

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: April 6, 2021 Consent [X] Regular []
Public Hearing []

Department: Water Utilities Department

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: a Consent to Easement Agreement (Easement) between United States of America, Department of the Army (USADA) and Palm Beach County (County) on property located across the Herbert Hoover Dike (HHD) in Pahokee.

Summary: The proposed Easement (Consent No. DACW17-9-20-0073) to use the United States Army Corps of Engineers (USACE) right-of-way is required over the HHD where Palm Beach County Water Utilities Department (PBCWUD) is proposing to install water and sewer improvements. The Easement will provide PBCWUD staff access to the HHD to construct, use, maintain, control, operate and repair these improvements in Pahokee. USACE has requested to replace the existing Easement (Consent No. DACW17-9-13-0100) to cover all work necessary to make the connections of the new water and sewer mains that require approval by the Board of County Commissioners. The terms of the Easement will be indefinite unless there are any changes with the water or sewer mains. PBCWUD recommends approval of the Easement. (PBCWUD Project No.18-056) District 6 (MJ)

Background and Justification: On April 1, 2014, the County entered into an Easement with the USACE (R2014-0458) to relocate or grout in place the existing water main along the HHD. In order to maintain the same level of service in Pahokee, a new 8-inch water main and a 4-inch force main will be installed crossing the HHD to provide service to the waterside area of the HHD.

Attachments:

- 1. Two (2) Original Consent to Easement Agreements
- 2. Location Map

Recommended By: _____

Jim Stiles
Department Director

2-19-21
Date

Approved By: _____

[Signature]
Assistant County Administrator
Deputy

3/10/21
Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2021	2022	2023	2024	2025
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:

Lupe Mante 3/3/21
 OFMB 3/2/21

Araceli J. Jaramila 3/5/21
 Contract Development and Control
 3-4-21 TW

B. Legal Sufficiency:

[Signature] 3/9/21
 Assistant County Attorney

C. Other Department Review:

 Department Director

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

**DEPARTMENT OF THE ARMY
CONSENT TO EASEMENT
TO USE CORPS OF ENGINEERS RIGHT-OF-WAY**

Consent No. DACW17-9-20-0073
Project: Intracoastal Waterway-
Tributary Channel, Okeechobee Waterway
Palm Beach County, Florida
Tract No. 731

THIS CONSENT TO EASEMENT AGREEMENT, made by and between the **UNITED STATES OF AMERICA, DEPARTMENT OF THE ARMY**, hereinafter referred to as the "Government", acting by and through the Real Estate Contracting Officer, Chief, Real Estate Division, hereinafter referred to as "said officer," and **PALM BEACH COUNTY**, hereinafter referred to as the "Grantee":

WHEREAS, the Government has acquired right-of-way easements over the above-numbered tract of land, which easements, by the terms, reserve to the Government, in perpetuity, the right to use said easements for the construction, improvement, and maintenance of the Herbert Hoover Dike which is part of the authorized Intracoastal Waterway-Tributary Channel, Okeechobee Waterway, Palm Beach County, Florida; and

WHEREAS, the Grantee has requested to construct, use, maintain, control, operate, and repair the Pahokee water and sewer main improvements in, on, across, over, and under a portion of the Herbert Hoover Dike lands identified as Tract No. 731, Sections 13 and 18, Township 42 South, Ranges 36 and 37 East, Palm Beach County, Florida. The general location and project plans of which are shown on Exhibits "A" and "B", attached hereto and made a part hereof; and

WHEREAS, the Government has approved the project modifications authorizing the Grantee's construction of the specified improvements, including the requirement that the Grantee obtain a Consent to Easement Agreement from the Government.

NOW THEREFORE, this Consent to Easement is granted and accepted under the following conditions:

1. That construction shall be in accordance with the drawings attached hereto and made a part hereof as Exhibit "B".
2. That it is understood that this consent is effective only insofar as the property rights of the Government in the land to be occupied are concerned, and that it does not relieve the Grantee from the necessity of obtaining grants from the owners of the fee and/or other interests, therein, nor does it obviate the requirement that the Grantee obtain State or local assent required by law for the activity authorized herein.

3. That any proposed improvements or use authorized herein shall not be commenced until appropriate rights shall have been obtained by the Grantee from the record owners and encumbrancers of the fee title to the lands involved, or until the Grantee has obtained all Federal, State, or local permits required by law.

4. That the proposed improvements or use authorized herein shall be consistent with the terms and conditions of this consent; and that any improvements or use not specifically identified and authorized shall constitute a violation of the terms and conditions of this consent which may result in a revocation of this consent and in the institution of such legal proceedings as the Government may consider appropriate, whether or not this consent have been revoked or modified.

5. That the exercise of the privileges hereby consented to shall be without cost or expense to the Government and under the supervision of and subject to the approval of the said officer having immediate jurisdiction over the property and subject to such regulations as he may from time to time prescribe, including, but not limited to, the specific conditions, requirements, and specifications set forth in paragraph 1.

6. That the Grantee shall supervise and maintain the said improvements and cause it to be inspected at reasonable intervals, and shall immediately repair any damage found therein as a result of such inspection, or when requested by said officer to repair any defects. Upon completion of the installation of said improvements or the making of any repairs thereto, the premises shall be restored immediately by the Grantee, at the Grantee's own expense, to the same condition as that in which they existed prior to the commencement of such work, to the satisfaction of said officer.

7. That any property of the Government damaged or destroyed by the Grantee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Grantee to the satisfaction of the said officer, or in lieu of such repair or replacement, the Grantee shall, if so required by said officer and at his option, pay to the Government an amount sufficient to compensate for the loss sustained by the Government by reason of damage to or destruction of Government property.

8. That the Government shall not be responsible for damages to the property or injuries to persons which may arise from or be incident to the exercise of the privileges herein granted, or for damages to the property of the Grantee, or for damages to the property or injuries to the person of the Grantee, or the persons of Grantee's officers, agents, servants, or employees, or others who may be on said premises at the invitation of the Grantee or the invitation of one of them, arising from Governmental activities on or in the vicinity of the said premises, and the Grantee shall hold the Government harmless from any and all claims, to the extent allowed by law.

9. That the Government shall in no case be liable for any damage, either hidden or known, to any improvements herein authorized which may be caused by any action of the Government, under the rights obtained in its easements, or that may result from the future operations undertaken by the Government, and no claim or right to compensation shall accrue from such damage, and if further operations of the Government require the alteration or removal of any improvements herein authorized, the Grantee shall, upon due notice, from said officer, alter or remove said improvements without expense to the Government and subject to the supervision and approval of the said officer and no claim for damages shall be made against the Government on account of such alterations or removal.

10. That construction and/or operation, maintenance, and use of any improvements incident to the exercise of the privileges herein granted shall be in such a manner as not to conflict with the rights of the Government, nor to interfere with the operations by the Government under such rights nor to endanger lives and safety of the public.

11. That this consent may be terminated by the Government or said officer upon reasonable notice to the Grantee if the Government or said officer shall determine that any improvements or use to which consent is herein granted interferes with the use of said land or any part thereof by the Government, and this consent may be annulled and forfeited by the declaration of the Government or said officer for failure to comply with any or all of the provisions and conditions of this consent, or for nonuse for a period of two (2) years, or for abandonment.

12. That upon relinquishment, termination, revocation, forfeiture, or annulment of this consent, the Grantee shall vacate the premises, remove all property of the Grantee therefrom, and restore the premises to a condition satisfactory to the said officer. If the Grantee shall fail or neglect to remove the said property and so restore the premises, then at the option of the Government or said officer, the said property shall either become the property of the Government without compensation therefor, or the Government or said officer, may cause it to be removed, and the premises to be so restored at the expense of the Grantee, and no claim for damages against the Government, or its officer or agents, shall be created by or made on account of such removal and restoration.

13. That the Grantee within the limits of its respective legal powers shall comply with all Federal, interstate, State, and/or local governmental regulations, conditions, or instructions for the protection of the environment and all other matters as they relate to real property interests granted herein.

14. That the Grantee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archeological, architectural, or other cultural artifacts, relics, vestiges, remains, or objects of antiquity. In the event such items are discovered on the premises, the Grantee shall immediately notify the District Engineer, Jacksonville

District, Post Office Box 4970, Jacksonville, Florida 32232-0019, and the site and the material shall be protected by the Grantee from further disturbance until a professional examination of them can be made or until a clearance to proceed is authorized by the District Engineer.

15. That prior to construction, the Grantee must coordinate work with the District's Construction and Operations personnel and its contractor. The Grantee must ensure that a District representative be present and on-site to observe the installation and verify the connections before placement of backfill material. That the Grantee is required to provide "As-Builts" once the improvements have been made to include all pertinent features, elevations, and locations including, but not limited to pipe size, pipe type, elevation and cover information, valve location, mechanical constraints, bedding material, excavation limits, trench widths, etc. That no additional permanent facilities shall be constructed waterward of the Government's right-of-way and any facilities currently within the right-of-way must be removed by the Grantee, at the Grantee's expense, if future needs of the Government so require. However, the Grantee may be required to make future modifications, as needed, to the utility crossing to ensure the safety of the embankment dam.

16. That this consent may not be transferred to a third party without the prior written notice to the Chief, Real Estate Division, U.S. Army Corps of Engineers, Jacksonville District, Post Office Box 4970, Jacksonville, Florida 32232-0019, and by the transferee's written agreement to comply with and be bound by all the terms and conditions of this consent. In addition, if the Grantee transfers the improvements authorized herein by conveyance of realty, the deed shall reference this consent and the terms and conditions herein and the consent shall be recorded along with the deed in the Registrar of Deeds or with other appropriate official.

This consent is not subject to Title 10, United States Code, Section 2662.

IN WITNESS WHEREOF, I have hereunto set my hand, by authority of the Secretary of the Army, this _____ day of _____ 20__.

UNITED STATES OF AMERICA

BY: _____
TIMOTHY H. MCQUILLEN
Real Estate Contracting Officer
Chief, Real Estate Division

AGREED TO AND ACCEPTED

**PALM BEACH COUNTY, FLORIDA
BY ITS BOARD OF COUNTY COMMISSIONERS**

**ATTEST:
Joseph Abruzzo,
Clerk of the Circuit Court
& Comptroller,
Palm Beach County**

By: _____
Deputy Clerk

By: _____
Dave Kerner, Mayor

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

APPROVED AS TO TERMS AND
CONDITIONS

By: _____
County Attorney

HW By: Jim Stiles
Director of Water Utilities

CERTIFICATE OF AUTHORITY

I, _____, certify that I am the _____ of the Board of County Commissioners, Palm Beach County, Florida; that _____ who signed the foregoing instrument on behalf of the Grantee was then _____ of Palm Beach County Board of County Commissioners. I further certify that the said officer was acting within the scope of powers delegated to this officer by the governing body of the Grantee in executing said instrument.

(Signature)

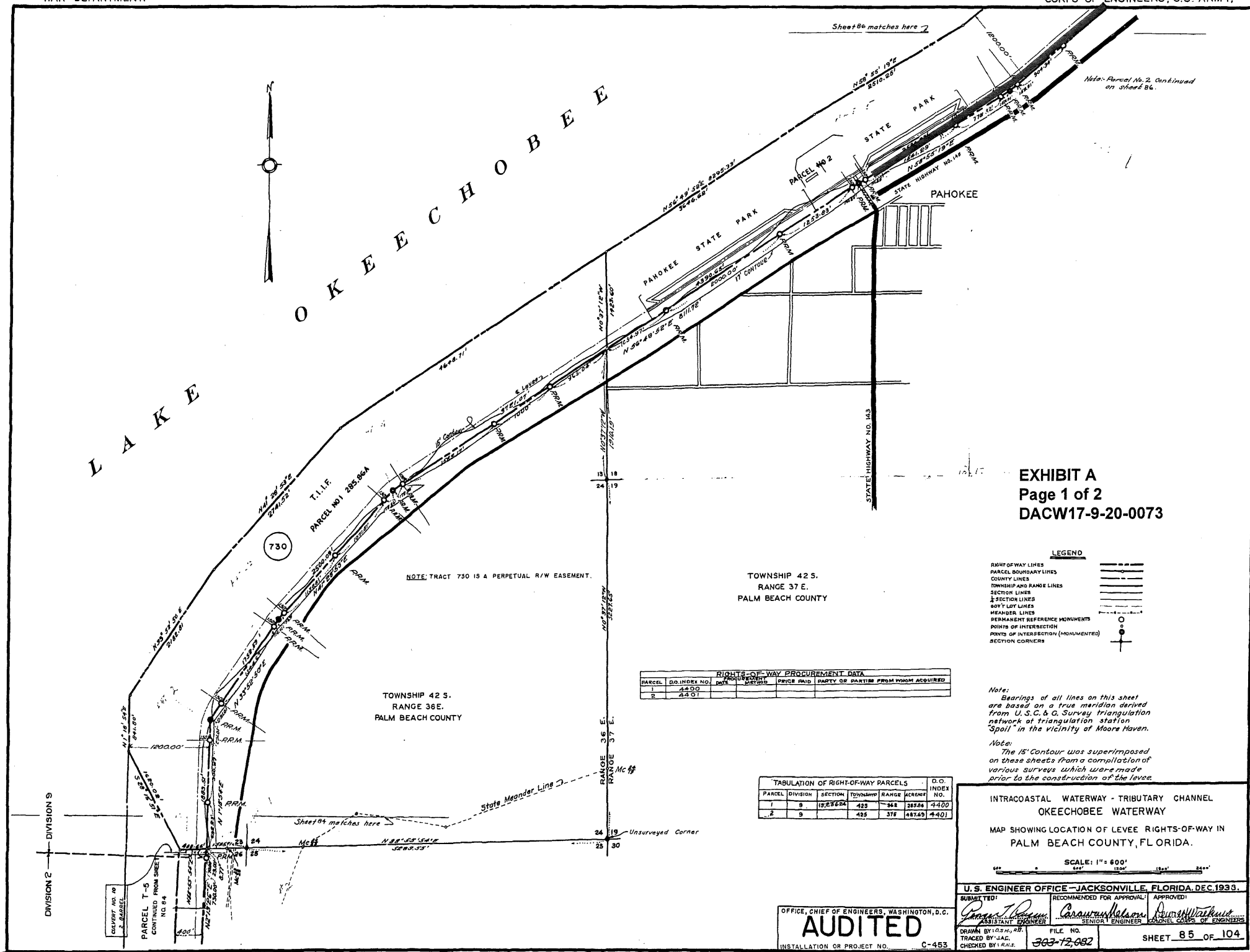


EXHIBIT A
Page 1 of 2
DACW17-9-20-0073

LEGEND

- RIGHT OF WAY LINES
- PARCEL BOUNDARY LINES
- COUNTY LINES
- TOWNSHIP AND RANGE LINES
- SECTION LINES
- 1/2 SECTION LINES
- GOV'T LOT LINES
- MEANDER LINES
- PERMANENT REFERENCE MONUMENTS
- POINTS OF INTERSECTION
- POINTS OF INTERSECTION (MONUMENTED)
- SECTION CORNERS

RIGHTS-OF-WAY PROCUREMENT DATA

PARCEL	D.O. INDEX NO.	ACREAGE	REVENUE	PRICE PAID	PARTY OR PARTIES FROM WHOM ACQUIRED
1	4400				
2	4401				

TABULATION OF RIGHT-OF-WAY PARCELS

PARCEL DIVISION	SECTION	TOWNSHIP	RANGE	ACREAGE	D.O. INDEX NO.
1	9	42S	36E	285.86	4400
2	9	42S	37E	487.69	4401

Note: Bearings of all lines on this sheet are based on a true meridian derived from U.S.C. & G. Survey triangulation network of triangulation station "Spill" in the vicinity of Moore Haven.

Note: The 15' Contour was superimposed on these sheets from a compilation of various surveys which were made prior to the construction of the levee.

INTRACOASTAL WATERWAY - TRIBUTARY CHANNEL
 OKEECHOBEE WATERWAY
 MAP SHOWING LOCATION OF LEVEE RIGHTS-OF-WAY IN
 PALM BEACH COUNTY, FLORIDA.

SCALE: 1" = 600'

U.S. ENGINEER OFFICE - JACKSONVILLE, FLORIDA, DEC. 1933.

SUBMITTED: [Signature] RECOMMENDED FOR APPROVAL: [Signature] APPROVED: [Signature]

ASSISTANT ENGINEER SENIOR ENGINEER CAPTAIN CORPS OF ENGINEERS

DRAWN BY: [Signature] FILE NO. 303-72-082
 TRACED BY: [Signature] CHECKED BY: [Signature]

INSTALLATION OR PROJECT NO. C-453 SHEET 85 OF 104

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED
 INSTALLATION OR PROJECT NO. C-453

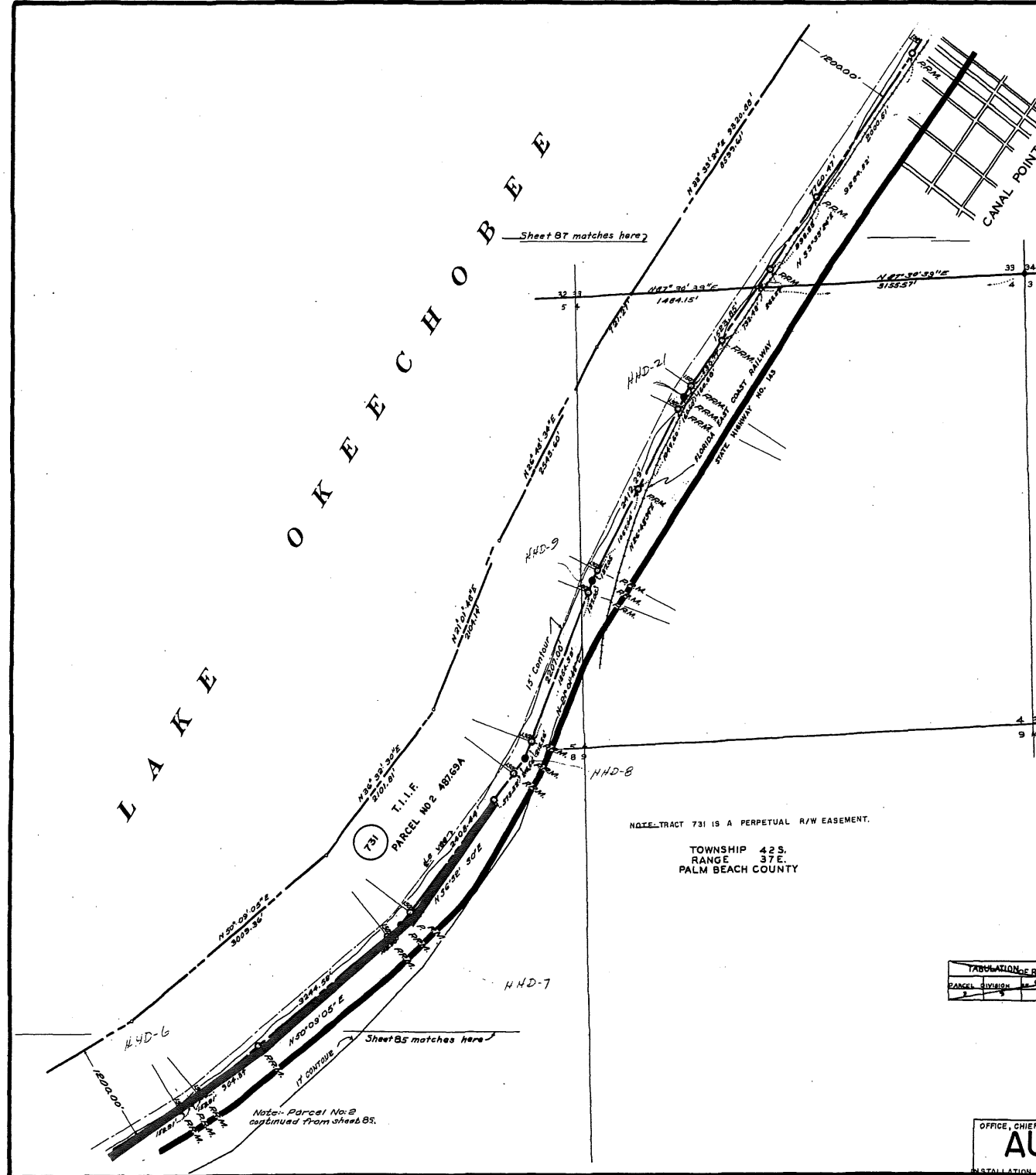


EXHIBIT A
Page 2 of 2
DACW17-9-20-0073

RIGHTS-OF-WAY ACQUISITION DATA				
PARCEL NO.	INDEX NO.	ACQUISITION METHOD	PRICE PAID	PARTY OR PARTIES FROM WHOM ACQUIRED
2	4401			

LEGEND

RIGHT OF WAY LINES	———
PARCEL BOUNDARY LINES	———
COUNTY LINES	———
TOWNSHIP AND RANGE LINES	———
SECTION LINES	———
SECTION CORNERS	+
PERMANENT REFERENCE MONUMENTS	○
POINTS OF INTERSECTION (MONUMENTED)	○
POINTS OF INTERSECTION (NON-MONUMENTED)	○
SECTION CORNERS	+

NOTE: TRACT 731 IS A PERPETUAL R/W EASEMENT.
 TOWNSHIP 42 S.
 RANGE 37 E.
 PALM BEACH COUNTY

Note:
 Bearings of all lines on this sheet are based on a true meridian derived from U.S. C. & G. Survey triangulation network at triangulation station 'Spill' in the vicinity of Moore Haven.
 Note: The 15' Contour was superimposed on these sheets from a compilation of various surveys which were made prior to the construction of the levee.

TABULATION OF RIGHT-OF-WAY PARCELS				
PARCEL DIVISION	SECTION	TOWNSHIP	RANGE	ACRIMAN NO.
2	9	42 S.	37 E.	28798-4401

INTRACOASTAL WATERWAY - TRIBUTARY CHANNEL
 OKEECHOBEE WATERWAY
 MAP SHOWING LOCATION OF LEVEE RIGHTS-OF-WAY IN
 PALM BEACH COUNTY, FLORIDA.
 SCALE: 1" = 600'

OFFICE, CHIEF OF ENGINEERS, WASHINGTON, D.C.
AUDITED

U.S. ENGINEER OFFICE - JACKSONVILLE, FLORIDA DEC 1935
 SUBMITTED: [Signature] RECOMMENDED FOR APPROVAL: [Signature] APPROVED: [Signature]
 DRAWN BY: J.A.C. FILE NO. 800-72-007
 CHECKED BY: A.M.S. SHEET 86 OF 104
 INSTALLATION OR PROJECT NO. C-483
 735-17-18-008



Description	No.	Date

Randy Wertepny
P.E. 72504
Oct 14, 2019

SHEET No.
C-01

**COUNTY of PALM BEACH
STATE of FLORIDA
PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE**

WUD PROJECT No. 18-056

VERDENIA C. BAKER
COUNTY ADMINISTRATOR

BOARD OF COUNTY COMMISSIONERS

HAL R. VALECHE
District 1

GREGG K. WEISS
District 2

VICE MAYOR
DAVE KERNER
District 3

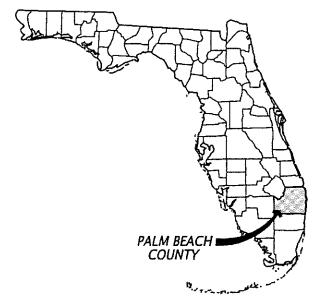


MAYOR
MACK BERNARD
District 7

ROBERT S. WEINROTH
District 4

MARY LOU BERGER
District 5

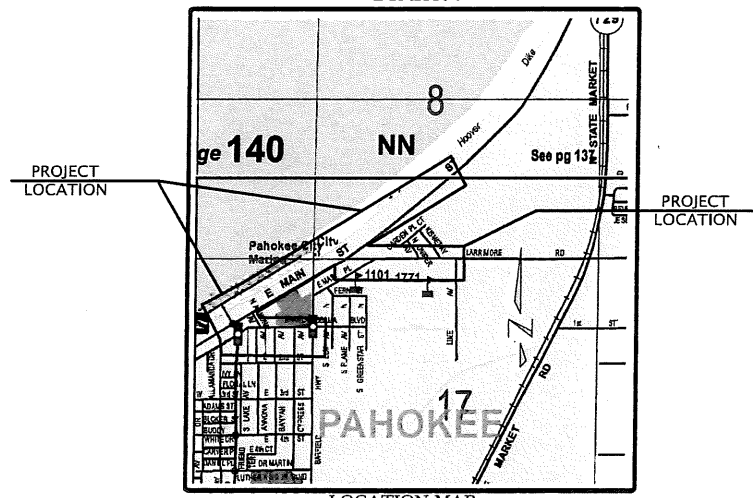
MELISSA MCKINLAY
District 6



INDEX OF PLANS

SHEET NUMBER	SHEET TITLE
WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE	
OVERALL PROJECT GENERAL INFORMATION	
C-01	COVER
C-02	OVERALL PROJECT AREA KEY MAP
C-03	LEGEND & SURVEYORS NOTES
C-04	GENERAL NOTES
C-05	GENERAL DETAILS
C-06 - C-09	WUD STANDARD DETAILS
C-10 - C-17	PLAN SHEETS
C-18 - C-22	PLAN SHEETS
C-23	AERIAL CROSSING PROFILE
C-24 - C-25	HORIZONTAL CONTROL PLAN
C-26 - C-30	WUD WASTEWATER DETAILS

C-01 DATE: OCT 14, 2019 TIME: 11:01AM DRN: WERTEPNY
 DRAWING: P. 07-1164 PROJECT: WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE (C-01) CDR: WUD LAYOUT: C-01



LOCATION MAP
SECTION 17, 18, TOWNSHIP 42, RANGE 37.

PERMIT SET

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.

GOVERNING STANDARDS AND SPECIFICATIONS:

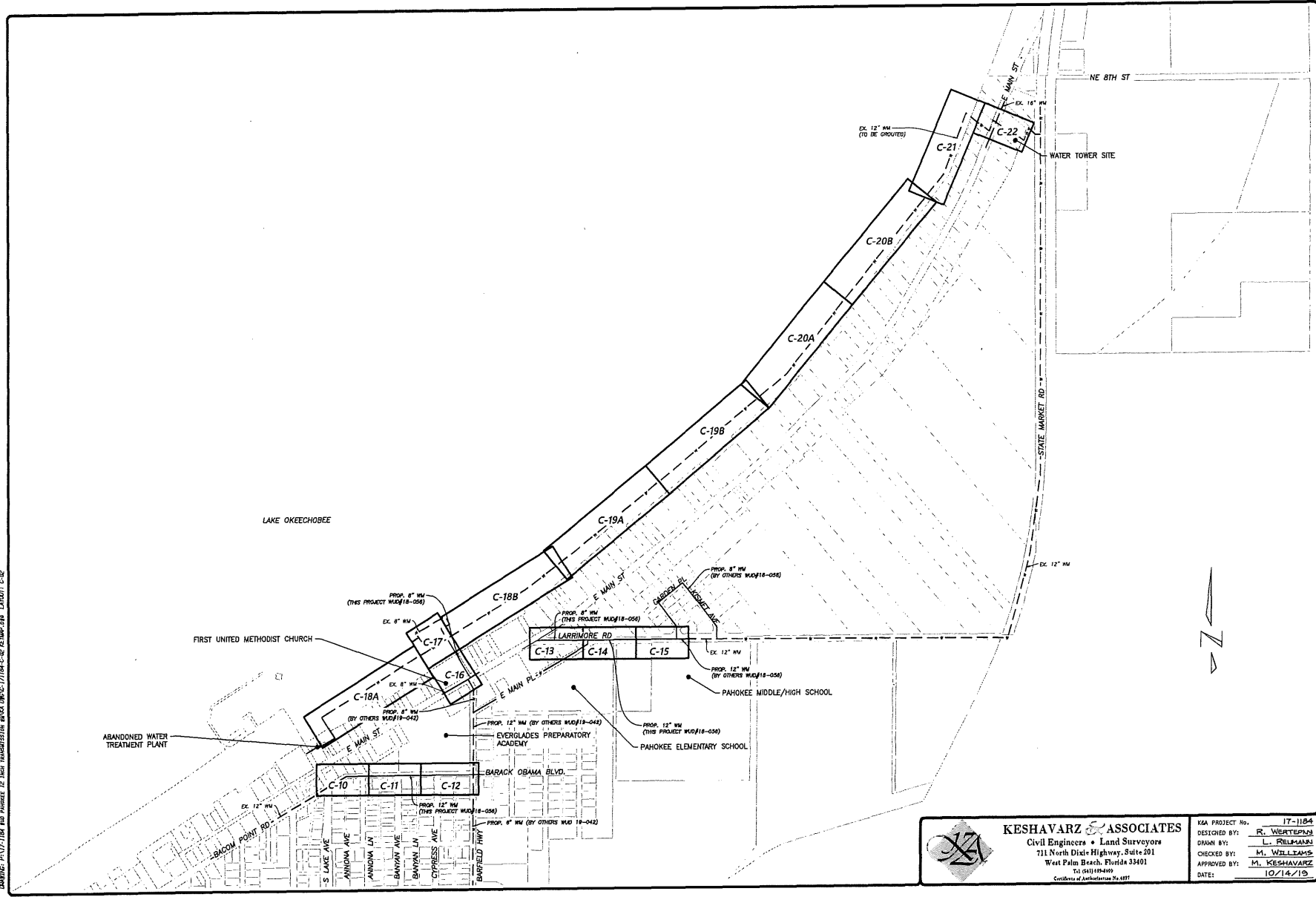
THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT'S "MINIMUM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER, RECLAIMED WATER AND WASTEWATER SYSTEMS" EFFECTIVE THE DATE OF PLAN APPROVAL BY PALM BEACH COUNTY WATER UTILITIES DEPARTMENT AND SPECIAL PROVISIONS THERETO IF NOTED IN THE CONTRACT SPECIFICATIONS FOR THIS PROJECT.



KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
111 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Tel: (407) 894-4400
Certificate of Authorization No. 4897

K&A PROJECT No. 17-1164
DESIGNED BY: R. WERTEPNY
DRAWN BY: L. RELMANN
CHECKED BY: M. WILLIAMS
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

PLOD DATE: OCT 14, 2019 TIME: 11:07AM BY: HANSHYU
 DRAWING: P17-1184-04 FOR PHOKEE 12 INCH TRANSPARENT WAX 09/18/18-C-02 KEMP-PH LAYOUT: C-02





KESHAVARZ & ASSOCIATES
 Civil Engineers • Land Surveyors
 711 North Dixie Highway, Suite 201
 West Palm Beach, Florida 33401
 Tel: (561) 896-4400
Continents of Architecture, Inc. 6387

K&A PROJECT No: 17-1184
 DESIGNED BY: R. WERTZMAN
 DRAWN BY: L. REILLY
 CHECKED BY: M. WILLIAMS
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19

RECORD No.
18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE
PROJECT AREA KEY MAP



PALM BEACH COUNTY
WATER UTILITIES
DEPARTMENT

No.	Description

Revised: Westcopy
 P.E. 75504
 OCT 14, 2019

SHEET No.
C-02



Date	Description

Prepared by: Randy Wertzney
 P.E. 75204
 Oct 14, 2019

SHEET No. C-03

SURVEYOR'S NOTES:

- THIS IS A TOPOGRAPHIC SURVEY AS DEFINED IN CHAPTER 54-12.050 FLORIDA ADMINISTRATIVE CODE. THIS SURVEY IS BASED ON HIGHWAY BEACH, PLAT BOOK 7, PAGE 11, SUBDIVISION OF SECTION 6, TOWNSHIP 42 SOUTH, RANGE 37 EAST, PLAT BOOK 7, PAGE 29, TRUSTEES INTERNAL IMPROVEMENT FUND ON THE STATE OF FLORIDA SUPPLEMENTAL PLAT OF FINC. SEC. 18, THP. 42 S, RG. 37 E, PLAT BOOK 14, PAGE 60, LANDS SUBDIVISION, PLAT BOOK 15, PAGE 56, REPLAT OF SUBDIVISION OF TRACTS NO. 8 AND NO. 7 SEC. 18, T. 42 S., R. 37 E. AN ADDITION TO THE TOWN OF PAHOKEE, FLA., PLAT BOOK 16, PAGE 31, PALMWAY RIDGE, PLAT BOOK 16, PAGE 31, OKEDANTA PLANTATION COMPANY'S SUBDIVISION, PLAT BOOK 16, PAGE 34, REPLAT OF PAHOKEE GARDEN TRACTS, PLAT BOOK 16, PAGE 91, OKEDANTA PLANTATION COMPANY'S PLAT NO. 2, PLAT BOOK 16, PAGE 93, RIDGE CREST GARDENS, PLAT BOOK 24, PAGE 130 ALL OF PUBLIC RECORDS, PALM BEACH COUNTY, FLORIDA. THIS SURVEY WAS ADDITIONALLY BASED ON FLORIDA DEPARTMENT OF TRANSPORTATION MAINTENANCE MAP, SECTION 83130-WAINT IN 28 SHEETS, DATED FEBRUARY 6, 1993 WITH HORIZONTAL RIGHT-OF-WAY FOR PROJECT LIMITS BEING DEPICTED ON SHEETS 19 OF 28 THROUGH 23 OF 28. THE PLATS WERE CALCULATED BASED ON ASSUMED BEARINGS AND ANGLES AS SHOWN ON SAID PLATS AND THEN ROTATED INTO STATE PLANE COORDINATES BASED ON GPS OBSERVED CONTROL POINTS REPRESENTING CENTERLINE INTERSECTIONS AND / OR PROPERTY CORNERS AS PROCEDURALLY DESCRIBED IN NOTE 3 BELOW.
 - ALL COORDINATES AND ELEVATIONS SHOWN HEREON ARE REFERENCED TO STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, TRANSVERSE MERCATOR PROJECTION, NORTH AMERICAN DATUM OF 1983 (NAD 83/90). STATE PLANE COORDINATE VALUES SHOWN HEREON ARE BASED ON OBSERVATIONS PERFORMED USING OUR TOPCON HIGH-PRECISION GPS UNIT IN CONJUNCTION WITH THE LEICA/MANN OF FLORIDA STATEWIDE NETWORK. CONTROL POINTS WERE ESTABLISHED WITH THE AFOREMENTIONED GPS UNIT. EACH CONTROL POINT WAS OCCUPIED A MINIMUM OF TWO TIMES AND THE AVERAGE HORIZONTAL VALUE (NORTHING & EASTING) WAS CALCULATED AND HELD AS PRIMARY CONTROL POINTS AND PUBLISHED HEREON. THE ABOVE REFERENCED PLATTED ROADWAY CENTERLINE RIGHTS-OF-WAY, RIGHT-OF-WAY LINES, PROPERTY LINES AND EASEMENT LINES WERE CALCULATED ON THE BEARING AND/OR ANGLES AS SHOWN ON THE SAID PLAT AND THEN BEST FIT AND ROTATED INTO GRID POSITION BASED ON CENTERLINE MONUMENTS AT CENTERLINE INTERSECTIONS, POINTS OF CURVATURE AND POINTS OF TANGENCY, PROPERTY CORNERS AND / OR PLAT CORNERS AS FIELD LOCATED WITHIN THE ABOVE REFERENCED PLATS.
 - ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON AN UNPUBLISHED PALM BEACH COUNTY BENCHMARK TITLED "PONKA". THE BENCHMARK HAS AN ELEVATION OF 19.382 NAVD88, AS PROVIDED BY PALM BEACH COUNTY SURVEY DEPARTMENT IN CONJUNCTION WITH PALM BEACH COUNTY ENGINEERING DEPARTMENT. THE BENCHMARK IS LOCATED AT THE SOUTHWEST CORNER OF EAST MAIN STREET, 0.2 MILES EAST OF THE INTERSECTION OF BACON POINT ROAD (STATE ROAD 715) AND EAST MAIN STREET (STATE ROAD 15, U.S. 441) IN THE CITY OF PAHOKEE. THE STATION IS A PALM BEACH COUNTY BRASS DISK STAMPED "PONKA", SET IN THE SOUTHWEST CORNER OF THE NORTHWEST EDGE OF CURB ON EAST MAIN STREET, 12.4 FEET NORTHWEST OF A WOODEN POWER WITH A WITNESS SIGN ATTACHED, 27.7 FEET SOUTH-SOUTHWEST OF A WOODEN POWER POLE WITH A STREET LIGHT, 65.0 FEET NORTHEAST OF THE NORTHEAST CORNER OF THE FACE OF BUILDING AT 331 EAST MAIN STREET AND 3.8 FEET NORTHEAST OF THE SOUTHEAST CORNER OF THE PROPERTY BETWEEN 331 AND 337 EAST MAIN STREET.
- CONVERSION FACTOR FOR PALM BEACH COUNTY BENCHMARK TITLED "PONKA"**
- "PONKA": 19.382 (NAVD88) + 1.237 = 20.619 (NOV029)
 NAVD88 + 1.237 = NOV029
- FOUNDATIONS, FOOTERS AND OTHER UNDERGROUND FACILITIES THAT MAY EXIST HAVE NOT BEEN LOCATED UNLESS OTHERWISE SHOWN.
 - EASEMENTS AND / OR RESTRICTIONS SHOWN HEREON THIS SURVEY ARE BASED SOLELY ON THE PLATS AS REFERENCED IN NOTE 2 ABOVE. THERE MAY BE ADDITIONAL EASEMENTS THAT AFFECT THE SURVEYED LANDS CONTAINED WITHIN THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA. NO SEARCH OF THE PUBLIC RECORDS BY KESHAVARZ & ASSOCIATES, INC.
 - THE EXPECTED USE OF THE SUBJECT PROPERTY FALLS WITHIN THE SUBURBAN CATEGORY AS CLASSIFIED IN CHAPTER 54-12.051 FLORIDA ADMINISTRATIVE CODE. ALL MEASUREMENTS, CONTROL MEASUREMENTS EXCEEDED THE ACCURACY REQUIREMENTS FOR THIS CLASSIFICATION.
 - THE CONTRACTED USE OF THIS SURVEY IS FOR THE ENGINEERING DESIGN AND PERMITTING OF THE DESIRED UTILITIES WITHIN THE SURVEYED LANDS AND IS NOT VALID FOR ANY OTHER USE.
 - THIS SURVEY IS PREPARED ONLY FOR THE PARTIES LISTED BELOW.
 PREPARED FOR:
 PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
 - COPYRIGHT 2019 BY KESHAVARZ & ASSOCIATES, INC. THE SKETCH OF SURVEY AND SURVEY REPORT COMPRISE THE COMPLETE SURVEY. THIS SURVEY IS NOT VALID UNLESS THE SKETCH AND REPORT ACCOMPANY EACH OTHER. REPRODUCTIONS OF THIS SURVEY ARE NOT VALID WITHOUT THE ORIGINAL RAISED SEAL OF A FLORIDA SURVEYOR AND MAPPER EMPLOYED BY KESHAVARZ & ASSOCIATES, INC.

DATE OF SURVEY: NOVEMBER 02, 2018

SCOTT F. BRYSO
 PROFESSIONAL SURVEYOR AND MAPPER
 FLORIDA CERTIFICATE NO. 5961

PLAT DATE: OCT. 14, 2019 TIME: 11:50AM BY: ANTHONY CAMPBELL 15-17-158 (REV. PAGE 12) FROM TRANSMISSION TOWER 080C-171184-003 000 & SHARY KITES ARE LIMITED C-03

LEGEND PROPOSED

---○---	PROPOSED WATER SERVICE WITH CAPPING & METER BOX
---	WATER MAIN
---	WV GATE VALVE
---	FIRE HYDRANT
---	WV TEE
---	WV BEND
---	WV REDUCER
---	WV VERTICAL DEFLECTION WITH 2 BENDS
---	COUPLING
---	TERMINAL BLOWOFF
---	PLUG
---	ASPHALT RESTORATION
---	SIDEWALK/DRIVEWAY/CURB RESTORATION, REPLACE-IN-KIND
---	RESTRAIN JOINT
---	LIMITS OF MILL & OVERLAY
---	PROPOSED LINE STOP

LEGEND EXISTING

---	WATER MAIN	○	MAIL BOX
---	GRAVITY SANITARY	○	WATER VALVE
---	SANITARY FORCE MAIN	○	WOOD LIGHT POLE
---	STORM DRAINAGE	○	WOOD UTILITY POLE
---	BURIED FRP	○	BACK FLOW PREVENTER
---	OVERHEAD UTILITIES	○	SANITARY CLEAN OUT
---	BURIED FIBER OPTIC	○	SANITARY MANHOLE
---	BURIED IRRIGATION	○	SANITARY SEWER VALVE
---	BURIED ATT	○	STORM CATCH BASIN
---	BURIED CONCAST	○	STORM MANHOLE
---	RIGHT OF WAY	○	WATER MAIN
---	PROPERTY LINE	○	GRAVITY SANITARY
---	EASEMENT LINE	○	SANITARY FORCE MAIN

LEGEND EXISTING (CONT.)

○	WATER VALVE	○	ARCA PALM
○	WOOD LIGHT POLE	○	TAMARIND
○	WOOD UTILITY POLE	○	BOUGANVILLE FL.
○	BACK FLOW PREVENTER	○	CHRISTMAS PALM
○	SANITARY CLEAN OUT	○	FOXTAIL PALM
○	SANITARY MANHOLE	○	UNKNOWN
○	SANITARY SEWER VALVE	○	BISCHOFFIA
○	STORM CATCH BASIN	○	BOTTLE BRUSH
○	STORM MANHOLE	○	CARROT WOOD
○	WATER MAIN	○	SHRUB
○	GRAVITY SANITARY	○	MAGNOLIA
○	SANITARY FORCE MAIN	○	PONYTAIL PALM
○	STORM DRAINAGE	○	CORN PLANT
○	BURIED FRP	○	
○	OVERHEAD UTILITIES	○	
○	BURIED FIBER OPTIC	○	
○	BURIED IRRIGATION	○	
○	BURIED ATT	○	
○	BURIED CONCAST	○	
○	RIGHT OF WAY	○	
○	PROPERTY LINE	○	
○	EASEMENT LINE	○	

TREE LEGEND

○	NORFOLK PINE	○	FISHTAIL PALM	○	ARECA PALM	○	TAMARIND
○	MAPLE	○	HONG KONG ORCHID	○	ROBELENI PALM	○	BOUGANVILLE FL.
○	ACACIA	○	SCHOFFLERA	○	CHRISTMAS PALM	○	JUNIPER
○	LAUREL OAK	○	MANGO	○	FOXTAIL PALM	○	FRANGIPANI
○	TABERDUA	○	GUMBO LIMBO	○	UNKNOWN	○	BISCHOFFIA
○	BLACK OLIVE	○	CABBAGE PALM	○	BOTTLE BRUSH	○	HOLLY
○	LIVE OAK	○	AVOCADO	○	CARROT WOOD	○	BAYONETTE
○	ROYAL POINCIANA	○	HIBISCUS	○	SHRUB	○	CACTUS
○	FIGUS	○	MAHOGANY	○	MAGNOLIA	○	DATE PALM
○	QUEEN PALM	○	WASHINGTONIAN PALM	○	PONYTAIL PALM	○	CORN PLANT
○		○	COCONUT PALM	○		○	

KESHAVARZ & ASSOCIATES
 Civil Engineers • Land Surveyors
 711 North Dixie Highway, Suite 201
 West Palm Beach, Florida 33401
 Tel: (407) 834-1149
 Certificate of Authorization No. 6927

NSA PROJECT No. 17-1184
 DESIGNED BY: R. WERTZNEY
 DRAWN BY: L. WELLS
 CHECKED BY: M. WILLEMS
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19



FOOT GENERAL NOTES:

- PERMITS: ALL WORK WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) CONSTRUCTION COORDINATOR... PERMITS: ALL WORK WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) CONSTRUCTION COORDINATOR... PERMITS: ALL WORK WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) CONSTRUCTION COORDINATOR...

FOOT SPECIAL CONDITIONS

- 1. PERMITS: ALL WORK WITH FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) CONSTRUCTION COORDINATOR... 2. BASE ROCK SHALL BE 15" MINIMUM LAMCKROCK BASE ONLY OVER COMPACTED SUBGRADE...

PAVING GRADING AND DRAINAGE NOTES:

- 1. WHERE GRAD-OFFS OF THE EXISTING ROADWAY ARE MADE IN ORDER TO INSTALL PIPELINES, CONCRETE OR SLURRY, REPAIR THE PAVEMENT IN ACCORDANCE WITH THE OPEN-CUT PIPE INSTALLATION THROUGHOUT... 2. EXISTING VALVES AND DRAINAGE ROADS SHALL BE USED FOR PERMANENT CONSTRUCTION PROVIDED THAT THE MATERIAL IS CLEAN AND FREE OF ORGANIC MATERIALS...

DENSITY TEST REQUIREMENTS

- 1. DENSITY TEST SHALL BE REQUIRED EVERY DAY IN WHICH BACKFILLING OF PIPE OCCURS FOR THE FIRST AND SUBSEQUENT LIFTS OVER THE PIPE DEPENDING ON FIELD CONDITIONS AND OPEN TRENCH TRAFFIC REQUIREMENTS... 2. DENSITY TEST SHALL BE TAKEN AT A MAXIMUM SPACING OF 100' ON THE FIRST 10' GRADE BEYOND THE 400' MINIMUMS OR OTHER INTERVALS AS DETERMINED BY THE UTILITY DEPARTMENT OR ERM.

UTILITY CONDITIONS

- 1. CONTRACTOR SHALL COMPLY WITH CONDITIONS LISTED ON THE CONSENT TO EXAMINER AGREEMENT DATED 7/11-11-010 AS MODIFIED FOR THIS PROJECT... 2. CONTRACTOR SHALL PROVIDE DRAWINGS FOR THE INSTALLED AND ABANDONED FACILITIES TO INCLUDE ALL PERMITTED FEATURES, ELEVATIONS, AND LOCATIONS INCLUDING BUT NOT LIMITED TO PIPE SIZE, PIPE TYPE, ELEVATION, DEPTH OF COVER, FINISH, WALLS, APPURTENANCES, POINT LOCATIONS AND SPECIAL NOTES...

- 4.1. BRIAN HARST, GEOTECHNICAL ENGINEER... 4.2. JEFFREY PALM, OPERATIONS ASSISTANT MANAGER...



KESHAVARZ ASSOCIATES Civil Engineers & Land Surveyors 711 North Dixie Highway, Suite 201 West Palm Beach, Florida 33401

PROJECT No. 17-1164 DESIGNED BY: R. WERTPYNN DRAWN BY: L. REHMANN CHECKED BY: M. WELLSMAN APPROVED BY: M. KESHAVARZ DATE: 12/10/19

GENERAL NOTES:

- 1. UNLESS SPECIFIED OTHERWISE ON THESE PLANS OR IN THE SPECIFICATIONS, ALL WATER MAINS AND WASTEWATER FORCE MAINS TO BE INSTALLED AT ELEVATION SHOWN ON PROFILES OR A MINIMUM 30" OF COVER, UNLESS OTHERWISE NOTED WITH 'H' AND -H/2' MINIMUM COVER... 2. PIPE DEFLECTION AT THE JOINT SHALL NOT EXCEED THAT OF THE MANUFACTURER'S RECOMMENDED MAXIMUM JOINT DEFLECTION... 3. CONTRACTOR TO VERIFY ALL UTILITY CROSSINGS, EXACT ELEVATIONS AND LOCATIONS PRIOR TO CONSTRUCTION OF THE PARTICULAR SEGMENT OF WATER MAIN...

- 41. APPROVED RECORD DRAWING DOCUMENTS ARE REQUIRED ACCORDING TO PALM BEACH COUNTY ENGINEERING AND CONSTRUCTION STANDARDS AND A SPECIFICATION SECTION 0700 INDICATES IS MORE RESTRICTIVE... 42. RECORD DRAWINGS SHALL BE PROVIDED IN STATE PLANE COORDINATE SYSTEM... 43. ALL UTILITY FEATURES SHALL BE SHOWN IN THEIR AS-BUILT LOCATION... 44. STATE PLANE COORDINATES SHALL BE OBTAINED FROM RECORD DRAWINGS FOR ALL FEATURES SPECIFIED IN PROWAD REQUIREMENTS...

- 56a. CITY OF PALM BEACH... 56b. PALM BEACH COUNTY HEALTH DEPARTMENT - HRS... 56c. US ARMY CORPS OF ENGINEERS... 57. ANY PUBLIC LAKE CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED IF DAMAGED OR DESTROYED... 58. ALL WORK AREAS BEARING MATERIAL SHALL BE REMOVED TO 18" BELOW THE SURFACE OF THE PIPE FOR MAINS, AND 6" FOR SERVICE LINES... 59. ANY AREA DESTROYED DURING CONSTRUCTION WITH PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY SHALL BE RESTORED TO EQUAL OR BETTER CONDITION...

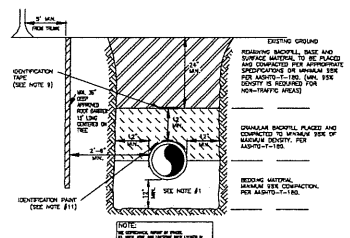
CONTACT COMPANY PHONE # EMAIL GARTH REARDON AT&T (561) 940-8283 garthreardon@att.net

DATE: 12/10/19 TIME: 10:30AM BY: R. WERTPYNN PROJECT: WATER MAIN RELOCATION FROM TIME HARBOR TROOPER DIKE (RHD) IN PALM BEACH COUNTY

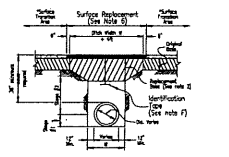


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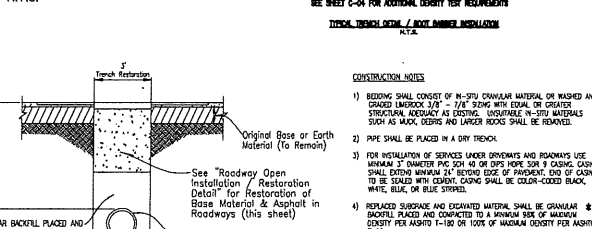
Randy Wertepny P.E. 72504 Apr 08, 2020



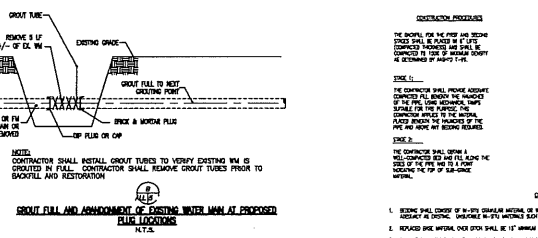
- CONSTRUCTION NOTES: 1. BEDDING SHALL CONSIST OF 4" OF 3/4" CHALKLITE MATERIAL... 2. BACKFILL SHALL BE FREE OF UNSUITABLE MATERIAL... 3. DENSITY TESTS ARE REQUIRED IN A FOOT LAYER ABOVE THE PIPE...



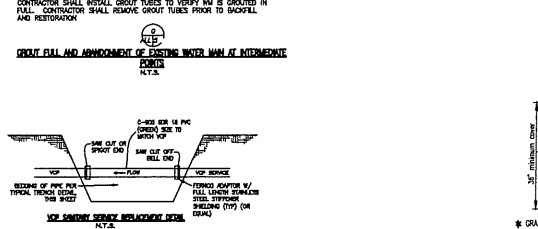
- CONSTRUCTION NOTES: 1. ALL BEDDING STRIPS SHALL BE PERFORMED IN CONFORMANCE WITH APPLICABLE STATE SPECIFICATIONS... 2. DENSITY TESTS ARE REQUIRED IN A FOOT LAYER ABOVE THE PIPE AT INTERVALS OF 40' MAXIMUM...



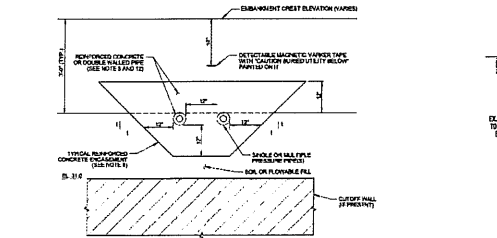
- CONSTRUCTION NOTES: 1. BEDDING SHALL CONSIST OF 4" OF 3/4" CHALKLITE MATERIAL OR WASHED AND GRADED SAND... 2. PIPE SHALL BE PLACED IN A DRY TRENCH... 3. FOR INSTALLATION OF SERVICES UNDER DRIVEWAYS AND ROADWAYS...



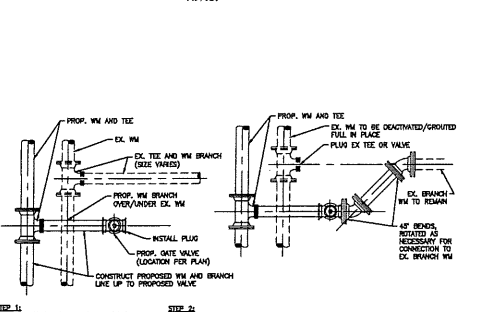
- CONSTRUCTION NOTES: 1. THE SPECIAL FOR THE PIPE AND BEDDING SHALL BE PLACED IN 4" LAYER... 2. THE CONTRACTOR SHALL INSTALL GROUT TUBES TO VERIFY EXISTING WM IS GROUTED IN FULL...



- CONSTRUCTION NOTES: 1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND PERMISSION FOR THE INSTALLATION OF EACH PRIVATE WATER SERVICE INCLUDING ASSOCIATED FLOWING FEES...



- CONSTRUCTION NOTES: 1. CONTRACTOR SHALL VERIFY EXISTING WM IS GROUTED IN FULL... 2. CONTRACTOR SHALL REMOVE GROUT TUBES PRIOR TO BACKFILL AND RESTORATION...



- CONSTRUCTION NOTES: 1. CONTRACTOR SHALL VERIFY EXISTING WM IS GROUTED IN FULL... 2. CONTRACTOR SHALL REMOVE GROUT TUBES PRIOR TO BACKFILL AND RESTORATION...



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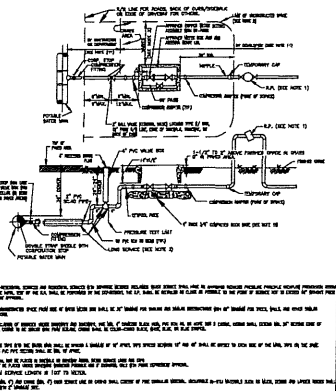
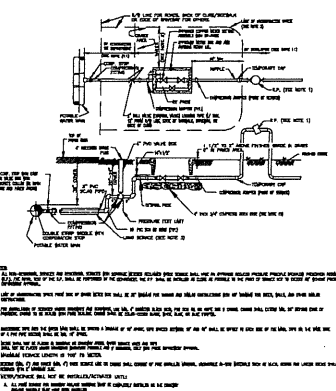
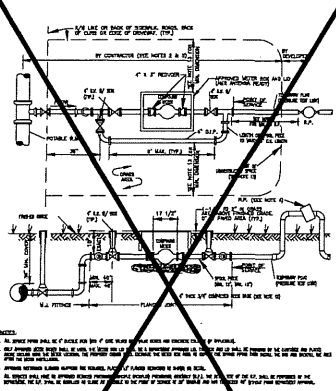
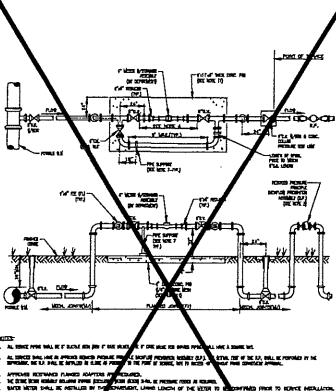
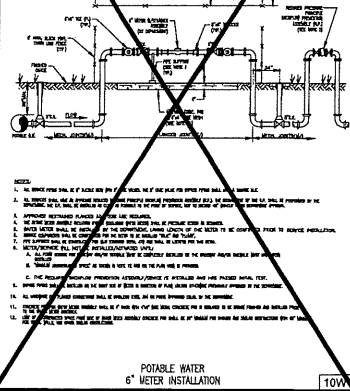
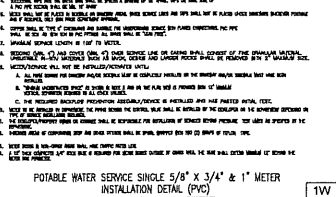
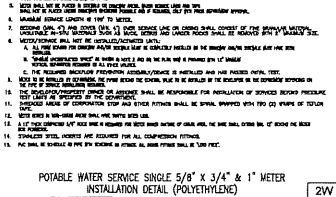
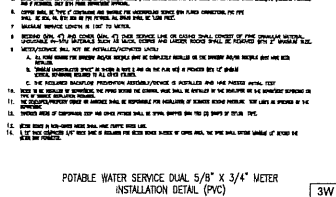
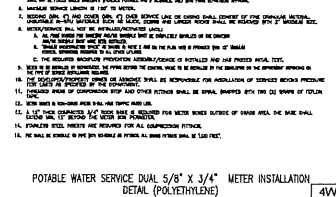
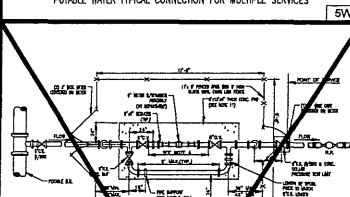
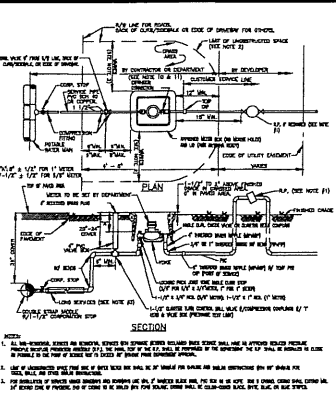
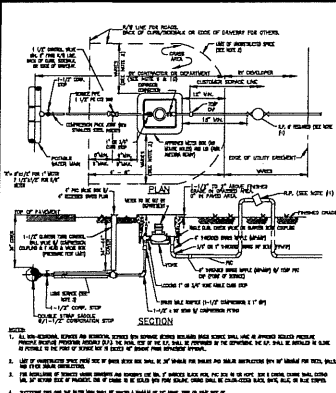
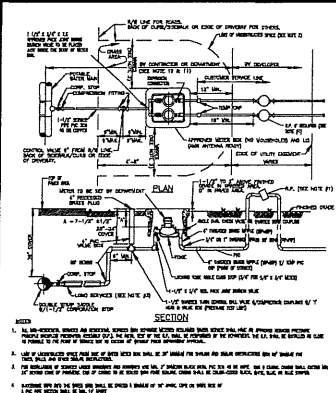
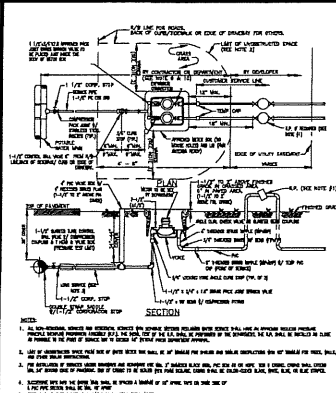
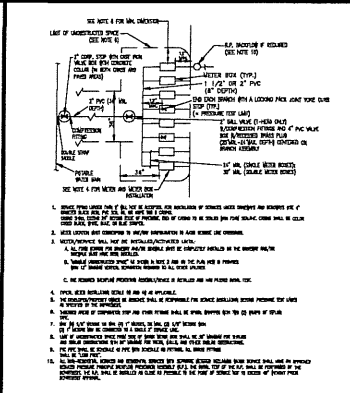
DATE: 04/08/20 BY: RANDY WERTEPNY, P.E. 72504 PROJECT: 17-1184-C-05 GEN. LET. SHEET: LANDSCAPE

KESHAVARZ & ASSOCIATES Civil Engineers & Land Surveyors 711 North Dixie Highway, Suite 201 West Palm Beach, Florida 33401

K&A PROJECT No. 17-1184 DESIGNED BY: R. WERTEPNY DRAWN BY: L. RELUJANN CHECKED BY: M. WILLIAMS APPROVED BY: M. KESHAVARZ DATE: 04/08/20

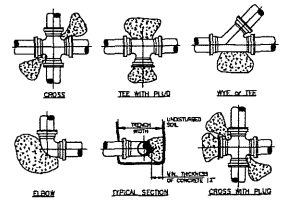


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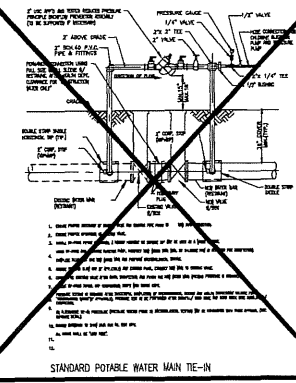
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PIPE	THRUST BLOCK AREA REQ'D	REMARKS	NOTE
12"	1.5 SQ. FT.	VALVE ARE FOR 12" SIZES	SEE THE FOLLOWING
14"	2.0 SQ. FT.	VALVE ARE FOR 14" SIZES	
16"	2.5 SQ. FT.	VALVE ARE FOR 16" SIZES	
18"	3.0 SQ. FT.	VALVE ARE FOR 18" SIZES	
20"	3.5 SQ. FT.	VALVE ARE FOR 20" SIZES	
24"	4.5 SQ. FT.	VALVE ARE FOR 24" SIZES	
30"	6.0 SQ. FT.	VALVE ARE FOR 30" SIZES	
36"	8.0 SQ. FT.	VALVE ARE FOR 36" SIZES	
42"	10.0 SQ. FT.	VALVE ARE FOR 42" SIZES	
48"	12.0 SQ. FT.	VALVE ARE FOR 48" SIZES	

- NOTES:
- CONCRETE VALVE BLOCKS OR BRIDGE BLOCKS SHALL BE CAST IN PLACE OR PRECAST AND SHALL BE CAST TO THE TOP OF THE CURB OR TO THE TOP OF THE CONCOURSE, BRIDGE & PROTECTIVE WALLS AS SHOWN ON THE DRAWINGS.
 - CONCRETE VALVE BLOCKS SHALL BE CAST TO THE TOP OF THE CONCOURSE, BRIDGE & PROTECTIVE WALLS AS SHOWN ON THE DRAWINGS.
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 - CONCRETE VALVE BLOCKS SHALL BE CAST TO THE TOP OF THE CONCOURSE, BRIDGE & PROTECTIVE WALLS AS SHOWN ON THE DRAWINGS.
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 - CONCRETE VALVE BLOCKS SHALL BE CAST TO THE TOP OF THE CONCOURSE, BRIDGE & PROTECTIVE WALLS AS SHOWN ON THE DRAWINGS.
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 - CONCRETE VALVE BLOCKS SHALL BE CAST TO THE TOP OF THE CONCOURSE, BRIDGE & PROTECTIVE WALLS AS SHOWN ON THE DRAWINGS.

