striping plans
- Technical Specifications
- Engineers probable cost of construction

List of Scope Tasks

Task 1 – Pre-Design Services

Task 1.1 – Project Kick-Off Meeting, Project Management and Site Visit

Kick-Off Meeting

EAC Consulting, Inc. will coordinate a project kick-off meeting within two (2) weeks after receiving notice-to-proceed. The purpose of this task is to initiate the project, which includes identifying project protocols, establishing coordination between EAC Consulting, Inc., and City of Hollywood staff, and collection of all available relevant documents and existing data such as as-built drawings from the City.

Project Management

EAC will provide Project Management and Administration services that will comprise of contract administration, preparation of invoices, coordination with project staff and subconsultants, monitoring the project's progress and attendance at meetings.

Site Visit

EAC Consulting, Inc. will also visit the project site to identify and record roadway signage as required by Broward County Traffic Department as well as to determine any unique site characteristics that may affect project conditions.

Task 1.2 – Geotechnical Investigations

Geotechnical investigations will be provided by NV5. These services will include performing twenty-three (23) Standard Penetration Test (SPT) borings, each to a depth of 25 feet below the existing ground. The scope of works will also include data collection, utility coordination, field and laboratory testing, stratification of boring samples. The findings will be documented in a signed and sealed geotechnical report. These borings are required for the design of the sanitary sewers, some of which maybe in the range of 10 - 20 feet deep, depending on constraints imposed by the locations and depths of City pump stations (by others). Specific scope of services is indicated on NV5 fee proposal attached.

Deliverables

One (1) hard copy of a signed and sealed geotechnical report and an electronic pdf file.

Task 1.3 – Topographic Survey

Topographic survey services will be provided by Keith and Associates, Inc. (Keith).

Topographic surveys will include and identify the right of ways, centerlines, above ground elements associated with underground utilities, topography, etc. and the location of existing signage.

Keith will also perform the following scope of work: (1) Identify finished floor elevations of homes at dead ends and cul-de-sacs to evaluate the initial depths of proposed sewers; (2) locate existing system tanks (approx. 1000), where feasible and where accessible; (3) Identify pump stations; (4) verify manhole inverts, if accessible for connections along SR-7 (outside of SR-7 Right of Way); and (5) verify as-built information for City pump stations located at McKinley & SR-7 and Buchanan & SR-7. The identification of septic tanks is dependent on several factors and may be affected by homeowners not allowing access to their properties, septic tank covers not being visible or accessible, untethered dogs, etc. Specific scope of services are indicated on Keith's fee proposal attached.

Deliverables

One (1) hard copy signed and sealed topography survey and an electronic AutoCAD file.

Task 1.4 – Utility Coordination

EAC Consulting, Inc. shall contact all existing utility owners, as identified by Sunshine State One Call of Florida (SSOCOF) based on the referenced project limits. EAC will request copies of as-built information related to facilities located within the project's limits. EAC will also notify the utility owners of the proposed design work and request their concerns regarding potential conflicts between the proposed work and their respective utilities.

Task 2 – Hydraulic Modeling, Conceptual Layout and Design Report

During this phase, EAC will model and analyze Basins W-13 and Partial Basin W-23 to determine the most feasible and cost effective method of conceptually conveying flows to the City's pump stations. The Design Report will also document the predesign efforts, provide design criteria, design flow calculations and establish a conceptual layout for the entire conveyance system. EAC will coordinate with the City on the proposed conceptual layout for comments and approval before initiating services on the 60% Design Milestone.

Deliverables

One (1) Design Report with analyses and calculations

Task 2.1 – Subsurface Utility Engineering

Subsurface Utility Engineering services (Test Holes), if required will be provided by Keith and Associates, Inc. These services will be required to verify (horizontally and vertically) the locations of conflicting utilities. Information regarding their size, depth of cover, material of construction, etc. will be provide where feasible. An allowance of 60 test holes has been proposed for this task. The number and locations of these test holes, if required will be coordinated with the City and will require approval prior to engaging these services.

Deliverables

Subsurface Utility Engineering Report

Task 3 - Design Services

During this phase of the project and based on information received during the Pre-Design phase, EAC will prepare 60% and 100% contract documents. EAC will submit contract documents at each of these design milestones to the City for review and comments. EAC will incorporate one (1) set of consolidated comments from the City based on each submission. EAC will also meet with the City to discuss and clarify comments to ensure that the intent of each comment is clearly understood and appropriately addressed.

Task 3.1 – 60% Design Milestone

The 60% design milestone submittal shall consist of construction documents that will include information on existing topography, proposed gravity sewer (including flow and hydraulic calculations to support pipe sizes and slopes) horizontal alignment, and preliminary sewer profiles.

The purpose of this submittal will be to coordinate with the City and agree on the proposed horizontal layout of the project and its major elements. EAC will incorporate one (1) set of consolidated comments from the City.

Deliverables

60% Construction Documents

Task 3.2 – 100% Design Milestone

The 100% design milestone submittal will include sewer design plan and profiles, technical specifications, engineer's estimate of probable construction costs, service connection locations within public right of way, roadway restoration plans, existing signage and pavement striping plans, construction notes, Broward County's traffic notes, City's traffic notes and applicable construction standard details. Profiles will be finalized for the proposed gravity sewers during this phase.

The purpose of this submittal will be to coordinate with the City for the purposes of preparing permit documents. EAC will incorporate one (1) set of consolidated comments from the City.

Deliverables

100% Construction Documents

Task 4.0 – Permitting and Approvals

EAC shall prepare the required permit packages, including engineering plans and permit applications for submission to the relevant permitting agencies. It is understood that permit application fees will be paid by the City.

The permitting agencies for this project are anticipated to include: The City of Hollywood,

Broward County Traffic Department, and the Broward County Environmental Protection and Growth Management Department. With the assistance of ECSD's staff, 100% plans will be routed to applicable internal Departments for review and approval such as the City's Fire Department, Public Works Department, Building Department, etc.

Deliverables

Applicable Design related Permits and Approvals

Task 5.0 – Limited Bid and Award Support Services

Bid Services

EAC Consulting, Inc. shall prepare one (1) set of final construction contract documents in pdf format, which will include plans, specifications and a bid proposal form (summary of quantities) for the City to reproduce and include in its bid documents. EAC Consulting, Inc. will provide responses to the inquiries of potential bidders through written addenda and subsequent to coordination with the City.

