

PALM BEACH COUNTY  
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: April 10, 2018

Consent  Regular   
Public Hearing

Department: Water Utilities Department

I. EXECUTIVE BRIEF

**Motion and Title:** Staff recommends motion to approve: Encroachment Agreement (Agreement) with Florida Gas Transmission Company LLC (FGT).

**Summary:** The Water Utilities Department (WUD) plans to construct an 18-inch water main along Belvedere Road crossing an existing easement (Book 27363, Page 1648) on the east side of the Florida Turnpike. The existing easement is granted to FGT by the Florida Department of Transportation for their use only. Prior to the construction of the water main, FGT has requested that the County enter into an Agreement to allow the installation of the water main within their easement area and crossing their existing utilities. FGT requested that the County execute the Agreement first as FGT will be recording the Agreement. (WUD Project No. 15-102) District 2 (MJ)

**Background and Justification:** The proposed water main is necessary to replace an existing water main that is out of service due to leaking. FGT's existing utilities run parallel to Florida Turnpike within an existing easement. The proposed water main will be installed on Belvedere Road across the Florida Turnpike crossing FGT's utilities. Therefore, the Agreement is a requirement for the Florida Turnpike permit.

**Attachments:**

1. Two (2) Encroachment Agreement Forms
2. Location Map

Recommended By: Jim Stiles 3-14-18  
 Department Director Date

Approved By: [Signature] 3-27-18  
 Deputy County Administrator Date

## II. FISCAL IMPACT ANALYSIS

### A. Five Year Summary of Fiscal Impact:

Fiscal Years	2018	2019	2020	2021	2022
Capital Expenditures	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Operating Costs	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
External Revenues	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Program Income (County)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
In-Kind Match County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
* NET FISCAL IMPACT	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
# ADDITIONAL FTE POSITIONS (Cumulative)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Budget Account No.: Fund \_\_\_\_\_ Dept \_\_\_\_\_ Unit \_\_\_\_\_ Object \_\_\_\_\_

Is Item Included in Current Budget? Yes X No \_\_\_\_\_

Does this item include the use of federal funds? Yes \_\_\_\_\_ No X

Reporting Category N/A

### B. Recommended Sources of Funds/Summary of Fiscal Impact:

\*No Fiscal Impact

### C. Department Fiscal Review:

## III. REVIEW COMMENTS

### A. OFMB Fiscal and/or Contract Development and Control Comments:

Lisa Ponce 3/15/18  
OFMB RD 3/15 3/14/18

David J. Jacobson 3/16/18  
Contract Development and Control

### B. Legal Sufficiency:

[Signature] 3/26/18  
Assistant County Attorney

### C. Other Department Review:

\_\_\_\_\_  
Department Director

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

This Instrument Prepared By and Return To:  
Right-of-Way Department/Julie Franklin  
Florida Gas Transmission Company  
Post Office Box 945100  
Maitland, Florida 32794-5100

Project No.: 17-232

### **ENCROACHMENT AGREEMENT**

**THIS ENCROACHMENT AGREEMENT** ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2018, by and between **FLORIDA GAS TRANSMISSION COMPANY, LLC**, a Delaware limited liability company, ("FGT"), with principal offices at 1300 Main Street, Houston, Texas 77002, and **PALM BEACH COUNTY**, ("PALM BEACH COUNTY"), whose address is 8100 Forest Hill Boulevard, West Palm Beach, Florida 33416.

#### **WITNESSETH THAT:**

**WHEREAS**, FGT is the owner and holder of an easement under the provisions of that certain **NATURAL GAS PIPELINE EASEMENT AGREEMENT** effective August 21, 2013, and recorded February 26, 2015, in Book 27363, Page 1648, Official Records, Palm Beach County, Florida, as amended on January 20, 2015, and recorded in Book 27386, Page 1832, Official Records, Palm Beach County, Florida, ("Easement Agreement"), covering lands located in Palm Beach County, Florida as described in the Easement Agreement ("Lands"); and

**WHEREAS**, pursuant to the authority contained in the Easement Agreement, FGT has constructed and currently operates and maintains an eighteen-inch (18") natural gas pipeline, a twenty-four inch (24") natural gas pipeline and related surface and subsurface appurtenances, (collectively, the "Pipeline Facilities"), across and through the Lands; and

**WHEREAS**, PALM BEACH COUNTY seeks consent for an 18" water main within 36" casing crossing the FGT easement ("Easement Area") and the Pipeline Facilities as depicted on Exhibit "B" attached hereto and made a part hereof ("Encroachment"), pursuant to the terms and provisions of this Agreement; and

**WHEREAS**, PALM BEACH COUNTY has been advised by FGT that FGT is a natural gas transmission company and that FGT operates a high pressure underground natural gas Pipeline Facilities through the Owned Premises; and

**WHEREAS**, PALM BEACH COUNTY has requested written consent from FGT to maintain, use, and enjoy the Encroachment upon a portion of the Easement Area and in close proximity to the Pipeline Facilities; and

**WHEREAS**, FGT is willing to grant such consent upon the terms and conditions hereafter set forth.

**NOW, THEREFORE**, in consideration of the mutual covenants, terms and conditions set forth in this Encroachment Agreement, FGT and PALM BEACH COUNTY agree as follows:

1. To the extent that FGT has the right to do so, FGT hereby grants consent to PALM BEACH COUNTY to maintain, operate and use the Encroachment on the Easement Area, and in close proximity to the Pipeline Facilities, subject to compliance with the following terms and conditions:

A. PALM BEACH COUNTY hereby assumes all risks for damages, injuries, or loss to either property or persons, caused by, or arising out of, or resulting from, or in any way associated with the installation, construction, use, maintenance, repair or replacement of the Encroachment.

B. The consent granted herein is limited exclusively to the proposed Encroachment upon the Easement Area. PALM BEACH COUNTY shall not alter the grade or permit such alteration anywhere on the Easement Area without the prior express written consent of FGT.

C. PALM BEACH COUNTY shall at all times conduct all activities on the Easement Area in such a manner as not to interfere with or impede the operation and maintenance of the Pipeline Facilities, as conducted in the past, present or future, in any manner whatsoever.

D. Except as to the Encroachment, PALM BEACH COUNTY shall not construct, plant or create additional improvements of any kind, including but not limited to, fences, sheds, irrigation or drainage systems, utilities, decking, pole barns, parking lots, roadways, pools, ponds, trees or shrubs within the confines of the Easement Area without the prior express written consent of FGT.

E. PALM BEACH COUNTY understands and agrees that FGT may not have the authority to grant PALM BEACH COUNTY permission to construct the Encroachment in the Easement Area. This Agreement merely defines the terms by which FGT will not object, and that PALM BEACH COUNTY will obtain permission for the Encroachment from the underlying fee owner of the Lands or third parties having an interest in the Easement Area. The consent granted by this instrument shall not constitute or be construed as a subordination, merger, assignment, conveyance or relinquishment of any of the right, title and interest of FGT under the provisions of the Easement Agreement.

2. PALM BEACH COUNTY agrees that the Encroachment and any additional approved improvements constructed or installed in the Easement Area shall be constructed in accordance with the Engineering and Construction Specifications detailed in Exhibit "A" attached hereto and made a part hereof. Installation, construction, maintenance, repair and replacement of the Encroachment shall be the sole responsibility, and performed at the sole cost and expense of PALM BEACH COUNTY.