TYPICAL THRUST BLOCKS FOR PRESSURE PIPE



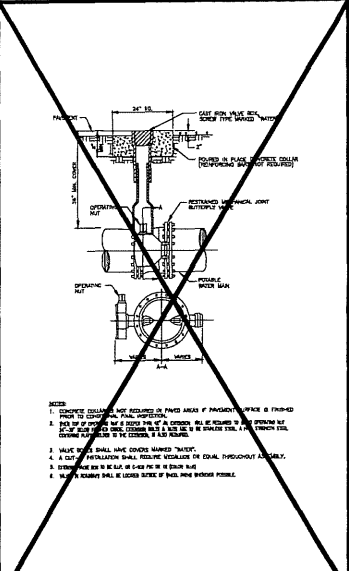
POTABLE WATER #2 STANDARD DETAILS

DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD

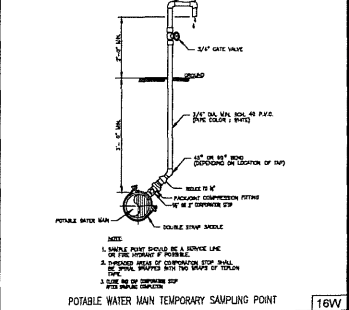
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CONSULTING ENGINEERS - SURVEYORS
711 South Dixie Highway, Suite 201
West Palm Beach, Florida 33401
TEL: (561) 999-6600 FAX: (561) 953-0716 LIA: 4977

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SUNSHINE STATE ONE-CALL # FLORIDA, INC.
CONCRETE REVISION CONTROL

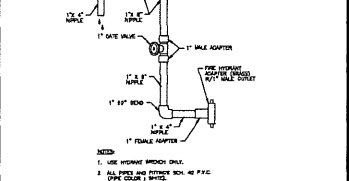
West Palm Beach, FL 33418-6097
K&A PROJECT #18-1144



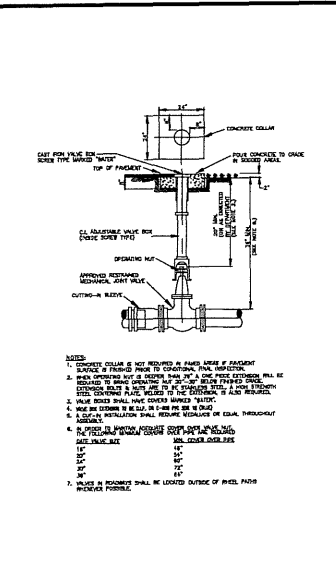
POTABLE WATER MAIN TYPICAL BUTTERFLY VALVE SETTING



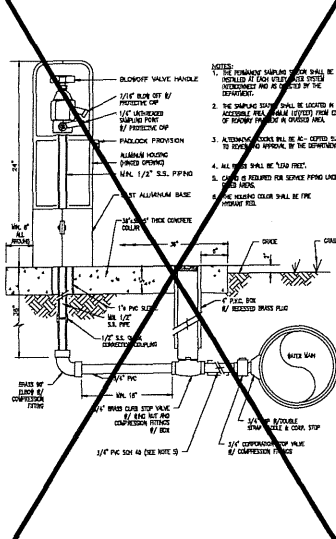
POTABLE WATER MAIN TEMPORARY SAMPLING POINT



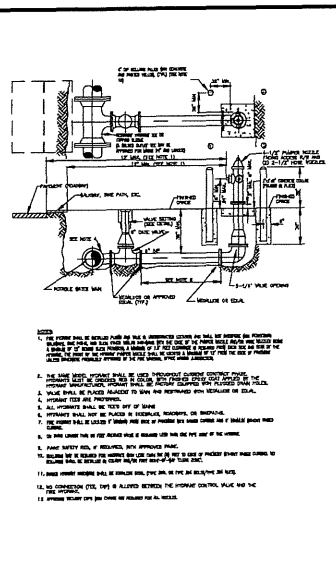
POTABLE WATER MAIN FIRE HYDRANT SAMPLING POINT



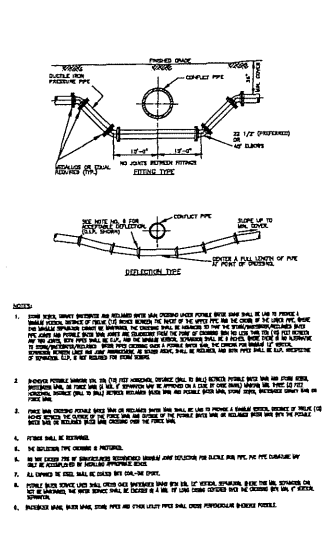
POTABLE WATER MAIN TYPICAL GATE VALVE SETTING AND MAN CUT-IN DETAIL



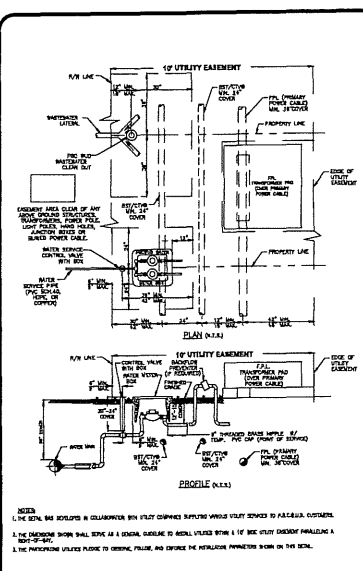
PERMANENT SAMPLING POINT



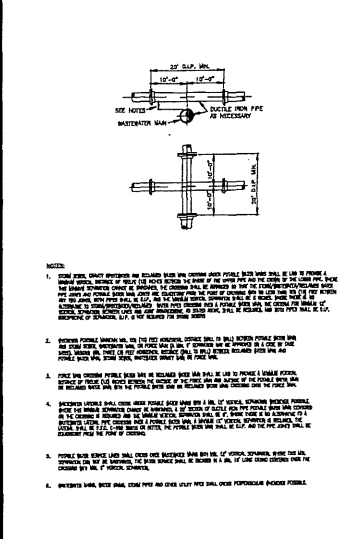
TYPICAL FIRE HYDRANT INSTALLATION WITH BOLLARDS DETAIL



POTABLE WATER MAIN / FORCE MAIN PRESSURE PIPE CONFLICT DETAIL



TYPICAL UTILITY INSTALLATION DETAIL IN A 10' UTILITY EASEMENT ADJACENT TO R/W



POTABLE WATER, WASTEWATER MAIN AND STORM SEWER CONFLICT

DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD

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West Palm Beach, FL 33418-6097
K&A PROJECT #18-1144



Table with columns for DATE, REVISION, and DESCRIPTION. Includes dates from 12/15/11 to 05/14/12 and various revision descriptions.

Diagram 26W: POTABLE WATER MAIN TYPICAL AERIAL CANAL CROSSING - SINGLE PIPE (SINGLE PILES). Shows a cross-section of a pipe supported by piles in a canal. Includes notes on pile spacing, concrete encasement, and structural details.

Diagram 27W: FAN CHAIR/PILE CAP DESIGN SINGLE PIPE (SINGLE PILES). Shows a fan-shaped pile cap structure for a single pipe. Includes notes on pile arrangement, concrete strength, and reinforcement.

Diagram 23W: TYPICAL TRENCH DETAIL/ROOT BARRIER INSTALLATION DETAIL. Shows a trench cross-section with a root barrier and pipe. Includes notes on barrier installation, trench depth, and backfill.

Diagram 24W: OPEN CUT PIPE INSTALLATION NON-THOROUGHFARE ROAD. Shows a pipe installation in a trench for a non-thoroughfare road. Includes notes on trench width, bedding, and backfill.

Diagram 25W: OPEN CUT PIPE INSTALLATION THOROUGHFARE ROAD. Shows a pipe installation in a trench for a thoroughfare road. Includes notes on trench width, bedding, and backfill.

Diagram 22W: POTABLE WATER MAIN CASING INSTALLATION DETAILS. Shows a casing installation detail with a table of casing dimensions. Includes notes on casing material, bedding, and installation.

Diagram 21W: TYPICAL 2" TERMINAL BLOWOFF POTABLE WATER DISTRIBUTION MAINS. Shows a terminal blowoff detail for a 2-inch pipe. Includes notes on pipe material, bedding, and installation.

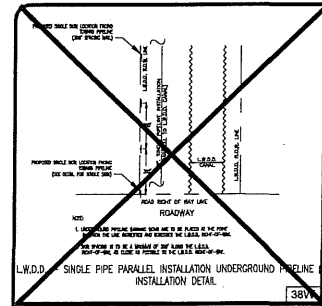
Diagram 30W: POTABLE WATER MAIN OFF-SET UNDERGROUND AIR RELEASE VALVE. Shows an off-set air release valve detail. Includes notes on valve location, pipe material, and installation.

Diagram 29W: POTABLE WATER MAIN AIR RELEASE MANHOLE IN PAVED AREAS AND ROAD R/W. Shows an air release manhole detail in a paved area. Includes notes on manhole structure, pipe material, and installation.

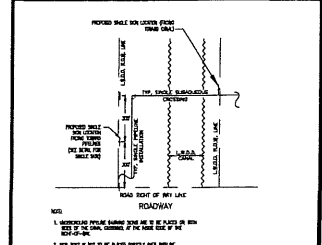
Diagram 28W: POTABLE WATER MAIN UNDERGROUND AIR RELEASE VALVE AND VAULT IN NON-TRAFFIC AREAS OUTSIDE OF ROAD R/W. Shows an underground air release valve and vault detail. Includes notes on vault structure, pipe material, and installation.

POTABLE WATER #3 STANDARD DETAILS. Includes a table of pipe dimensions and notes on pipe material, bedding, and installation.

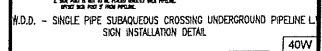
Keshavarz & Associates, Inc. CONSULTING ENGINEERS - SURVEYORS. 711 North Dixie Highway, Suite 201 West Palm Beach, Florida 33409. Phone: 1-800-432-4770. Fax: 561-835-7176. Website: www.keshavarz.com



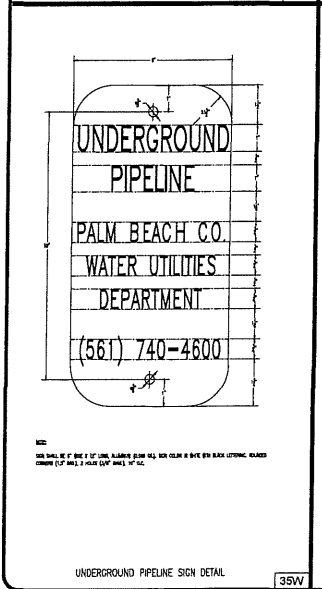
L.W.D. - SINGLE PIPE PARALLEL INSTALLATION UNDERGROUND PIPELINE SIGN INSTALLATION DETAIL



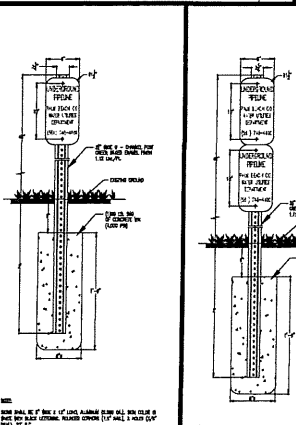
DUAL PIPE PARALLEL INSTALLATION UNDERGROUND PIPELINE SIGN INSTALLATION DETAIL



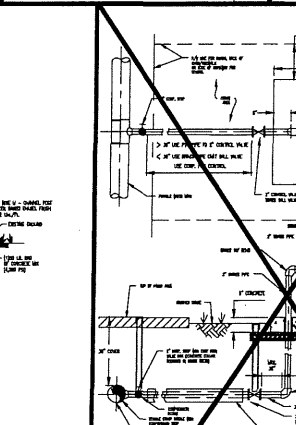
S.D.D. - SINGLE PIPE SUBSEQUENT CROSSING UNDERGROUND PIPELINE SIGN INSTALLATION DETAIL



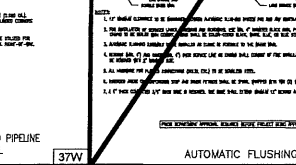
UNDERGROUND PIPELINE SIGN DETAIL



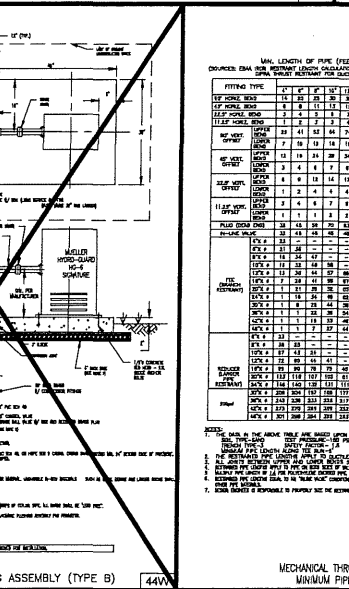
SINGLE UNDERGROUND PIPELINE SIGN DETAIL



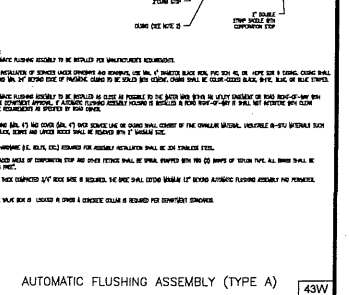
DUAL UNDERGROUND PIPELINE SIGN DETAIL



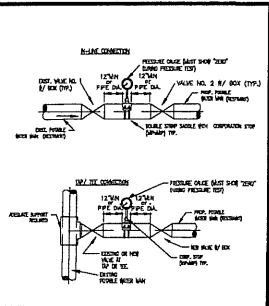
DOUBLE CHECK DETECTOR ASSEMBLY



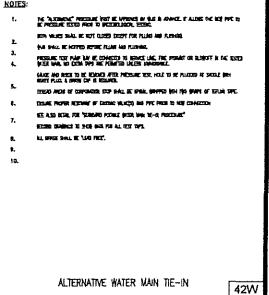
AUTOMATIC FLUSHING ASSEMBLY (TYPE A)



AUTOMATIC FLUSHING ASSEMBLY (TYPE B)



ALTERNATIVE WATER MAIN TE-IN



MECHANICAL THRUST RESTRAINT MINIMUM PIPE LENGTHS

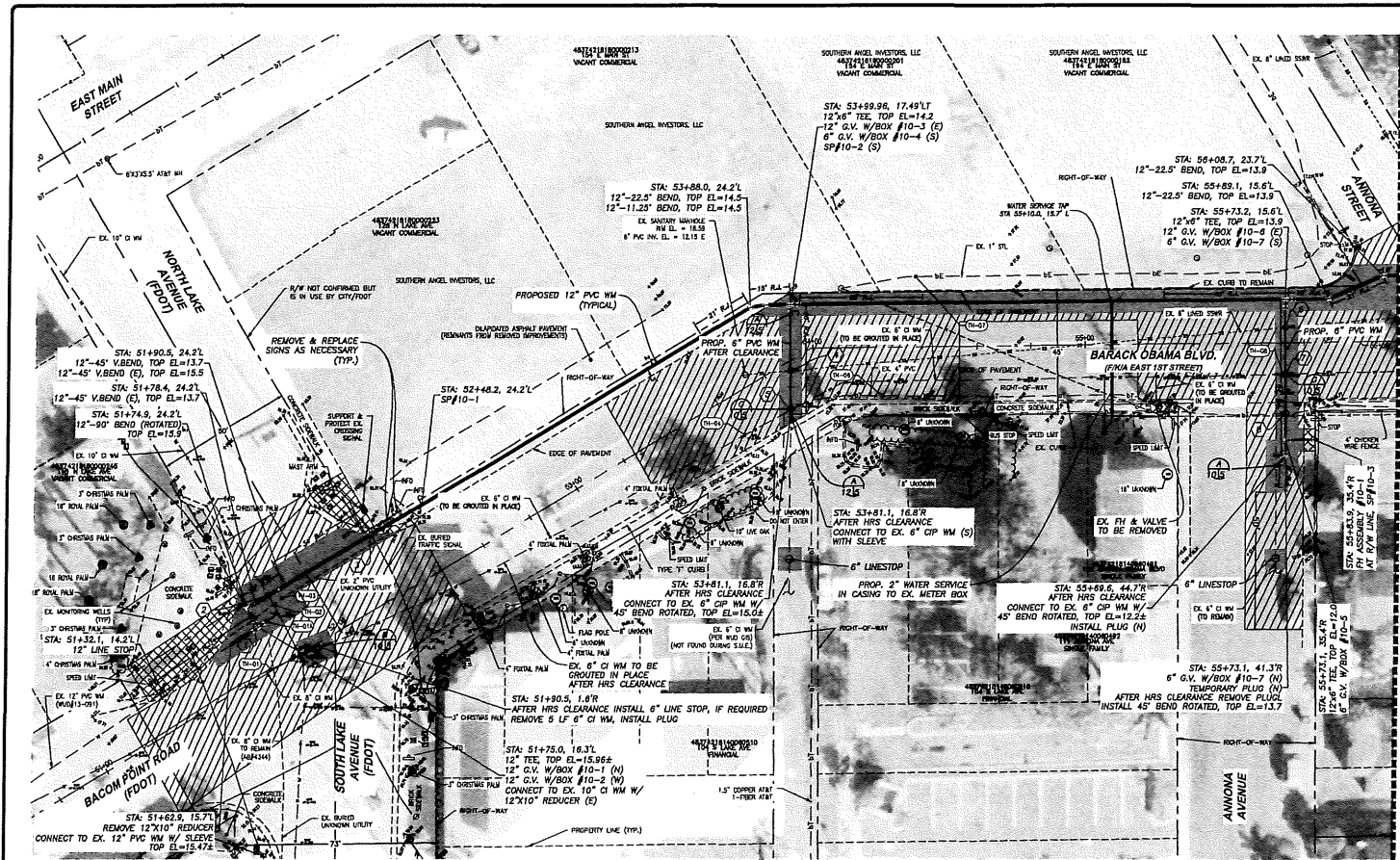
Table with 2 columns: FITTING TYPES and MINIMUM LENGTH OF PIPE (FEET) TO BE RESTRAINED. Rows include 1/2" CPVC, 1/2" POLYETHYLENE GLYCOL (PEX), 1/2" POLYETHYLENE TEREPHTHALATE (PET), 1/2" POLYPROPYLENE (PP), 1/2" POLYURETHANE (PU), 1/2" STEEL, 1/2" BRASS, 1/2" COPPER, 1/2" ALUMINUM, 1/2" GALVANNEED STEEL, 1/2" INVAR, 1/2" TITANIUM, 1/2" COMPOSITE.

Table with 2 columns: MINIMUM QUANTITY OF WATER (GALLONS PER HOUR) AND MINIMUM QUANTITY OF WATER TO BE ADDED COLLECTOR PER HOUR. Rows include 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 3 1/2", 4", 4 1/2", 5", 6", 8", 10", 12", 15", 20", 25", 30", 35", 40", 45", 50", 60", 70", 80", 90", 100.

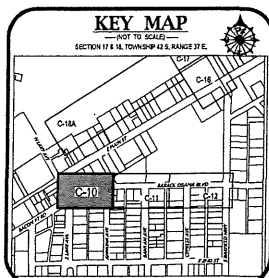
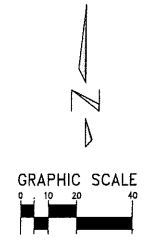
POTABLE WATER MAIN PRESSURE TEST CRITERIA
POTABLE WATER #4
STANDARD DETAILS

DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD
Keshavarz & Associates, Inc.
CONSULTING ENGINEERS - SURVEYORS
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Tel: (561) 839-2244 Fax: (561) 839-2245

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K&A PROJECT #17-1184
DESIGNED BY: WUD
DRAWN BY: M. BUCKNER
CHECKED BY: J. LAMBERT
APPROVED BY: WUD
Palm Beach County
Water Utilities Department
P.O. Box 18099
West Palm Beach, FL 33416-8097
SHEET NUMBER
C-09
S&L
Randy Wooten
P.E. 72584
04/14/2018



- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL FROM CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UTILITIES UNDEGROUND SHALL BE FIELD AND PROTECTED AGAINST DAMAGE. EXISTING UTILITIES SHALL BE PROTECTED BY PROVIDING PROTECTIVE CASINGS WITH 4" MINIMUM VERTICAL CLEARANCE AND 1" MINIMUM HORIZONTAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER EXISTING EXISTING SERVICES WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
 3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL USE AND CONDITION. CONTRACTOR TO PROVIDE VEGETATION OF ENTIRE SCOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 4. EXISTING STREET STORMAGE AND MANHOLES ARE TO BE REMOVED AND REPAIRED IN PLACE. WHERE DISTURBANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICE, THE MANHOLE SHALL BE RECONSTRUCTED. SOME INSTANCES MAY NOT BE SPECIFICALLY CALLED OUT BY CONTRACTOR PLANS. IN-SHED REPLACEMENT TO BE IN ACCORDANCE WITH LATEST CITY AND STATE STANDARDS.
 5. CONTRACTOR TO COORDINATE LOCATION OF THE STOPS AND/OR SHUT OFFS OF EX. MAINS WITH PROPOSED AND EXISTING. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING MAINS.
 6. ALL PROPOSED 6" WATER MAIN SHALL BE FIELD AND PROTECTED WITH 4" MINIMUM VERTICAL CLEARANCE AND 1" MINIMUM HORIZONTAL CLEARANCE. ALL PROPOSED 6" WATER MAIN SHALL HAVE 18" MINIMUM COVER. ALL PROPOSED 6" WATER MAIN SHALL BE FIELD AND PROTECTED WITH 4" MINIMUM VERTICAL CLEARANCE AND 1" MINIMUM HORIZONTAL CLEARANCE. ALL PROPOSED 6" WATER MAIN SHALL BE FIELD AND PROTECTED WITH 4" MINIMUM VERTICAL CLEARANCE AND 1" MINIMUM HORIZONTAL CLEARANCE.
 7. THE PIPE SELECTION OF THE STOP SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED WORKING TEMPERATURE.
 8. WHERE STOP ON PLANS, EXIST. WATER MAINS ARE TO BE RECONSTRUCTED OR ABANDONED IN PLACE AFTER HIS CLEARANCE OF THE MAINS.
 9. SEE SHEET C-6 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-6 FOR ADDITIONAL GENERAL DETAILS.
 10. PROP. WATER SERVICES ARE TO BE IN UNLESS OTHERWISE NOTED OR INDICATED PER PROPOSED DETAILS PER - 104, SHEET C-6.



SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

UTILITY CONFLICT CROSSING TABLE

- | | |
|---|--|
| ① PROP. 12" PVC WM, BOT EL.=14.32
EX. 2" VCP (LINED) SEWER, TOP EL.=11.372 | ④ PROP. 8" DIP WM, BOT EL.=13.32
EX. 8" VCP (LINED) SEWER, TOP EL.=11.372 |
| ② EX. 10" CI WM, BOT EL.=14.702
PROP. 12" PVC WM, TOP EL.=13.70 | ⑤ PROP. 6" PVC WM, BOT EL.=13.25
EX. 6" CP WM, TOP EL.=12.93 |
| ③ EX. UNKNOWN ELECTRIC, BOT EL.=16.02
PROP. 12" PVC WM, TOP EL.=13.3 | ⑥ EX. 4" PVC BURIED AT&T, BOT EL.=14.42
PROP. 8" PVC WM, TOP EL.=13.3 |
| ⑦ PROP. 6" PVC WM, BOT EL.=13.86
EX. 8" VCP (LINED) SEWER, TOP EL.=12.732 | ⑧ EX. 4" PVC BURIED AT&T, BOT EL.=15.12
PROP. 6" PVC WM, TOP EL.=14.6 |
| ⑧ PROP. 12" PVC WM, TOP EL.=13.3 | ⑨ PROP. 8" PVC WM, TOP EL.=13.3 |

TEST HOLE DATA			
NO.	EX. GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH01	18.31	2.84	8" CAST IRON WATER
TH01A	18.87	2.51	10" CAST IRON WATER
TH02	19.02	3.39	10" CAST IRON WATER
TH03	15.16	4.78	2" PVC UNKNOWN
TH04	18.04	2.63	6" CAST IRON WATER

TEST HOLE DATA			
NO.	EX. GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH04	17.51	2.07	4" PVC TELEPHONE
TH07	17.44	2.87	1" STEEL UNKNOWN
TH08	17.76	4.83	6" CAST IRON WATER

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<p>--- WATER MAIN</p> <p>--- COUNTY SEWER</p> <p>--- SENIOR FORCE MAIN</p> <p>--- STORM DRAINAGE</p> <p>--- BURIED FPL</p> <p>--- OVERHEAD FPL</p> <p>--- BURIED AT&T</p> <p>--- BURIED FIBER OPTIC</p>	<p>--- IRRIGATION</p> <p>--- BURIED CABLE</p> <p>--- RIGHT OF WAY</p> <p>--- PROPERTY LINE</p> <p>--- FUSEMENT LINE</p> <p>--- BOLLARD</p> <p>--- SIGN</p> <p>--- CABLE TELEVISION RISER</p>	<p>LEGEND EXISTING</p> <p>○ = SANITARY CLEAN OUT</p> <p>□ = ELECTRIC HAND POLE</p> <p>□ = CONCRETE TRAFFIC SIGNAL</p> <p>□ = TRAFFIC SIGNAL SPURCE BOX</p> <p>□ = BACK FLOW PREVENTER</p> <p>□ = WATER METER BOX</p> <p>□ = WATER VALVE</p> <p>□ = FIRE HYDRANT</p> <p>□ = WOOD LIGHT POLE</p> <p>□ = TELEPHONE MANHOLE</p> <p>□ = POT HOLE</p>	<p>LEGEND PROPOSED</p> <p>--- = RESTRAIN JOINT</p> <p>--- = WATER MAIN</p> <p>--- = PROPOSED WATER SERVICE WITH CASING & METER BOX WITH 2 BENDS</p> <p>--- = SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE</p> <p>--- = TELEPHONE RISER</p> <p>--- = MANHOLE</p> <p>--- = TELEPHONE MANHOLE</p> <p>--- = POT HOLE</p> <p>--- = WATER MAIN</p> <p>--- = PROPOSED FIRE HYDRANT</p> <p>--- = PROPOSED LINE STOP</p> <p>--- = LIMITS OF MILL & OVERLAY</p> <p>--- = ASPHALT RESTORATION</p>	<p>VERTICAL DATUM</p> <p>ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)</p> <p>CONVERSION FACTORS: NAVD88 + 1.24 = NAD83</p>
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KESHAVARZ & ASSOCIATES
Civil Engineers & Land Surveyors
111 North Dixie Highway, Suite 301
West Palm Beach, Florida 33401
Tel: (561) 974-4440
Certificate of Accreditation No. 4857

K&A PROJECT No. 17-1164
DESIGNED BY: R. WERTENSKI
DRAWN BY: L. WELLMANN
CHECKED BY: M. WELLMANN
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

PROVIDE No. **18-056**

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PALM BEACH COUNTY



PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

No.	Date	Description

Randy Wertenki
P.E. 72504
Oct 14, 2019

SHEET No. **C-10**

CONFIDENTIAL
 NOT FOR PUBLIC DISCLOSURE
 In accordance with
 Chapter 281.301 FS
 Chapter 118.071 (1) (b)
 FS Chapter 113

WATER MAIN RELOCATION FROM THE
 HERBERT HOOVER DIKE (HHD) IN PAHOKEE
 PLAN SHEET

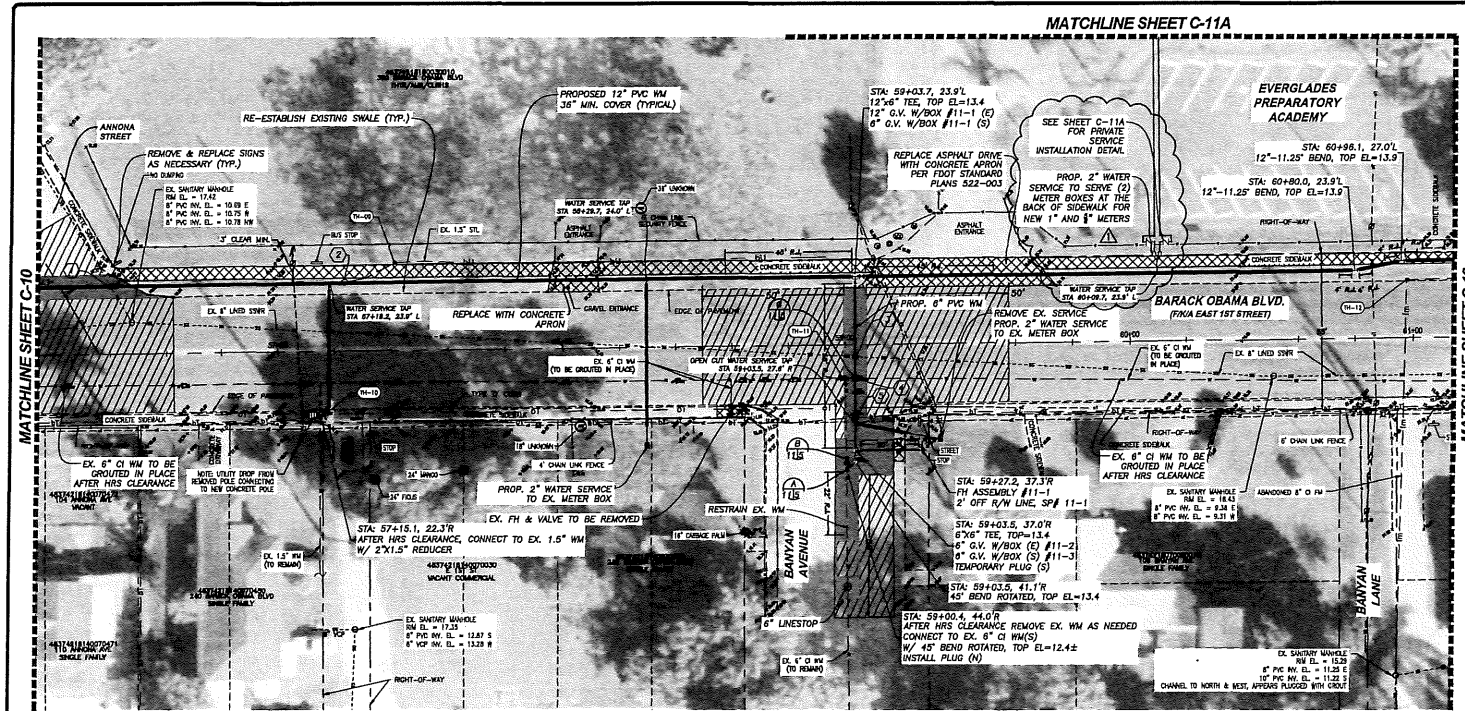


PALM BEACH COUNTY
 WATER UTILITIES
 DEPARTMENT

Description: WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE
 No. 17118A
 Date: 04/08/2020

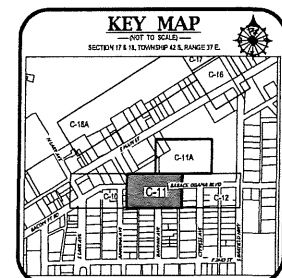
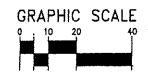
Randy Wertenpny
 P.E. 72504
 Apr 08, 2020

SHEET NO. C-11



SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEWER OF WATER MAIN.
 - ALL UTILITIES UNDERNEATH SHALL BE RELOCATED AND PROTECTED AS NECESSARY. ALL WATER SERVICES SHALL BE INSTALLED AND PROTECTED AS NECESSARY. ALL UTILITIES SHALL BE INSTALLED WITH A MINIMUM VERTICAL CLEARANCE AND 3' MINIMUM HORIZONTAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING SANITARY MAIN WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
 - ALL AREAS DESTROYED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VIDEO TAPING OF EXISTING SLOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 - EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REPAIRED AND RELOCATED AS NECESSARY. ALL SIGNAGE TO BE RELOCATED TO BE INSTALLED IN PLACE. ALL SIGNAGE CONNECTIONS, SIZE, SPACING, AND MATERIAL SHALL BE SPECIFICALLY CALLED OUT OR CONTROLLED BY ENGINEER. SIGNAGE REPLACEMENT TO BE IN ACCORDANCE WITH LATEST CITY AND STATE STANDARDS.
 - CONTRACTOR TO COORDINATE LOCATION OF THE STOPS AND/OR SHUT DOWNS OF EX. MAINS WITH PROXIMAR PROXIMAR. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING VALVES.
 - ALL PROPOSED 6" WATER MAIN SHALL BE RELOCATED AND HAVE 30" MINIMUM COVER. ALL PROPOSED 6" WATER MAIN SHALL HAVE 30" MINIMUM COVER.
 - IF ANY PIPE DETECTION AT THE SHIELD SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED WATER MAIN DETECTION.
 - WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE RELOCATED OR ABANDONED IN PLACE AFTER HIS CLEARANCE OF 6" MIN. MAINS.
 - SEE SHEET C-10 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-15 FOR ADDITIONAL GENERAL DETAILS.
 - PROX. WATER SERVICES ARE TO BE 6" UNLESS OTHERWISE NOTED OR OTHERWISE PER LOCAL STANDARD DETAILS FOR - 6" DIA. SHIELD C-64.



