

CONSTRUCTION PLANS FOR: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD

INDEX OF SHEETS

SHEET NO.	SHEET DESCRIPTION
U-1	COVER SHEET
U-2	GENERAL NOTES AND VICINITY MAP
U-3	CONNECTOR ROAD, FENTON ST., & GRANBY ST. PROJECT LAYOUT AND LEGEND
U-4	SUMMARY OF PAY ITEMS
U-5 TO U-23	PLAN AND PROFILE SHEETS
U-24	OVERALL PROJECT PIPES PROFILES
U-25 TO U-27	CONSTRUCTION DETAILS
U-28	ASSET TABLES

BOARD OF COUNTY COMMISSIONERS

JERRY L. DEMINGS
ORANGE COUNTY MAYOR

BETSY VANDERLEY
DISTRICT 1

MARIBEL GOMEZ CORDERO
DISTRICT 4

CHRISTINE MOORE
DISTRICT 2

EMILY BONILLA
DISTRICT 5

MAYRA URIBE
DISTRICT 3

VICTORIA P. SIPLIN
DISTRICT 6



BYRON W. BROOKS
COUNTY ADMINISTRATOR

RAYMOND E. HANSON, P.E.
DIRECTOR ORANGE COUNTY UTILITIES DEPARTMENT

PREPARED BY:

CPH, INC.

1117 East Robinson Street, Orlando, Fl. 32801
Phone: 407.425.0452 Fax: 407.648.1036
Certificate of Authorization No. 3215

*ORANGE COUNTY UTILITIES DEPARTMENT
ENGINEERING DIVISION
ORANGE COUNTY, FLORIDA*

**COUNTY SEQUENCE NUMBER: 58974
RECLAIMED WATER ORG NUMBER: 1411-70
FORCE MAIN ORG NUMBER: 1504-60
POTABLE WATER ORG NUMBER: 1508-27**

