



Agenda Item # \_\_C - 7\_\_

## VILLAGE OF ROYAL PALM BEACH

### Agenda Item Summary

#### AGENDA ITEM:

**Approval and authorization for the Village Manager to execute Consultant Services Authorization No. 25 with Erdman Anthony to provide Municipal Engineering Services for the La Mancha North Neighborhood Underdrains, Project PW2204. The cost for said services shall not exceed \$152,014.00.**

#### ISSUE:

The La Mancha Subdivision Underdrain project is for the installation of underdrain on approximately 16,500 LF of roadway with underdrain on each side. The roads in the proposed locations are being damaged by high groundwater, which is exacerbated during the rainy season. The underdrain system is designed to lower the groundwater table at the road and protect the roadway base. The roadways included in this area are: Malaga St., Prado St., Almeria St., Segura St., Las Palmas St. (north of La Mancha Ave.), Viscaya Ave., Santa Cruz Ave., Toledo St., Santander St., Salzedo St., Rivera Ct., and Rivera Ave.

This project is funded using ARPA funds. The estimated project budget is \$1,760,000.

The scope of CSA includes the preparation of base maps for the neighborhood, survey of existing roadway, geotechnical engineering, preparation of construction plans, development of an opinion of probable cost, preparation of specifications and contract documents, and overall project management. The Consultant Services Authorization is attached as Exhibit A.

Funds to come from PW2204, Account No. 105-4100-541.63-55

#### RECOMMENDED ACTION:

Staff recommends a motion to approve.

Initiator:	Village Manager	Agenda Date:	Village Council
Public Works	Approval:	02/16/23	Action:
Director			

**Consultant Services Authorization  
No. 25**

**Village of Royal Palm Beach**

**Municipal Engineering Services  
PW2204 - La Mancha North Neighborhood Underdrains**

**Introduction**

The Village of Royal Palm Beach (VILLAGE) entered into a Municipal Engineering Services Agreement entitled Agreement for Professional Services (AGREEMENT) with Erdman Anthony of Florida, Inc. (ERDMAN) on September 20, 2017; effective September 20, 2017 until September 19, 2019. The First Addendum was executed on August 19, 2019 and is in effective September 20, 2019 until September 19, 2021. The second addendum was executed on August 20, 2021; effective September 20, 2021 until September 19, 2023. This Consultant Services Authorization (CSA) will be performed under the terms and conditions of that AGREEMENT.

**Background & Scope of Services**

The Village desires to install underdrains in a portion of the La Mancha neighborhood. It is estimated that approximately 16,500 feet of roadway with underdrain on each side is included with approximately 243 homes along these roadways.

**Task 1 – Base Maps**

Prepare the base maps for the neighborhood. Use aerial photographs provided by the Village with 500 to 600 feet of roadway on each plan sheet. Show existing feature from the Village's GIS data, which the Village will provide in an autocadd file with text that scales to match the sheet size and will include the following: lot lines addresses, existing utilities, existing drainage.

Deliverables: 30 base map plant sheets

**Task 2 – Survey**

Obtain survey for the existing roadway high and low points, the existing gate valve rims, manhole rim and inverts, inlet grates and inverts. That survey data will be used by the contractor to reconstruct the roadway in its existing location.

Deliverables: Limited topographic survey

**Task 3 – Geotechnical Engineering**

Obtain geotechnical data including the following: roadway cores to determine the thickness of the existing asphalt and base in 10 locations; shallow auger borings in the swales to determine if there is a muck layer that would impact the project, and to determine the depth to the groundwater in 10 locations. Should private irrigation systems be impacted, the lines will be capped; however, no repairs to irrigation systems will be made.

Deliverables: Geotechnical engineering report

**Task 4 – Plans**

Field review the neighborhood and call out noticeable items such as trees, driveways, mailboxes, above ground utilities. The field review will be supplemented with street view data available on the internet.

Prepare construction plans to include the following deliverables:

- Cover sheet with project title, design team, sheet index, location map
- General notes sheet with legend
- Key map showing overall neighborhood and sheet layout and phasing concept
- Plan view sheets (30 sheets) on aerial photographs showing key map, street names\*, addresses\*, lot lines\*, existing utilities\*, crossings (numbered), clean outs (numbered with depth), underdrain pipe with size and material, existing trees (approximately), root barrier, and driveway repairs. (\* indicates it will be included in the base map/GIS files provided by the Village)
- Coordinate table for clean outs
- Coordinate table for anticipated conflicts
- Details (4 sheets) conflict resolution, clean out, conflicts, driveway details (2 plan views), underdrain details (4 sections), deflection, roadway reconstruction.