TEST HOLE DATA

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH09	16.06	2.63	1.5" STEEL UNKNOWN
TH10	16.19	1.46	1.5" PVC WATER
TH11	16.96	4.61	6" CAST IRON WATER
TH12	15.81	2.93	8" CAST IRON SANITARY SEWER FORCE MAIN

UTILITY CONFLICT CROSSING TABLE

1	PROP. 12" PVC WM, BOT EL.=12.57	EX. 8" PVC SAN. SEWER, TOP EL.=11.57±	12" MIN. SEPARATION
2	EX. 1.5" STEEL UNKNOWN, BOT EL.=13.77	PROP. 12" PVC WM, TOP EL.=12.45±	
3	PROP. 6" DP WM, BOT EL.=12.55	EX. 8" VCP (LINED) SEWER, TOP EL.=10.50±	
4	PROP. 6" DP WM, BOT EL.=12.57	EX. 6" CP WM (TO BE GROUTED AND ABANDONED), TOP EL.=12.55±	
5	EX. 6" PVC SAN. SEWER, BOT EL.= 14.09±	PROP. 6" PVC WM, TOP EL.= 13.3±	

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LEGEND EXISTING

- WATER MAIN
- SANITARY SEWER
- STORM DRAINAGE
- OVERHEAD FPL
- BURIED HT
- BURIED FIBER OPTIC
- IRRIGATION
- BURIED CABLE
- RIGHT OF WAY
- PROPERTY LINE
- FENCE LINE
- BOLLARD
- SIGN
- CABLE TELEVISION RISER
- SANITARY CLEAN OUT
- PROPOSED WATER SERVICE
- ELECTRIC HAND POLE
- CONCRETE TRAFFIC SIGNAL
- BOLLARD
- SIGN
- CABLE TELEVISION RISER
- WATER METER BOX
- WATER VALVE
- FIRE HYDRANT
- WOOD LIGHT POLE
- WOOD UTILITY POLE
- TELEPHONE SPURCE BOX
- TELEPHONE RISER
- MANHOLE
- TELEPHONE MANHOLE
- POTHOLE

LEGEND PROPOSED

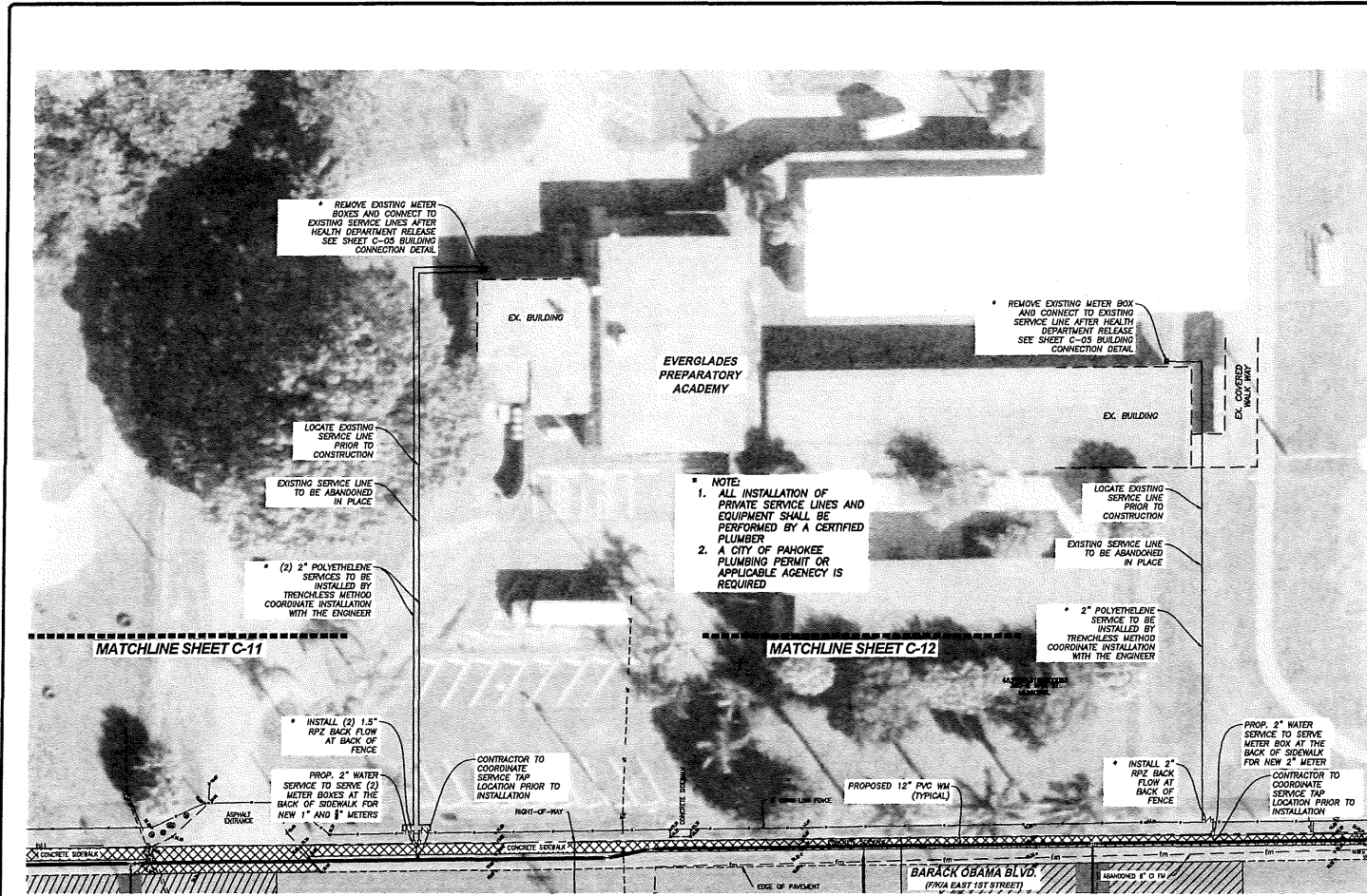
- RESTRAIN JOINT
- WATER MAIN
- WATER SERVICE WITH CASINO & METER BOX
- WM VERTICAL DEFLECTION WITH 2 BENDS
- SIDEWALK/SHEWAN/CURB RESTORATION, CONCRETE
- WM REDUCER
- PROPOSED WM GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED LINE STOP
- LIMITS OF MILL & OVERLAY
- ASPHALT RESTORATION

SEE SHEET 3 FOR ADDITIONAL INFORMATION

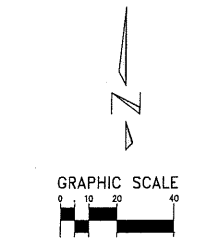
VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 CONVERSION FACTORS: NAVD88 = 1.24 + NGVD29

KESHAVARZ & ASSOCIATES
 Civil Engineers & Land Surveyors
 111 North Dixie Highway, Suite 201
 West Palm Beach, Florida 33401
 Tel: (561) 719-4440
 Certificate of Authorization No. 6497

SEA PROJECT No. 17-118A
 DESIGNED BY: R. WERTENPNY
 DRAWN BY: M. WILHELMAN
 CHECKED BY: M. WILHELMAN
 APPROVED BY: M. KESHAVARZ
 DATE: 04/08/2020



- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SERVICE OF WATER MAIN.
 2. ALL UTILITIES UNDETERMINED SHALL BE REVEAL AND PROTECTED BEFORE CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVER EXISTING EXISTING UTILITIES WITH 4' MINIMUM VERTICAL CLEARANCE AND 3' HORIZONTAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER UNDER EXISTING SERVICES UNDER WITH A SLOPE OF 12" VERTICAL CLEARANCE.
 3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO MAINTAIN VISUAL TYPING OF ENTIRE SCOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED IN-LAND. WHERE DISTURBANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WATER MAIN AND BRANCH CONNECTIONS SHALL BE REPAIRED AND RESTORED. SIGNAGE REPLACEMENT TO BE IN ACCORDANCE WITH LATEST SIGN AND SIGN STANDARDS.
 5. CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHUT-OFFS OF EX. MAINS WITH PRELIM AND INVOICES. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING VALVES.
 6. ALL PROPOSED NEW WATER MAIN SHALL BE POLY-BAGGED AND HUNG BY HOODMAN COVER. ALL PROPOSED PVC WATER MAIN SHALL HAVE 36" HOODMAN COVER.
 7. FOR FIRE PROTECTION OF THE SITE SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED WORKING JOINT PROTECTION.
 8. WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER HAS CLEARANCE OF NEW MAINS.
 9. SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 10. PROP. WATER SERVICES ARE TO BE 2" O.D. SIZE UTILITIES UNLESS OTHERWISE NOTED FOR FLOOR STANDARDS DETAILS PER - 104, SHEET C-05.



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LEGEND EXISTING	LEGEND PROPOSED	VERTICAL DATUM
<ul style="list-style-type: none"> WATER MAIN GRAVITY SEWER SEWER FORCE MAIN STORM DRAINAGE BURIED FPL OVERHEAD FPL BURIED ATT BURIED FIBER OPTIC IRRIGATION BURIED CABLE RIGHT OF WAY PROPERTY LINE EASEMENT LINE BOLLARD SON CABLE TELEVISION RISER SANITARY CLEAN OUT ELECTRIC HAND POLE CONCRETE TRAFFIC SIGNAL TRAFFIC SIGNAL SPLICE BOX BACK FLOW PREVENTER WATER METER BOX WATER VALVE FIRE HYDRANT WOOD LIGHT POLE WOOD UTILITY POLE TELEPHONE SPLICE BOX TELEPHONE RISER MAILBOX TELEPHONE MANHOLE POTHOLE 	<ul style="list-style-type: none"> RESTRAIN JOINT PROPOSED WATER SERVICE WITH CASING & METER BOX WM VERTICAL DEFLECTION WITH 3 EDGES SEWALK/DRAINWAY/CURB RESTORATION, CONCRETE WM REDUCER PROPOSED FIRE HYDRANT PROPOSED LINE STOP LIMITS OF MLL & OVERLAY ASPHALT RESTORATION 	<p>ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)</p> <p>CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29</p>

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PROJECT No. 17-1184
DESIGNED BY: R. WERTZEL
DRAWN BY: L. REILLY
CHECKED BY: M. WELLS
APPROVED BY: M. KESHAVARZ
DATE: 04/08/20

FIGURE NO. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE SERVICE PLAN SHEET



PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

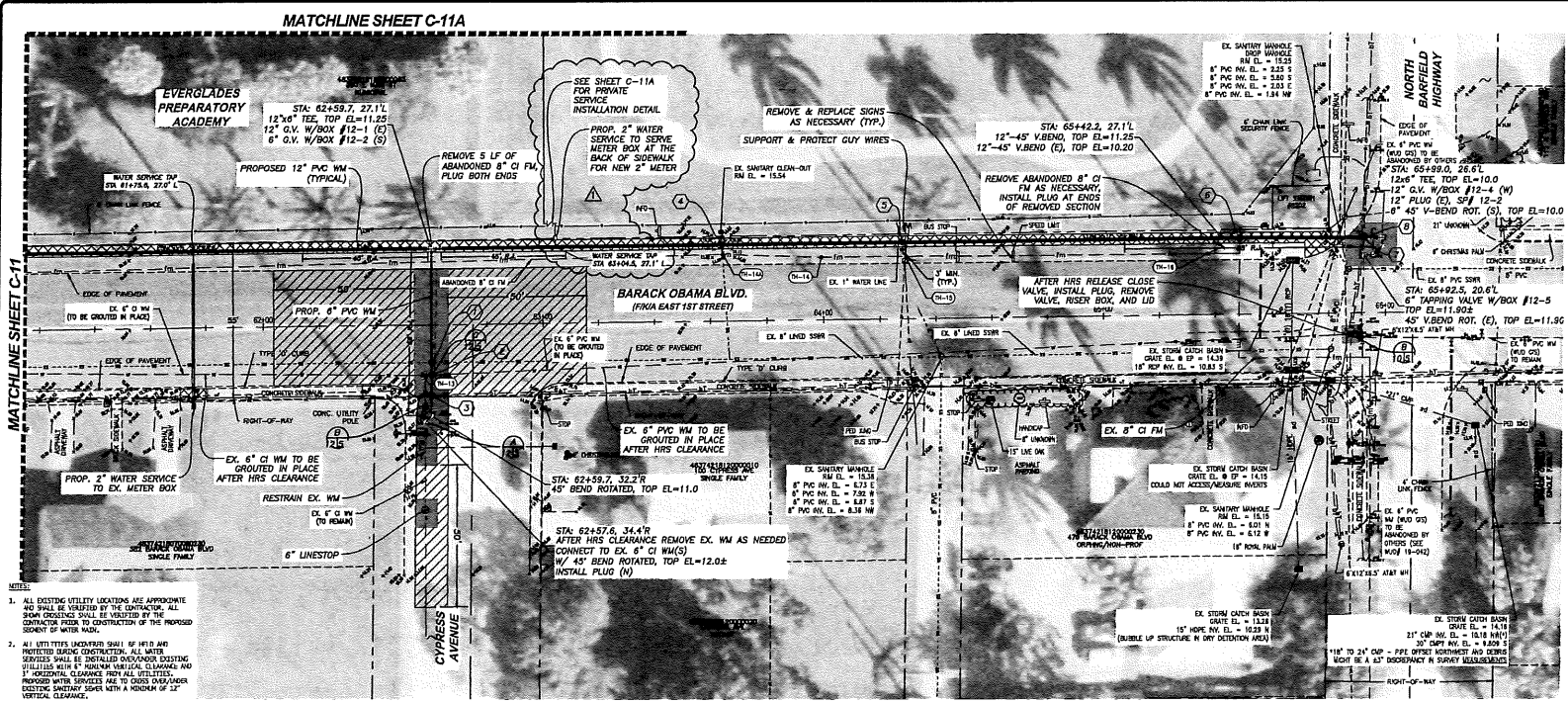
No. 17-1184
Date 04/08/20
Description WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE SERVICE PLAN SHEET
Randy Wertzepny
P.E. 12554
Apr. 08, 2020

SHEET No. C-11A



No.	Date	Description
1	04/08/20	ISSUED FOR PERMITS
2	04/08/20	REVISED PER COMMENTS
3	04/08/20	REVISED PER COMMENTS
4	04/08/20	REVISED PER COMMENTS
5	04/08/20	REVISED PER COMMENTS

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IN ACCORDANCE WITH FS
CHAPTER 281.301 FS
CHAPTER 118.071 (1)(b) FS
FS CHAPTER 151

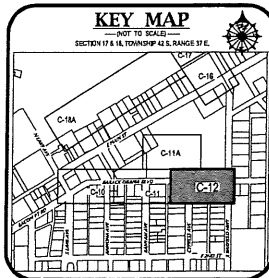
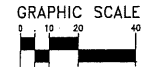


- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL NEW UTILITY LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SYSTEM OF WATER MAINS.
 - ALL UTILITIES UNCOVERED SHALL BE PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE TRIMMED OVERHEAD EXISTING UTILITIES WITH 8" MINIMUM VERTICAL CLEARANCE AND 3" HORIZONTAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER EXISTING EXISTING SANITARY SEWERS WITH A MINIMUM OF 24" VERTICAL CLEARANCE.
 - ALL ADVICE CONTRACTORS MUST BE PROVIDED TO OBTAIN OR BETTER CONDITION. CONTRACTOR TO PROVIDE VIDEO RECORD OF WATER MAINS TO PRESENT PRIOR TO PRE-CONSTRUCTION MEETING.
 - EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REINSTALLED DURING CONSTRUCTION. IT IS NECESSARY FOR THE INSTALLATION OF PROPOSED WATER SERVICES, WATER MAINS AND SERVICE CONNECTIONS. SOME INSTRUCTIONS MAY NOT BE SPECIFICALLY CALLED OUT ON CONSTRUCTION PLANS. INSTEAD REFERENCED TO BE IN ACCORDANCE WITH LATEST COPY OF THE STATE STATUTES.
 - CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHUT OFF OF EX. MAINS WITH PASSED AND INCHES. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING MAINS.
 - ALL PROPOSED OFF WATER MAINS SHALL BE POLY-BLENDED AND HAVE 30" MINIMUM COVER. ALL PROPOSED PVC WATER MAINS SHALL HAVE 18" MINIMUM COVER.
 - PIPE DEFLECTION AT JOINTS SHALL NOT EXCEED 1/8" ON THE MANUFACTURERS RECOMMENDED MAXIMUM JOINT DEFLECTION.
 - WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER HIS CLEARANCE OF NEW MAINS.
 - SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 - PROP. WATER SERVICES ARE TO BE 2" UNLESS OTHERWISE NOTED OR SPECIFIED PER PROVED STANDARD DETAILS PER - DW - SHEET C-04.

UTILITY CONFLICT CROSSING TABLE

1	PROP. 6" PVC WM, BOT EL=10.42	EX. 8" VCP (LINED) SEWER, TOP EL=9.376
2	EX. 6" CIP WM, BOT EL=12.058	PROP. 12" PVC WM, TOP EL=11.00
3	EX. 4" PVC BURIED ATAT, BOT EL=12.224	PROP. 6" PVC WM, TOP EL=11.00
4	PROP. 12" PVC WM, BOT EL=10.70	EX. 8" PVC SANI. SEWER, TOP EL=9.328
5	EX. 1" BURIED WATER LINE, BOT EL=11.82	PROP. 12" PVC WM, TOP EL=11.23
6	EX. 8" CI SANITARY SEWER, BOT EL=11.224	PROP. 12" PVC WM, TOP EL=10.00
7	EX. ATAT DUCT, BOT EL=11.82	PROP. 12" PVC WM, TOP EL=10.00
8	EX. 6" PVC WM, BOT EL=11.26	PROP. 12" PVC WM, TOP EL=10.00

SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23



TEST HOLE DATA

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH13	15.59	3.26	6" PVC WATER
TH14	15.07	2.49	8" CAST IRON SANITARY SEWER FORCE MAIN
TH14A	15.08	6.79	PVC SANITARY SEWER SERVICE LATERAL
TH15	16.29	2.25	1" WATER
TH16	14.56	2.60	8" CAST IRON SANITARY SEWER FORCE MAIN

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LEGEND EXISTING

- BRIGATION CRAWLEY SPOKE
- SEWER FORCE MAIN
- SEWER SERVICE
- BURIED PPL
- OVERHEAD PPL
- BURIED ATT
- BURIED FIBER OPTIC
- IRIGATION CRAWLEY SPOKE
- SEWER FORCE MAIN
- SEWER SERVICE
- BURIED PPL
- OVERHEAD PPL
- BURIED ATT
- BURIED FIBER OPTIC

LEGEND PROPOSED

- PROPOSED WATER MAIN
- PROPOSED WATER SERVICE WITH CASING & METER BOX
- PROPOSED LINE STOP WITH 2 BENDS
- SEWER/WALK/DRAINAGE/LEAK RESTORATION, CONCRETE
- PROPOSED WATER MAIN
- PROPOSED WM GATE VALVE
- PROPOSED FIRE INFRANT
- PROPOSED LINE STOP
- LIMITS OF MILL & OVERLAY
- ASPHALT RESTORATION

LEGEND ADDITIONAL INFORMATION

- WATER METER BOX
- WATER VALVE
- MANHOLE
- WOOD LIGHT POLE
- WOOD UTILITY POLE
- POTHOLE
- WATER METER BOX
- WATER VALVE
- MANHOLE
- WOOD LIGHT POLE
- WOOD UTILITY POLE
- POTHOLE

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83)
CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29



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Cell: (407) 448-0888

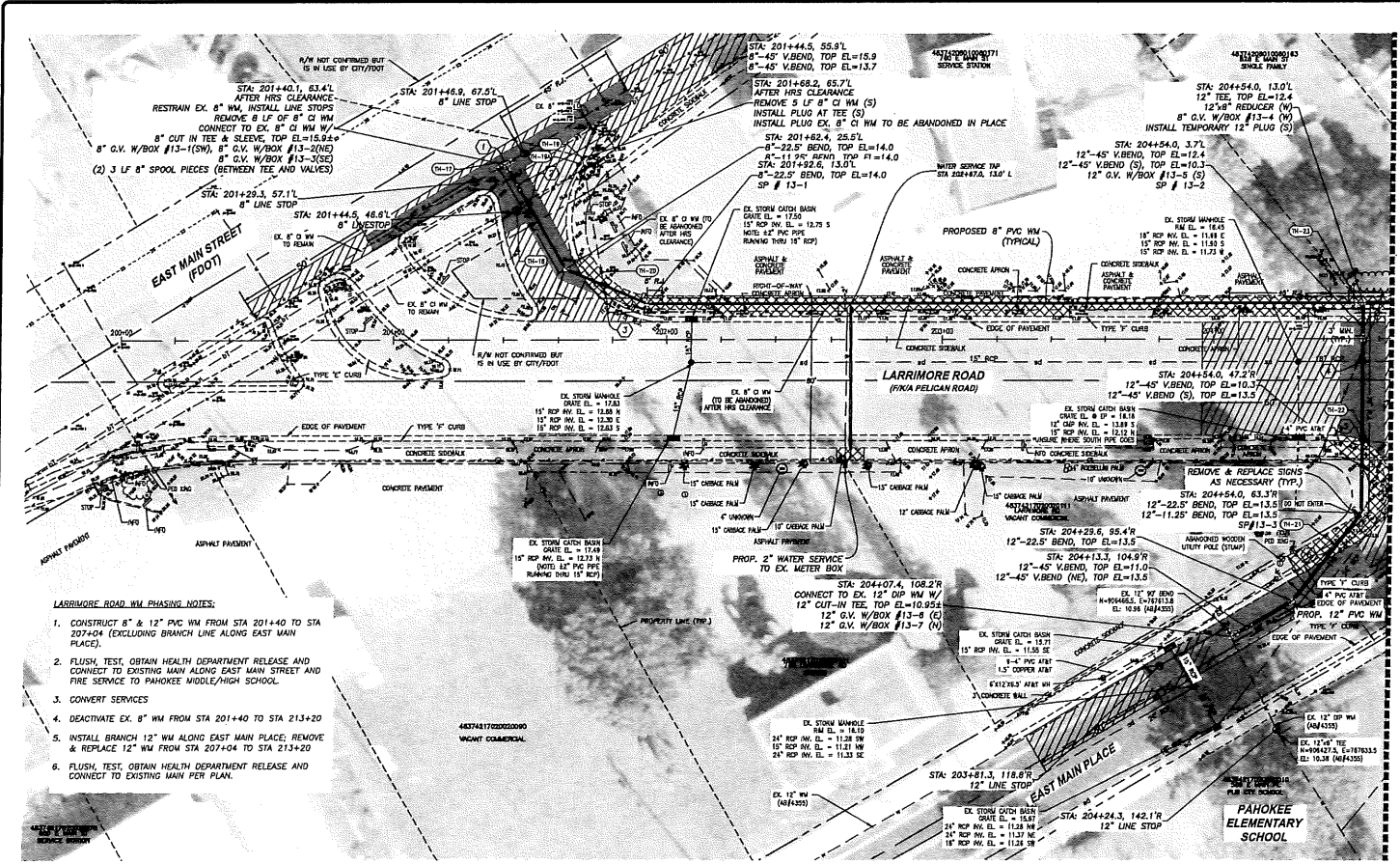
KEA PROJECT No. 17-1186
DESIGNED BY: R. WESTERMEYER
DRAWN BY: M. WELLS-KASH
CHECKED BY: M. WELLS-KASH
APPROVED BY: M. KESHAVARZ
DATE: 04/08/20



No.	Date	Description

Randy Wescampy
P.E. 72504
Oct 14, 2019

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FIELD DOCUMENT
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If Incorporated with FS
Chapter 281.901 FF
Chapter 118.071 (5) (b)
FS Chapter 123



- LARRIMORE ROAD WM PHASING NOTES:**
1. CONSTRUCT 8" & 12" PVC WM FROM STA 201+40 TO STA 207+04 (EXCLUDING BRANCH LINE ALONG EAST MAIN PLACE).
 2. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN ALONG EAST MAIN STREET AND FIRE SERVICE TO PAHOKEE MIDDLE/HIGH SCHOOL.
 3. CONVERT SERVICES
 4. DEACTIVATE EX. 8" WM FROM STA 201+40 TO STA 213+20
 5. INSTALL BRANCH 12" WM ALONG EAST MAIN PLACE; REMOVE & REPLACE 12" WM FROM STA 201+04 TO STA 213+20
 6. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN PER PLAN.

NOTES:

1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
2. ALL UTILITIES UNDESEVED SHALL BE RELO AND REINSTALLED UNDER THE CONTRACTOR'S SUPERVISION. EXISTING UTILITIES WITH SUFFICIENT CLEARANCE AND 18" MINIMUM CLEARANCE FOR ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER MAINS WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO MAINTAIN VARIOUS TYPES OF DRAINAGE SCHEMES OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REINSTALLED IN-LINE WITH PROPOSED CHANGES. SIGNAGE IS TO BE REINSTALLED IN ACCORDANCE WITH THE ORIGINAL LOCATION OF EXISTING VALVES.
5. CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHUT OFFS OF EX. MAINS WITH PROPOSED AND EXISTING UTILITIES. ALL PROPOSED WATER MAIN SHALL HAVE 36" MINIMUM COVER.
7. DO NOT REMOVE ANY EX. UTILITY MAINS UNLESS OTHERWISE NOTED OR INDICATED PER ROAD STANDARD DETAILS FM - 104, SHEET C-09.

SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23



UTILITY CONFLICT CROSSING TABLE

- | | |
|--|---|
| <ul style="list-style-type: none"> 1. EX. BURIED TELEPHONE, BOT EL.=17.04, PROP. 8" PVC WM, TOP EL.=12.82 2. EX. 8" CI WM, BOT EL.=14.32, PROP. 8" PVC WM, TOP EL.=13.80 3. EX. 8" CI WM, BOT EL.=14.54, PROP. 8" PVC WM, TOP EL.=14.00 4. EX. 18" RCP STORM, BOT EL.=11.32, PROP. 12" PVC WM, TOP EL.=10.30 | <ul style="list-style-type: none"> 5. EX. 4" BURIED TELEPHONE, BOT EL.=13.20, PROP. 12" PVC WM, TOP EL.=10.3 6. PROP. 12" PVC WM, BOT EL.=12.43, EX. 4" BURIED TELEPHONE, TOP EL.=11.69 |
|--|---|

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH17	18.35	3.49	8" CAST IRON WATER
TH18	18.85	3.78	8" CAST IRON WATER
TH19	18.68	3.60	8" CAST IRON WATER
TH19A	18.66	3.82	8" CAST IRON WATER

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH20	18.48	3.20	8" CAST IRON WATER
TH21	16.58	4.87	4" PVC TELEPHONE
TH22	16.23	2.68	PVC TELEPHONE
TH23	16.51	2.83	8" CAST IRON WATER

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<p>WATER MAIN CONCRETE SEWER FORCE MAIN STORM DRAINAGE BURIED PTL OVERHEAD PTL BURIED A/T BURIED FIBER OPTIC</p>	<p>IRRIGATION BURIED CABLE RIGHT OF WAY PROPERTY LINE EASEMENT LINE BOLLARD SON</p>	<p>LEGEND EXISTING</p> <p>□ = SANITARY CLEAN OUT □ = ELECTRIC HAND POLE □ = CONCRETE TRAFFIC SIGNAL □ = TRAFFIC SIGNAL SPURCE BOX □ = BACK FLOW PREVENTER</p>	<p>LEGEND PROPOSED</p> <p>□ = RESTRAIN JOINT □ = PROPOSED WATER MAIN □ = WITH CASING & METER BOX □ = WITH VERTICAL DEFLECTION WITH 2 BENDS □ = SIDEWALK/DREWEAY/CURB RESTORATION, CONCRETE</p>	<p>SEE SHEET 3 FOR ADDITIONAL INFORMATION</p> <p>□ = WATER METER BOX □ = TELEPHONE RISER □ = MAILBOX □ = TELEPHONE MANHOLE □ = POTHOLE</p>	<p>□ = WM REDUCER □ = PROPOSED WM GATE VALVE □ = PROPOSED FIRE HYDRANT □ = LIMITS OF MILL & OVERLAY □ = ASPHALT RESTORATION</p>
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VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)
CONVERSION FACTOR:
NAV88 = 1.24 - NAV29



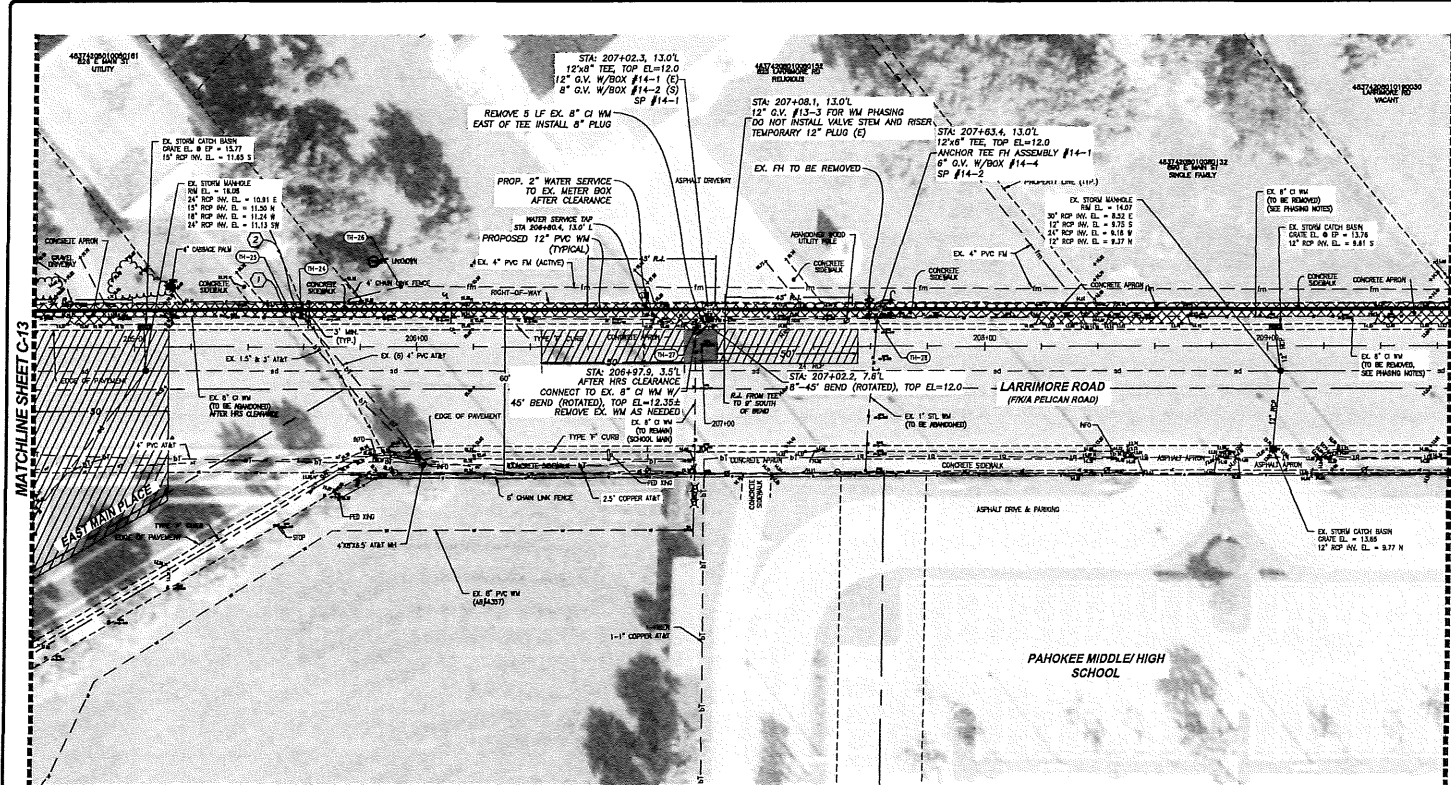
KESHAVARZ & ASSOCIATES
Civil Engineers & Land Surveyors
111 North Dixie Highway, Suite 201
West Palm Beach, Florida 33411
Tel: (407) 419-4444
Certificate of Authorization No. 4497

K&A PROJECT No. 17-1184
DESIGNED BY: R. WERTZEL
DRAWN BY: L. REILLY
CHECKED BY: M. WELLS
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

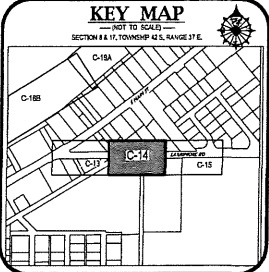


Randy Watters
P.E. 72504
Oct 14, 2019

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PRELIMINARY DOCUMENT
NOT FOR PUBLIC DISCLOSURE
In accordance with FS
Chapter 281.361 F.S.
Chapter 118.071 (3) (b)
EX-Chapter 152



- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SPAN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UTILITIES UNCOVERED SHALL BE RELOADED AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVERLAPPING EXISTING UTILITIES WITH 6" MINIMUM VERTICAL CLEARANCE AND 1" HORIZONTAL CLEARANCE FOR ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER MAINS WITH A MINIMUM OF 32" VERTICAL CLEARANCE.
 3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITIONS. CONTRACTOR TO PROVIDE YARD TAPPING OF DUTIES SCOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED IN-PLACE, WHERE CLEARANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES. WATER MAIN AND BRANCH CONNECTIONS, SOME INSTANCES MAY NOT BE IDENTIFIABLY IDENTIFIED BY CONTRACTOR. BRANCH TAP-INS ARE TO BE IN ACCORDANCE WITH LATEST PIPING AND WELDING STANDARDS.
 5. CONTRACTOR TO DETERMINE LOCATION OF LINE STOPS AND/OR SHUT DOWNS OF EX. MAINS WITH PROTECT AND BENCHMARK. LOCATIONS ARE TO BE ADJUSTED BASED ON HORIZONTAL POSITION OF EXISTING VALVES.
 6. ALL PROPOSED NEW WATER MAINS SHALL BE REINFORCED AND HAVE 5% MINIMUM EXCESSIVE CAPACITY. WATER MAIN SHALL HAVE 5% EXCESSIVE CAPACITY. EXCESSIVE CAPACITY SHALL BE 5% EXCESSIVE CAPACITY. EXCESSIVE CAPACITY SHALL BE 5% EXCESSIVE CAPACITY.
 7. ALL PIPE INSTALLATION AT THE POINT SHALL MEET EXISTING 75% OF THE MANUFACTURER'S RECOMMENDED WORKING POINT DEFLECTION.
 8. WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ASSAULTED ON PLACE AFTER HIS CLEARANCE OF THE MAINS.
 9. SEE SHEET C-14 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-15 FOR ADDITIONAL GENERAL DETAILS.
 10. PROPOSED WATER SERVICES ARE TO BE IN ACCORDANCE WITH THE LATEST PIPING AND WELDING STANDARDS. DETAILS PIPING - 100, SHEET C-05.



SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

- LARRIMORE ROAD WM PHASING NOTES:**
1. CONSTRUCT 8" & 12" PVC WM FROM STA 201+40 TO STA 207+04 (EXCLUDING BRANCH LINE ALONG EAST MAIN PLACE)
 2. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN ALONG EAST MAIN STREET AND FIRE SERVICE TO PAHOKEE MIDDLE/HIGH SCHOOL.
 3. CONVERT SERVICES
 4. DEACTIVATE EX. 8" WM FROM STA 201+40 TO STA 213+20
 5. INSTALL BRANCH 12" WM ALONG EAST MAIN PLACE; REMOVE & REPLACE 12" WM FROM STA 207+04 TO STA 213+20
 6. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN PER PLAN.

UTILITY CONFLICT CROSSING TABLE

①	EX. 1.5" UNDERMIN TELEPHONE BOT EL=12.80 EX. 1" DIRECT BURIED CABLE TOP EL=11.12 PROP. 12" PVC WM TOP EL=12.20 DEFLECT EX. UTILITY AS NECESSARY.
②	EX. (6) 4" TELEPHONE BOT EL=13.24 PROP. 12" PVC WM TOP EL=12.20

TEST HOLE DATA

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH24	15.95	2.24	(6) 4" TELEPHONE
TH25	16.05	3.05	1.5" TELEPHONE
TH26	15.98	4.37	SANITARY FORCE MAIN
TH27	14.57	2.22	8" CAST IRON WATER
TH28	14.71	2.70	1" STEEL WATER

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SUNSHINE 811

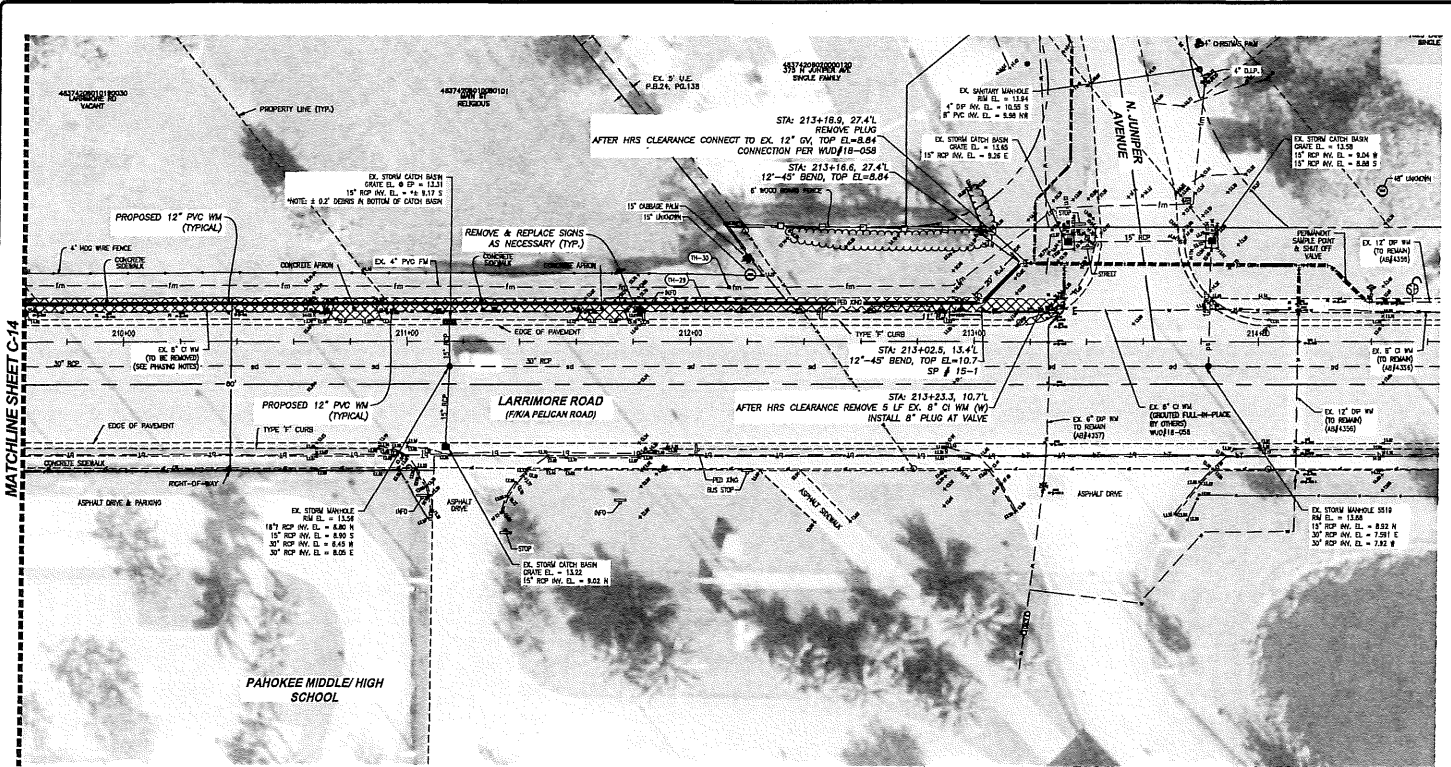
<p>LEGEND EXISTING</p> <ul style="list-style-type: none"> --- WATER MAIN --- COUNTY SEWER --- SEWER FORCE MAIN --- STORM DRAINAGE --- BURIED FPL --- OVERHEAD FPL --- BURIED FT --- BURIED FIBER OPTIC --- IRRIGATION BURIED CABLE --- RIGHT OF WAY --- PROPERTY LINE --- EASEMENT LINE --- BOLLARD --- SIGN --- CABLE TELEVISION RISER 	<p>LEGEND PROPOSED</p> <ul style="list-style-type: none"> --- PROPOSED WATER SERVICE WITH CASING & METER BOX --- WM VERTICAL DEFLECTION WITH 2 BENDS --- SIDEWALK/DRAWNWAY/CURB RESTORATION CONCRETE --- SANITARY CLEAN OUT --- ELECTRIC HAND POLE --- CONCRETE TRAFFIC SIGNAL --- TRAFFIC SIGNAL SPURCE BOX --- BACK FLOW PREVENTER --- WATER METER BOX --- TELEPHONE SPURCE BOX --- TELEPHONE RISER --- MANBOX --- TELEPHONE MANHOLE --- POTHOLE --- WATER VALVE --- FIRE HYDRANT --- WOOD LIGHT POLE --- WOOD UTILITY POLE 	<p>VERTICAL DATUM</p> <p>ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)</p> <p>CONVERSION FACTOR: NAVD88 = 1.24 + NGVD29</p>
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Tel: (407) 499-4999
Certificate of Authorization No. 6987

PROJECT No. 17-1184
DESIGNED BY: R. WERTZMAN
DRAWN BY: L. RELMANN
CHECKED BY: M. WELLS
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

DATE: OCT 14, 2019 TIME: 11:00 AM BY: PREPARED BY: RANDY WATTERS
 DATE: OCT 14, 2019 TIME: 11:00 AM BY: PREPARED BY: RANDY WATTERS
 DATE: OCT 14, 2019 TIME: 11:00 AM BY: PREPARED BY: RANDY WATTERS

DATE: 10/14/19 TIME: 11:10 AM BY: WRETEPNJ
 DRAWN: P.E. 72504
 PROJECT: 17-1184
 SHEET: C-15
 PLAN SHEETS: 17-1184-17, 17-1184-18, 17-1184-19, 17-1184-20, 17-1184-21, 17-1184-22, 17-1184-23, 17-1184-24, 17-1184-25, 17-1184-26, 17-1184-27, 17-1184-28, 17-1184-29, 17-1184-30, 17-1184-31, 17-1184-32, 17-1184-33, 17-1184-34, 17-1184-35, 17-1184-36, 17-1184-37, 17-1184-38, 17-1184-39, 17-1184-40, 17-1184-41, 17-1184-42, 17-1184-43, 17-1184-44, 17-1184-45, 17-1184-46, 17-1184-47, 17-1184-48, 17-1184-49, 17-1184-50, 17-1184-51, 17-1184-52, 17-1184-53, 17-1184-54, 17-1184-55, 17-1184-56, 17-1184-57, 17-1184-58, 17-1184-59, 17-1184-60, 17-1184-61, 17-1184-62, 17-1184-63, 17-1184-64, 17-1184-65, 17-1184-66, 17-1184-67, 17-1184-68, 17-1184-69, 17-1184-70, 17-1184-71, 17-1184-72, 17-1184-73, 17-1184-74, 17-1184-75, 17-1184-76, 17-1184-77, 17-1184-78, 17-1184-79, 17-1184-80, 17-1184-81, 17-1184-82, 17-1184-83, 17-1184-84, 17-1184-85, 17-1184-86, 17-1184-87, 17-1184-88, 17-1184-89, 17-1184-90, 17-1184-91, 17-1184-92, 17-1184-93, 17-1184-94, 17-1184-95, 17-1184-96, 17-1184-97, 17-1184-98, 17-1184-99, 17-1184-100



- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL DEPTH CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UNDETERMINED LOCATIONS SHALL BE REVEAL AND REVEALED USING CONSTRUCTION. ALL WATER SERVICES SHALL BE REVEALED USING EXISTING UTILITIES WITH 6" MINIMUM VERTICAL CLEARANCE AND 3" MINIMUM CLEARANCE FOR ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING UTILITY LINES WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
 3. ALL AREAS RESTORED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VIDEO TAPING OF ENTIRE SCOPE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 4. EXISTING STREET STORAGE AND HANDICAPS ARE TO BE REMOVED AND REPAIRED IN-AKIND. WHERE RESTORANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WATER MAIN AND BRANCH CONNECTIONS, SAME DISTANCES MAY NOT BE MAINTAINED. ALL REPAIRS SHALL BE IN ACCORDANCE WITH LATEST PRACTICE AND NOTES STANDARD.
 5. CONTRACTOR TO COORDINATE LOCATION OF THE STOPS AND/OR SHUT-OFFS OF EX. MAINS WITH RECORD AND ENGINEER. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING VALVES.
 6. ALL PROPOSED STOP WATER MAINS SHALL BE REVEALED AND HAVE 30" RECORD COVER. ALL PROPOSED PVC WATER MAINS SHALL HAVE 18" RECORD COVER.
 7. SET PIPE REFLECTION AT THE JOINT SHALL NOT EXCEED 75% OF THE MANUFACTURERS RECOMMENDED WORKING JOINT DEFLECTION.
 8. WHERE SIGN ON PLANS, EXIST, WATER MAINS ARE TO BE DEACTIVATED OR ALIQUOTED IN PLACE AFTER HRS CLEARANCE OF THE MAINS.
 9. SEE SHEET C-14 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-15 FOR ADDITIONAL GENERAL NOTES.
 10. PREP. WATER SERVICES ARE TO BE IN PLACE UNLESS OTHERWISE NOTED OR EQUIPPED PER PROPOSED STANDARD DETAILS F-104, SHEET C-06.

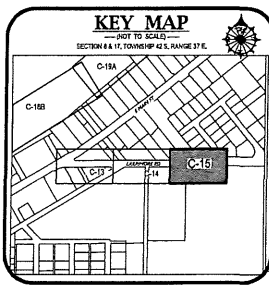
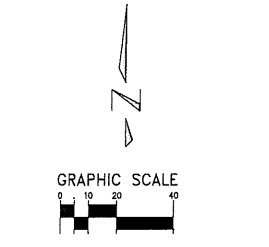
SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

LARRIMORE ROAD WM PHASING NOTES:

1. CONSTRUCT 8" & 12" PVC WM FROM STA 201+40 TO STA 207+04 (EXCLUDING BRANCH LINE ALONG EAST MAIN PLACE).
2. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN ALONG EAST MAIN STREET AND FIRE SERVICE TO PAHOKEE MIDDLE/HIGH SCHOOL.
3. CONVERT SERVICES
4. DEACTIVATE EX. 8" WM FROM STA 201+40 TO STA 213+20
5. INSTALL BRANCH 12" WM ALONG EAST MAIN PLACE; REMOVE & REPLACE 12" WM FROM STA 207+04 TO STA 213+20
6. FLUSH, TEST, OBTAIN HEALTH DEPARTMENT RELEASE AND CONNECT TO EXISTING MAIN PER PLAN.

TEST HOLE DATA

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH28	13.83	2.76	8" CAST IRON WATER
TH30	13.81	3.29	4" PVC SANITARY FORCE MAIN



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CALL TWO (2) BUSINESS DAYS BEFORE YOU DIG.
SUNSHINE 811

LEGEND EXISTING

- WATER MAIN
- SANITARY SPUR
- SEWER FORCE MAIN
- STORM DRAINAGE
- BURIED FPL
- OVERHEAD FPL
- BURIED ATT
- BURIED FIBER OPTIC
- IRRIGATION
- BURIED CABLE
- RIGHT OF WAY
- PROPERTY LINE
- EASEMENT LINE
- BOLLARD
- SIGN
- CABLE TELEVISION RISER
- SANITARY CLEAN OUT
- ELECTRIC HAND POLE
- CONCRETE TRAFFIC SIGNAL
- TRAFFIC SIGNAL SPUR BOX
- BOLLARD
- SIGN
- CABLE TELEVISION RISER
- BACK FLOW PREVENTER
- WATER METER BOX
- WATER VALVE
- FIRE HYDRANT
- WOOD LIGHT POLE
- WOOD UTILITY POLE
- TELEPHONE SPUR BOX
- TELEPHONE RISER
- MAIL BOX
- TELEPHONE MANHOLE
- POT HOLE
- RESTRAIN JOINT
- WATER MAIN
- PROPOSED WATER SERVICE WITH CASING & METER BOX
- WM VERTICAL DEFLECTION WITH 2 BENDS
- SIDEWALK/DRAINAGE/CURB RESTORATION, CONCRETE
- WM REDUCER
- PROPOSED WM GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED LINE STOP
- LIMITS OF MILL & OVERLAY
- ASPHALT RESTORATION

SEE SHEET 3 FOR ADDITIONAL INFORMATION

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR: NAVD88 + 1.24 = NAD83

KESHAVARZ & ASSOCIATES
Civil Engineers & Land Surveyors
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Tel: (561) 414-4449
Certified of Authorization No. 4997

PROJECT No. 17-1184
DESIGNED BY: R. WRETEPNJ
DRAWN BY: M. WILLIAMS
CHECKED BY: M. WILLIAMS
APPROVED BY: L. KESHAVARZ
DATE: 10/14/19

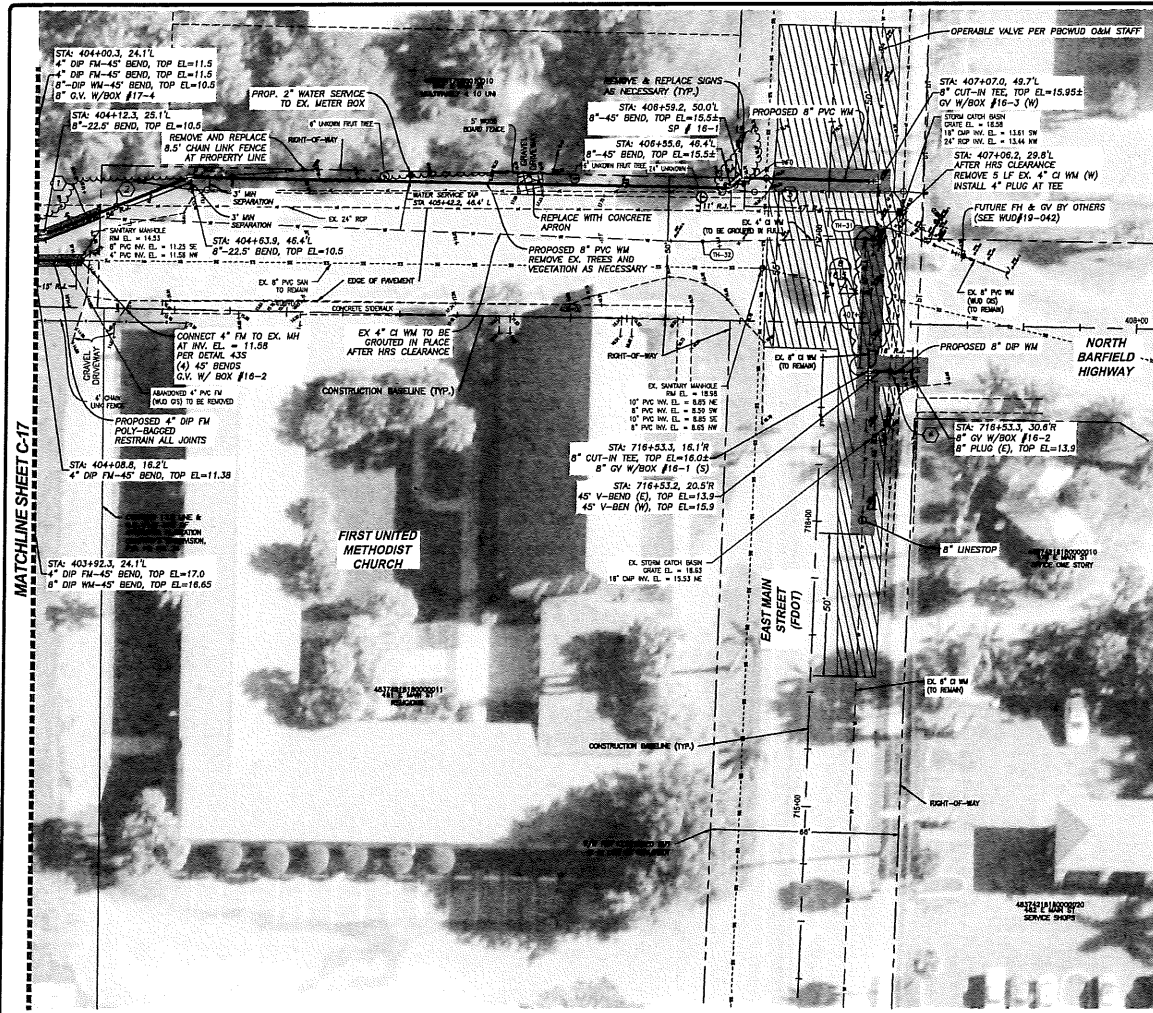
SHEET No. C-15

CONFIDENTIAL
FOR THE PROJECT ONLY
NOT FOR PUBLIC DISCLOSURE
In accordance with FS Chapter 781.301 FS
Chapter 118.071 (1)(b)
FS Chapter 113

PROJECT No. 18-056
WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE PLAN SHEET

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

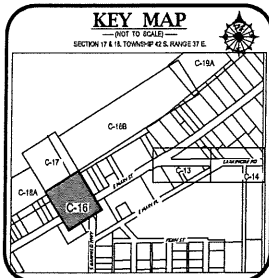
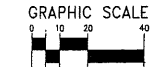
Randy Westepny
P.E. 72504
Oct. 14, 2019



UTILITY CONFLICT CROSSING TABLE

- EX. 4" CP W/ BOT EL=11.758
PROP. 8" PVC W/ TOP EL=10.50
- EX. 24" RCP BOT EL=11.326
PROP. 8" PVC W/ TOP EL=10.50
- PROP. 8" PVC W/ BOT EL=14.81
EX. 10" PVC SAN. SEWER FN, TOP EL=9.758

- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SECTION OF WATER MAIN.
 - ALL UTILITIES MARKED SHALL BE FIELD AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVER EXISTING UTILITIES WITH 18" MINIMUM VERTICAL CLEARANCE AND 3' VERTICAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER EXISTING SANITARY SEWER WITH A MINIMUM OF 30" VERTICAL CLEARANCE.
 - ALL AREAS DESIGNATED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VIDEO TAPING OF EXISTING SCENE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 - EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPAIRED OR REPLACED. WHERE NECESSARY, IT IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES. WATER MAIN AND BRANCH CONNECTIONS, SHALL INSTANCES MAY NOT BE SPECIFICALLY CALLED OUT ON CONSTRUCTION PLANS. DRAINAGE REPAIRS TO BE IN ACCORDANCE WITH LATEST BOOK AND NOTES STANDARD.
 - CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHUT OFFS OF 4" W/ MAIN WITH FIELD AND EXISTING LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL LOCATION OF EXISTING HOUSES.
 - ALL PROPOSED 8" WATER MAIN SHALL BE POLY-BLENDED AND HAVE 30" MINIMUM COVER. ALL PROPOSED PVC WATER MAIN SHALL HAVE 18" MINIMUM COVER.
 - 8" DIP PIPE DETECTION AT THE JOINT SHALL NOT EXCEED 10% OF THE MANUFACTURERS RECOMMENDED MAXIMUM JOINT DEFLECTION.
 - WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DETECTED AND ABANDONED IN PLACE AFTER HIS CLEARANCE OF NEW MAINS.
 - SEE SHEET C-16 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-10 FOR ADDITIONAL GENERAL NOTES.
 - PROP. WATER SERVICES ARE TO BE 2" UNLESS OTHERWISE NOTED OR SPECIFIED PER PROMOT STANDARD SERVICE EX - 104, SHEET C-04.