BID SUBMITTAL

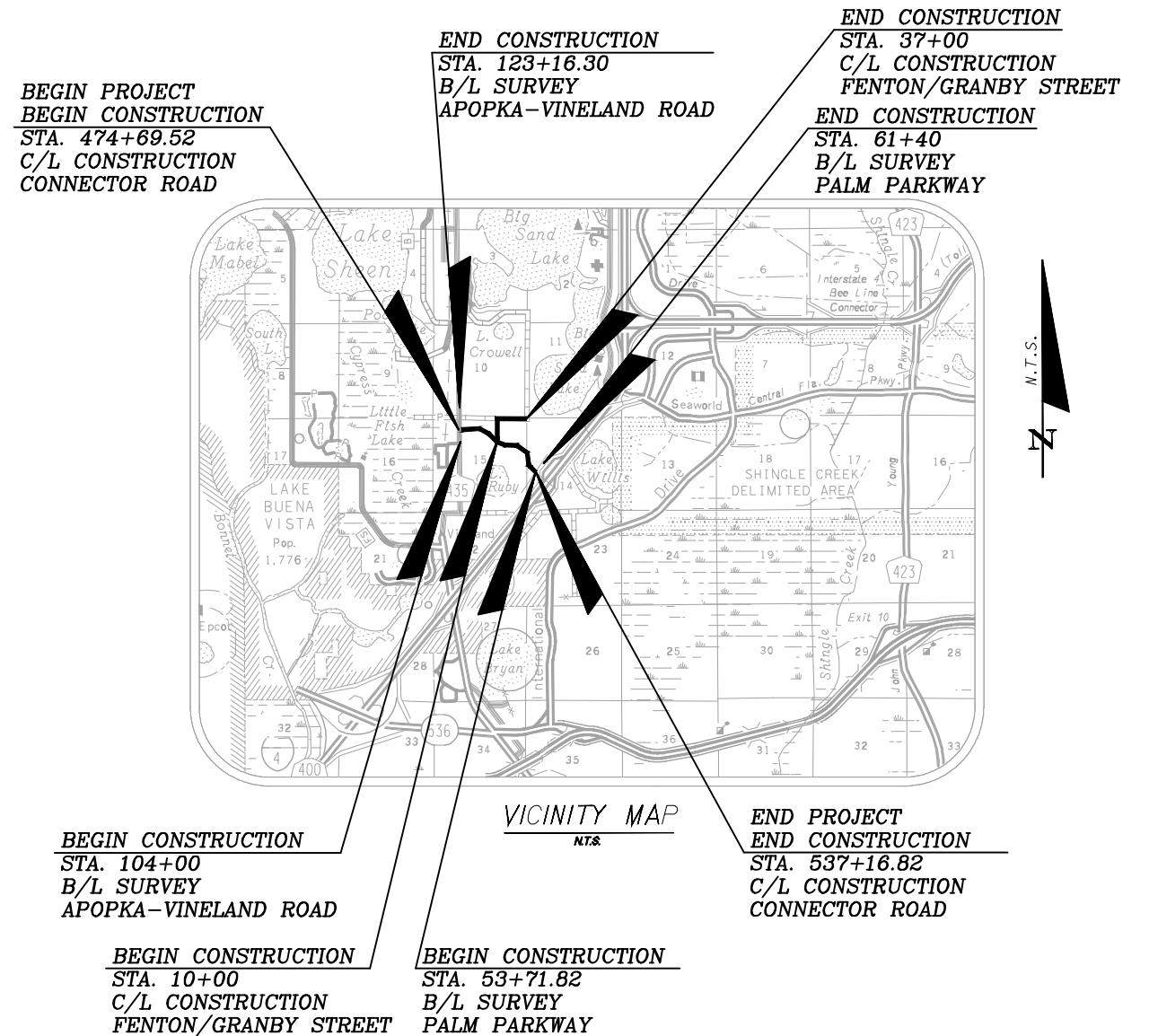
APPENDIX A

DATE: February 11, 2011

OCU GENERAL NOTES:


1. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN PROXIMITY OF WATER MAINS, WASTEWATER FORCE MAINS, GRAVITY MAINS AND RECLAIMED WATER MAINS. MAIN LOCATIONS SHOWN ON PLANS MAY NOT BE EXACT. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING UTILITY LOCATIONS.
2. SHOULD A PIPE EMERGENCY OCCUR, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OCU DISPATCH OPERATOR (407-836-2777) AND THE OCU INSPECTOR.
3. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST SEVEN DAYS PRIOR TO COMMENCEMENT OF THE CONSTRUCTION PROJECT BY CALLING (407) 254-9798.
4. THE CONTRACTOR SHALL NOTIFY THE OCU CONSTRUCTION DIVISION AT LEAST 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION BY CALLING (407) 254-9798.
5. THE MATERIALS, PRODUCTS, AND CONSTRUCTION OF ALL UTILITIES CONNECTING TO THE OCU SYSTEM SHALL BE IN CONFORMANCE WITH THE ORANGE COUNTY UTILITIES STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL.
6. ALL OCU MAINS AND FACILITIES WITHIN THE LIMITS OF THE PROJECT SHALL BE SUPPORTED AND PROTECTED AGAINST DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, SHALL IMMEDIATELY REPAIR ALL DAMAGES TO OCU MAINS AND FACILITIES. IF THE REPAIR IS NOT MADE IN A TIMELY MANNER, AS DETERMINED BY OCU, OCU MAY PERFORM REQUIRED REPAIRS AND CLEANUP. THE CONTRACTOR WILL BE CHARGED FOR ALL EXPENSES ASSOCIATED WITH THE REPAIR.
8. THE CONTRACTOR SHALL ADJUST ALL EXISTING OCU MAINS AND FACILITIES IN CONFLICT WITH NEW GRADE, NEW OR ALTERED ROADWAYS, SIDEWALKS, DRIVEWAYS, OR STORM WATER IMPROVEMENTS. OCU FACILITIES TO BE ADJUSTED INCLUDE, BUT ARE NOT LIMITED TO PIPELINES, PUMP STATIONS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, MANHOLE COVERS, AND METERS.
9. ONLY OCU SHALL OPERATE OCU WATER, WASTEWATER, AND RECLAIMED WATER VALVES. THE CONTRACTOR SHALL COORDINATE VALVE OPERATION WITH THE OCU INSPECTOR. FOR OPERATION OF MAINS NOT OWNED BY OCU, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE APPROPRIATE UTILITY REPRESENTATIVE.
10. CONSTRUCTION ACTIVITIES SHALL NOT CAUSE INTERRUPTIONS IN WATER, WASTEWATER, OR RECLAIMED WATER SERVICE. THE CONTRACTOR SHALL COORDINATE PRE-APPROVED INTERRUPTIONS OF SERVICE WITH THE OCU INSPECTOR 7 WORKING DAYS IN ADVANCE.
11. THE CONTRACTOR SHALL PROVIDE FOR BYPASSING AND/OR HAULING WASTEWATER DURING APPROVED INTERRUPTIONS OF WASTEWATER FLOWS AND CONNECTIONS. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER TO OCU DEVELOPMENT ENGINEERING FOR APPROVAL PRIOR TO IMPLEMENTATION BY CONTRACTOR.
12. ALL VALVES INSTALLED AS PART OF THIS CONSTRUCTION PROJECT SHALL REMAIN CLOSED DURING CONSTRUCTION. KEEP VALVES ON ALL WET TAPS CLOSED UNTIL CLEARED BY FDEP. DO NOT CONNECT NEWLY CONSTRUCTED WATER MAINS TO ANY EXISTING WATER MAINS UNLESS CLEARED BY FDEP AND OCU.
13. THE CONTRACTOR SHALL PROVIDE A JUMPER ASSEMBLY WITH A BACKFLOW PREVENTER FOR MAKING TEMPORARY CONNECTIONS TO AN EXISTING POTABLE WATER SOURCE IN ORDER TO CHLORINATE AND FLUSH NEW WATER MAINS WITH POTABLE WATER. ANY TEMPORARY POTABLE WATER CONNECTIONS TO RECLAIMED WATER OR FORCEMAIN SHALL ALSO BE EQUIPPED WITH A BACKFLOW PREVENTER.
14. FOR PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, NO PIPE BENDING IS ALLOWED. THE MAXIMUM ALLOWABLE TOLERANCE FOR JOINT DEFLECTION IS 0.75 DEGREES (3-INCHES PER JOINT PER 20 FT STICK OF PIPE.) ALIGNMENT CHANGE SHALL BE MADE ONLY WITH SLEEVES AND FITTINGS.
15. FOR NON-PVC PIPE THAT WILL BE OWNED AND MAINTAINED BY OCU, LONG RADIUS CURVES, EITHER HORIZONTAL OR VERTICAL, MAY BE INSTALLED WITH STANDARD PIPE BY DEFLECTIONS AT THE JOINTS. MAXIMUM DEFLECTIONS AT PIPE JOINTS, FITTINGS AND LAYING RADIUS FOR THE VARIOUS PIPE LENGTHS SHALL NOT EXCEED 75 PERCENT OF THE PIPE MANUFACTURER'S RECOMMENDATION.