3. To the extent permitted by Florida Statutes 768.28, PALM BEACH COUNTY agrees to indemnify, protect, and hold harmless FGT, its parent, affiliates, subsidiaries, and their directors, officers, employees, representatives, and agents (hereinafter "FGT Entities") from and against any and all actions or causes of action, claims, demands, liabilities, loss, damage, injury, suit, proceeding, judgment, cost or expense of whatever kind or nature, including but not limited to reasonable attorneys' fees, caused by, or arising out of, or resulting from, or in any way associated with the installation, construction, use, maintenance, repair or replacement of the Encroachment, or from the operation, maintenance, use or presence of FGT's Pipeline Facilities upon or in the vicinity of the Easement Area except where such loss, cost, liability, or expense was proximately caused solely by the gross negligence of FGT or its employees.

In addition, and to the extent permitted by Florida Statutes 768.28 PALM BEACH COUNTY agrees to indemnify, defend and hold harmless FGT and the FGT Entities from and against any liability, damage, claims, loss, cause of action, suit, proceeding, judgment, cost (including the cost or expense of environmental response, removal or remediation activities), fees or expense, including reasonable attorney's fees, arising from: (a) non-compliance with any laws, regulations and orders applicable to the ownership or the operation and maintenance of the Encroachment on the Easement Area described herein, and (b) any incidents, acts, releases, negligence, transactions or omissions, or conditions on or affecting the Easement Area caused by, or arising out of, or resulting from, or in any way associated with the installation, construction, use, maintenance, repair or replacement of the Encroachment that would (i) contribute to or constitute a violation of any local, state or federal environmental rule, regulation, law or judicial order, (ii) result, in whole or in part, in any requirement to clean up or otherwise remedy or remediate a condition, (iii) give rise to any lien, liability, injunction, order, restriction, claim, expense, damage, fine or penalty, (iv) adversely affect human health or the environment at or near the Easement Area, or (v) constitute a violation of the terms of this Encroachment Agreement.

Notwithstanding anything contained herein to the contrary, Palm Beach County's liability hereunder shall be subject to the limitations of Section 768.28, Florida Statutes, and Palm Beach does not waive its right to sovereign immunity or any rights or defenses under said statute.

4. PALM BEACH COUNTY shall take reasonable steps to protect the Pipeline Facilities at all times during the performance of any work associated with the Encroachment including maintaining a minimum of three feet (3') of cover over the subsurface Pipeline Facilities at all times.

5. Should FGT need to remove any of the Encroachment within the Easement Area in order to construct, maintain, operate, repair, remove, replace or resize the Pipeline Facilities, PALM BEACH COUNTY shall pay the cost of removing and replacing or reinstalling the Encroachment. In addition, all repair and maintenance work performed by FGT on its existing or additional Pipeline Facilities located on the Easement Area, shall be performed in a reasonable workmanlike manner and FGT shall restore the surface of the Easement Area where the work is performed but shall not be liable for loss, damage, or replacement to the Encroachment or any equipment and facilities that exist within the Easement Area.

6. INTENTIONALLY OMITTED.

7. This Agreement in no way constitutes a waiver by FGT of its rights to enjoy the Easement Area unencumbered by the construction, operation, maintenance or use of the Encroachment within the Easement Area.

8. It is expressly agreed to by and between FGT and PALM BEACH COUNTY that if PALM BEACH COUNTY is in violation of any terms or conditions set forth in this Encroachment Agreement, FGT, at its option, may terminate FGT's consent to the Encroachment upon ten (10) days' notice to the PALM BEACH COUNTY; provided however, that any such termination shall not become effective if, within thirty (30) days from the receipt of such notice of termination, PALM BEACH COUNTY cures such violation. PALM BEACH COUNTY expressly agrees that if FGT terminates its consent to the Encroachment based upon PALM BEACH COUNTY's failure to cure a violation of the Easement Agreement, the Encroachment Agreement, or both, PALM BEACH COUNTY will continue to be bound by the terms of the Easement Agreement and the Encroachment Agreement, and PALM BEACH COUNTY shall immediately remove any and all of the Encroachment which may be situated on the Easement Area, or if PALM BEACH COUNTY fails to remove any and all of the Encroachment, FGT may, at its option, remove the Encroachment at the expense of PALM BEACH COUNTY and without any liability whatsoever. If such violation by PALM BEACH COUNTY constitutes or results in an emergency or a dangerous condition, FGT shall only be required to provide whatever prior notice is reasonable under the circumstances before exercising its rights to remove the Encroachment or otherwise cure the violation. The failure of FGT to exercise the option to terminate as to any such violation shall not constitute a waiver of FGT's future right to exercise such option as to the same or any future violation. The remedies outlined herein are not exclusive and FGT does not waive any legal or equitable remedies.

9. The provisions of the Easement Agreement, and all rights, powers, privileges, and duties, obligations, and liabilities created thereby, shall remain in full force and effect and are not affected hereby except to the extent and in the manner specifically and particularly set forth herein.

10. PALM BEACH COUNTY and FGT stipulate and agree that the statements and information contained in the introductory paragraphs and recitations of this Agreement are true and correct and are incorporated herein by this reference.

11. This instrument and the covenants and agreements herein contained shall extend to and be binding upon PALM BEACH COUNTY and the heirs, executors, personal representatives, successors and assigns of PALM BEACH COUNTY and upon FGT and the successors and assigns of FGT and the benefits of this Agreement shall run with the land. This Encroachment Agreement may be executed in counterparts, each of which when conformed shall be an original and all of which together shall constitute a single document.

IN WITNESS WHEREOF, the parties have executed this instrument the day and year first above written.

**WITNESSES:**

**"FGT"  
FLORIDA GAS TRANSMISSION  
COMPANY, LLC**

\_\_\_\_\_  
Name: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_

By \_\_\_\_\_  
**DAVID SHELLHOUSE  
VICE PRESIDENT**

**ATTEST:  
SHARON R. BOCK**

**PALM BEACH COUNTY, FLORIDA  
A Political Subdivision of the State of  
Florida**

**CLERK AND COMPTROLLER**

**BOARD OF COUNTY  
COMMISSIONERS**

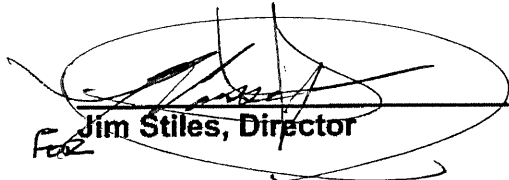
\_\_\_\_\_  
**Melissa McKinlay, Mayor**

By: \_\_\_\_\_

**APPROVED AS TO FORM AND LEGAL  
SUFFICIENCY**

**APPROVED AS TO TERMS AND  
CONDITIONS**

\_\_\_\_\_  
**Assistant County Attorney  
Water Utilities Department**

  
\_\_\_\_\_  
**Jim Stiles, Director**

**ACKNOWLEDGEMENTS**

STATE OF FLORIDA  
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me on this \_\_\_\_ day of \_\_\_\_\_, 2018, by **DAVID SHELLHOUSE, VICE PRESIDENT OF FLORIDA GAS TRANSMISSION COMPANY, LLC**, a Delaware limited liability company, on behalf of the company. He is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

\_\_\_\_\_  
Notary Public

STATE OF \_\_\_\_\_  
COUNTY \_\_\_\_\_

The foregoing instrument was acknowledged before me on this \_\_\_\_ day of \_\_\_\_\_, 2018, by \_\_\_\_\_, \_\_\_\_\_ of **PALM BEACH COUNTY**, on behalf of the company. He/She is personally known to me or has produced \_\_\_\_\_ (type of identification) as identification.