TEST HOLE DATA

NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH31	15.06	3.11	8" CAST IRON WATER
TH32	18.37	2.48	4" CAST IRON WATER

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CALL TWO (2) BUSINESS DAYS BEFORE YOU DIG.
SUNSHINE 811

SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

LEGEND EXISTING

- Water Main
- Sanitary Sewer
- Storm Drainage
- Overhead FPL
- Buried FPL
- Buried Fiber Optic
- Irrigation
- Buried Cable
- Right of Way
- Property Line
- Gasement Line
- Bollard
- Sign
- Cable Television Riser
- Sanitary Clean Out
- Electric Hand Pole
- Concrete Traffic Signal
- Traffic Signal Splice Box
- Back Flow Preventer
- Water Meter Box
- Water Valve
- Wood Light Pole
- Wood Utility Pole
- Pothole

LEGEND PROPOSED

- Restrain Joint
- Proposed Water Service with Casing & Meter Box
- Man Vertical Deflection with 2 Bends
- Specialty Driveway/Curb Restoration, Concrete
- Water Main
- Proposed Fire Hydrant
- Proposed Line Stop
- Limits of Mill & Overlay
- Asphalt Restoration
- 8" W/ Reducer
- Proposed W/ Gate Valve
- Proposed Fire Hydrant
- Proposed Line Stop
- Limits of Mill & Overlay
- Asphalt Restoration

SEE SHEET 3 FOR ADDITIONAL INFORMATION

- Water Meter Box
- Telephone Splice Box
- Telephone Riser
- Manhole
- Telephone Manhole
- Water Valve
- Fire Hydrant
- Manhole
- Telephone Manhole
- Water Meter Box
- Telephone Splice Box
- Telephone Riser
- Manhole
- Telephone Manhole
- Water Valve
- Fire Hydrant
- Manhole
- Telephone Manhole

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR: NAVD88 + 1.2 ft = NAD83



KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
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West Palm Beach, Florida 33401
Tel: (561) 995-4238
Fax: (561) 995-4239

SEA PROJECT No. 17-1184
DESIGNED BY: R. VERTEPAAS
DRAWN BY: M. KELMANS
CHECKED BY: M. KELMANS
APPROVED BY: M. KESHAVARZ
DATE: 02/14/20

PROJID No. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE

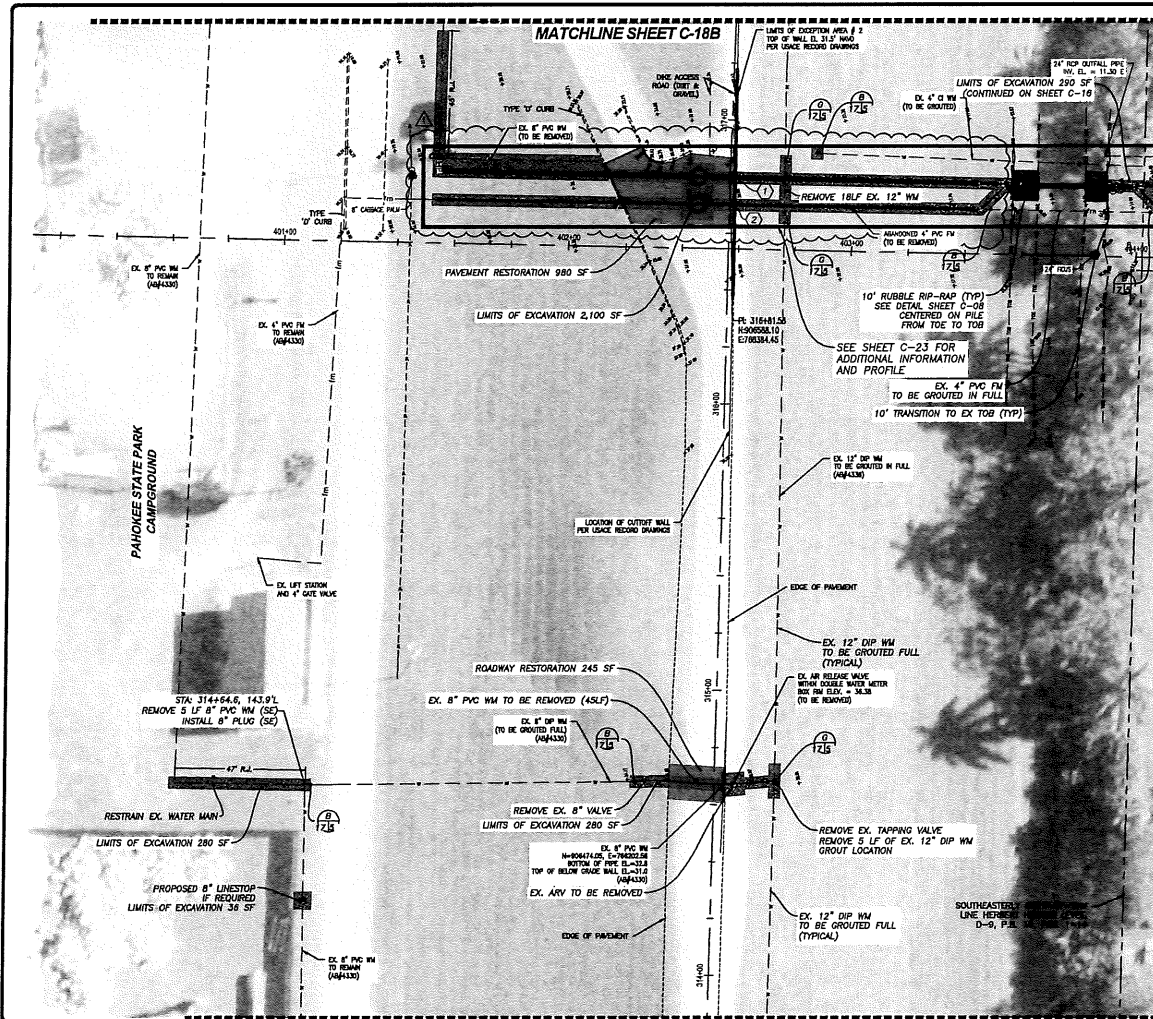
PLAN SHEET

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

No. 17-1184
Date 2/12/2020
Description: WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE

Randy Westepny
P.E. 72504
Feb 14, 2020

SHEET No. C-16



- USACE CONDITIONS (APPLIES TO SHEETS C-17 - C-21)**
- CONTRACTOR SHALL COMPLY WITH CONDITIONS LISTED ON THE CONSENT TO AWARD AGREEMENT DA06W17-9-13-0100 AS MODIFIED FOR THIS PROJECT.
 - CONTRACTOR SHALL PROVIDE RECORD DRAWINGS FOR THE INSTALLED AND ABANDONED FACILITIES TO INCLUDE ALL PERTINENT FEATURES, ELEVATIONS, AND LOCATIONS INCLUDING BUT NOT LIMITED TO PIPE SIZE, PIPE TYPE, ELEVATION, DEPTH OF COVER, FITTINGS, VALVES, APPURTENANCES, GROUT LOCATIONS AND SHALL INCLUDE EXCAVATION LIMITS (SEE NOTE 3).
 - EXCAVATION LIMITS SHALL BE PROVIDED TO USACE FOR EACH EXCAVATION INCLUDING THE LOCATION, DEPTH, SIDE SLOPES, WIDTH AT THE BOTTOM OF THE TRENCH AND BE PROVIDED WITH ACCURACY OF UP TO 1.0'S WITH ANY EXCEPTIONS NOTED AND DETAILED.
 - CONTRACTOR SHALL PROVIDE USACE WITH 48-HOURS ADVANCED NOTICE OF ANY CONSTRUCTION ACTIVITIES WITHIN USACE JURISDICTION FOR USACE REVIEW OF CONSTRUCTION OPERATIONS. CONTRACTOR SHALL NOTIFY BOTH BRIAN HURST AND USACE OPERATIONS.

- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 - ALL UTILITIES INCORPORATED SHALL BE HELD AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVER/UNDER EXISTING UTILITIES WITH 6\"/>

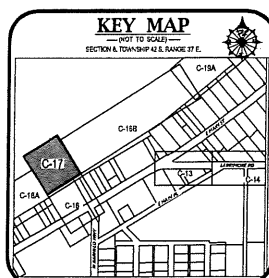
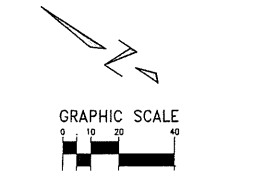
- BRIAN HURST, GEOTECHNICAL ENGINEER
OFFICE: 904-232-1542
EMAIL: Brian.K.Hurst@usace.army.mil
- JEFFREY FALLIN, OPERATIONS ASSET MANAGER
OFFICE: 904-516-2068
CELL: 904-516-2068
EMAIL: Jeffrey.Fallin@usace.army.mil

UTILITY CONFLICT CROSSING TABLE

1	PROP. 18\"/>
2	PROP. 8\"/>

TEST HOLE DATA

NO.	EX-GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH03	14.16	2.19	(2) 4\"/>
TH04	14.20	2.40	(4) 2\"/>
TH06	14.20	2.37	DUCTILE IRON WATER
TH07	14.43	2.48	0.5\"/>
TH08	14.62	3.37	CABLE TELEVISION



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CALL TWO (2) BUSINESS DAYS BEFORE YOU DIG.
SUNSHINE 811

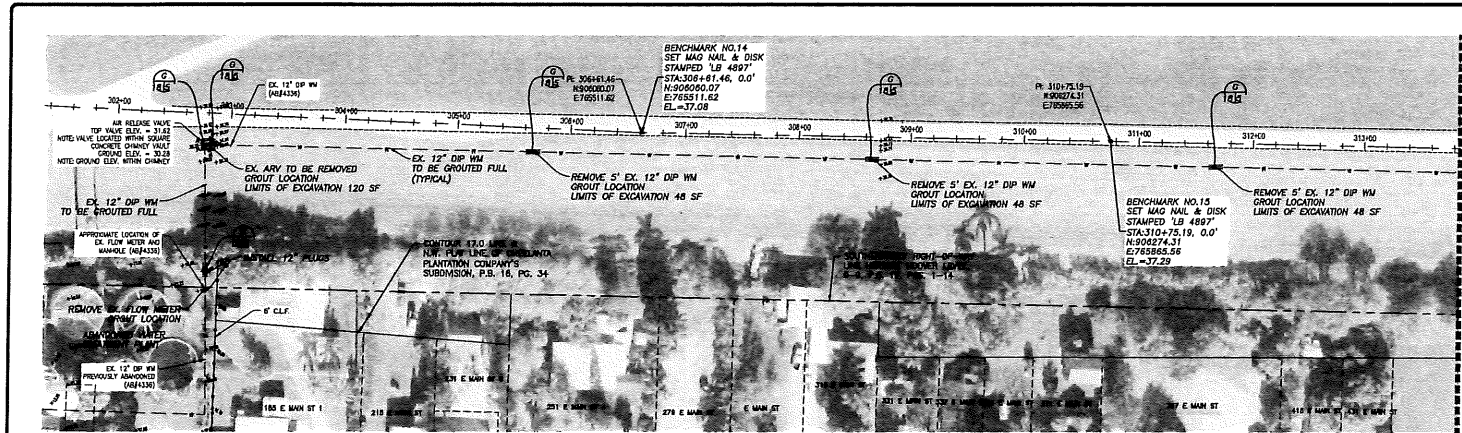
SEE HORIZONTAL CONTROL PLAN SHEETS C-24 & C-25 FOR HORIZONTAL CONTROL INFORMATION ON PLAN SHEETS C-10 THROUGH C-17 & C-23

<p>LEGEND EXISTING</p> <ul style="list-style-type: none"> IRIGATION GRAVITY SEWER SEWER FORCE MAIN STORM DRAINAGE BURIED FPL OVERHEAD FPL BURIED AT BURIED FIBER OPTIC IRIGATION BURIED CABLE RIGHT OF WAY PROPERTY LINE EASEMENT LINE BOLLARD SON CABLE TELEVISION RISER SANITARY CLEAN OUT ELECTRIC HARD POLE CONCRETE TRAFFIC SIGNAL TRAFFIC SIGNAL SPURCE BOX BACK FLOW PREVENTER WATER METER BOX WATER VALVE FIRE HYDRANT WOOD LIGHT POLE WOOD UTILITY POLE TELEPHONE SPURCE BOX TELEPHONE RISER MAILBOX TELEPHONE MANHOLE POT HOLE 	<p>LEGEND PROPOSED</p> <ul style="list-style-type: none"> PROPOSED WATER SERVICE WITH CASING & METER BOX WM VERTICAL DEFLECTION WITH 2 BENDS SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE PROPOSED WM GATE VALVE PROPOSED FIRE HYDRANT PROPOSED LINE STOP LIMITS OF HILL & OVERLAY ASPHALT RESTORATION
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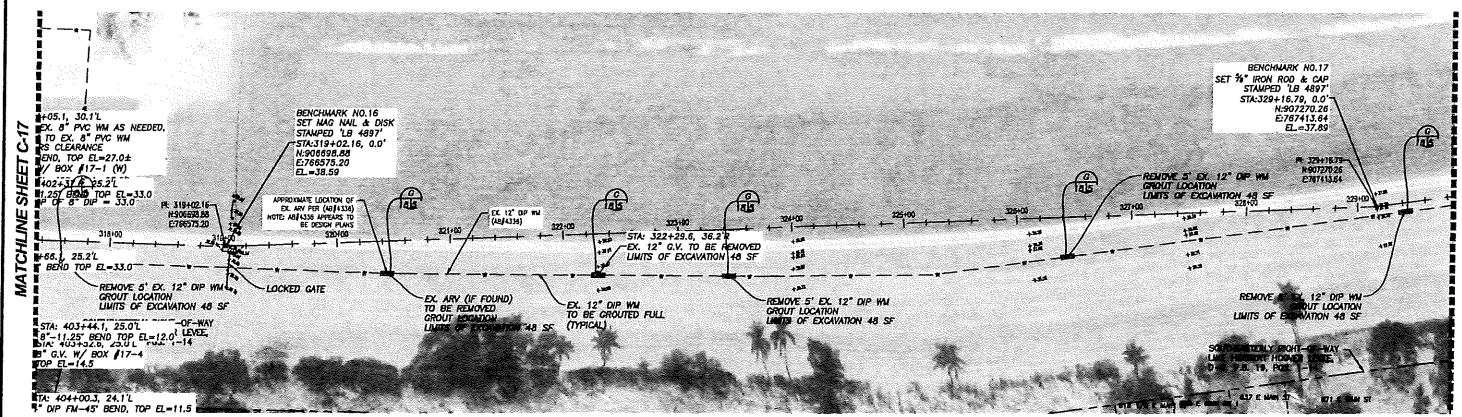
VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29

KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Tel: (407) 419-4419
Certificate of Authorization No. 897

PROJECT No. 17-1184
DESIGNED BY: R. WERTPELM
DRAWN BY: L. REILMANN
CHECKED BY: M. WELLMANN
APPROVED BY: M. KESHAVARZ
DATE: 02/02/20



18A

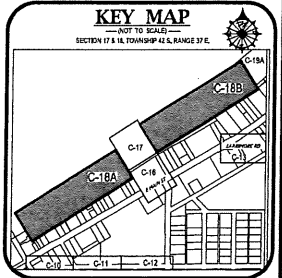
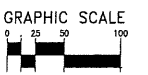


18B

MATCHLINE SHEET C-17

MATCHLINE SHEET C-19A

- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UTILITIES UNDEGROUND SHALL BE REPAIRED AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED DURING/BEFORE EXISTING UTILITIES WITH A MINIMUM VERTICAL CLEARANCE AND HORIZONTAL CLEARANCE FROM ALL UTILITIES. EXISTING WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER MAINS WITH A MINIMUM OF 32\"/>
 - 3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONSTRUCTION IS PROHIBITED WITHIN THE RIGHT OF WAY OF EXISTING STREETS UNLESS THE CONTRACTOR OBTAINS THE NECESSARY PERMITS FROM THE CITY OF PALM BEACH.
 - 4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED IN-KIND. WHERE DISTURBED IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WATER MAIN AND BRANCH CONNECTIONS, SIGNAGE SHALL BE REINSTALLED. SIGNAGE REPAIRS SHALL BE IN ACCORDANCE WITH THE CITY OF PALM BEACH SPECIFICATIONS.
 - 5. CONTRACTOR TO COORDINATE LOCATION OF FIRE STOPS AND/OR SHUT-OFFS OF EX. MAINS WITH PROPOSED AND EXISTING LOCATIONS ARE TO BE KEPT TO MAINTAIN EXISTING CONDITION OF EXISTING MAINS.
 - 6. ALL PROPOSED DIP WATER MAINS SHALL BE 18\"/>
 - 7. DIP FIRE BELLWATER AT THE JOINT SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED MAXIMUM BELLWATER.
 - 8. WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER THE CLEARANCE OF THE MAINS.
 - 9. SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-03 FOR ADDITIONAL GENERAL DETAILS.
 - 10. PROP. WATER SERVICES ARE TO BE 2\"/>



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SUNSHINE 811

LEGEND EXISTING		LEGEND PROPOSED	
--- WATER MAIN	--- IRRIGATION	--- RESTRAIN JOINT	--- WM REDUCER
--- GRUNTY SINKER	--- BURIED CABLE	--- WATER MAIN	--- PROPOSED WM GATE VALVE
--- SINKER FORCE MAIN	--- RIGHT OF WAY	--- PROPOSED WATER SERVICE WITH CASING & METER BOX	--- PROPOSED FIRE HYDRANT
--- STORM DRAINAGE	--- PROPERTY LINE	--- CONCRETE TRAFFIC SIGNAL	--- PROPOSED LINE STOP
--- BURIED FPL	--- EASEMENT LINE	--- TRAFFIC SIGNAL SPURCE BOX	--- LIMITS OF MALL & OVERLAY
--- OVERHEAD FPL	--- BOLLARD	--- FIRE HYDRANT	--- SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE
--- BURIED AT	--- SIGN	--- WALKBOX	--- ASPHALT RESTORATION
--- BURIED RISER OPTIC	--- CABLE TELEVISION RISER	--- TELEPHONE RISER	
		--- WATER METER BOX	
		--- WATER VALVE	
		--- ELECTRIC HAND POLE	
		--- CONCRETE TRAFFIC SIGNAL	
		--- TRAFFIC SIGNAL SPURCE BOX	
		--- BACK FLOW PREVENTER	
		--- SANITARY CLEAN OUT	
		--- TELEPHONE SPURCE BOX	
		--- TELEPHONE RISER	
		--- WALKBOX	
		--- TELEPHONE MANHOLE	
		--- POTWOLE	

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29

KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
711 North Dixie Highway, Suite 301
West Palm Beach, Florida 33401
Tel: (561) 994-6699
Certificate of Accreditation No. 4897

REA PROJECT No. 17-1184
DESIGNED BY: R. WERTHEIM
DRAWN BY: L. REILMANN
CHECKED BY: M. WELLS-LEWIS
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

PROJECT No. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE PLAN SHEET



PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

No.	Date	Description

Randy Wertheim
P.E. 72504
Oct. 14, 2019

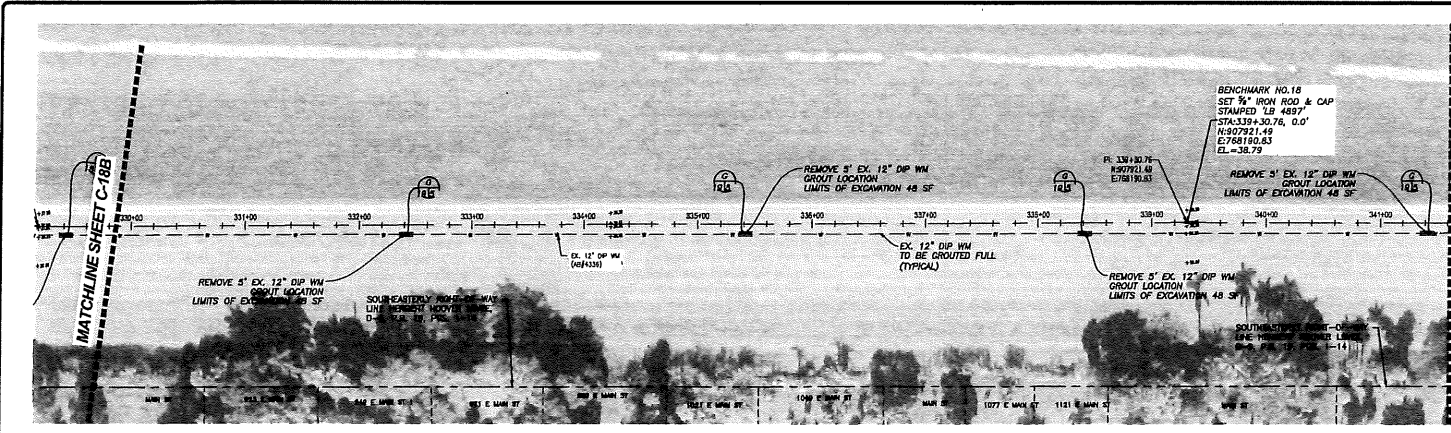
SHEET No. C-18



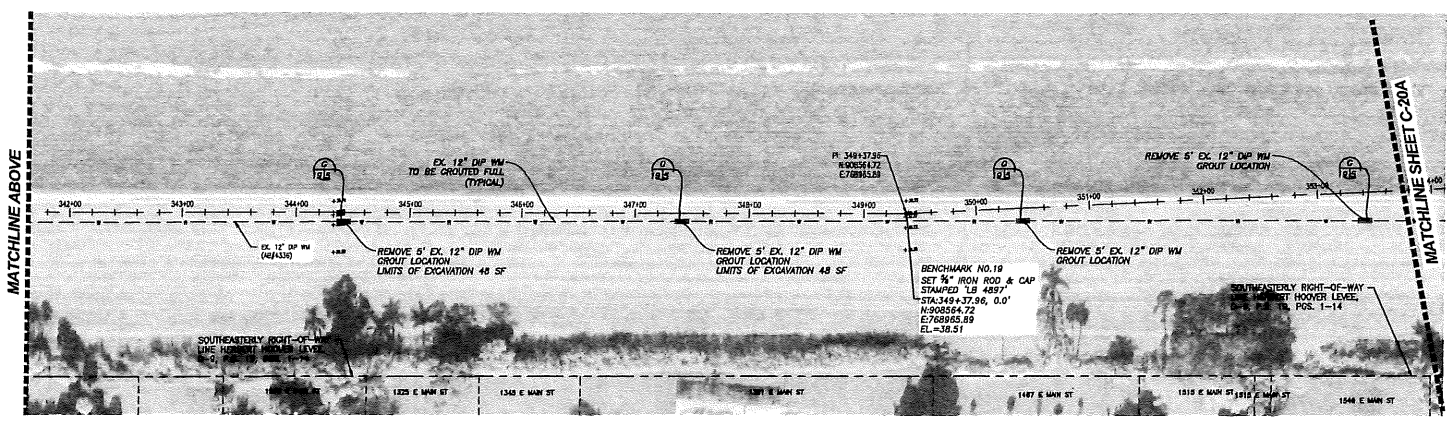
No.	Date	Description
1	10/14/2019	Issue for Review
2	10/14/2019	Issue for Construction

CONFIDENTIAL
 PREPARED DOCUMENT
 NOT FOR PUBLIC DISCLOSURE
 In Accordance with FS
 Chapter 241.01(1) FS
 Chapter 118.071(2)(b)
 FS Chapter 118

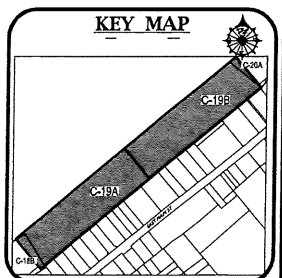
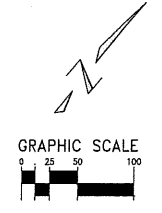
- MITES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CRITICALS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UTILITIES UNDEGRADED SHALL BE HELD AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVER/UNDER EXISTING UTILITIES WITH A MINIMUM VERTICAL CLEARANCE AND 3' HORIZONTAL CLEARANCE. FOR ALL UTILITIES PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER SERVICES WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
 3. ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VEGETATION OF INITIAL SCHEME OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE MAINTAINED AND REPLACED AS NECESSARY. WHERE RESTORANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WRITE UP AND BRAND CONNECTIONS. SOME INSTANCES MAY NOT BE SPECIFICALLY CALLED OUT BY CONTRACTOR MARK. IN-HEAD REPLACEMENT TO BE IN ACCORDANCE WITH LATEST PFD AND NOTES STANDARDS.
 5. CONTRACTOR TO COORDINATE LOCATION OF THE STOPS AND/OR SHUT DOWN OF EX. PUMP WITH PROXIM AND INCHARGE. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL OPERATION OF EXISTING VALVES.
 6. ALL PROPOSED NEW WATER MAIN SHALL BE DEGRADED AND HAVE 30' HORIZONTAL CLEARANCE. ALL PROPOSED PVC WATER MAIN SHALL HAVE 15' HORIZONTAL CLEARANCE. MINIMUM VERTICAL CLEARANCE OF EXISTING VALVES.
 7. STOP PUMP REFLECTION AT THE POINT SHALL NOT EXCEED 75% OF THE MANUFACTURERS RECOMMENDED WORKING STOP REFLECTION.
 8. WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER THE CLEARANCE OF THE MAINS.
 9. SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 10. PROP. WATER SERVICES ARE TO BE IN UNLESS OTHERWISE NOTED OR SPECIFIED PER PROPOSED STANDARD DETAILS PM - 13M, ITEM C-06.



19A



19B



IT'S THE LAW!
 CALL TWO (2) BUSINESS DAYS
 BEFORE YOUR DAY
SUNSHINE 811

--- WATER MAIN	--- IRRIGATION	--- SANITARY CLEAN OUT	--- TELEPHONE SPUR
--- GRADY SOWER	--- BURIED CABLE	--- ELECTRIC HAND POLE	--- TELEPHONE RISER
--- SEWER FORCE MAIN	--- RIGHT OF WAY	--- CONCRETE TRAFFIC SIGNAL	--- TELEPHONE MANHOLE
--- STORM DRAINAGE	--- PROPERTY LINE	--- TRAFFIC SIGNAL SPUR BOX	--- POTHOLE
--- BURIED FPL	--- EXISTENT LINE	--- WATER VALVE	
--- OVERHEAD FPL	--- COLLARD	--- FIRE HYDRANT	
--- BURIED FIT	--- SIGN	--- WALKBOX	
--- BURIED FIBER OPTIC	--- CABLE TELEVISION RISER	--- WOOD LIGHT POLE	

LEGEND EXISTING

○ = SANITARY CLEAN OUT	□ = WATER METER BOX
○ = ELECTRIC HAND POLE	□ = TELEPHONE SPUR BOX
□ = CONCRETE TRAFFIC SIGNAL	○ = TELEPHONE RISER
□ = TRAFFIC SIGNAL SPUR BOX	○ = TELEPHONE MANHOLE
□ = BACK FLOW PREVENTER	○ = POTHOLE

LEGEND PROPOSED

--- R.J. = RESTRAIN JOINT	--- W.M. REDUCER
--- W.M. = WATER MAIN	--- W.M. GATE VALVE
--- W.M. WITH CASING & METER BOX	--- PROPOSED FIRE HYDRANT
--- W.M. VERTICAL DEFLECTION WITH 2 BRIDS	--- PROPOSED LINE STOP
--- SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE	--- LIMITS OF MILL & OVERLAY
	--- ASPHALT RESTORATION

VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 CONVERSION FACTOR:
 NAVD88 + LSA = NAD83

KESHAVARZ & ASSOCIATES
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 West Palm Beach, Florida 33401
 Tel: (407) 418-4449
 Certificate of Accreditation No. 4497

KEA PROJECT No.	17-1184
DESIGNED BY:	R. WELTEPANY
DRAWN BY:	L. WELLMANN
CHECKED BY:	M. WELLMANN
APPROVED BY:	M. KESHAVARZ
DATE:	10/14/2019

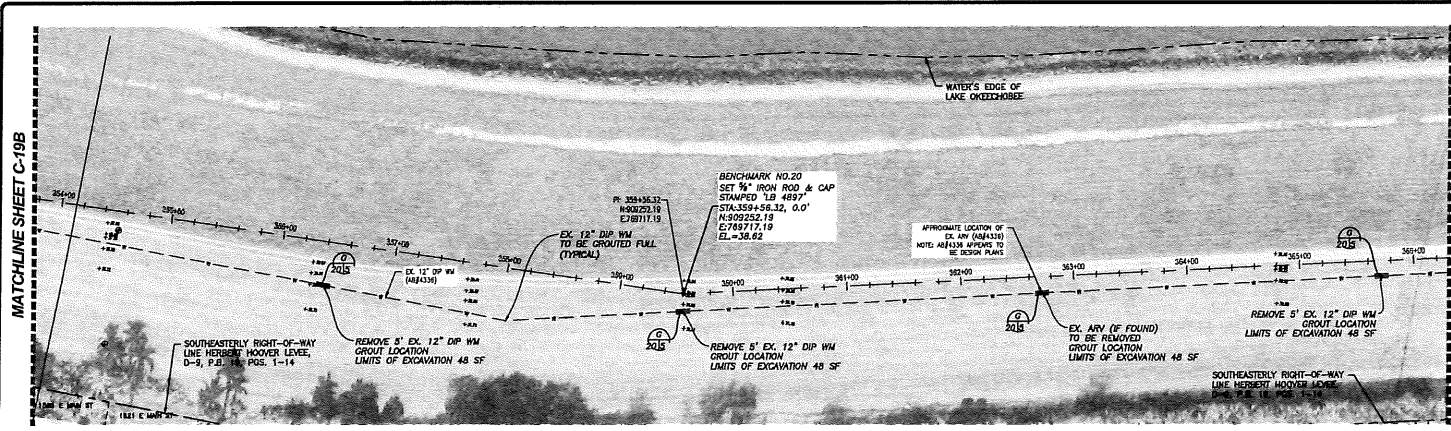
DATE: OCT 14, 2019 TIME: 11:23AM BY: MERTEN
 DRAWN BY: RANDY WESTEPANY
 CHECKED BY: M. WELLMANN
 APPROVED BY: M. KESHAVARZ



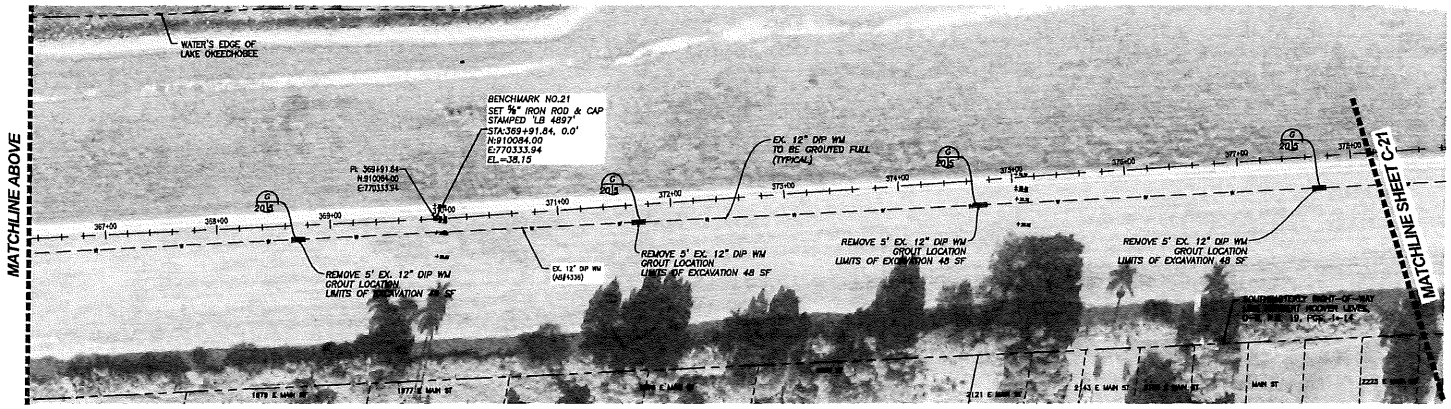
Description	No.	Date
Randy Westepm P.E. 72504		Oct 14, 2019

CONFIDENTIAL
 PRE-WORK EXCAVATION
 NOT FOR PUBLIC DISCLOSURE
 In Accordance with FS
 Chapter 348.301 FS
 Chapter 118.071 (1)(b)
 FS Chapter 124

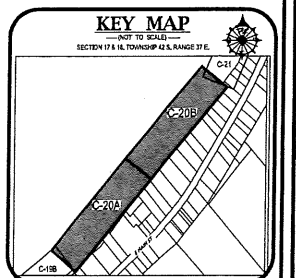
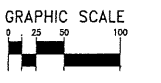
- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 - ALL UTILITIES LOCATED SHALL BE FIELD AND IDENTIFIED BY THE CONTRACTOR. ALL WATER SERVICES SHALL BE INSTALLED UNDER EXISTING UTILITIES WITH 4" MINIMUM VERTICAL CLEARANCE AND 3" MINIMUM HORIZONTAL CLEARANCE. ALL PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER MAIN WITH A MINIMUM OF 2" VERTICAL CLEARANCE.
 - ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROVIDE VEGETATION OF MATCHING SPECIES OF PROJECT PRIOR TO PROJECT COMPLETION.
 - EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE MAINTAINED UNLESS OTHERWISE NOTED. WHERE DISTURBANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WITH PAVERS AND BRICKS CONNECTIONS, ONE INSTANCES MAY NOT BE INSTALLED. ALL UTILITIES SHALL BE FIELD IDENTIFIED AND REPLACEMENT TO BE IN ACCORDANCE WITH LATEST PFD AND NOTES SPECIFICS.
 - CONTRACTOR TO COORDINATE LOCATION OF THE STOPS AND/OR SHUT OFFS OF EX. MAINS WITH PROVED AND PROVED. LOCATIONS ARE TO BE ADJUSTED BASED ON HORIZONTAL ALIGNMENT OF EXISTING VALVES.
 - ALL PROPOSED EX. WATER MAIN SHALL BE RE-PAVED WITH 18" MINIMUM OVER. ALL PROPOSED PVC WATER MAIN SHALL HAVE 36" MINIMUM COVER.
 - PIPE PIPE SELECTION AT THE JOINT SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED WORKING JOINT SELECTION.
 - WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER HIS CLEARANCE OF THE MAINS.
 - SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 - PREP. WATER SERVICES ARE TO BE 8" UNLESS OTHERWISE NOTED OR INDICATED PER PRECIP STANDARD DETAILS FOR 18" SH. SHEET C-06.