FIGURE GN



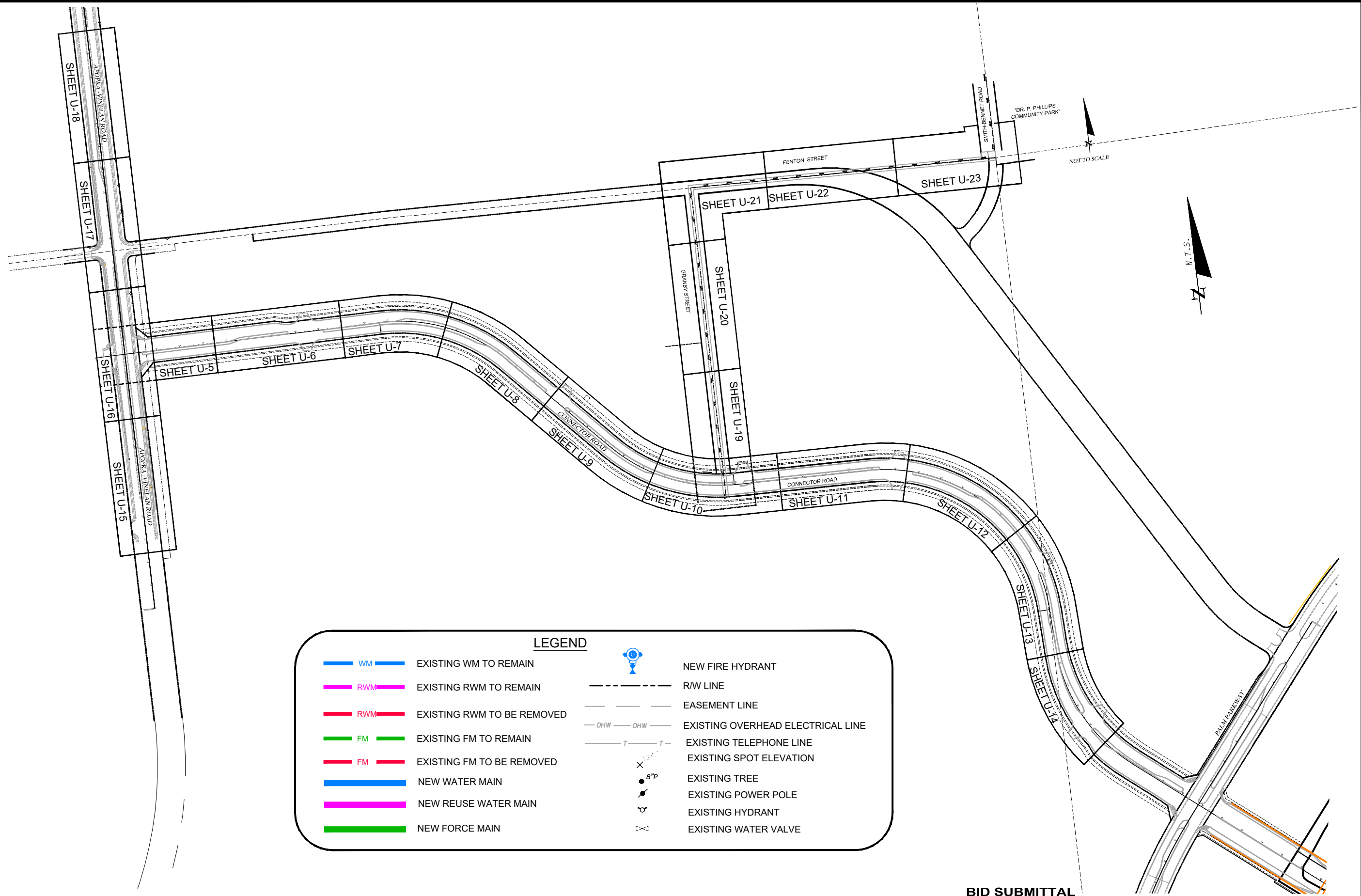
Drawing name: J:\O28522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const Details.dwg Feb 18, 2019