Award Support Services

EAC will perform a bid analysis, conduct research on the past performance of top ranked bidders and recommend the lowest responsive and capable bidder. This recommendation will require the City's final review and approval.

Deliverables

Bid memorandum that recommends the lowest responsive and qualified bidder

Anticipated Sheet Count (67,000 LF)

Sheet Name	No. of Sheets
Cover Sheet	1
General Notes	4
Construction Notes	4
Index Sheet	2
Key Maps	2
Horizontal Control Plans	4
Plan and Profiles @ 500 feet per sheet	146
Roadway Restoration, Signage and Striping Plans	6
Sanitary Sewer Detail Sheets	4
Pavement Detail Sheets	4
Total Sheets Count	177

Schedule of Fees

Tasks	\$
Task 1 – Pre-Design Services	\$38,855
Task 2 – Pre-Design Report	\$52,399
Task 3.1 – 60% Design Documents	\$133,976
Task 3.2 – 100% Design Documents	\$125,374
Task 4 – Permitting and Approvals	\$38,051
Task 5 – Bidding and Award	\$11,076
Geotechnical Subconsultant (NV5)	\$26,150
Surveying Subconsultants (Keith)	\$88,660
SUE (60 test holes) – (Keith)	\$18,000
Reimbursable	\$5,000
Subconsultant Administrative Fee	\$13,281
Total Base Lump Sum Fee	\$550,822

Anticipated Design Schedule

Tasks	Time
Task 1	NTP + 2 months
Task 2	Task 1 + 3 months
Task 3.1	Task 2 + 3 months
Task 3.2	Task 3 + 2 months
Task 4	Task 4 + 2 months
Task 5	Task 5 + 1 months
Total Duration	13 months

Design schedule assumes the following:

1. Each submittal to the City will be reviewed and returned to EAC within 2 weeks.

City's Responsibilities

1. The City will provide EAC with as-built information on the manholes (existing and proposed) and conveyance system located along SR-7 between Taft Street and Arthur Street including pipe sizes, pipe materials, invert elevations and the locations of stub-out pipes including their capped connection points.
2. The City will provide EAC with as-built information on the pump station located along McKinley Street on the eastern side of the intersection of McKinley Street and SR-7.
3. The City will provide EAC with as-built information on the manholes (existing and proposed) and conveyance system located along SR-7 between Arthur Street and Hollywood Blvd. and along Hollywood Blvd. between SR-7 and N 61 Avenue including pipe sizes, pipe materials, invert elevations and the locations of stub-out pipes including their capped connection points.

4. The City will provide EAC with as-built information on the pump station proposed along Buchanan Street on the eastern side of the intersection of Buchanan Street and SR-7.
5. The City will provide EAC with as-built information on the existing manholes and conveyance system proposed along Johnson Street from N 56th Avenue to SR-7.

Proposals Assumptions and Exclusions

The aforementioned scope of services assumes that:

1. Maintenance of Traffic (MOT) plans will be the contractor's responsibility and this will be reflected in the construction documents. MOT is not included in this scope of work.
2. No work is being proposed within SR-7 Right-of-Way. Points of connection to sewer manholes within SR-7 Right-of-Way will be provided by the City via stub-out pipes that lie outside of SR-7's Right-of-Way.
3. No land surveying services related to land acquisition, eminent domain, temporary or permanent easements, etc. is included in this scope of work.
4. No work associated with making sewer service connections within private property is included in this proposal. It is assumed that property owners will be responsible for connecting to sewer clean-outs provided at the Right-of-Way.
5. The City will assist when necessary in obtaining access to private property to determine the location of septic tanks.
6. No work associated with new or improvements to forcemains or pump stations is included in this proposal.
7. Proposed mains will be installed by open cut trench methods. This proposal does not include any trenchless design or subaqueous design services.
8. If necessary, Soil and Groundwater contamination mitigation, remediation services or environmental assessments/services will be dealt with by others.
9. Permit/Approval fees when required would be provided to EAC by the City of Hollywood.
10. Bid and Award services assumes that an award will be made to one (1) contractor based on one (1) set of bid documents that includes a combined set of documents for the sewer scope under City Project No. 17-7087 and the water scope under City Project No. 16-5137.
11. If utility relocations are required, EAC will not be responsible for the engineering design related said relocations or any construction related services for said relocations.
12. Utilities shown on the plans will be as identified through Sunshine State One Call of Florida.
13. No public involvement services, community outreach services are included in this scope of services. If required, EAC will attend one (1) community meeting hosted by the City.
14. No drainage, landscaping, hardscaping, sidewalk improvements or signalization design services are included in this proposal.
15. This project's scope of service does not include services related to Construction Administration, Full-time Construction Engineering Inspection (CEI) or Construction Engineering Observation (CEO). At the discretion of the City, an independent CEI or CEO may be engaged to perform requisite services on the project including final certifications.

16. EAC will not be responsible for services related to Joint Participation Agreement (JPA) between the City and any utility entity or any other agency within the project limits.

OPTIONAL SERVICE – Utility Designation

EAC recommends that the City performs Utility Designation services along the alignment of the proposed sewer pipe network to identify any unforeseen utilities that may not be identified through the SSOCOF process. This will reduce the risk associated with encountering unforeseen or undocumented utilities during construction, which could result in costly change orders. Utility Designation is the application of geophysical methods such as Electromagnetic Induction (EM) and/or Ground Penetrating Radar (GPR) to detect utilities within reasonable distances from the ground's surface.

Optional Tasks	\$
Horizontal Designation	\$79,450.00
Mapping Services for Horizontal Designation	\$23,800.00
Subconsultant Administrative Fee	\$10,325.00
Total Lump Sum Fee	\$113,575.00

Either of the following will be required for us to commence engineering services.

1. Signed approval of this proposal or written authorization to proceed with services.
2. Purchase/Work Authorization from the City of Hollywood's Department of Public Utilities

Please feel free to call me at 305-265-5444 with any questions or concerns.

Sincerely,
EAC Consulting, Inc.