#### **Task 5 – Engineer’s Opinion of Probable Cost**

Prepare a quantity take off, estimate unit prices based on prior bids submitted to the Village for similar projects and FDOT construction cost history, and prepare an estimated budget for the project.

Deliverable: Bid tabulation and estimate of cost

#### **Task 6 – Specifications and Contract Documents**

Prepare a scope of work paragraph to describe the effort that the contractor is expected to complete. The bid form will be as a single lump sum price. Prepare the written technical specifications using FDOT standard specifications or other appropriate specifications with minor revisions to address the method of payment being lump sum. The Village will provide the contract documents and specifications in Word from the recent Ponce De Leon underdrain project to use as a basis for this project.

Deliverables: Scope of Work paragraph, Written technical specifications

#### **Task 9 – Project Management and Expenses**

Coordination and administrative tasks. It is assumed that the project design and plans production phase will be complete in 24 weeks, and that 2 hours per week will be expended on project management tasks. Should expenses be incurred such as fees, printing, copying and mileage, they will be invoiced at 1.15 times the rate that is charged to Erdman Anthony by the vendor.

Deliverables: none

#### **Schedule**

Erdman Anthony will begin work on the project after receipt of a fully executed agreement. Subject to your review and concurrence, we will develop a schedule for the work. It is anticipated that the plans and specifications tasks will be completed in 6 weeks. Construction phase services will begin based on the Village’s schedule and are expected to be completed in 12 weeks, should a longer duration occur, additional fees may result.

### Fee/Compensation

Professional services for the scope of services outlined in Exhibit "A" will be performed by Erdman Anthony of Florida, Inc. for a total amount of \$152,014.00 as per table below; plus reimbursable expenses. Funds to come from Project No. PW2204 – La Mancha Underdrain.

Task	Description	Fee	Billing Method
1	Base Map	\$15,000	Fixed fee
2	Survey	\$43,300	Fixed fee
3	Geotechnical	\$21,714	Fixed fee
4	Construction Plans	\$45,000	Fixed fee
5	Opinion of Cost	\$7,500	Fixed fee
6	Specifications	\$4,500	Fixed fee
9	Project management & expenses	<u>\$15,500</u>	Fixed fee
	<b>Total</b>	<b>\$152,014</b>	

### **Authorization**

Consultant Services Authorization No. 25

Date: \_\_\_\_\_

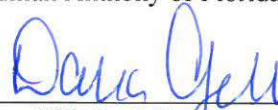
If you concur with this CSA, please indicate by signing below; once executed by the Village Manager you will receive a copy for your records.

IN WITNESS WHEREOF, the parties have hereto set their hands the day and year first above written.

Witness:

Erdman Anthony of Florida, Inc.

1. 

  
Dana Gillette, P.E.  
Principal Associate

2. 

Village of Royal Palm Beach  
A Florida Municipal Corporation

1. \_\_\_\_\_

\_\_\_\_\_  
Raymond C. Liggins, PE,  
Village Manager

2. \_\_\_\_\_



November 11, 2022

Paul Webster  
Village of Royal Palm Beach  
1050 Royal Palm Beach Blvd.  
Royal Palm Beach, FL 33411

**SUBJECT:** Underdrains in northern La Mancha neighborhood

Dear Mr. Webster:

As we discussed, the Village desires to install underdrains in a portion of the La Mancha neighborhood as shown below. It is estimated that approximately 16,500 feet of roadway with underdrain on each side is included with approximately 243 homes along these roadways.



### Project Understanding

The underdrain plans will be similar to the underdrain plans that the Village prepared for the Ponce DeLeon roadway; however, they will be placed one foot inside the pavement at a grade that matches the pavement with a sweep at each clean out so that the clean out is in the swale. The roadways will be reconstructed. The plans will be drawn on aerial photographs provided by the Village to better show the existing conditions. Limited survey is included. No subsurface utility locates are included. The plans will be supplemented with contract documents based on the Village's standard documents.