BID SUBMITTAL

<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> <th>NAMES</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DATE</td> <td>BY</td> <td>DESCRIPTION</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		REVISIONS		NAMES	DATE	DATE	BY	DESCRIPTION						<table border="1"> <tr> <td>DRAWN BY:</td> <td>GNP</td> <td>2/19</td> </tr> <tr> <td>CHECKED BY:</td> <td>PH</td> <td>2/19</td> </tr> <tr> <td>DESIGNED BY:</td> <td>PH</td> <td>2/19</td> </tr> <tr> <td>CHECKED BY:</td> <td>DEM</td> <td>2/19</td> </tr> <tr> <td>APPROVED BY:</td> <td>DAVID E. MAHLER</td> <td></td> </tr> </table>	DRAWN BY:	GNP	2/19	CHECKED BY:	PH	2/19	DESIGNED BY:	PH	2/19	CHECKED BY:	DEM	2/19	APPROVED BY:	DAVID E. MAHLER		 <p>A Full Service A & E Firm</p> <p>Architects M / E / P Engineers Planners Environmental Surveyors Landscape Architects Traffic/Transportation</p> <p>www.cphcorp.com</p>	<p>Offices In:</p> <ul style="list-style-type: none"> • Florida • Puerto Rico • Connecticut • Maryland • Texas 	<p>ORANGE COUNTY UTILITIES</p> <table border="1"> <thead> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td></td> <td>ORANGE</td> <td></td> </tr> </tbody> </table>	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		ORANGE		<p>Plan Prepared By: CPH, Inc. 1117 E. Robinson St. - Orlando, FL 32801 Ph: 407.425.0452</p> <p>Licenses: Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2600926 Landscape Lic. No. LC0000298</p>	<p>SHEET TITLE: GENERAL NOTES AND VACINITY MAP</p> <p>PROJECT TITLE: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD</p> <p>SHEET NO. U-2</p>
REVISIONS		NAMES	DATE																																					
DATE	BY	DESCRIPTION																																						
DRAWN BY:	GNP	2/19																																						
CHECKED BY:	PH	2/19																																						
DESIGNED BY:	PH	2/19																																						
CHECKED BY:	DEM	2/19																																						
APPROVED BY:	DAVID E. MAHLER																																							
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																																						
	ORANGE																																							

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const Details.dwg Feb 18, 2019



NOT TO SCALE



LEGEND

	WM	EXISTING WM TO REMAIN		NEW FIRE HYDRANT
	RWM	EXISTING RWM TO REMAIN		R/W LINE
	RWM	EXISTING RWM TO BE REMOVED		EASEMENT LINE
	FM	EXISTING FM TO REMAIN		EXISTING OVERHEAD ELECTRICAL LINE
	FM	EXISTING FM TO BE REMOVED		EXISTING TELEPHONE LINE
		NEW WATER MAIN		EXISTING SPOT ELEVATION
		NEW REUSE WATER MAIN		EXISTING TREE
		NEW FORCE MAIN		EXISTING POWER POLE
				EXISTING HYDRANT
				EXISTING WATER VALVE

BID SUBMITTAL

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	

DRAWN BY:	GNP	2/19
CHECKED BY:	PH	2/19
DESIGNED BY:	PH	2/19
CHECKED BY:	DEM	2/19
APPROVED BY:	DAVID E. MAHLER	



A Full Service A & E Firm

Architects	M / E / P
Engineers	Planners
Environmental	Surveyors
Landscape Architects	Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:	CONNECTOR ROAD, FENTON ST., & GRANBY ST. PROJECT LAYOUT & LEGEND	
PROJECT TITLE:	PALM PARKWAY TO APOPKA-VINELAND	SHEET NO. U-3
	CONNECTOR ROAD	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const Details.dwg Feb 18, 2019