\_\_\_\_\_  
Notary Public  
Name (Printed): \_\_\_\_\_

My Commission Expires \_\_\_\_\_

**EXHIBIT "A"**

Attached to and made a part of that certain

**ENCROACHMENT AGREEMENT**

Dated \_\_\_\_\_, 2018

By and between

**FLORIDA GAS TRANSMISSION COMPANY, LLC**

And **PALM BEACH COUNTY**

**ENGINEERING AND CONSTRUCTION SPECIFICATIONS**

1. No work can be done in FGT's easement property unless FGT has reviewed and approved the plans and an agreement in writing has been entered into between FGT and PALM BEACH COUNTY. Any encroachment consented to by FGT shall not interfere with the operation, maintenance, and access of FGT's pipeline facilities, including but not limited to, close interval surveys; leak detection surveys; pipeline patrol, pipeline marking and similar activities.
2. PALM BEACH COUNTY shall provide a minimum of forty-eight (48) hours' notice to FGT prior to any installation, construction, excavation, or demolition work on the easement area. To ensure further safety, PALM BEACH COUNTY must call appropriate ONE CALL for a locate by calling 811. An FGT representative must be present when any work is done on the easement area. The onsite FGT representative will have the authority to shutdown work by the PALM BEACH COUNTY if the PALM BEACH COUNTY's activities are judged to be unsafe by the FGT representative. The FGT representative will be invited to participate in PALM BEACH COUNTY's safety meetings. This provision applies each time FGT's pipeline facilities are crossed.
3. Existing ground elevation is to be maintained.
4. For vehicles and/or construction equipment requesting approval to cross FGT's facilities, each crossing location will be reviewed on a case-by-case, site-specific basis and will require the surveyed elevation of the pipeline and/or facility verified by an FGT field representative to be performed by the party requesting the crossing encroachment and submitted to FGT. The execution of a wheel load calculation must be completed and approved by FGT prior to crossing FGT's facilities for every vehicle and/or construction equipment requesting to cross. FGT may require matting or other suitable material be installed to achieve the necessary support for such crossing. This too will be site specific and case-by-case only.
5. Where consent for roadway crossings has been granted, a minimum of forty-eight inches (48") of cover, including thirty-six (36") of undisturbed or compacted soil, shall be maintained within the easement area. All roads must cross the easement at a ninety degree (90°) angle.
6. Upon completion of paragraph 1, sidewalks, trails and bike paths may cross FGT's pipelines at a ninety degree (90°) angle provided the width does not exceed forty-eight inches (48").
7. When crossing an FGT pipeline (via drill or open lay) PALM BEACH COUNTY must visually verify the elevation of the pipeline both vertically and horizontally, by an FGT approved method such as vacuum excavation with an FGT field representative on-site at all times during this operation. When using directional drill method, a minimum vertical clearance of ten feet (10') from the pipeline is required across the entire easement.
8. Where the encroachment includes utilities, all such utilities crossing the easement area must have a minimum separation of twenty-four inches (24") between the utility and the FGT pipeline(s) at the point of crossing and must cross at a ninety degree (90°) angle. No utilities shall be constructed between the surface of the easement area and the top of the subsurface pipeline facilities unless agreed to in writing by FGT. No parallel utilities, structures, and/or appurtenances are permitted within the easement area. All proposed aerial crossings will be reviewed on a case-by-case basis.
9. Where consent for fiber optic, telephone and/or cable television lines has been granted, lines must be placed in a rigid non-metallic conduit across the entire easement width with bags of concrete-mix placed directly above and below the conduit across the confines of the easement. Orange warning burial tape must be placed a minimum of 18" directly above the cable across the width of the easement. Crossings must be clearly and permanently marked on each side of the easement with permanent identification.
10. Where consent for utility lines has been granted, electric lines must be encased in pvc or steel throughout the entire easement area. Cables energized to 600 volts or more must cross a minimum of three feet (3') below the subsurface pipeline facilities, and also be encased in concrete, color coded red, across the entire easement width, and have external, spiral wound, neutrals grounded on each side of the easement. The cable crossing should be clearly and permanently marked on each side of the easement where permissible.

11. Where consent for fencing has been granted, the PALM BEACH COUNTY must install and maintain a vehicle access gate at least twelve feet (12') in width at each point in the fence line(s) crossing the easement area. Posthole excavations for fencing placed on the easement area shall not be greater than eighteen inches (18") below the ground surface elevation. No fence posts shall be placed over the pipeline facilities or closer than six feet (6') on either side of the pipeline facilities. Any exceptions will be determined by FGT management. Any such fence shall be constructed and maintained by PALM BEACH COUNTY in such a manner that does not prevent FGT personnel from viewing the easement area from the ground level through the fence(s) (i.e. no solid fences allowed). No fencing parallel to the FGT pipeline facilities will be allowed within the easement area. FGT's access to its pipeline facilities shall be maintained by PALM BEACH COUNTY. If the gate is locked with PALM BEACH COUNTY's lock, PALM BEACH COUNTY shall provide FGT with keys or allow a FGT lock to enable access.
12. No retention ponds, ditches or swales shall be allowed within the easement area.
13. No roto-mixing or vibrating machinery is allowed within the easement area.
14. When conducting pile driving operations, PALM BEACH COUNTY shall adhere to a minimum separation of twenty-five feet (25') from the outside edge of the FGT pipeline.
15. Excavations that expose the FGT pipeline must follow OSHA standards. Time will be allowed for a FGT representative to inspect and make coating repairs as the subsurface pipeline facilities are exposed.
16. Twelve inches (12") of backfill around the subsurface pipeline facilities shall be sand or clean fill; free of rocks and debris.
17. With prior approval, no more than twenty feet (20') of pipe shall be exposed at any given time; if more than twenty feet (20') of pipe is to be exposed, all Standard Operating Procedures (SOP) must be adhered to, pressure reductions must be scheduled at least one (1) year in advance and engineering stress calculations must be performed by FGT Engineering and approved by FGT management prior to allowing any more than the twenty feet (20') of exposed pipe.
18. With prior approval and an FGT representative on site at all times, excavation equipment equipped with toothless buckets may be allowed to dig or excavate within three (3) feet of the pipeline facilities. All other construction/excavation equipment will not be allowed to perform any excavation within three feet (3') of the pipeline facilities. All mechanical excavation performed within three feet (3') of the pipeline will be performed parallel to the pipeline (i.e. track-hoe may not reach over the pipeline to dig on the opposite side of the pipeline).
19. All excavation within twenty-four (24") from the top or thirty-six inches (36") from the side or bottom of the pipeline shall be by manual means. After top exposure, excavation up to twenty four inches (24") from the side or bottom of the exposed pipeline may proceed by mechanical means if the FGT representative is satisfied it may be done safely with the equipment and operator available.
20. Barriers adequate to prevent vehicular damage to any exposed pipeline facilities shall be installed and maintained at all times.
21. All FGT pipeline facilities, cathodic protection equipment, and test lead wires shall be protected from damage by construction activity at all times.
22. No installation, construction, excavation, or demolition work shall be performed within the easement area on weekends or holidays.
23. The PALM BEACH COUNTY shall provide and install temporary construction fence along the easement boundaries for the entire length of the proposed work area to preserve and protect the pipeline(s). The fence must be maintained for the duration of the development or construction activity. Access across FGT's easement will be granted at specific locations for vehicle and equipment traffic once a wheel load calculation has been completed. Additional cover or matting may be required. Any changes to this requirement must be approved in writing by FGT prior to start of work.
24. Where consent for landscaping has been granted, PALM BEACH COUNTY shall not plant shrubs on the easement area which are classified as "deep rooted" or are projected to exceed an eventual growth height of four (4) feet. Shrubs shall be planted so that no part, at its ultimate growth, shall be closer than ten feet (10') to the pipeline facilities. No trees shall be planted on the easement.
25. These Engineering and Construction Specifications may address activities on the easement area for which FGT has not granted consent to PALM BEACH COUNTY to include as part of the encroachment. Notwithstanding anything to the contrary contained in these Engineering and Construction Specifications, FGT's consent is and shall be limited to the encroachment as described and limited by the Encroachment Agreement to which this Exhibit is attached.