## Scope of Work and Deliverables

The following scope of work is a general representation of our current opinion of the likely scope of work and deliverables required for this project and is made on the basis of our professional judgment and experience. As the project is developed, it is possible that the scope will require additional or even reduced scope items. Among other items, review by and responding to government agencies involves a number of factors that are outside of Erdman Anthony's control. Erdman Anthony will keep Client informed as the project develops.

### Task 1 – Base Maps

Prepare the base maps for the neighborhood. Use aerial photographs provided by the Village with 500 to 600 feet of roadway on each plan sheet. Show existing features from the Village's GIS data, which the Village will provide in an autocadd file with text that scales to match the sheet size and will include the following: lot lines addresses, existing utilities, existing drainage.

Deliverables: 30 base map plan sheets

### Task 2 – Survey

Obtain survey for the existing roadway high and low points, the existing gate valve rims, manhole rim and inverts, inlet grates and inverts. That survey data will be used by the contractor to reconstruct the roadway in its existing location.

Deliverables: Limited topographic survey

### Task 3 – Geotechnical Engineering

Obtain geotechnical data including the following: roadway cores to determine the thickness of the existing asphalt and base in 10 locations; shallow auger borings in the swales to determine if there is a muck layer that would impact the project, and to determine the depth to the groundwater in 10 locations. Should private irrigation systems be impacted, the lines will be capped; however, no repairs to irrigation systems will be made.

Deliverables: Geotechnical engineering report

### Task 4 – Plans

Field review the neighborhood and call out noticeable items such as trees, driveways, mailboxes, above ground utilities. The field review will be supplemented with street view data available on the internet.

Prepare construction plans to include the following deliverables:

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Deliverable: Bid tabulation and estimate of cost

**Task 6 – Specifications and contract documents**

Prepare a scope of work paragraph to describe the effort that the contractor is expected to complete. The bid form will be as a single lump sum price. Prepare the written technical specifications using FDOT standard specifications or other appropriate specifications with minor revisions to address the method of payment being lump sum. The Village will provide the contract documents and specifications in Word from the recent Ponce De Leon underdrain project to use as a basis for this project.

Deliverables: Scope of Work paragraph, Written technical specifications

**Task 7 – Construction phase services**

The following duties will be performed during the construction phase:

**A – Engineering during construction**

- Attend pre-bid meeting with the Village.
- Review up submittals (shop drawings) submitted by the Contractor. Includes initial review and resubmittal, if/when needed.
- Attend pre-construction meeting with the Village and Contractor
- Prepare responses for RFI’s submitted by the Contractor.
- Review pay application submitted by the Contractor and prepare a memo to the City noting any concerns or discrepancies and recommending payment amount.
- Review test results and record drawings.
- Attend 1 final walk through and prepare a punch list.
- Attend 1 final inspection once all punch list items have been completed.
- Prepare a memo to the Village certifying that the project has been constructed in substantial conformance with the contract documents.
- Provide an engineer to serve as the point of contact for the Contractor and provide Construction Management services.
- It is assumed that up to 100 hours will be expended.

**B – Observation of Underdrains:** It is assumed that the contractor will complete the underdrain installation in six months and that our onsite observation will be needed for up to 120 site visits for up to 3 hours/day to observe the contractor’s progress and performance.

**C – Observation of Roadway Reconstruction:** It is assumed that the contractor will complete the pavement reconstruction in two months and that our onsite observation will be needed for up to 40 site visits for up to 8 hours/day to observe the contractor’s progress and performance.

Deliverables: meeting minutes, construction document reviews, construction observation reports

#### Task 8 – Conflict resolution

During construction, the Contractor is expected to perform soft digs and provide the data regarding conflicting pipes. The Consultant will evaluate each crossing and provide supplementary information for the Contractor to use for the depth of the underdrains. It is assumed that up to 150 conflicts will be evaluated.

Deliverables: conflict resolution tables

#### Task 9 – Project management and expenses

Coordination and administrative tasks. It is assumed that the project design and plans production phase will be complete in 24 weeks, and that 2 hours per week will be expended on project management tasks. Should expenses be incurred such as fees, printing, copying and mileage, they will be invoiced at 1.15 times the rate that is charged to Erdman Anthony by the vendor.