Huntley Higgins, P.E., PMP
Municipalities Department Manager

cc: File
Mike Adeife, P.E.

Attachments

- Subconsultant Fee Proposals
- Sewer Basin (W-13 & W-23) Exhibit

March 1, 2018 Rev-4

Huntley Higgins, PE, PMP
Municipalities Department Manager
EAC Consulting, Inc.
5959 Blue Lagoon Drive, Suite 410
Miami, FL 33126
Main: 305-264-2557
Direct: 305-265-5444
Email: hhiggins@eacconsult.com

RE: Agreement for Professional Services

Project Name: Taft St / Buchanan St /N 59 Ave

Project Location: Hollywood, FL

Our Project/Proposal Number: 09869.M0 (01)

Dear Mr. Higgins:

In accordance with your request and subsequent discussions between members of our association and yourself, this agreement between Keith & Associates, Inc. ("CONSULTANT"), and EAC Consulting, Inc. ("CLIENT") for professional services is submitted for your consideration and approval. CONSULTANT will begin work after receipt of a fully executed copy of this Agreement. Such receipt shall constitute written notice to proceed.

I. PURPOSE OF AGREEMENT/PROJECT DESCRIPTION

The purpose of this Agreement is to outline the scope of services recommended by CONSULTANT and accepted by CLIENT, and to establish the contractual conditions between CONSULTANT and CLIENT with respect to the proposed services.

II. SCOPE OF SERVICES

Section 1 - Engineering Services (not applicable)

Section 2 - Planning Services (not applicable)

Section 3 - Surveying Services

Task 001 Topographic Surveys

CONSULTANT shall prepare a Topographic Survey of the following roadways:

- Taft Street, from Turnpike to N 56th Avenue (Include ROW boundary line for SR-7 but exclude topographical features) (4,200LF)
- Glenn Parkway from SR-7 to Lincoln Street (400LF)

Survey shall extend from R/W line to R/W line and will include all surface features including roadways, driveways, sidewalks, striping, surface utilities, etc. Storm and Sanitary structures will be noted with invert elevation, size, material and direction. Elevations shall be noted at intervals of approximately 100 feet, including intermediate changes in grade. Trees will be located and noted by trunk diameter and common name (Palm, Pine, Oak, etc.).

Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the

North American Vertical Datum of 1988 (NAVD88).

The Lump Sum Fee for this Task shall be.....\$16,160.00

Task 002 Finished Floor Elevations

CONSULTANT shall observe the finished floor elevations of the first two buildings along the extents of the project together with all dead-end and cul-de-sac streets, as directed by the CLIENT.

Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88).

The Lump Sum Fee for this Task shall be.....\$15,500.00

Task 003 Septic Tank Locations

CONSULTANT shall locate the existing septic clean outs and/or septic tanks found on private property. CONSULTANT may not be able to access every private property due to fences, walls, denial of permission, unrestrained animals, etc. If the septic tank is unable to be found by visual evidence or with assistance of the property owner, CONSULTANT shall look for other evidence to at least be able to determine a general location (i.e. West side of structure, NE corner of property, etc.). Approximate tank location shall be observed with GPS along with a note about how the tank was located (direct observation, based on evidence, approximate, etc.). This task assumes that there are approximately 1,000 properties to be searched.

Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88).

The Lump Sum Fee for this Task shall be.....\$50,000.00

Task 004 Private Lift Stations

CONSULTANT shall identify, locate and as-built the in-flow pipe(s) of Private Lift Stations within the project limits. CLIENT shall provide contact information for each of the Private Lift Stations so the CONSULTANT can coordinate access to the Lift Station and to the structure itself. This task assumes there are up to twelve Private Lift Stations to as-built.

Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88).

The Lump Sum Fee for this Task shall be.....\$4,500.00

Task 006 City Lift Stations

CONSULTANT shall identify, locate and as-built the in-flow pipe(s) of City Lift Stations located at:

- McKinley Street & SR 7
- Buchanan Street & SR 7

Survey shall be referenced to the Florida State Plane Coordinate System (NAD83/11) and the North American Vertical Datum of 1988 (NAVD88).

The Lump Sum Fee for this Task shall be.....\$2,500.00

Section 4 – Landscape Architecture Services (*not applicable*)

Section 5 – Subsurface Utility Engineering (SUE) Services

Keith and Associates (CONSULTANT) appreciate the opportunity to provide SUE/Survey services on this very important project. CONSULTANT will follow ASCE Standard 38-02 – “Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data” during the field and office operations for this project. The quality levels discussed below are defined within the standard. CONSULTANT is to provide professional services associated with designation, location and mapping of existing subsurface utilities. CONSULTANT shall designate all known tone able and non-tone able utilities along the identified roadways within the apparent right of way:

- Taft Street, from the Turnpike (east side) to N 56th Avenue (west side) 4,200LF
- Buchanan Street, from SR-7 (east side) to N 59 Avenue (west side) 600LF
- N 59 Avenue, from Johnson Street (south side) to Buchanan Street (north side) 700LF
- Designate utilities within the road right of way for the above-mentioned streets (+/-60,000 LF)

Task 006 Utility Designation (Quality Level ‘B’)

CONSULTANT shall perform Utility Designation services within the above-mentioned areas. Utility designation will be in accordance with ASCE/C-1 38-02, Quality Level B. Through the application of reasonable surface geophysical methods, Electromagnetic induction (EM), in conjunction with Ground Penetrating Radar (GPR), utilities and subsurface anomalies will be horizontally marked. All paint marks will be mapped and placed in a cad drawing for the designers use.

The Lump Sum Fee for this Task shall be.....\$79,450.00

Task 007 Location Services - (Quality Level ‘A’) (*Vacuum Excavations*)

Utility Location Services, sixty (60) Vacuum excavations will be utilized to confirm/verify any targets identified during the EM and GPR evaluation. Vacuum excavation is a non-destructive technique used to safely expose utilities using a combination of air, water and vacuum. Once the utility has been exposed, vertical elevation, diameter and material type will be obtained.