ITEM NO.	DESCRIPTION	UNIT	QTY TOTAL	QUANTITY PER SHEET																			
				Connector Road									Apopka-Vineland Road					Granby St. & Fenton St.					
				Sheet 5	Sheet 6	Sheet 7	Sheet 8	Sheet 9	Sheet 10	Sheet 11	Sheet 12	Sheet 13	Sheet 14	Sheet 15	Sheet 16	Sheet 17	Sheet 18	Sheet 19	Sheet 20	Sheet 21	Sheet 22	Sheet 23	
1	Mobilization, Demobilization, Bonds, and Permits (not to exceed 5% of the total of all bid items except bid items under section 10.1 General)	LS	1																				
2	Indemnification	LS	1																				
3	Preconstruction Audio-Video Documentation	LS	1																				
4	Project Record Drawings	LS	1																				
5	Maintenance of Traffic	LS	1																				
6	Erosion and Sediment Control	LS	1																				
Water Main																							
7	Furnish & Install 16" DI Potable Water Main w/fittings & RJs	LF	7694	349	551	468	573	550	525	563	594	580	170	199				440	560	560	560	452	
8	Furnish & Install 16" Gate Valve	EA	10			1		1	3		1	1						1		1		1	
9	Furnish & Install 16" Tapping Sleeve & Valve	EA	5	1										4									
10	Furnish & Install 16" Line Stop & Cap	EA	4											4									
11	Furnish & Install Fire Hydrant Assemblies	EA	14	1	1	1	1	1	1	2	1	1	1					1		1		1	
12	Connection to Existing Water Main	EA	2										1									1	
13	Remove and Dispose of Existing Main	LF	150											150									
14	Sodding	SY	1344															453	622	269			
15	Stabilized Drive	SY	2958																	750	1242	966	
Force Main																							
16	Furnish & Install 12" PVC Force Main w/fittings & RJs	LF	26																			26	
17	Temporary Bypass System	EA	1																			1	
18	Remove and Dispose of Existing Main	LF	26																			26	
Reclaimed Water Main																							
19	Furnish & Install 16" DI Reclaimed Water Main w/fittings & RJs	LF	27																			27	
20	Temporary Bypass System	EA	1																			1	
21	Remove and Dispose of Existing Main	LF	27																			27	

BID SUBMITTAL

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	

DRAWN BY:	GNP	2/19
CHECKED BY:	PH	2/19
DESIGNED BY:	PH	2/19
CHECKED BY:	DEM	2/19
APPROVED BY:	DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

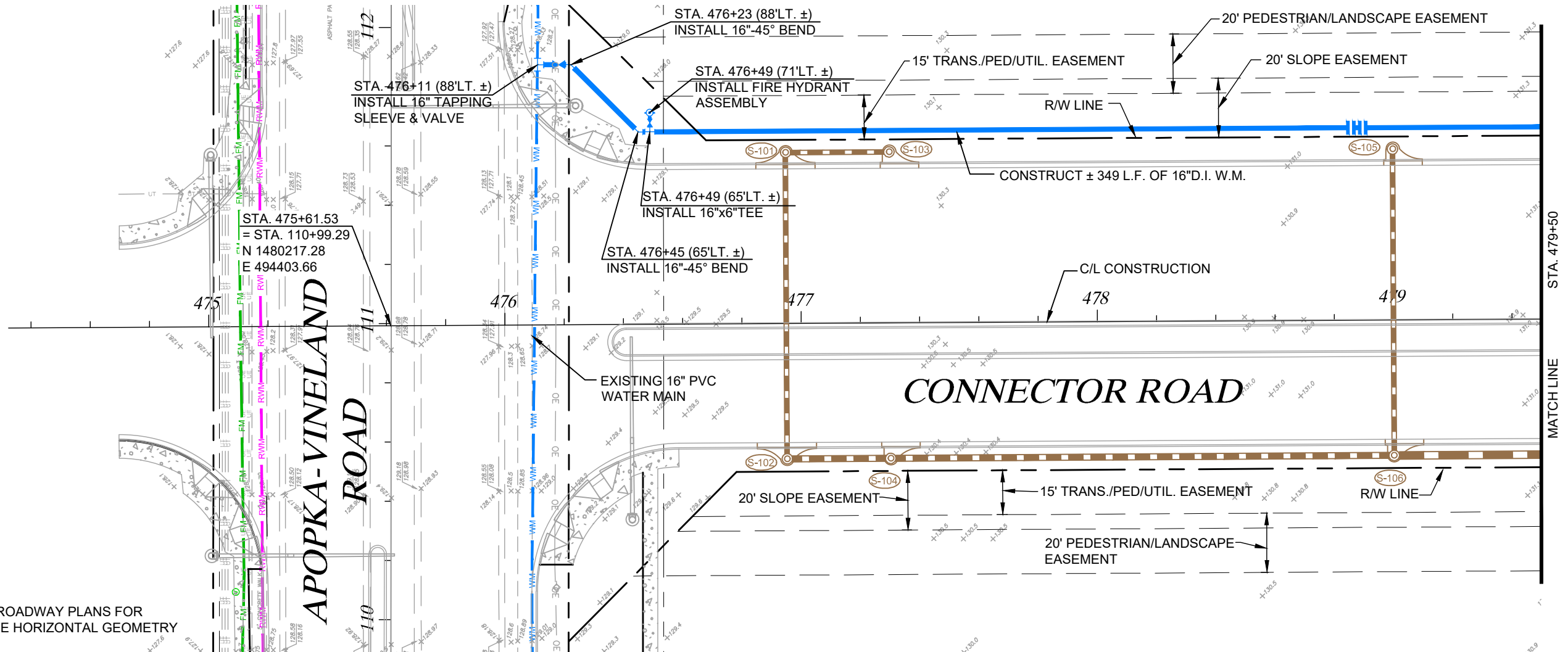
ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:	SUMMARY OF PAY ITEMS	
PROJECT TITLE:	PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD	SHEET NO. U-4