**EXHIBIT "B"**

**Attached to and made a part of that certain  
ENCROACHMENT AGREEMENT**

**Dated \_\_\_\_\_, 2018**

**By and between**

**FLORIDA GAS TRANSMISSION COMPANY, LLC  
And PALM BEACH COUNTY**

**DESCRIPTION AND DRAWINGS OF THE ENCROACHMENT**

(See following 5 pages)

PLOT DATE: AUG 15, 2017 TIME: 10:50AM BY: AGENENT  
 DRAWING: P-16-114 REV. CD03 PHASE 2: WATER MAIN REPLACEMENT AT BELVEDERE ROAD AND FLORIDA'S TURNPIKE LAYOUT C-01

**COUNTY of PALM BEACH**  
**STATE of FLORIDA**  
**PALM BEACH COUNTY WATER UTILITIES DEPARTMENT**  
**CD03 PHASE 2: WATER MAIN REPLACEMENT AT**  
**BELVEDERE ROAD AND FLORIDA'S TURNPIKE**  
**WUD PROJECT No. 15-102**

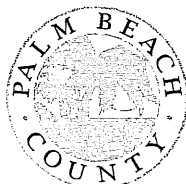
VERDENIA C. BAKER  
 COUNTY ADMINISTRATOR

BOARD OF COUNTY COMMISSIONERS

HAL R. VALECHE  
 District 1

MAYOR  
 PAULETTE BURDICK  
 District 2

DAVE KERNER  
 District 3



MACK BERNARD  
 District 7

STEVEN L. ABRAMS  
 District 4

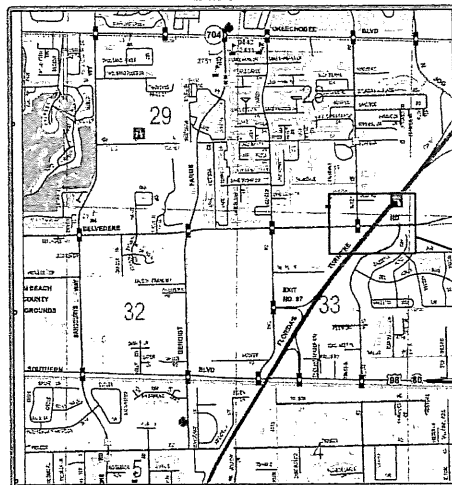
MARY LOU BERGER  
 District 5

VICE MAYOR  
 MELISSA MCKINLAY  
 District 6



**INDEX OF SHEETS**

Sheet Number	Sheet Title
WUD No. 15-102 CD03 PH. 2 Belvedere Road at Florida Turnpike	
C-01	COVER
C-02	KEY MAP, LEGEND & SURVEYOR'S NOTES
C-03	SOIL BORES LOCATION MAP AND PROFILES
C-04	GENERAL NOTES
C-05	GENERAL DETAILS
C-06	PBC WUD STANDARD DETAILS
C-07	PBC WUD STANDARD DETAILS
C-08	PBC WUD STANDARD DETAILS
C-09	PLAN SHEET
C-10	PLAN SHEET
C-11	PLAN SHEET
C-12	PLAN SHEET
C-13	DIRECTIONAL BORE PROFILE



**LOCATION MAP**  
 SECTION 33, TOWNSHIP 43, RANGE 42.

BELVEDERE ROAD  
 PROJECT  
 LOCATION

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS  
 MAY HAVE BEEN CHANGED IN SIZE BY REPRODUCTION. THIS  
 MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

**ENGINEER'S CERTIFICATION**  
 I HEREBY CERTIFY THAT THE ATTACHED PLANS AND DESIGN  
 ARE IN SUBSTANTIAL COMPLIANCE WITH THE DESIGN  
 STANDARDS AND CRITERIA IN EFFECT ON THIS DATE FOR  
 THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT,  
 PALM BEACH COUNTY ENGINEERING DEPARTMENT, AND THE  
 STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION.



**KESHAVARZ & ASSOCIATES**  
 Civil Engineers • Land Surveyors  
 711 North Dixie Highway, Suite 201  
 West Palm Beach, Florida 33401  
 Tel: (561) 852-5500  
 Fax: (561) 852-5501

K&A PROJECT No. 16-1114  
 DESIGNED BY: A.T. GREEN III  
 DRAWN BY: A.T. GREEN III  
 CHECKED BY: R. WESTERPAK  
 APPROVED BY: M. KESHAVARZ  
 DATE: 08/15/17