Conditions such as groundwater, hard pan, rocky soils, obstructions and deep excavation can limit the effectiveness of vacuum excavation. Facilities beyond the limitations of the Vacuum system may be “probed” with an air lance. This technique is effective in determining elevation but may be ineffective for determining outside diameter and material type. Duct banks, large diameter facilities, GPR targets and structures often require multiple excavations to acquire the desired information. Vacuum excavations performed will be of minimum size (usually 1’ by 1’). Backfill of test holes will be performed utilizing the removed material, if suitable. Areas will be restored back as close as possible to their original condition. Installation of an identifiable above ground marker will be performed at each vacuum excavation site. Field markers will consist of a nail and disk in asphalt, or an iron rod and cap with survey stake in grassed areas. Vacuum excavations performed in pavement will be patched using cold patch. The number and utility will be identified on the ground or on the stake, as appropriate to be mapped. A summary report will be created providing coordinates, depth of cover, type, size and material if applicable.

The Lump Sum Fee for this Task shall be.....\$18,000.00

Task 008 Mapping Services

CONSULTANT will map the utility designation and test holes, utilizing conventional (Total Station) and/or GPS surveying equipment. A multilayered CAD file will be produced from information collected in the field. It is anticipated that the CLIENT will provide appropriate survey control (vertical and horizontal) within the limits of above referenced project.

- Map utility designation within the road right of way for the above-mentioned streets
 Taft St / Buchanan St /N 59 Ave (+/-60,000 LF)

Lump Sum Fee..... \$23,800.00

Technical Limitations

Services will be provided with due diligence and in a manner consistent with standards of the subsurface utility locating industry. Every reasonable effort will be made to locate all utility systems of interest whether indicated on record plans available to us or not. However, no guarantee can be made that all existing utility systems can be detected, located or exposed. It may not be possible to detect utilities without prior knowledge, such as systems that are not depicted on record prints available to us. Typically, the horizontal location effort will include electromagnetic induction, power source detection, and ground penetrating radar (GPR). Electromagnetic induction is a method in which a transmitted signal is applied to a metallic target. If the target is metallic and unbroken, the target can be traced and a receiver at the surface is used to detect the transmitted signal. If the signal cannot be applied directly to the target, induction may be produced from the surface. In this scenario bleed-off of the transmitted signal to an adjacent facility is possible, sometimes resulting in erroneous information. PVC, HDPE, concrete pipe and other non-metallic facilities cannot be located by electromagnetic methods. Power source detection is a technique used to locate naturally occurring magnetic fields that exist around cables while generating a signal (electric, telephone, CATV for example). Ground penetrating radar (GPR) is available to assist in locating non-metallic utilities and other facilities that are unidentifiable using traditional electromagnetic techniques. The accuracy of these techniques is subject to the limitation of the available technology and certain factors and field conditions beyond our control, such

as the size, depth and conductivity of the target, the site conditions and access, soil conditions, depth to water table and the existence of adjacent buried materials and debris. The targeting of subsurface utilities, although highly reliable, is expressly understood to represent an approximate location of the facility marked on the ground surface. Facilities located from the surface are usually found within two feet of the surface mark. Once a possible facility has been located from the surface, vacuum excavation services should be used to visually verify and to provide the accurate horizontal location and vertical measurements (a test hole). Vacuum excavation techniques are used to provide a cost-effective service that causes minimal disturbance to the site, the utility, vehicle traffic, and is acceptable to the permitting agencies. The size of the test hole excavation is kept to a minimum, in most cases the nominal size of a test hole is 8" x 8". This service represents the best available data on subsurface utilities given a cost-effective investigation using air/vacuum excavation. Visual verification in the test hole below the water table is not possible. An air lance probe can be used in these instances to a reasonable depth of approximately 6 feet, although results to greater depths may be possible. The bottom of the utility pipe and conduit is sometimes not directly available and in most cases, can be derived from the crown of the pipe and the pipe diameter. Pipes with a diameter of 16" or less can usually be determined by exposing a portion or the entire pipe as needed. If pipe diameter is critical on pipe facilities greater than 16", additional test holes may be required to obtain both edges. The bottom depth of multiple conduit and encased duct banks is determined by excavating down one edge of the utility. Additional test holes are needed to accurately document edges, configuration and top and bottom depths. Conditions under multiple or encased duct bank facilities cannot be excavated and therefore the existence of another facility cannot be confirmed. It is important to remember that the bottom edge of the facility may not represent its lowest point, and the shape or configuration of the facility may not be the same on both sides. Locating underground utilities is not an exact science. The reporting of a negative result (no facility found) should not be used as a positive determination that the subject area is clear of all facilities or that the facility does not exist. CLIENT shall hold harmless and indemnify Keith and Associates, Inc. (K&A) against any losses because of limitations within the equipment, but not against negligence on the part of K&A. Use of this service does not relieve interested parties from their responsibility to make required notification prior to excavation, nor does it relieve utility owners of their responsibility to mark the location of their facilities. K&A will not be responsible for damage caused by others. K&A will not be responsible for utilities that cannot be located with the equipment and techniques provided, or those located underneath other utilities. If records research is not part of the scope of services, the utility owner's marks will be used to identify the utility. K&A will not be responsible for correcting mistakes made by other locators. Where vacuum excavation services are used, and no utility is found at the mark provided by the utility at a depth of 5 feet, the excavation will be backfilled, referenced and invoiced as one test hole.

Subsurface Utility Engineering Conditions and Understandings

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

CONSULTANT will not access confined spaces. If confined spaces need to be accessed for locating purposes, then the client will be notified, and further arrangements will be made for said access. Additional fees may be applicable.

If due to traffic conditions additional MOT is required and is beyond the capability of CONSULTANTS standard MOT operations, CONSULTANT will notify client and provide an additional fee for the MOT operation.

Additional requests outside the scope of services, when requested by client and/or client's representative, will be invoiced on an hourly basis.

This proposal assumes site access is available and work can be performed between the hours of 7:30 AM and 5:00 PM Monday through Friday.

Optional services for Utilities and Mapping:

- Designation per linear foot .65
- Designation and mapping per linear foot .95

CONSULTANT'S TOTAL LUMP SUM FEE.....\$209,910.00

Section 6 – Project Schedule

Project shall be complete within 16 weeks of receiving NTP.