20A



20B



PLOT DATE: OCT 14, 2019 TIME: 11:50AM BY: RWESTEPM
 DRAWING: P-2019-001 FOR: PALM BEACH COUNTY WATER UTILITIES DEPARTMENT
 FILE: C:\P\2019\18-056\20A.DWG

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

WATER MAIN GROUT SOWER SOWER FORCE MAIN STORM DRAINAGE BURIED FPL OVERHEAD FPL BURIED AT BURIED FIBER OPTIC	IRRIGATION BURIED CABLE RIGHT OF WAY PROPERTY LINE EASEMENT LINE BOLLARD SON CABLE TELEVISION RISER	LEGEND EXISTING SANITARY CLEAN OUT ELECTRIC HAND POLE CONCRETE TRAFFIC SIGNAL TRAFFIC SIGNAL SPURCE BOX BACK FLOW PREVENTER	SEE SHEET 3 FOR ADDITIONAL INFORMATION WATER METER BOX WATER VALVE TELEPHONE RISER MAN BOX TELEPHONE MANHOLE POT HOLE	LEGEND PROPOSED PROPOSED WATER MAIN PROPOSED FIRE HYDRANT PROPOSED LINE STOP LIMITS OF MILL & OVERLAY ASPHALT RESTORATION	RE-STRAIN JOINT PROPOSED WATER SERVICE WITH CASINO & METER BOX WM VERTICAL DEFLECTION WITH 2 BENDS SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE	WM REDUCER PROPOSED WM GATE VALVE PROPOSED FIRE HYDRANT
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VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
 CONVERSION FACTOR:
 NAVD88 + 1.24 = NGVD29



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 West Palm Beach, Florida 33401
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 Certificate of Authorization No. 6927

REA PROJECT No. 17-1184
 DESIGNED BY: R. WERTHEPDM
 DRAWN BY: L. WELLMANN
 CHECKED BY: M. WELLMANN
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19

CONFIDENTIAL
 PREPARED FOR THE CONTRACTOR
 NOT FOR PUBLIC DISCLOSURE
 IN ACCORDANCE WITH FS
 Chapter 281.101 FS
 Chapter 118.071 (2)(b)
 11 Chapter 113

PROJECT No. 18-056

WATER MAIN RELOCATION FROM THE
 HERBERT HOOVER DIKE (HHD) IN PAHOKEE
 PLAN SHEET



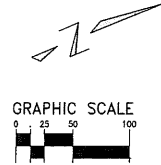
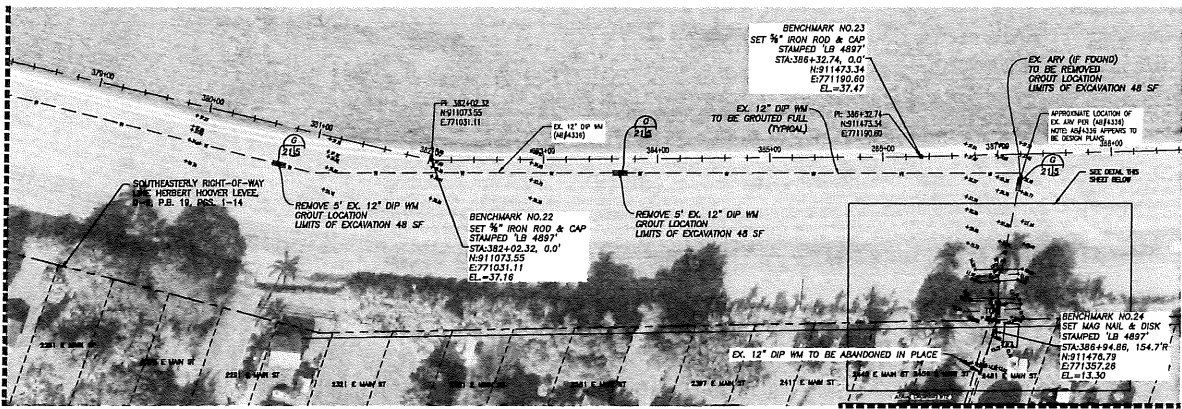
PALM BEACH COUNTY
 WATER UTILITIES
 DEPARTMENT

No.	Date	Description

Prepared by: Randy Wertheim
 P.E. 72504
 Oct 14, 2019

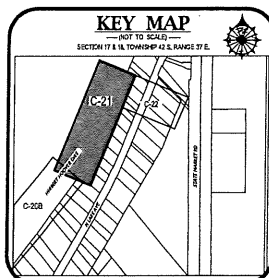
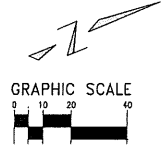
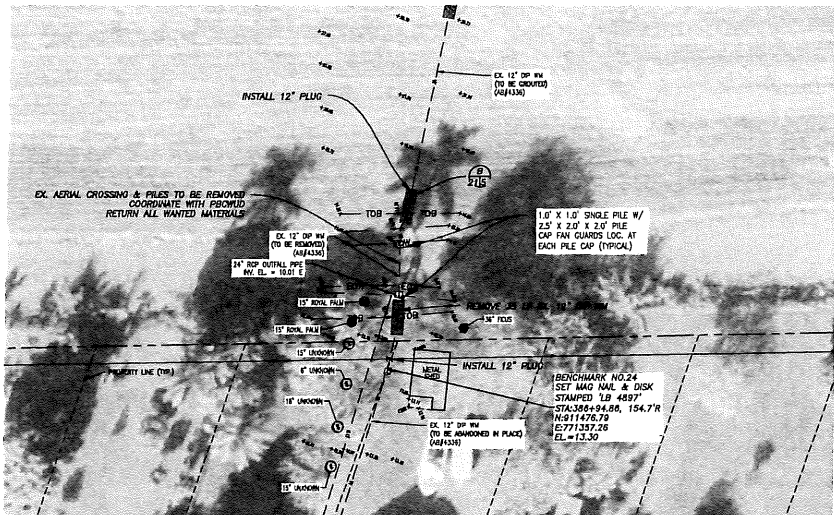
SHEET No. C-21

MATCHLINE SHEET C-20B



- MITES:
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SECTIONS OF WATER MAIN.
 2. ALL UTILITIES LOCATED SHALL BE REINFORCED AND PROTECTED DURING CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED OVERLAPPING EXISTING UTILITIES WITH A MINIMUM VERTICAL CLEARANCE AND 3' HORIZONTAL CLEARANCE PER ALL UTILITIES. PROVIDED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING WATER MAINS WITH A MINIMUM OF 22' VERTICAL CLEARANCE.
 3. ALL AREAS EXISTING MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO MAINTAIN YARD TYPING OF EXISTING SCOPE OF PROJECT PRIOR TO RECONSTRUCTION METHOD.
 4. EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED DURING WORK. WHERE RESTORATION IS REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES WITH MAIN AND BRANCH CONNECTIONS, SAME INSTANCES MAY NOT BE SPECIFICALLY CALLED OUT BY CONTRACTOR. WORK SHALL BE REPLACED TO BE IN ACCORDANCE WITH LATEST POST AND ROAD SIGNAGE.
 5. CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHEET CHANGES OF EX. MAINS WITH PRINCE AND ENGINEER. LOCATIONS ARE TO BE ADJUSTED BASED ON HORIZONTAL ALIGNMENT OF EXISTING MAINS.
 6. ALL PROPOSED DIP WATER MAIN SHALL BE VERIFIED AND HAS TO BE APPROVED OVER ALL PROPOSED WATER MAINS SHALL HAVE 3% MINIMUM COVER.
 7. DIP PIPE SELECTION AT THE POINT SHALL BE EXCEED 75% OF THE MANUFACTURERS RECOMMENDED WORKING JOINT SELECTION.
 8. WHERE SIGN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER 145' CLEARANCE OF THE MAINS.
 9. SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 10. PRIOR WATER SERVICES ARE TO BE 3" UNLESS OTHERWISE NOTED OR INDICATED PER PRINCE STANDARD DETAILS PM - 15M, SHEET C-06.

MATCHLINE SHEET C-22



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

EXISTING	PROPOSED	RESTRICTION	PROPOSED
--- WATER MAIN	--- WATER MAIN	--- RESTRAIN JOINT	--- WATER MAIN
--- SANITARY SEWER	--- SANITARY SEWER	--- PROPOSED WATER SERVICE	--- PROPOSED WATER SERVICE
--- SEWER FORCE MAIN	--- SEWER FORCE MAIN	--- WITH CASING & METER BOX	--- WITH CASING & METER BOX
--- STORM DRAINAGE	--- STORM DRAINAGE	--- WITH 2 BANDS	--- WITH 2 BANDS
--- BURIED IPT	--- BURIED IPT	--- SEWER/DRAINAGE/CURB RESTORATION, CONCRETE	--- SEWER/DRAINAGE/CURB RESTORATION, CONCRETE
--- OVERHEAD FPL	--- OVERHEAD FPL	--- ASPHALT RESTORATION	--- ASPHALT RESTORATION
--- BURIED ATT	--- BURIED ATT		
--- BURIED FIBER OPTIC	--- BURIED FIBER OPTIC		
--- IRRIGATION	--- IRRIGATION		
--- BURIED CABLE	--- BURIED CABLE		
--- RIGHT OF WAY	--- RIGHT OF WAY		
--- PROPERTY LINE	--- PROPERTY LINE		
--- EASEMENT LINE	--- EASEMENT LINE		
--- BOLLARD	--- BOLLARD		
--- SIGN	--- SIGN		
--- CABLE TELEVISION RISER	--- CABLE TELEVISION RISER		
--- SANITARY CLEAN OUT	--- SANITARY CLEAN OUT		
--- ELECTRIC MAIN POLE	--- ELECTRIC MAIN POLE		
--- CONCRETE TRAFFIC SIGNAL	--- CONCRETE TRAFFIC SIGNAL		
--- TRAFFIC SIGNAL SPLICE BOX	--- TRAFFIC SIGNAL SPLICE BOX		
--- BACK FLOW PREVENTER	--- BACK FLOW PREVENTER		
--- WATER METER BOX	--- WATER METER BOX		
--- WATER VALVE	--- WATER VALVE		
--- TELEPHONE SPLICE BOX	--- TELEPHONE SPLICE BOX		
--- TELEPHONE RISER	--- TELEPHONE RISER		
--- WALKBOX	--- WALKBOX		
--- TELEPHONE MANHOLE	--- TELEPHONE MANHOLE		
--- POTHOLE	--- POTHOLE		
--- WOOD UTILITY POLE	--- WOOD UTILITY POLE		
--- WOOD UTILITY POLE	--- WOOD UTILITY POLE		

VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN
 NORTH AMERICAN VERTICAL
 DATUM OF 1988 (NAVD88)
 CONVERSION FACTOR:
 WATD88 = L.S.I. = NGVD29

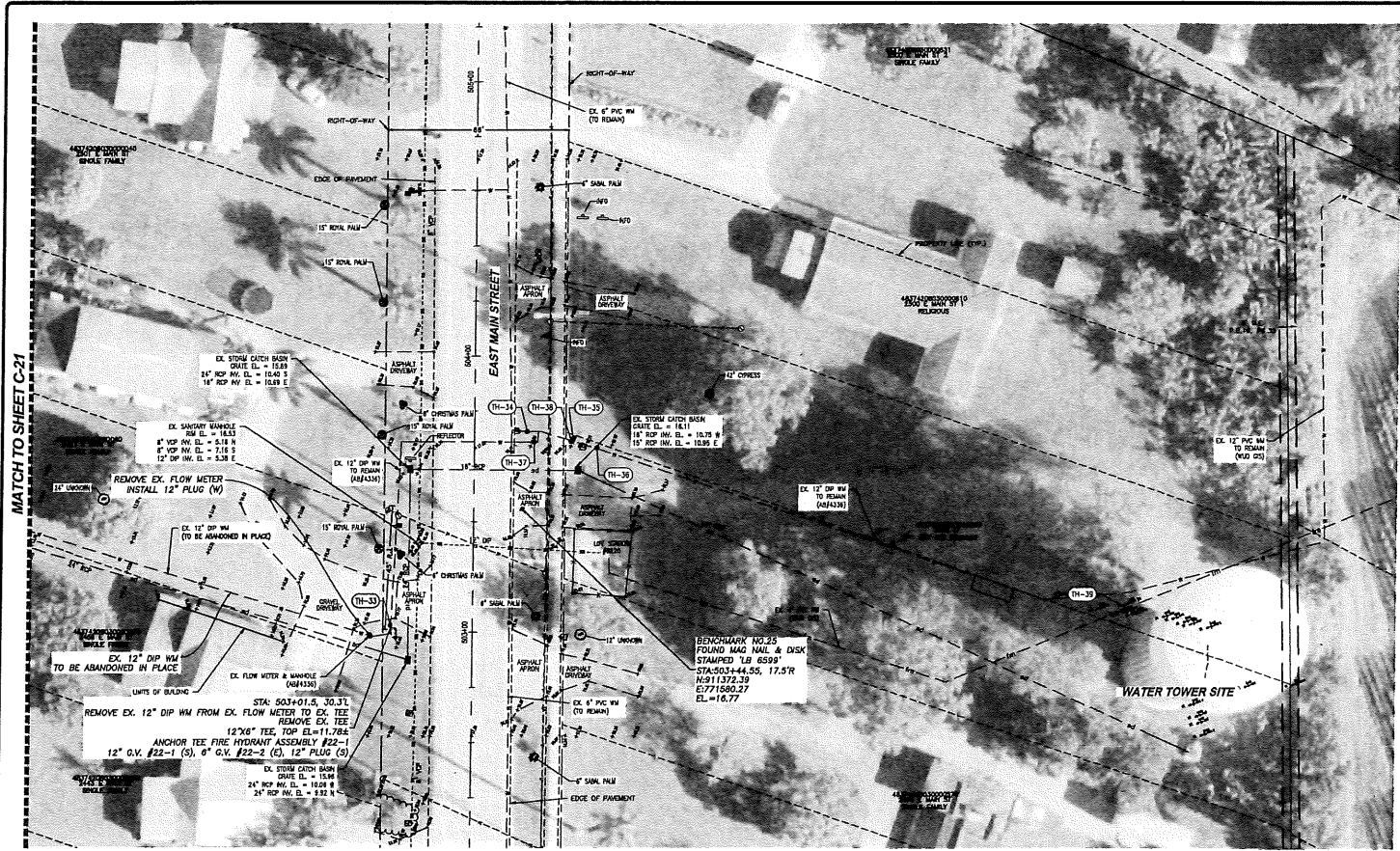


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 Tel: (561) 494-4469
 Certificate of Accreditation No. 4897

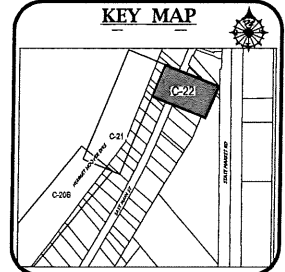
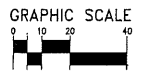
REA PROJECT No. 17-1184
 DESIGNED BY: R. WERTHEIM
 DRAWN BY: L. REILLY
 CHECKED BY: M. WELLS
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19



CONFIDENTIAL
THIS DOCUMENT IS NOT FOR PUBLIC DISCLOSURE
IN ACCORDANCE WITH FS
CHAPTER 241.001 FS
CHAPTER 118.071 (1) (b)
FS CHAPTER 118



- NOTES:**
- ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN CROSSINGS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED REPAIR OF WATER MAIN.
 - ALL UTILITIES UNDERGROUND SHALL BE KEPT AND PROTECTED USING LOCATIONAL. ALL WATER SERVICES SHALL BE INSTALLED OVER/UNDER EXISTING UTILITIES WITH 4" MINIMUM VERTICAL CLEARANCE AND 3" HORIZONTAL CLEARANCE FROM ALL UTILITIES. PROPOSED WATER SERVICES ARE TO CROSS OVER/UNDER EXISTING SANITARY SEWER WITH A MINIMUM OF 12" VERTICAL CLEARANCE.
 - ALL AREAS DISTURBED MUST BE RESTORED TO ORIGINAL OR BETTER CONDITION. CONTRACTOR TO PROTECT VARIOUS TYPES OF EXISTING SCENE OF PROJECT PRIOR TO PRE-CONSTRUCTION MEETING.
 - EXISTING STREET SIGNAGE AND MARKINGS ARE TO BE REMOVED AND REPLACED IN-LINE, WHERE DISTURBANCE IS NECESSARY FOR THE INSTALLATION OF THE PROPOSED WATER SERVICES, WATER MAIN AND BRANCH CONNECTIONS. SIGNAGE AND MARKINGS TO BE RE-INSTALLED AS SPECIFICALLY CALLED OUT BY CONTRACTOR. SIGNAGE TO BE REPLACED TO BE IN ACCORDANCE WITH LATEST POST AND SIGN STANDARDS.
 - CONTRACTOR TO COORDINATE LOCATION OF LINE STOPS AND/OR SHUT OFFS OF EX. MAINS WITH POWER AND ENGINEER. LOCATIONS ARE TO BE ADJUSTED BASED ON FUNCTIONAL CONDITION OF EXISTING VALVES.
 - ALL PROPOSED DIP WATER MAIN SHALL BE POLY-BAGGED AND HAVE 30" HODIUM COVER. ALL PROPOSED PVC WATER MAIN SHALL HAVE 18" HODIUM COVER.
 - SEE FIRE REJECTION OF THE JOINT SHALL NOT EXCEED 7/8" OF THE MANUFACTURER'S RECOMMENDED JOINT DEFLECTION.
 - WHERE SHOWN ON PLANS, EXIST. WATER MAINS ARE TO BE DEACTIVATED OR ABANDONED IN PLACE AFTER HIS CLEARANCE OF NEW MAINS.
 - SEE SHEET C-04 FOR ADDITIONAL GENERAL NOTES. SEE SHEET C-05 FOR ADDITIONAL GENERAL DETAILS.
 - PROP. WATER SERVICES ARE TO BE 1" UNLESS OTHERWISE NOTED OR SPECIFIED FOR ROAD STANDARD DETAILS P-1 - 10W, SHEET C-06.



TEST HOLE DATA			
NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH33	15.09	4.21	12" WATER
TH34	16.76	2.87	6" WATER
TH35	16.14	4.41	6" WATER
TH36	15.96	4.38	12" CAST IRON WATER

TEST HOLE DATA			
NO.	EX GROUND ELEV (FT)	MEASURED DEPTH (FT)	DESCRIPTION
TH37	16.50	4.82	12" CAST IRON WATER
TH38	18.25	4.67	12" CAST IRON WATER
TH39	17.25	1.78	1" CAST IRON WATER

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CALL TWO (2) BUSINESS DAYS BEFORE YOU DIG
SUNSHINE 811

- LEGEND EXISTING**
- IRIGATION
 - BURIED CABLE
 - SANITARY CLEAN OUT
 - BURIED WATER MAIN
 - STORM DRAINAGE
 - BURIED FPL
 - OVERHEAD FPL
 - BURIED ATT
 - BURIED FIBER OPTIC
 - PROPERTY LINE
 - CASSEMENT LINE
 - BOLLARD
 - SIGN
 - CABLE TELEVISION RISER
 - WATER METER BOX
 - WATER VALVE
 - FIRE HYDRANT
 - WOOD LIGHT POLE
 - WOOD UTILITY POLE
 - TELEPHONE SPICE BOX
 - TELEPHONE RISER
 - MAILBOX
 - TELEPHONE MANHOLE
 - POT HOLE
 - BACK FLOW PREVENTER

- LEGEND PROPOSED**
- R.J. = RESTRAIN JOINT
 - WATER MAIN
 - WITH CASINO & METER BOX
 - NEW VERTICAL DEFLECTION WITH 2 BENDS
 - SIDEWALK/DRIVEWAY/CURB RESTORATION, CONCRETE
 - WM REDUCER
 - PROPOSED FIRE HYDRANT
 - PROPOSED LINE STOP
 - LIMITS OF HILL & OVERTLAY
 - ASPHALT RESTORATION

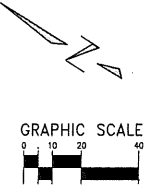
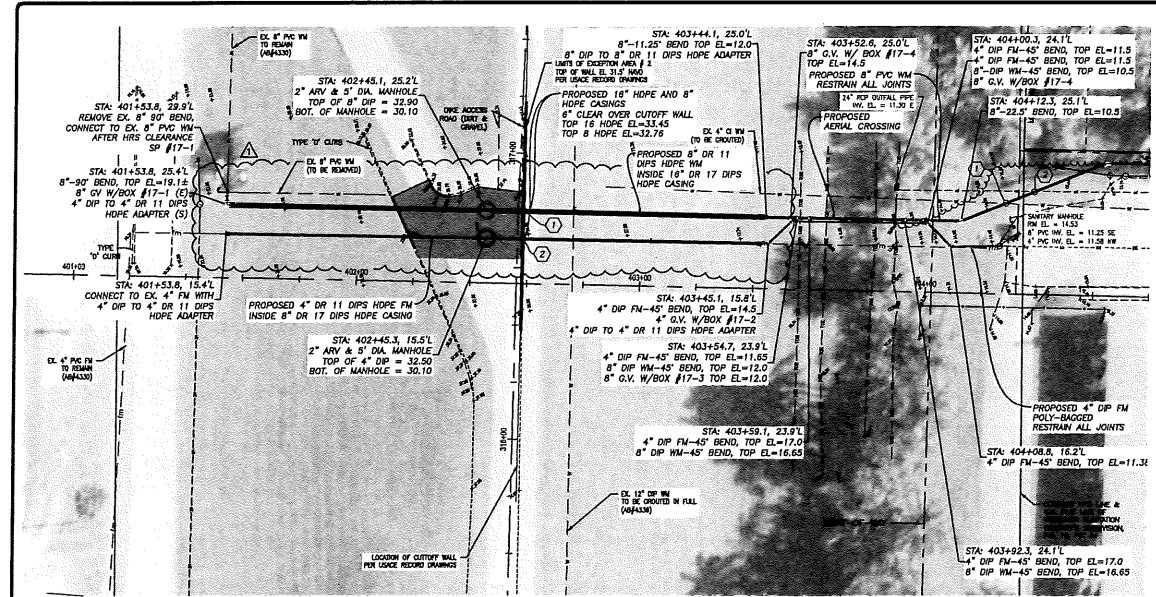
VERTICAL DATUM
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CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29



KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
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West Palm Beach, Florida 33401
Tel: (561) 494-6400
Certificate of Authorization No. 4887

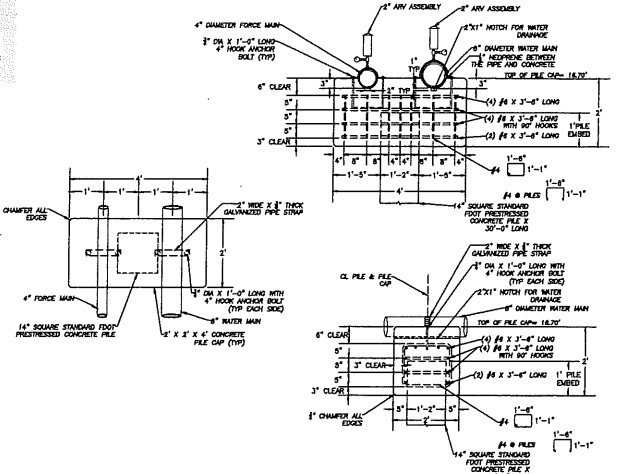
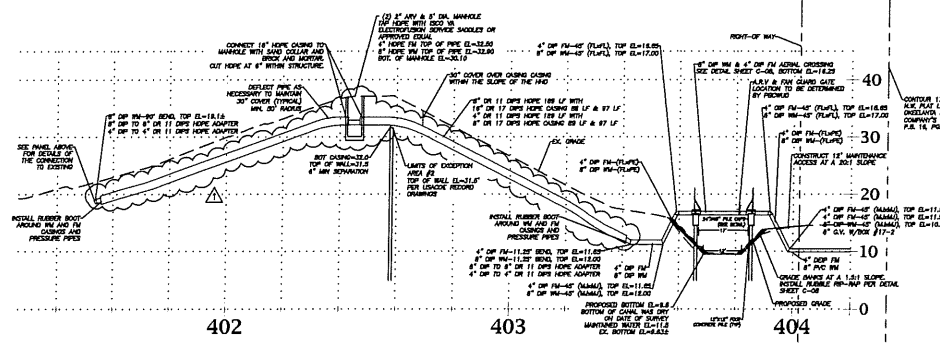
KSA PROJECT No. 17-1164
DESIGNED BY: R. WERTEPNY
DRAWN BY: L. REILMANN
CHECKED BY: M. WILLEMS
APPROVED BY: M. KESHAVARZ
DATE: 10/14/19

DATE: 10/14/19, 11:15 AM, DR. MISTERY, DRAWING: P-07-104, PALM BEACH COUNTY WATER UTILITIES DEPARTMENT, SHEET: C-22



- NOTES:**
1. ABOVE GROUND PIPING SHALL BE DUCTILE IRON FLEXIBLE JOINTS THINWALL CLASS 50 (OR CEMENT LINED UNLESS OTHERWISE NOTED).
 2. ALL UNDERGROUND PIPES AND FITTINGS SHALL BE DUCTILE IRON PIPE (DIP) WITH MECHANICAL JOINTS, PRESSURE CLASS 150 OR SPECIFIC THICKNESS CLASS 50 OR 150 WITH CAST IRON FITTINGS AND A MINIMUM OF 3\"/>
- NOTES:**
1. ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. ALL SHOWN UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE PROPOSED SEGMENT OF WATER MAIN.
 2. ALL UTILITIES UNCOVERED SHALL BE FIELD AND PROTECTED BEFORE CONSTRUCTION. ALL WATER SERVICES SHALL BE INSTALLED BEFORE ANY EXISTING UTILITIES WITH A MINIMUM VERTICAL CLEARANCE AND 1\"/>

8" WATER MAIN & 4" FORCE MAIN AERIAL CROSSING PLAN & PROFILE (LOOKING NORTH)



CONCRETE PIPE SUPPORT

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

LEGEND EXISTING		LEGEND PROPOSED	
—	IRIGATION	—	PROPOSED WATER MAIN
—	BURIED CABLE	—	PROPOSED FORCE MAIN
—	SEWER FORCE MAIN	—	PROPOSED WATER SERVICE WITH CASING & METER BOX
—	STORM DRAINAGE	—	PROPOSED LINE STOP
—	BURIED FPL	—	LIMITS OF MLL & OVERLAY
—	OVERHEAD FPL	—	ASPHALT RESTORATION
—	BURIED FIBER OPTIC	—	
—	CABLE TELEVISION RISER	—	
○	SANITARY CLEAN OUT	○	WM REDUCER
○	ELECTRIC HAND POLE	○	PROPOSED WM GATE VALVE
○	CONCRETE TRAFFIC SIGNAL	○	PROPOSED FIRE WORMAT
○	TRAFFIC SIGNAL SPURCE BOX	○	WM
○	BACK FLOW PREVENTER	○	WM VALVE
○	WATER METER BOX	○	WM REDUCER
○	TELEPHONE RISER	○	WM GATE VALVE
○	TELEPHONE RISER	○	WM
○	FIRE HYDRANT	○	WM VALVE
○	WOOD LIGHT POLE	○	WM REDUCER
○	WOOD UTILITY POLE	○	WM GATE VALVE
○	PIT/HOLE	○	WM

VERTICAL DATUM
ALL ELEVATIONS SHOWN ARE IN NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CONVERSION FACTOR: NAVD88 + 1.24 = NGVD29

KESHAVARZ & ASSOCIATES
Civil Engineers • Land Surveyors
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Tel: (407) 447-4419
Certificate of Authorization No. 897

K&A PROJECT No. 17-1184
DESIGNED BY: R. WERTEPNY
DRAWN BY: L. REULMANN
CHECKED BY: M. WILLIAMS
APPROVED BY: M. KESHAVARZ
DATE: 09/02/20

PROJECT DOCUMENT
NOT FOR PUBLIC DISCLOSURE
DESIGNED BY: R. WERTEPNY
DRAWN BY: L. REULMANN
CHECKED BY: M. WILLIAMS
APPROVED BY: M. KESHAVARZ
DATE: 09/02/20

18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PALM BEACH COUNTY

CONCRETE PIPE SUPPORT

DATE: 09/02/20

PROJECT NO. 17-1184

DESIGNED BY: R. WERTEPNY

DRAWN BY: L. REULMANN

CHECKED BY: M. WILLIAMS

APPROVED BY: M. KESHAVARZ

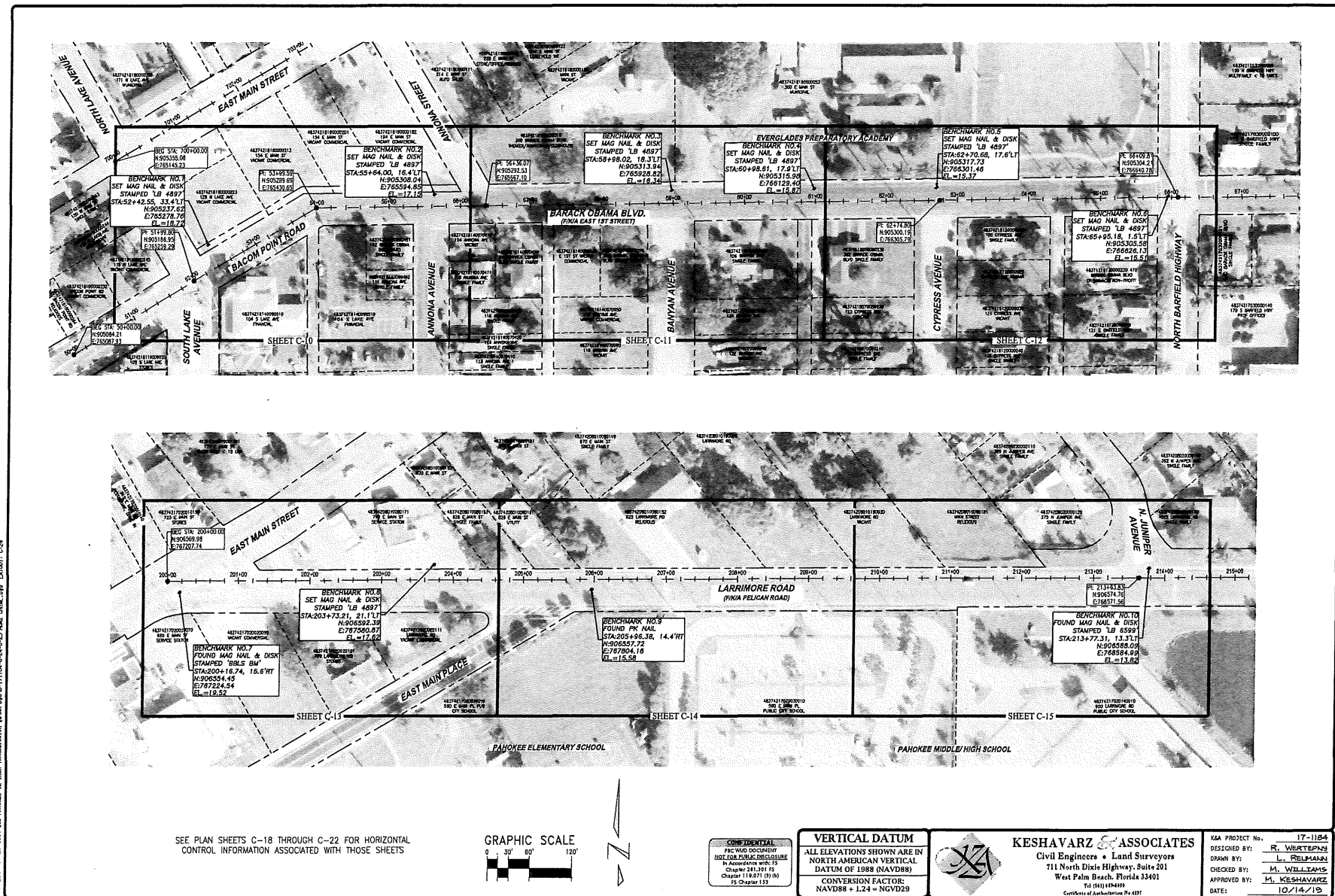
DATE: 09/02/20

SHEET NO. C-23

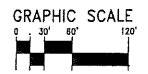


No.	Date	Description

Randy Wentzky
P.E. 72504
Oct 14, 2019



SEE PLAN SHEETS C-18 THROUGH C-22 FOR HORIZONTAL CONTROL INFORMATION ASSOCIATED WITH THOSE SHEETS



CONFIDENTIAL
 PREPARED DOCUMENT
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 IN ACCORDANCE WITH FS
 CHAPTER 218.31(15)
 CHAPTER 118.071(03) 63
 FS CHAPTER 153