PROJECT No.  
 15-102

CD03 PHASE 2: WATER MAIN REPLACEMENT AT  
 BELVEDERE ROAD AND FLORIDA'S TURNPIKE  
 COVER

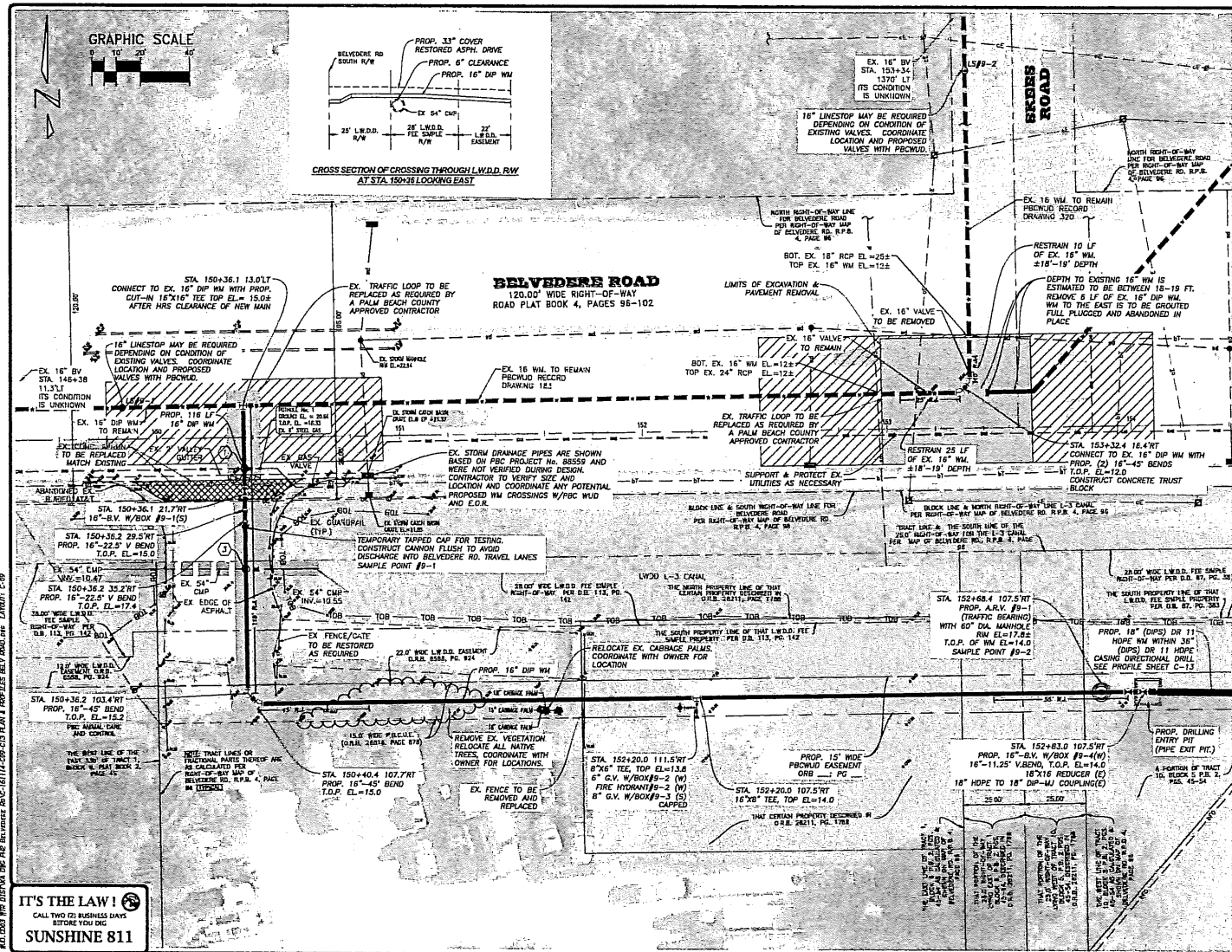


PALM BEACH COUNTY  
 WATER UTILITIES  
 DEPARTMENT

No.	Date	Description

SHEET No.  
 C-01

APPROVED BY: M. KESHAVARZ  
 P.E. 02403  
 AUG 15, 2017



**NOTES:**

1. ALL EXISTING UTILITY LOCATIONS AND DEPTHS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY NEW UTILITIES. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED ERECTION OF THE PIPE.
2. ALL UTILITIES UNDEGROUND SHALL BE PROTECTED DURING CONSTRUCTION. ALL NEW CROSSINGS SHALL BE INSTALLED OVER EXISTING UTILITIES WITH 6" MINIMUM VERTICAL CLEARANCE AND 2' MINIMUM HORIZONTAL CLEARANCE FROM ALL UTILITIES. MINIMUM 24" VERTICAL CLEARANCE TO CEILING OVER EXISTING SANITARY SEWER WITH A MINIMUM 24" VERTICAL CLEARANCE.
3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VEGETATION TYPING OF DETAILED SCOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
4. EXISTING STREET STORMAGE AND WATERSHEDS ARE TO BE REMOVED AND REPLACED IN-AND-OUT. WHERE DISBURSEMENT IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER MAIN AND SANITARY CONDUITS, "SOFT" DISTURBANCES MAY BE SPECIFICALLY CALLED OUT ON CONSTRUCTION PLANS. "HARD" DISTURBANCES TO BE IN ACCORDANCE WITH LATEST DCA AND PDOT STANDARDS.
5. CONTRACTOR TO DETERMINE LOCATION OF LIME STONE WITH PROPER AND PROPER LOCATIONS ARE TO BE ADJUSTED BASED ON PRACTICAL CONDITION OF EXISTING VALVES.
6. ALL PROPOSED WATER MAIN SHALL HAVE 30" MINIMUM COVER.
7. PIPE DEFLECTION AT THE JOINT SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION.
8. CONTRACTOR SHALL REPLACE DRIVEWAY OPEN WITH 18" x 18" TRUCK 3,000 PSI CONCRETE. EXPANSION JOINTS AND CONTROL JOINTS PER PALM BEACH COUNTY AND DOT STANDARDS.

**LEGEND EXISTING**

- WATER MAIN
- SANITARY SEWER
- BURIED CABLE
- FRONT OF WAY
- STORM DRAINAGE
- BURIED FFL
- OVERHEAD FFL
- BURIED AIR
- BURIED FIBER OPTIC
- IRRIGATION
- SANITARY CLEAN OUT
- ELECTRIC HAND POLE
- CONCRETE TRAFFIC SIGNAL
- TRAFFIC SIGNAL SPILL BOX
- BACK FLOW PREVENTER

**LEGEND PROPOSED**

- WATER MAIN
- SANITARY SEWER
- BURIED CABLE
- FRONT OF WAY
- STORM DRAINAGE
- BURIED FFL
- OVERHEAD FFL
- BURIED AIR
- BURIED FIBER OPTIC
- IRRIGATION
- SANITARY CLEAN OUT
- ELECTRIC HAND POLE
- CONCRETE TRAFFIC SIGNAL
- TRAFFIC SIGNAL SPILL BOX
- BACK FLOW PREVENTER

**LEGEND PROPOSED**

- WATER MAIN
- SANITARY SEWER
- BURIED CABLE
- FRONT OF WAY
- STORM DRAINAGE
- BURIED FFL
- OVERHEAD FFL
- BURIED AIR
- BURIED FIBER OPTIC
- IRRIGATION
- SANITARY CLEAN OUT
- ELECTRIC HAND POLE
- CONCRETE TRAFFIC SIGNAL
- TRAFFIC SIGNAL SPILL BOX
- BACK FLOW PREVENTER

**VERTICAL DATUM**  
ALL ELEVATIONS SHOWN ARE IN NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)  
CONVERSION FACTOR: NGVD29 - L50 = NAVD88

**KESHAVARZ & ASSOCIATES**  
Civil Engineers • Land Surveyors  
711 North Dixie Highway, Suite 201  
West Palm Beach, Florida 33410  
Tel: (561) 944-4444  
Fax: (561) 944-4444

**SEA PROJECT No. 16-1114**  
DESIGNED BY: A.T. GREEN, III  
DRAWN BY: A.T. GREEN, III  
CHECKED BY: R. WERTERMAN  
APPROVED BY: M. KESHAVARZ  
DATE: 12/11/17