Section 7 – Site Map

N/A – Sites vary

Section 8 - Additional Services

The undertaking by CONSULTANT to perform professional services defined within this Agreement extends only to those services specifically described herein. No other services, whether they may be interpreted as related, incidental or implied, shall be included in the scope of work of this proposal. If upon request of CLIENT, CONSULTANT agrees to perform additional services hereunder, CLIENT shall be obligated to pay CONSULTANT for the performance of such additional services an amount (in addition to all other amounts payable under this Agreement) based on an hourly fee in accordance with CONSULTANT'S current professional fee schedule, plus reimbursable expenses as incurred by CONSULTANT, unless a lump sum addendum to Agreement is executed by the parties to this Agreement which addresses the additional services.

Additional services shall include revisions to work previously performed that are required due to a change in the data or criteria furnished to CONSULTANT, a change in the scope or concept of the project initiated by CLIENT, or services that are required by changes in the requirements of public agencies after work under this Agreement has commenced.

If the preceding scope of services includes public agency permitting, our quoted fees/hours include services to respond to the agency's first RAI (Request for Additional Information). Additional agency requests or requirements shall be considered an increase to our scope of services.

III. COMPENSATION

A). Payments and Invoicing:

Invoices will be submitted by CONSULTANT to CLIENT monthly for services performed and expenses incurred pursuant to this Agreement during the prior month. Payment of such invoice will be due upon presentation. CONSULTANT'S standard invoice format shall apply, and such format shall be acceptable to CLIENT for payment, unless otherwise agreed to in writing hereunder. Invoices shall be submitted monthly based on a percentage completed for lump sum contracts. On a Time and Material contract, invoices shall be submitted in accordance with our current professional service fee schedule as seen on "Exhibit A" attached.

In the event of any dispute concerning the accuracy of content of any invoice, CLIENT shall within seven (7) days from the date of said invoice, notify CONSULTANT in writing stating the exact nature and amount of the dispute. Any invoice that is not questioned within seven (7) days shall be deemed due and payable. In the event an invoice or portion of an invoice is disputed within seven (7) days, CLIENT shall be obligated to pay the undisputed portion of the invoice as set forth in below.

If CLIENT fails to make any payment due to CONSULTANT for services and expenses within thirty (30) days from the date of invoice, CONSULTANT may, after giving seven (7) days written notice to CLIENT, apply the retainer to the unpaid balance of the account and/or suspend services under this Agreement until the account has been paid in full. There will be a fee charged for suspended work, which will be negotiated when work is resumed.

In the event any invoice or any portion thereof remains unpaid for more than forty-five (45) days following the invoice date, CONSULTANT may, following seven (7) days prior written notice to CLIENT, initiate legal proceedings to collect the same and recover, in addition to all amounts due and payable, including accrued interest, its reasonable attorneys' fees and costs.

The invoices referenced above, will be sent in accordance to the information as reflected on the "Billing Information Form" attached hereto.

PAYMENT DELAY: If the CONTRACTOR has received payment from the OWNER and if for any reason not the fault of Keith and Associates, Inc.(the SUBCONTRACTOR) does not receive a progress payment from the CONTRACTOR within seven (7) days after the date such payment is due; the SUBCONTRACTOR, upon giving an additional seven (7) days written notice to the CONTRACTOR, and without prejudice to and in addition to any other legal remedies, may stop work until payment of the full amount owing to the SUBCONTRACTOR has been received. The Subconsultant Amount and Time shall be adjusted by the amount of the SUBCONTRACTOR'S reasonable and verified cost of shutdown, delay and startup, which shall be affected by an appropriate Subcontractor Change Order.

B). Reimbursable Expenses:

CONSULTANT shall be reimbursed for direct charges as itemized in "Exhibit B". For those out-of-pocket expenses directly chargeable to the project but not itemized in "Exhibit B", CONSULTANT shall be reimbursed at actual cost incurred, plus a 10% carrying charge.

IV. PROVISIONS RELATIVE TO THE SERVICES RENDERED

A). Re-use of Documents:

All original documents, including, but not limited to, drawings, sketches, specifications, maps, as-built drawings, reports, test reports, etc., that result from CONSULTANT'S services pursuant or under this Agreement remain the sole property of CONSULTANT and are not intended or represented to be suitable for re-use by CLIENT or others.

CLIENT may, at their expense, obtain a set of reproducible copies of any maps and/or

drawings prepared for them by CONSULTANT, in consideration of which CLIENT agrees that no additions, deletions, changes or revisions shall be made to same without the express written consent of CONSULTANT. Any re-use without written verification of adaptation by CONSULTANT mandates that CLIENT indemnify and hold CONSULTANT harmless from all claims, damages, losses and expenses, including, but not limited to, attorney's fees, arising out of or resulting there from.

Photographs of any completed project embodying the services of CONSULTANT provided hereunder may be made by CONSULTANT and shall be considered as its property and may be used for publication.

B). Performance:

CONSULTANT shall not be considered in default in performance of its obligations hereunder if performance of such obligations is prevented or delayed by acts of God or government, labor disputes, failure or delay of transportation or by subcontractors, or any other similar cause or causes beyond the reasonable control of CONSULTANT. Time of performance of CONSULTANT'S obligations hereunder shall be extended by time reasonably necessary to overcome the effects of such force majeure occurrences.

C). Professional Standards:

All work performed by CONSULTANT will be in accordance with its professional standards and in accordance with all applicable government regulations. CONSULTANT will exercise its best efforts to obtain all governmental approvals contemplated under this Agreement. However, CONSULTANT does not warrant or represent that any government approval will be obtained.

Unless the Scope of Services of this Agreement includes an investigation into the applicable land use, zoning and platting requirements for the Project, CONSULTANT shall proceed on the assumption that the Project as presented by CLIENT, is in accordance with all applicable governmental regulations.

D). Opinions of Cost:

Since CONSULTANT does not have control over the cost of labor, materials, equipment or services furnished by others, or over methods of determining prices, or over competitive bidding, or market conditions, any and all opinions as to costs rendered hereunder, including, but not limited to, opinions as to the costs of construction and materials, shall be made on the basis of its experience and qualifications and represent its best judgment as an experienced and qualified CONSULTANT, familiar with the construction industry. CONSULTANT cannot and does not guarantee that proposals, bids or actual costs will not vary from opinions of probable cost. If, at any time, CLIENT wishes greater assurance as to the amount of any cost, CLIENT shall employ an independent cost estimator to make such determination. Engineering services required to bring costs within any limitation established by CLIENT will be paid for as additional services hereunder by CLIENT.