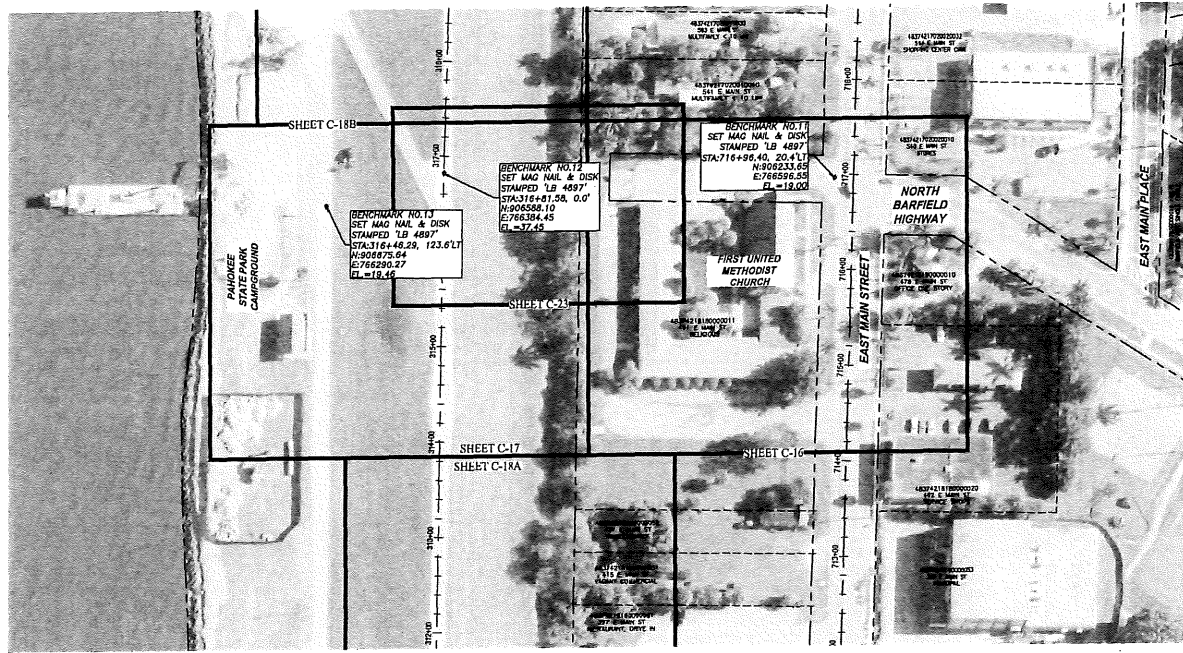
VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN
 NORTH AMERICAN VERTICAL
 DATUM OF 1988 (NAVD88)
 CONVERSION FACTOR:
 NAVD88 + 1.24 = NGVD29



KESHAVARZ & ASSOCIATES
 Civil Engineers • Land Surveyors
 711 North Dixie Highway, Suite 201
 West Palm Beach, Florida 33401
 Tel: (561) 819-4809
 Certificate of Authorization No. 4837

K&A PROJECT No. 17-1184
 DESIGNED BY: R. WILKINSON
 DRAWN BY: L. FRIEDLAND
 CHECKED BY: M. WILLIAMS
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19

PLAT DATED OCT 14, 2019 TIME: 11:06AM BY: BRENDA
 DRAWING: 2019-104 FOR PROJECT: 17-1184-C-25 MAKE: DATE: 10/14/19 LAYOUT: C-25



SEE PLAN SHEETS C-18 THROUGH C-22 FOR HORIZONTAL CONTROL INFORMATION ASSOCIATED WITH THOSE SHEETS

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 FIELD DOCUMENT
 NOT FOR PUBLIC DISCLOSURE
 In accordance with FS
 Chapter 281.391, FS
 Chapter 118.001 (31b)
 FS Chapter 121

VERTICAL DATUM
 ALL ELEVATIONS SHOWN ARE IN
 NORTH AMERICAN VERTICAL
 DATUM OF 1988 (NAVD88)
 CONVERSION FACTOR:
 NAVD88 + 1.24 = NGVD29



KESHAVARZ & ASSOCIATES
 Civil Engineers • Land Surveyors
 111 North Dixie Highway, Suite 201
 West Palm Beach, Florida 33401
 Tel: (407) 419-4400
 Certificate of Registration No. 4927

K&A PROJECT No. 17-1184
 DESIGNED BY: R. WERTHEIM
 DRAWN BY: L. WELLMAN
 CHECKED BY: M. WILLIAMS
 APPROVED BY: M. KESHAVARZ
 DATE: 10/14/19

SHEET No. **C-25**

PROJECT No. 18-056

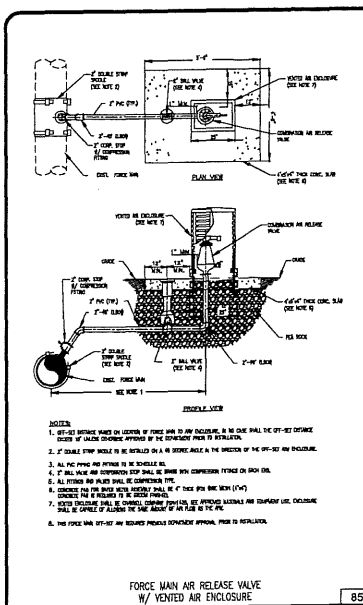
WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PAHOKEE HORIZONTAL CONTROL PLAN



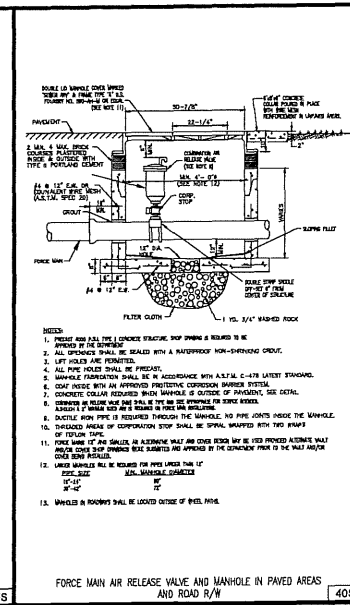
PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

No.	Date	Description

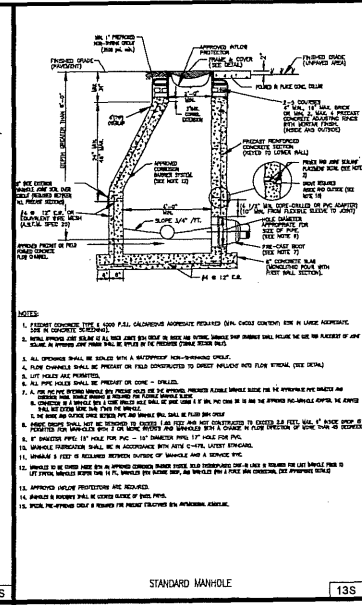
Randy Wertheim
 P.E. 72504
 Oct 14, 2019



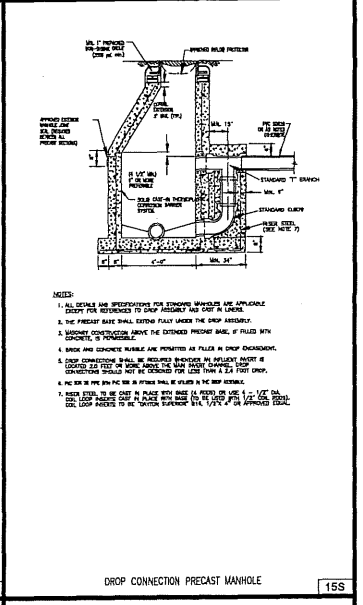
FORCE MAIN AIR RELEASE VALVE W/ VENTED AIR ENCLOSURE 85S



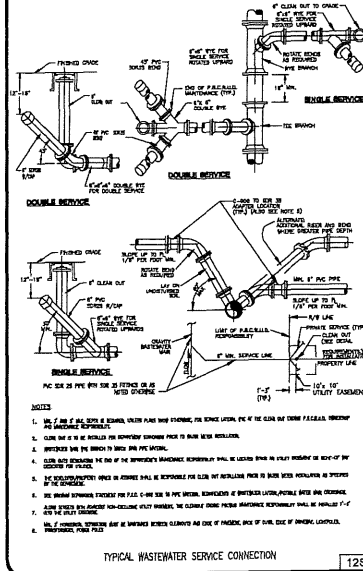
FORCE MAIN AIR RELEASE VALVE AND MANHOLE IN PAVED AREAS AND ROAD R/W 40S



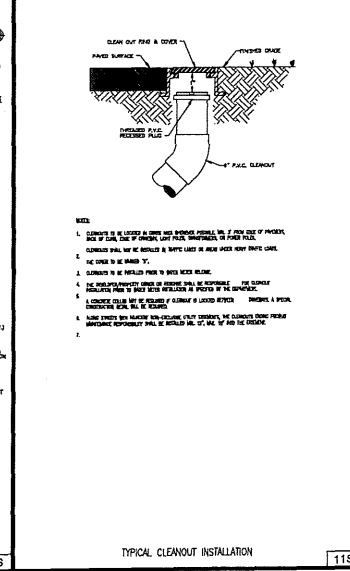
STANDARD MANHOLE 13S



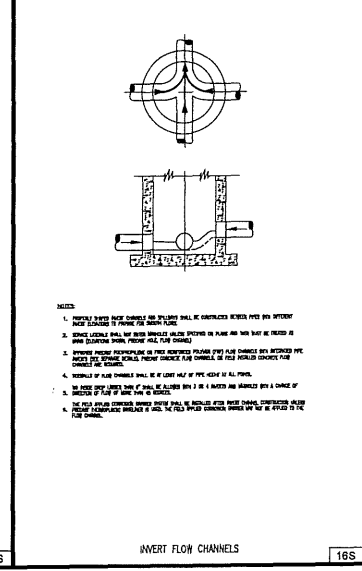
DROP CONNECTION PRECAST MANHOLE 15S



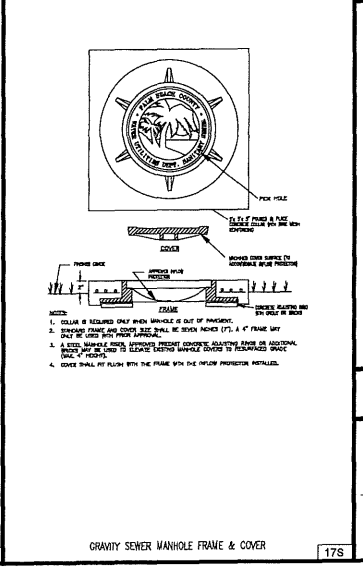
TYPICAL WASTEWATER SERVICE CONNECTION 12S



TYPICAL CLEANOUT INSTALLATION 11S



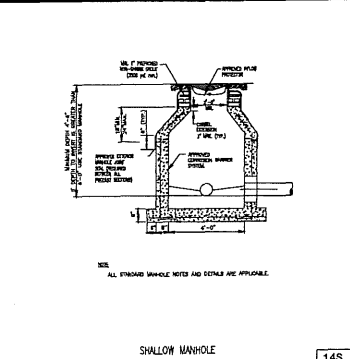
INVERT FLOW CHANNELS 16S



GRAVITY SEWER MANHOLE FRAME & COVER 17S

GENERAL NOTES

1. CONTRACTOR - THE PALM BEACH COUNTY WATER UTILITIES DEPARTMENT.
2. CONTRACTOR - VERIFY CONDITIONS AND ALL UTILITY INTERFERENCES.
3. EXISTENCE - CHECKED RESPONSIBLE FOR INSPECTION AND DETERMINATION.
4. ALL CONSTRUCTION WORK IS TO BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND NOTES OF THE CONTRACT DOCUMENTS, AS WELL AS THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AS APPLICABLE.
5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, AS APPLICABLE.
6. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.
7. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.
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17. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.
18. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.
19. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.
20. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER BEFORE THE START OF CONSTRUCTION.



SHALLOW MANHOLE 14S

WASTEWATER #2 STANDARD DETAILS

Keshavaz & Associates, Inc.
CONSULTING ENGINEERS - SURVEYORS
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
TEL: (561) 838-9900 FAX: (561) 838-9901

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CALL US BEFORE YOU GO
1-800-432-4770
A DIVISION OF THE STATE OF FLORIDA, INC.
CHANCE NATIONAL GROUP

K&A PROJECT #37-1184

DESIGNED BY: WJD
DRAWN BY: M. BUCKNER Palm Beach County
CHECKED BY: J. LAMBERT Water Utilities Department
APPROVED BY: WJD P.O. Box 18097
West Palm Beach, FL 33416-6097

PROJECT NO. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN FAHOKEE WUD WASTEWATER DETAILS

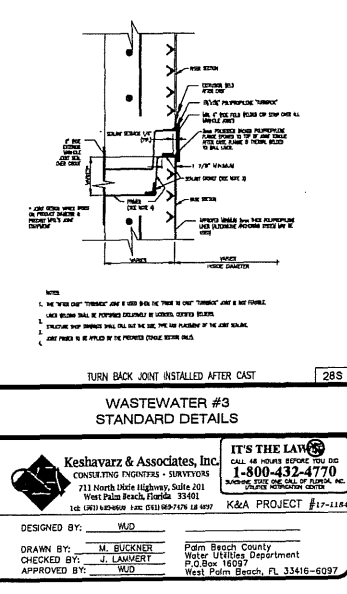
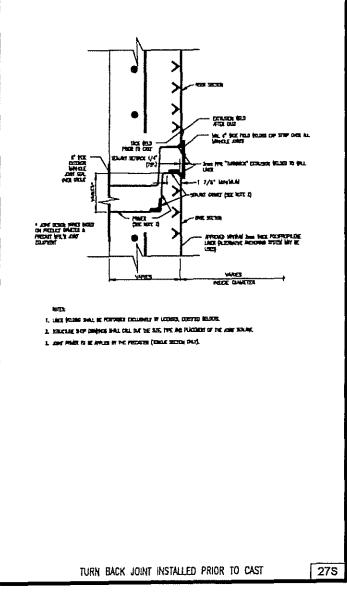
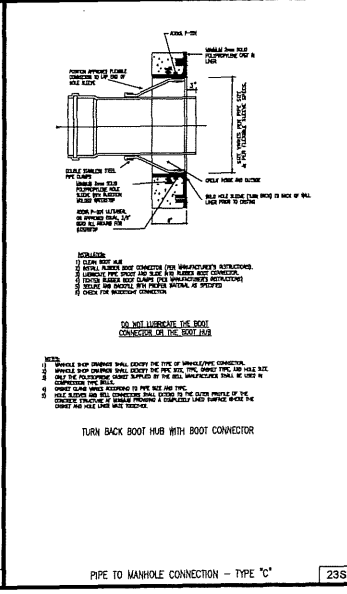
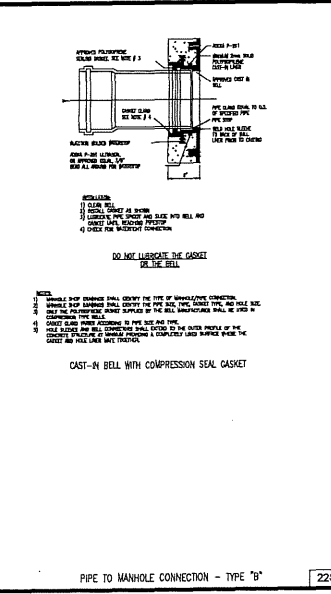
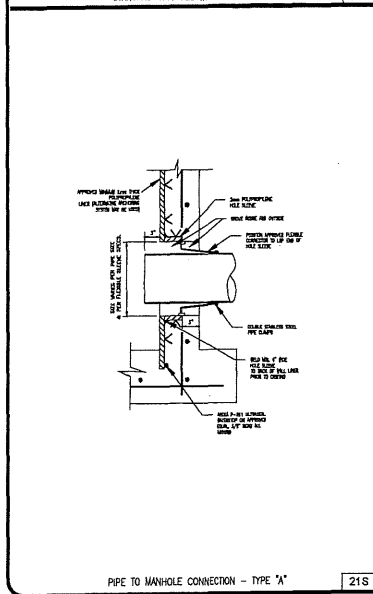
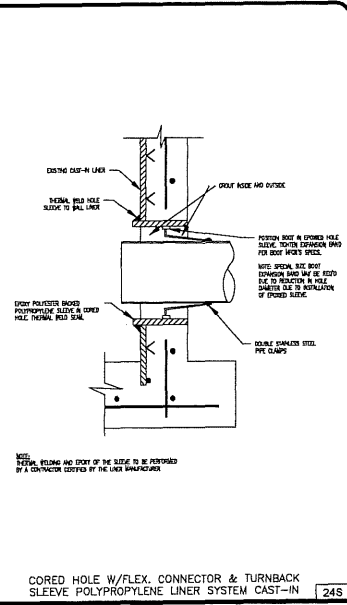
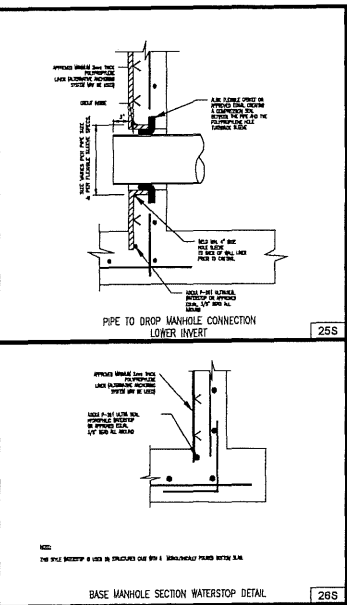
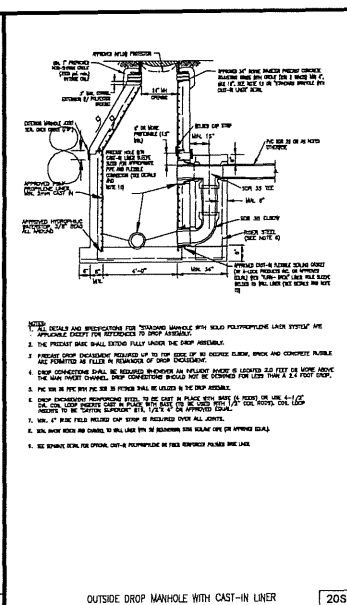
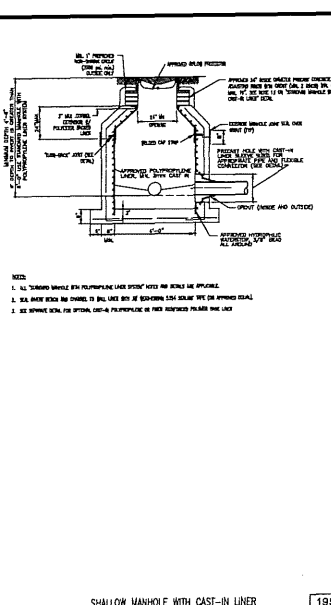
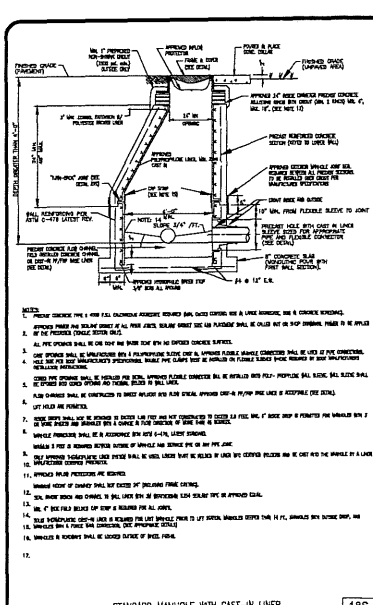
PALM BEACH COUNTY
WATER UTILITIES DEPARTMENT
P.O. BOX 18097
WEST PALM BEACH, FL 33416
K&A PROJECT #37-1184

DATE: 11/18/2010
SCALE: AS SHOWN

STANDARD DETAILS
SHEET NUMBER
C-27
S&L

TUESDAY, OCT 19, 2010 4:25:18 PM

Drawings: P&I-1184 and addenda 11 and 12, including: WUD020101184-05-05-05-05 WUD020101184-05-05-05-05 WUD020101184-05-05-05-05 WUD020101184-05-05-05-05 WUD020101184-05-05-05-05



PROJECT NO. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN FAHOKEE WUD WASTEWATER DETAILS

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

DESIGNED BY: WUD

DRAWN BY: M. BUCKNER

CHECKED BY: J. LAMBERT

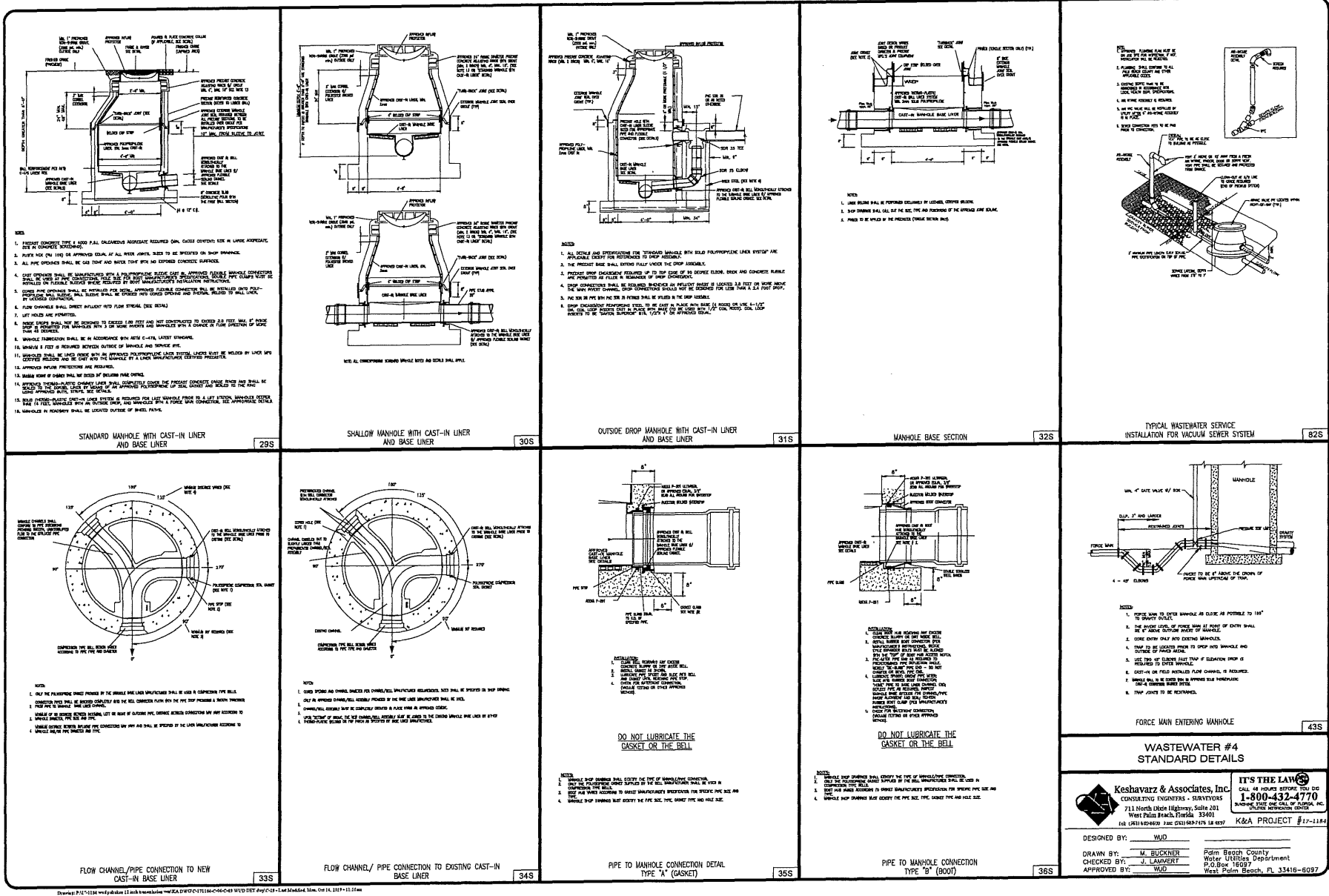
APPROVED BY: WED

Keshavarz & Associates, Inc. CONSULTING ENGINEERS - SURVEYORS 1-800-432-4770 711 North State Highway, Suite 201 West Palm Beach, Florida 33401 Tel: (561) 838-6909 Fax: (561) 838-7526

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C-28

WUD WASTEWATER



PROJECT NO. 18-056

WATER MAIN RELOCATION FROM THE HERBERT HOOVER DIKE (HHD) IN PALM BEACH COUNTY WUD WASTEWATER DETAILS

PALM BEACH COUNTY WATER UTILITIES DEPARTMENT

DESIGNED BY: WUD

DRAWN BY: M. BUCKNER

CHECKED BY: J. LAMBERT

APPROVED BY: WUD

DATE: 02/14/2018

SCALE: AS SHOWN

37U DETAILS

38U DETAILS

CALL 44 HOURS BEFORE YOU DIG 1-800-432-4770

712 North US Highway, Suite 201 West Palm Beach, Florida 33401

TEL (561) 862-6000 FAX (561) 862-7176

K&A PROJECT #17-1184

West Palm Beach, Florida 33401

8&A PROJECT #17-1184

DESIGNED BY: WUD

DRAWN BY: M. BUCKNER

CHECKED BY: J. LAMBERT

APPROVED BY: WUD

DATE: 02/14/2018

SCALE: AS SHOWN

37U DETAILS

38U DETAILS

CALL 44 HOURS BEFORE YOU DIG 1-800-432-4770

712 North US Highway, Suite 201 West Palm Beach, Florida 33401

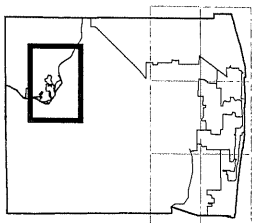
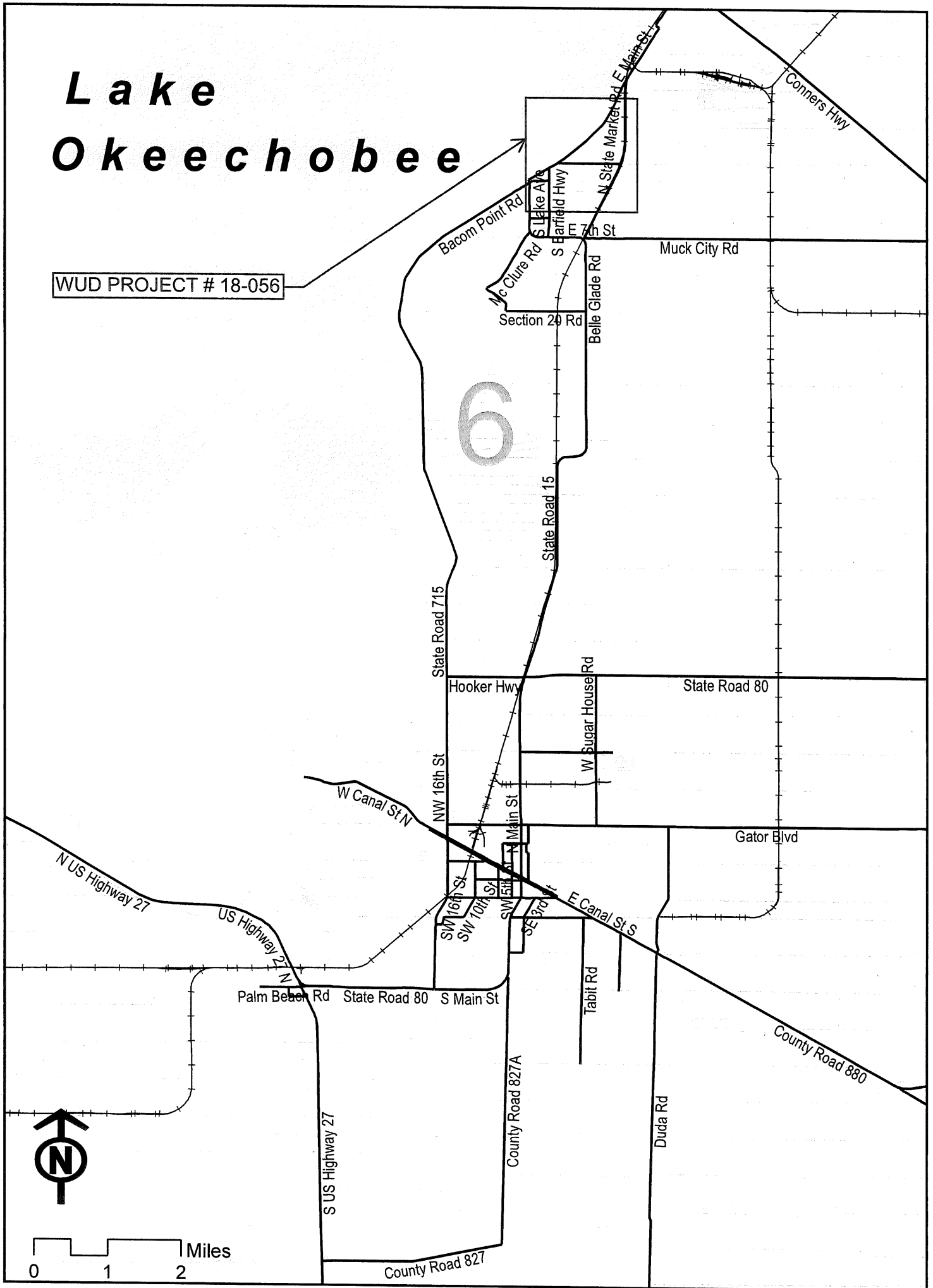
TEL (561) 862-6000 FAX (561) 862-7176

K&A PROJECT #17-1184

Revised: P:\1184\17-1184\17-1184.dwg Date: 02/14/2018 10:46:43 AM

Project Location

AGENDA ITEM
ATTACHMENT 2
WUD PROJCT No. 18-056



Location Sketch