**SHEET No. C-09**

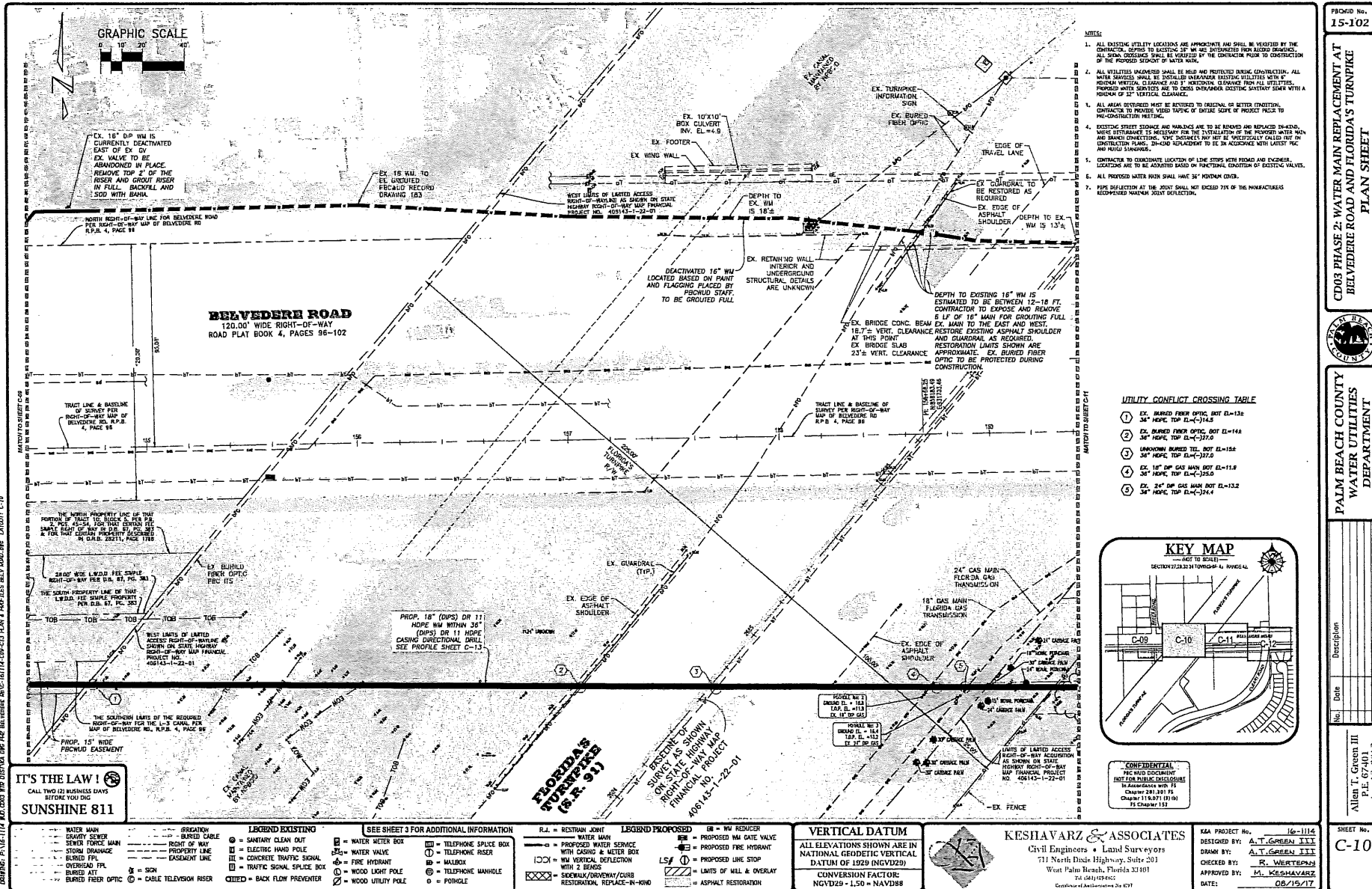
FIG. 15-102

**CROSS PHASE 2: WATER MAIN REPLACEMENT AT BELVEDERE ROAD AND FLORIDA'S TURNPIKE PLAN SHEET**

**PALM BEACH COUNTY WATER UTILITIES DEPARTMENT**

NO. DATE

Allen T. Green III  
P.E. 67401  
Dec 11, 2017



PROJECT No. 15-102

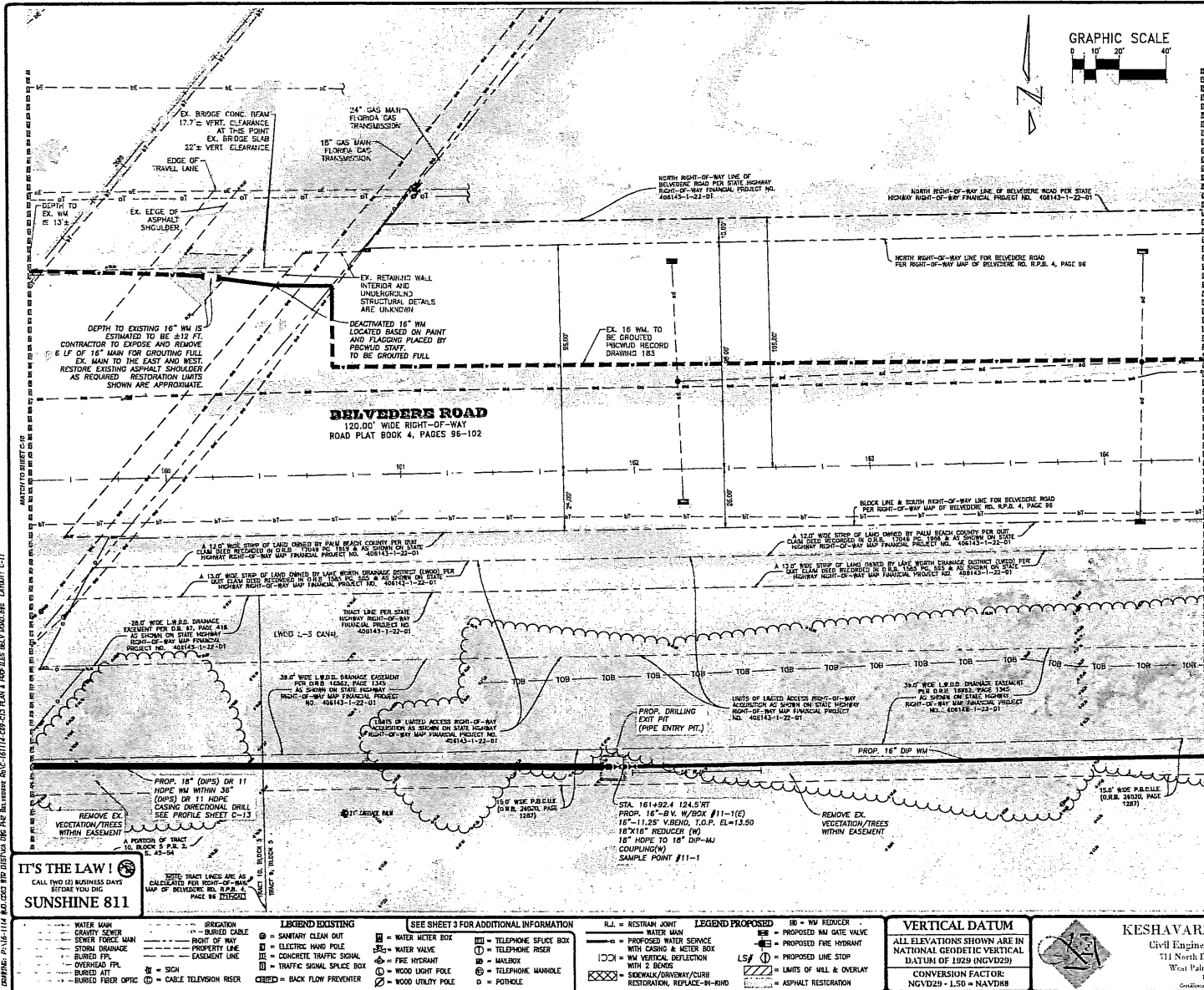
CD03 PHASE 2: WATER MAIN REPLACEMENT AT BELVEDERE ROAD AND FLORIDA'S TURNPIKE PLAN SHEET