If the services under this Agreement continue for a period of more than one (1) year from the notice to proceed, CONSULTANT shall be entitled to renegotiate the terms of this Agreement. CONSULTANT shall not be bound under this Agreement if modifications to the terms

contained herein are made without the written consent of CONSULTANT (such consent to be signified by CONSULTANT'S initials next to each modification, and if a fully executed copy hereof is not received from CLIENT by CONSULTANT on or before sixty (60) calendar days from the date of execution by CONSULTANT.

E). Termination:

This Agreement may be terminated by either party upon seven (7) days written notice in event of the substantial failure by the other party to perform in accordance with the terms of this Agreement through no fault of the terminating party. For this Agreement, the failure to pay any invoice submitted by CONSULTANT within sixty (60) days of the date of said invoice, shall be considered a substantial failure on behalf of CLIENT. In the event of any termination, CONSULTANT shall be paid for all services rendered to the date of termination including all reimbursable expenses.

F). Liability:

CONSULTANT is protected by Workmen's Compensation Insurance, Professional Liability Insurance and by Public Liability Insurance for bodily injury and property damage and will furnish certificates of insurance upon request. CONSULTANT agrees to hold CLIENT harmless from loss, damage, injury or liability arising solely from the negligent acts or omission of CONSULTANT, its employees, agents, subcontractors and their employees and agents, but only to the extent that the same is covered and paid under the foregoing policies of insurance. If CLIENT requires increased insurance coverage, CONSULTANT will, if specifically directed by CLIENT, secure additional insurance obtained at CLIENT'S expense.

CLIENT agrees that CONSULTANT'S aggregate liability to CLIENT and all construction and professional contractors and subcontractors employed directly or indirectly by CLIENT on the Project, due to or arising from CONSULTANT'S services under this Agreement or because of the relation hereby of CONSULTANT, its agents, employees or subcontractors, or otherwise, is and shall be limited to CONSULTANT'S total fees under this Agreement or \$50,000.00 whichever is greater. In no event shall CONSULTANT be liable for any indirect, special or consequential loss or damage arising out of the services hereunder including, but not limited to, loss of use, loss of profit, or business interruption whether caused by the negligence of CONSULTANT or otherwise.

CLIENT agrees that CONSULTANT shall have no liability to CLIENT, or to any person or entity employed directly or indirectly by CLIENT in the project for damages of any kind from services rendered by CONSULTANT relating to the testing for, monitoring, cleaning up, removing, containing, treating, detoxifying or neutralizing of pollutants, whether, caused by the negligence of CONSULTANT.

G). Litigation:

In the event litigation in any way related to the services performed hereunder is initiated between CONSULTANT and CLIENT, the non-prevailing party shall reimburse the prevailing party for all its reasonable attorney's fees and costs related to said litigation.

V. CLIENT'S OBLIGATIONS:

CLIENT shall provide CONSULTANT with all data, studies, surveys, plats and all other pertinent information concerning the Project. CLIENT shall designate a person to act with authority on CLIENT'S behalf with respect to all aspects of the Project. CLIENT shall be responsible for all processing fees or assessments required for the completion of the Project. CLIENT shall provide CONSULTANT access to the Project site at reasonable times upon reasonable notice.

VI. GENERAL PROVISIONS:

A). Persons Bound by Agreement:

The persons bound by this Agreement are CONSULTANT and CLIENT and their respective partners, successors, heirs, executors, administrators, assigns and other legal representatives. This Agreement and any interest associated with this Agreement may not be assigned, sublet or transferred by either party without the prior written consent of the other party, such consent not to be unreasonably withheld. Nothing contained herein shall be construed to prevent CONSULTANT from employing such independent consultants, associates and sub-consultants as CONSULTANT may deem appropriate to assist in the performance of the services hereunder. Nothing herein shall be construed to give any rights or benefits arising from this Agreement to anyone other than CONSULTANT and CLIENT.

B). No Waiver or Modifications:

No waiver by CONSULTANT of any default shall operate as a waiver for any other default or be construed to be a waiver of the same default on a future occasion. No delay, course of dealing or omission on the part of CONSULTANT in exercising any right or remedy shall operate as a waiver thereof, and no single or partial exercise by CONSULTANT of any right or remedy shall preclude any other or further exercise of any right or remedy.

This Agreement, including all requests for additional services placed hereunder, express the entire understanding and agreement of the parties with reference to the subject matter hereof, and is a complete and exclusive statement of the terms of this Agreement, and no representations or agreements modifying or supplementing the terms of this Agreement shall be valid unless in writing, signed by persons authorized to sign agreements on behalf of both parties.

C). Governing Laws or Venue:

This Agreement shall be governed, construed and enforced in accordance with the laws of the State of Florida. Venue for any litigation shall be Broward County, Florida.

VII. CLOSURE

If you concur with the foregoing and wish to direct us to proceed with the work, please execute the agreement in the space provided and return same to the undersigned with the completed billing information form.

We appreciate the opportunity to submit our proposal. Lee Powers, PSM has been selected to serve as project manager. Please contact Mr. Powers or myself if you have any questions.

IN WITNESS WHEREOF, CONSULTANT and CLIENT have executed this agreement the day and year indicated below.

As to CONSULTANT
Keith & Associates, Inc.
Consulting Engineers

As to CLIENT
EAC Consulting, Inc.

Eliot Lazowick
Executive Vice President

Client: _____

Title: _____

DATED: _____

DATED: _____

EXHIBIT B

<u>Direct Expenses</u>	<u>Cost per Unit</u>
Photographic Copies	
Color Copies	
a) 8.5" x 11"	\$ 1.00
b) 8.5" x 14 or 11"x 17"	\$ 2.00
c) 24"x 36"	\$18.00
Black & White Copies	
a) Any Size up to 11"x17"	\$ 0.15
b) 24"x 36" Blackline	\$ 2.00
c) 30" x 42" Blackline	\$ 2.00
d) 24"x 36" Mylar	\$15.00
Laminating/Transparency Film Covers	\$ 2.00
Display Boards	
Mounted (Foam) 30"x 40"	\$42.00
Mounted (Foam) 40"x 60" and larger	\$70.00
3 Ring Binders 1"	\$ 1.00
Dividers (Tabs) Set of 10	\$ 0.80
Acco/GBC Binding	\$ 1.50
Facsimiles	\$ 2.00
Overnight Packages	per service
Courier & Delivery Services	per service
Postage: 1 st Class	Current US Postal rate
Mileage:	\$ 0.54 / mile

Any other expenses will be billed at cost plus 10% carrying charge.