Deliverables: none

#### Assumptions/Clarifications

- The Village will provide the GIS files and/or pdf documents showing the existing pipe locations and sizes. The file will also be provided in autocadd format with text for the features and links to the as built file names for the features.
- The Village will provide high resolution aerial photos for use as the base maps for the project.
- The Village will provide the typical section and written technical specification to be used for the roadway reconstruction. It is assumed that full depth reclamation (FDR) will be used with the asphalt millings used to strengthen the existing base material and reused on the project.
- No sub surface utility locates will be performed or provided to the bidders.
- No environmental issues are anticipated at the site.
- Erdman Anthony agrees to provide electronic copies of our work product to Client and other consultants or contractors on this project subject to the following terms and conditions: These documents are part of Erdman Anthony's instruments of service and shall not be used by Client or anyone else receiving these documents for any purpose other than as a convenience for this project. Any other use or reuse by Client or by others will be at Client's sole risk and without liability or legal exposure to Erdman Anthony. Client agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against Erdman Anthony, its officers, directors, employees, agents or subconsultants that may arise out of or in connection with the use of these documents. Furthermore, Client shall, to the fullest extent permitted by law, indemnify and hold Erdman Anthony harmless against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or resulting from the use of these electronic documents. Machine-readable format documents are supplied as a convenience to Recipient. Such documents are not intended to replace the printed forms of such documents. The content of the documents supplied by Erdman Anthony in printed form shall govern over the contents of documents supplied in machine-readable format. Because information presented on the electronic files can be modified, unintentionally or otherwise, Erdman Anthony reserves the right to remove all indicia of ownership and/or involvement from machine-readable format documents. Under no circumstances shall delivery of the electronic files be deemed a sale by Erdman Anthony, and Erdman Anthony makes no warranties, either express or implied, of merchantability and fitness for any particular purpose. In no event shall Erdman Anthony be liable for any loss of profit or any consequential damages as a result of the use or reuse of these documents.



- Erdman Anthony may rely upon the accuracy and completeness of any information, requirements, reports, data, surveys, and instructions (information) provided by Client unless expressly stated otherwise with respect to such information.
- Erdman Anthony shall use that degree of usual and customary professional skill and care ordinarily exercised by members of its profession under similar circumstances practicing in the same or similar locality at a similar time.
- Erdman Anthony will be promptly paid for services performed.

### Schedule

Erdman Anthony will begin work on the project after receipt of a fully executed agreement. Subject to your review and concurrence, we will develop a schedule for the work. It is anticipated that the plans and specifications tasks will be completed in 6 weeks. Construction phase services will begin based on the Village's schedule and are expected to be completed in 12 weeks, should a longer duration occur, additional fees may result.

### Compensation

Erdman Anthony proposes to complete the above-described scope of services as follows:

Task	Description	Fee	Billing Method
1	Base Maps	\$15,000	Fixed fee
2	Survey	\$43,300	Fixed fee
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4	Construction Plans	\$45,000	Fixed fee
5	Opinion of Cost	\$7,500	Fixed fee
6	Specifications	\$4,500	Fixed fee
7	Construction Phase Services		
A	Engineering During Construction	\$16,500	Hourly
B	Underdrains	\$46,000	Hourly
C	Roadway	\$41,000	Hourly
8	Conflict Resolution	\$28,000	Hourly
9	Project management and expenses	\$15,000	Fixed fee
Total		\$283,514	\$152,014

### Proposal Acceptance

This proposal is subject to the terms and conditions of our contract with the Client dated September 20, 2017. This proposal and the contract are intended to represent the entire contractual relationship between Client and Erdman Anthony. If you concur with and accept the provisions of this proposal, please have an authorized representative issue a consultant work authorization to us for our records which shall also serve as our Notice to Proceed. Thank

Paul Webster  
La Mancha North Neighborhood Underdrains  
November 11, 2022  
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you for your interest in utilizing Erdman Anthony's services for this project. We would appreciate an opportunity to further discuss any questions you may have with regard to this proposal or our services in general and appreciate your time and consideration in reviewing the proposal. If you have any questions or require additional information, please contact me at 561-753-9723. We look forward to working with you and building a successful relationship.

Sincerely,  
ERDMAN ANTHONY

A handwritten signature in black ink that reads "Dana Gillette".

Dana I. Gillette, PE, PSM, LEED AP  
Principal Associate