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

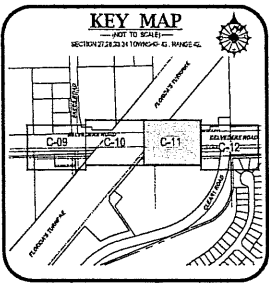
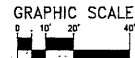
ALLIANT GREEN III  
P.E. 67401  
Aug 15, 2017

SHEET No. C-10

DATE: 08/15/17



- NOTES:
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. DEPT'S TO EXISTING 24" GAS MAIN ARE INTERFERED FROM RECORD DRAWINGS. ALL CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SIGHT OF WATER MAIN.
  2. ALL UTILITIES LOCATIONS SHALL BE REVEALED AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED IN EXISTING UTILITIES WITH 4" MINIMUM VERTICAL CLEARANCE AND 1" MINIMUM CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING SANITARY SEWERS WITH A MINIMUM OF 24" VERTICAL CLEARANCE.
  3. ALL AREA DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VIDEO TAPING OF ENTIRE SCOPE OF PROJECT PRIOR TO RE-CONSTRUCTION MEETING.
  4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED DURING, WHERE APPROPRIATE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER MAIN AND BRANCH STRUCTURES. AND DISTURBED ARE TO BE RESTORED TO ORIGINAL CONDITION. SIGNAGE IS TO BE REPLACED TO BE IN ACCORDANCE WITH LATEST P.C. AND MUTCD STANDARDS.
  5. CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS WITH PRODM AND ENGINEER. LOCATIONS ARE TO BE DETERMINED BASED ON FUNCTIONAL OPERATION OF EXISTING VALVES.
  6. ALL PROPOSED WATER MAIN SHALL HAVE 36" MINIMUM COVER.
  7. PIPE REPLETION AT THE JOINT SHALL NOT EXCEED 2% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION.



**IT'S THE LAW!**  
CALL (704) 633-3333  
BEFORE YOU DIG  
**SUNSHINE 811**

- WATER MAIN
- SANITARY SEWER
- SEWER FORCE MAIN
- STORM DRAINAGE
- BURIED FPL
- OVERHEAD FPL
- BURIED OPTIC
- BURIED FIBER OPTIC
- IRRIGATION
- BURIED CABLE
- RIGHT OF WAY
- PROPERTY LINE
- DASCENT LINE
- SIGN
- CABLE TELEVISION RISER
- SANITARY CLEAN OUT
- ELECTRIC WIRE POLE
- CONCRETE TRAFFIC SIGNAL
- TRAFFIC SIGNAL SPLICE BOX
- BACK FLOW PREVENTER
- WATER METER BOX
- TELEPHONE SPURCE BOX
- TELEPHONE RISER
- MAILBOX
- TELEPHONE MANDROLE
- POHOLE
- RESTRAIN JOINT
- WATER MAIN
- PROPOSED WATER SERVICE WITH CASING & METER BOX
- 18" VERTICAL DEFLECTION WITH 2 BENCH
- SIDEWALK/DRIVEWAY/CURB RESTORATION, REPLACE-OR-REPAIR
- 18" W/ REDUCER
- PROPOSED 16" GATE VALVE
- PROPOSED FIVE W/ MOUNT
- PROPOSED FIVE W/ MOUNT
- LIMITS OF MLL & OVERLAY
- ASPHALT RESTORATION

- LEGEND EXISTING**
- = SANITARY CLEAN OUT
  - = ELECTRIC WIRE POLE
  - = CONCRETE TRAFFIC SIGNAL
  - = TRAFFIC SIGNAL SPLICE BOX
  - ▭ = BACK FLOW PREVENTER
  - = WATER METER BOX
  - = TELEPHONE SPURCE BOX
  - = TELEPHONE RISER
  - = MAILBOX
  - = TELEPHONE MANDROLE
  - = POHOLE

SEE SHEET 3 FOR ADDITIONAL INFORMATION

- = TELEPHONE SPURCE BOX
- = TELEPHONE RISER
- = MAILBOX
- = TELEPHONE MANDROLE
- = POHOLE

- LEGEND PROPOSED**
- = RESTRAIN JOINT
  - = WATER MAIN
  - = PROPOSED WATER SERVICE WITH CASING & METER BOX
  - = 18" VERTICAL DEFLECTION WITH 2 BENCH
  - = SIDEWALK/DRIVEWAY/CURB RESTORATION, REPLACE-OR-REPAIR
  - = 18" W/ REDUCER
  - = PROPOSED 16" GATE VALVE
  - = PROPOSED FIVE W/ MOUNT
  - = PROPOSED FIVE W/ MOUNT
  - = LIMITS OF MLL & OVERLAY
  - = ASPHALT RESTORATION

**VERTICAL DATUM**  
ALL ELEVATIONS SHOWN ARE IN NATIONAL GEODETIC VERTICAL DATUM OF 1989 (NGVD29)  
CONVERSION FACTOR:  
NGVD29 - L50 = NAVD88

**KESHAVARZ & ASSOCIATES**  
Civil Engineers • Land Surveyors  
111 North Dixie Highway, Suite 201  
West Palm Beach, Florida 33401  
Tel: (407) 835-5555  
www.keshavarz.com

K&A PROJECT No.: 16-1114  
DESIGNED BY: A.T. GREEN III  
DRAWN BY: A.T. GREEN III  
CHECKED BY: R. WICKERTHOFER  
APPROVED BY: M. KESHAVARZ  
DATE: 08/15/17

PROJECT NO.: 15-102

CDD08 PHASE 2: WATER MAIN REPLACEMENT AT BELVEDERE ROAD AND FLORIDA'S TURNPIKE PLAN SHEET

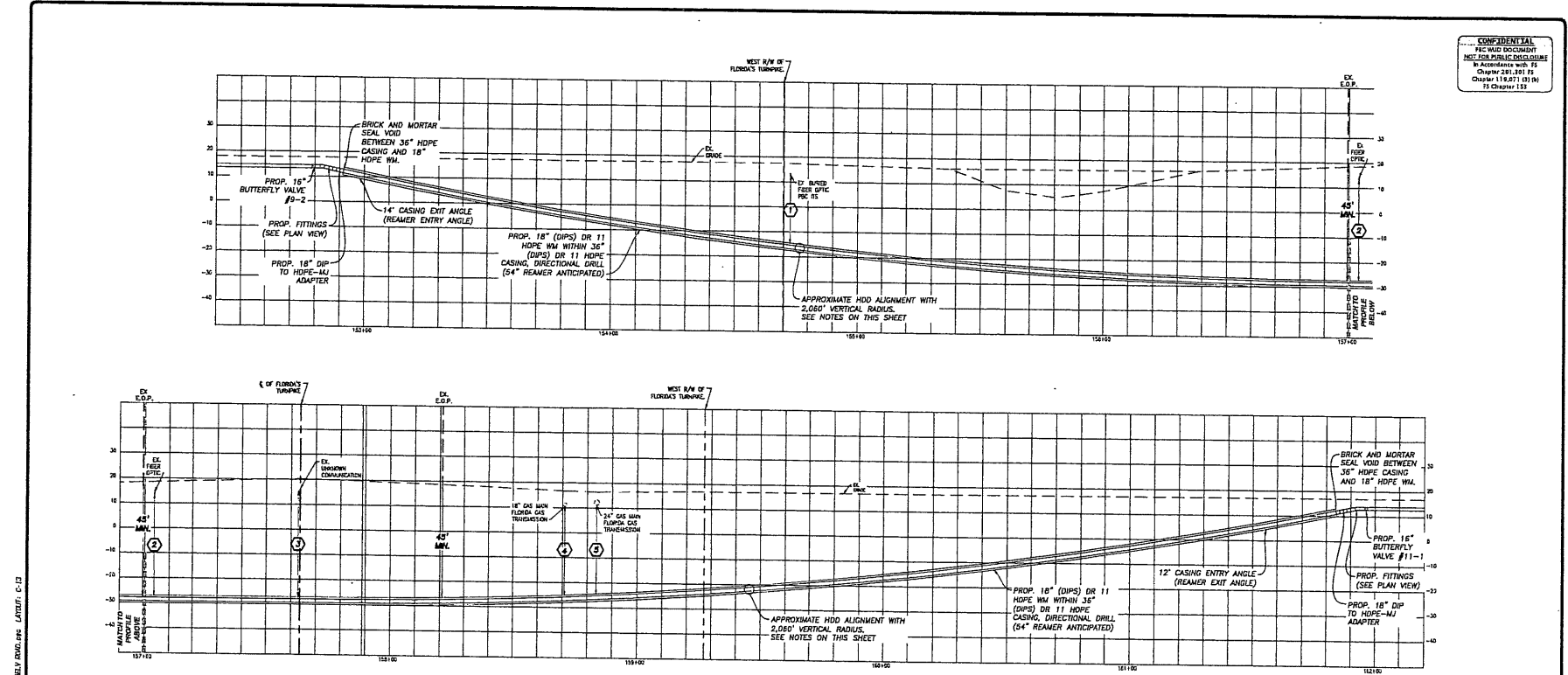
PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