****NOTE:** Typical other reimbursable expenses include travel, lodging, and meals when traveling on CLIENT'S behalf, identifiable communication expenses, all reproduction costs, and special accounting expenses not applicable to general overhead.

Effective 9/11/17

BILLING INFORMATION FORM

PROJECT NAME:

PROJECT ADDRESS:

SUBDIVISION NAME:

LAND OWNER:

OWNER ADDRESS:

OWNER PHONE NO.: ()

OWNER CELL PHONE NO.: ()

E-MAIL:

JOB SITE SUPERINTENDENT:

JOB SITE PHONE:

PURCHASE ORDER #:

INVOICE:

Company Name

ATTN:

Name

Title

COMPANY ADDRESS:

Street Address/Post Office Box

City/State/Zip Code

PHONE: ()

Area Code/Number

FAX: ()

Area Code/Number

SPECIAL BILLING INSTRUCTIONS:

February 01, 2018

Huntley Higgins, PE, PMP
 Municipalities Department Manager
EAC Consulting, Inc.
 5959 Blue Lagoon Drive, Suite 410
 Miami, Florida 33126
 Tel: 305-265-5444
 Email: hhiggins@eacconsult.com

Re: Proposal for Subsurface Exploration and Geotechnical Engineering Study
 Proposed Sewer System Upgrade
 Taft Street to Hollywood Boulevard & NW 58th to 62nd Avenue
 Hollywood, Florida
 NV5 Proposal No.: 18-0058

Dear Mr. Higgins:

NV5, Inc. is pleased to submit this proposal in response to your recent request. This proposal describes our understanding of the project, lists a purpose for our work, suggests a specific scope of work, and presents our compensation.

CAPABILITIES AND EXPERIENCE

NV5, Inc. is a consulting firm providing geotechnical and construction materials engineering. We also have equipment and personnel capable of performing soil borings, installing monitor wells, and testing soil/concrete during construction. Our senior engineering personnel are registered professional engineers in Florida, California, Maine, Massachusetts, and New Hampshire. Combined, they have over 120 years of experience in geotechnical engineering.

As a local firm, we have the ability to exercise a great deal of flexibility during the various stages of project development, enabling us to provide a better and more efficient service to our clients, and to maintain direct involvement of the senior personnel on every project.

We have worked on many of South Florida's tallest, largest and most notable structures over our 35-plus-year history. We have successfully completed over 5,000 projects. Our project experience ranges from residential, commercial, and industrial developments over soft soils to high-rise development. We recently completed work on the Florida Marlins Baseball Stadium and are presently working on 1101 Brickell which will be 80 levels as well as the One Bayfront Project (to be the tallest building in Miami at over 1,000 feet), the Miami Art Museum and the one billion dollar (3-48 level towers) at Brickell CitiCenter.

Examples of the high-rise project experience of our senior personnel in South Florida are presented in summary below. The list includes projects already completed as well as projects that are currently in progress:

80 Levels, 1101 Brickell, Miami
65 Levels, Porsche Tower
65 Levels, Jade 4, Sunny Isles Beach
63 Levels, 900 Biscayne Tower, Miami
58 Levels, 3 Towers, ICON Brickell, Miami
56 Levels, Opera Tower, Miami
56 Levels, Mint, Miami
55 Levels, Edge Tower
52 Levels, Jade Ocean, Sunny Isles Beach,
51 Levels, Santa Maria, Brickell Avenue, Miami
51 Levels, Jade Beach, Sunny Isles Beach,
51 Levels, Quantum-on-the-Bay, Miami
51 & 44 Levels, The Beach Club, Hallandale
49 Levels, Everglades On The Bay, Miami
48 Levels, Brickell Citicentre Towers, Miami
48 Levels, Jade Residences, Miami
47 Levels, Paramount Bay Tower, Miami
46 Levels, Three Tequesta, Brickell Key, Miami
46 Levels, EPIC, Miami
45 Levels, IVY, Miami
45 Levels, Trump Towers, Sunny Isles Beach,
44 Levels, Unique Condo, Sunny Isles Beach
42 Levels, Brickell on The River Towers, Miami
42 Levels, Las Olas River House, Fort Lauderdale
41 Levels, Millicento Tower Downtown Miami
41 Levels, Regalia Tower, Sunny Isles Beach
41 Levels, Wind, Miami
41 Levels, Bristol Tower, Miami
40 Levels, Chateau Tower, Sunny Isles Beach
40 levels, Brickell House Tower, Miami
40 Levels, IconBay Tower, Miami
40 Levels, Brickell View, Miami
40 Levels, One Broadway, Miami
40 Levels, Two Tequesta, Brickell Key, Miami
40 Levels, L'Hermitage Condo, Fort Lauderdale

40 Levels, Ocean Palms, Hollywood
40 Levels, 1800 Club, Miami
39 Levels, Miramar Center, Miami
37 Levels, 600 Brickell Financial Center, Miami
36 Levels, Mary Brickell Village, Miami
36 Levels, Yacht Club At Brickell, Miami
36 Levels, Asia, Brickell Key, Miami
36 Levels, Neo Vertika, Miami
35 Levels, Loft 2, Miami
35 Levels, 2 Towers, Waverly, Miami Beach
33 Levels, Yacht Club Portofino, Miami Beach
33 Levels, Floridian, Miami Beach
33 Levels, Grovesnor, Coconut Grove, Miami
33 Levels, 4 Towers, Mid Town, Miami
31 Levels, Continuum Towers, Miami Beach
31 Levels, Beachwalk Tower, Hallandale Beach
31 Levels, Porto Vita North Tower, Aventura
29 Levels, The Sail, Miami
29 Levels, Las Olas Beach Club, Fort Lauderdale
29 Levels, Logik Tower, Miami
28 Levels, Diplomat Residences, Hollywood
27 Levels, Courvoisier Courts, Brickell Key, Miami
26 Levels, Le Meridian, Sunny Isles Beach,
26 Levels, Star Lofts, Miami
25 Levels, Jackson Tower, Fort Lauderdale
25 Levels, L'Ambiance Tower, Fort Lauderdale
25 Levels, MyBrickell Tower, Downtown Miami
25 Levels, New River Yacht Club, Fort Lauderdale
25 Levels, Lofts 1, Miami
22 Levels, Apogee Tower, Hallandale Beach
21 Levels, Toscana 3 Towers, Highland Beach
20 Levels, Mirasol Condo, Singer Island
20 Levels, Il Luggano Tower, Fort Lauderdale
20 Levels, Venezia Las Olas, Fort Lauderdale
18 Levels, Renaissance on the Ocean, Hollywood