No. \_\_\_\_\_ Description \_\_\_\_\_

No. \_\_\_\_\_ Date \_\_\_\_\_

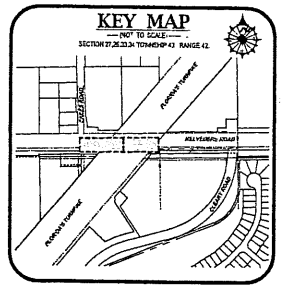
Allen T. Green III  
P.E. 07401  
Aug 15, 2017

SHEET No.: C-11



**18" WATER MAIN ( 36" CASING ) DIRECTIONAL BORE PROFILE**  
 HORIZONTAL SCALE: 1" = 20'  
 VERTICAL SCALE: 1" = 20'

- DIRECTIONAL DRILL RESPONSIBILITIES**
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING HIS ABILITY TO ACHIEVE THE PLANNED BORE ALIGNMENT AND SHALL SUBMIT A PILOT BORE PLAN PRIOR TO SCHEDULING THE PRECONSTRUCTION MEETING.
  2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INTERPRETING THE GEOTECHNICAL INFORMATION PROVIDED BY THE OWNER AND DETERMINING THE EQUIPMENT NEEDED AND THE REQUIRED DIMENSION RATIO FOR THE CASING AND THE WATER MAIN.
  3. THE CONTRACTOR SHALL PREPARE AND SUBMIT AN EMERGENCY RESPONSE PLAN THAT ADDRESSES BOTH GENERAL EMERGENCY SITUATIONS AND RESPONSE PROCEDURE IN CASE OF A BREAK-OUT PRIOR TO SCHEDULING THE PRECONSTRUCTION MEETING.
  4. CONTRACTOR SHALL DETERMINE STRENGTH OF MATERIAL SPECIFICATIONS BASED UPON THE PROVIDED GEOTECHNICAL REPORT AND SOIL BORINGS. CONTRACTOR SHALL DETERMINE THE EQUIPMENT AND MEANS AND METHODS FOR INSTALLATION OF THE HORIZONTAL DIRECTIONAL MATERIAL SPECIFICATION, SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER WITHIN THE STATE OF FLORIDA.
  5. REFER TO TECHNICAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



**IT'S THE LAW!**  
 CALL TWO (2) BUSINESS DAYS BEFORE YOU DIG  
**SUNSHINE 811**

<p>LEGEND EXISTING</p> <ul style="list-style-type: none"> <li>WATER MAIN</li> <li>GRAVITY SEWER</li> <li>SEWER FORCE MAIN</li> <li>STORM DRAINAGE</li> <li>BURIED FPL</li> <li>OVERHEAD FPL</li> <li>BURIED AT</li> <li>IRRIGATION</li> <li>BURIED CABLE</li> <li>RIGHT OF WAY</li> <li>PROPERTY LINE</li> <li>EASEMENT LINE</li> <li>CONCRETE TRAFFIC SIGNAL</li> <li>TRAFFIC SIGNAL SPLICE BOX</li> <li>BACK FLOW PREVENTER</li> <li>IRIGATION</li> <li>BURIED CABLE</li> <li>RIGHT OF WAY</li> <li>PROPERTY LINE</li> <li>EASEMENT LINE</li> <li>CONCRETE TRAFFIC SIGNAL</li> <li>TRAFFIC SIGNAL SPLICE BOX</li> <li>BACK FLOW PREVENTER</li> </ul>	<p>LEGEND PROPOSED</p> <ul style="list-style-type: none"> <li>WATER MAIN</li> <li>PROPOSED WATER SERVICE WITH CASING &amp; METER BOX</li> <li>WM VERTICAL DEFLECTION WITH 2 BORDS</li> <li>SEWER/DRIVEWAY/CURB RESTORATION, REPLACE-W-KIND</li> <li>RESTRAIN JOINT</li> <li>WATER METER BOX</li> <li>TELEPHONE SPUR BOX</li> <li>TELEPHONE RISER</li> <li>WALKBOX</li> <li>TELEPHONE MANHOLE</li> <li>POTHOLE</li> <li>WM REINFOR</li> <li>PROPOSED WM GATE VALVE</li> <li>PROPOSED FIRE HYDRANT</li> <li>PROPOSED LINE STOP</li> <li>LIMITS OF MLL &amp; OVERLAY</li> <li>ASPHALT RESTORATION</li> </ul>	<p>VERTICAL DATUM</p> <p>ALL ELEVATIONS SHOWN ARE IN NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)</p> <p>CONVERSION FACTOR:          NGVD29 - 1.50 = NAVD88</p>	<p><b>KESHAVARZ &amp; ASSOCIATES</b>          Civil Engineers &amp; Land Surveyors          711 North Dixie Highway, Suite 201          West Palm Beach, Florida 33401          Tel: 561-845-4245          Fax: 561-845-4246</p>	<p>XEA PROJECT No. 16-1114          DESIGNED BY: A.T. GREEN III          DRAWN BY: A.T. GREEN III          CHECKED BY: R. WERTHEIM          APPROVED BY: M. KESHAVARZ          DATE: 08/15/17</p>
--	---	--	--	---

FORM NO. 15-102

CONFIDENTIAL  
 NOT FOR PUBLIC DISCLOSURE  
 In accordance with: FS Chapter 281.201 F.S. Chapter 118.271 (3) (b) FS Chapter 1.55

CD03 PHASE 2: WATER MAIN REPAIR/CEMENT AT BELVEDERE ROAD AND FLORIDA'S TURNPIKE DIRECTIONAL BORE PROFILE

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

Allen T. Green III  
 P.E. 072401  
 Aug 15, 2017

DESCRIPTION: \_\_\_\_\_  
 No. \_\_\_\_\_  
 Date \_\_\_\_\_

SHEET No. C-13

Attachment 2: Location Map