PROJECT INFORMATION

The project site is located in the City of Hollywood and encompasses several city blocks generally bounded by Taft Street to the north, Hollywood Boulevard to the south, NW 58th Avenue to the east, and NW 62nd Avenue to the west. We were not provided with street grades but estimate they are on the order of +5.5 to +6.5 feet with respect to the 1988 North American Vertical Datum (NAVD).

Based on information received from EAC, we understand the project will comprise installation of new sanitary sewer systems to depths of 15 to 20 feet below existing grades. We were not provided with details on proposed pipe sizes. When this information is available it should be provided to us.

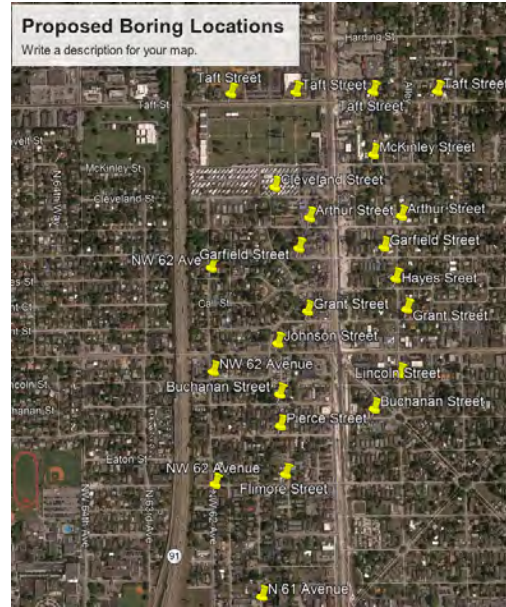
PURPOSE

The purpose of NV5's services on this project will be to perform a subsurface exploration and engineering analyses, and to provide recommendations for design and construction of the proposed project.



PROPOSED SCOPE OF ENGINEERING SERVICES

1. As requested, we propose drilling 23 borings to a maximum depth of 25 feet below existing grade at the approximate locations shown in the image below which you provided us.



The borings will be drilled using a regular truck-mounted rig utilizing the rotary wash method. Samples of the subsurface materials encountered will be collected continuously down to 16 feet below the ground surface. Below that depth the sampling will be performed at roughly 5-foot intervals. Sampling will be performed using a Standard Penetration Test (SPT) sampler per ASTM D-1586. Upon completion of the borings, the boreholes will be backfilled with the soil cuttings and grouted near the ground surface.

2. For performing the field work NV5 will contact Sunshine One Call for advice about the location of underground utilities. Additionally, we require that any other available information regarding the location of underground utilities be provided to us. NV5 cannot be held responsible for damage to below ground structures or utilities which are not identified to us. We specifically request any available information about the location of underground utilities for this project.

An engineer from our office will layout test location(s) based on the furnished drawings. NV5 will perform boring(s) in areas which are indicated to be free from underground utilities.

3. NV5 will be responsible for maintenance of traffic at the drill locations as required.
4. Based on our field data and engineering analyses we will prepare a letter report with design recommendations. Per your request, the report will address:
 - Drawings showing boring locations, a graphic summary of the idealized subsurface conditions used in our analyses.
 - Discussion of generalized subsurface conditions at the site including groundwater levels.
 - Evaluation of the feasibility of foundation systems(s) for structures associated with the sewer installations



- Design parameters for the recommended foundation type, including vertical and lateral load resistance.
- Estimates of foundation settlements.
- Modulus of subgrade reaction for any slabs on grade
- Recommendations for site preparation and grading, including the re-use of site-excavated materials for fill, fill placement and compaction, and slab subgrade preparation.
- Construction considerations including excavation support and dewatering, impacts of existing foundations, and impacts for adjacent structures.

Our report will be signed and sealed by a professional engineer licensed in the State of Florida.

COMPENSATION

We can complete the scope of services proposed herein for a lump sum fee of **\$26,150**. Our fee will be billed upon submittal of the report. Our fee assumes that the access to the work site will be provided at no cost to us. This compensation amount includes Maintenance of Traffic (MOT) set up and certified drawings.

Our fees do not include the costs associated with right-of-way (ROW) permits. We assume that if permits are necessary the costs associated with them would be waived as the work is being performed directly for the City of Hollywood. NV5 will be responsible for pulling such permits as may be required, however we are not responsible for any costs associated with obtaining these permits.

AUTHORIZATION AND SCHEDULE

The attached Proposal Acceptance Agreement should be completed to serve as our written authorization to proceed. We can begin field work on this project within one work week of receipt of written authorization. We estimate the field work will require one working day. Our report can be submitted within one work week of completing the field work.

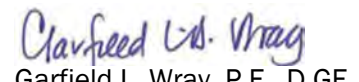
CLOSURE

We look forward to an opportunity to work on this project. If you have questions about information contained in this Proposal, please contact the writer at 305/901-1891.

Sincerely,
NV5, Inc.



Richard Fesdjian, P.E.
Project Manager



Garfield L. Wray, P.E., D.GE.
Vice President

Attachments: General Terms and Conditions (3 pages)
 Proposal Acceptance Agreement (1 page)

Distribution: Copy to Addressee via email
 Copy to NV5 File

F:\DOC\NV5 Proposals\18-0058_Proposed_Sewer_System_Upgrade_City_Hollywood_EAC_Consulting_02-01-18.docx