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

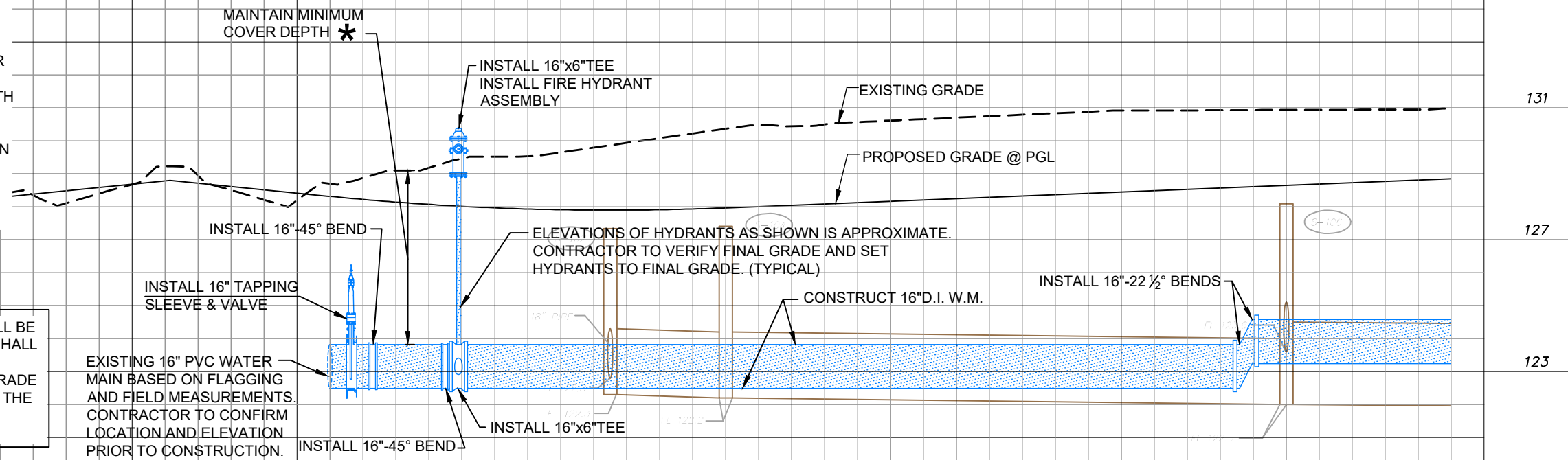


REFER TO ROADWAY PLANS FOR CENTERLINE HORIZONTAL GEOMETRY

NOTE:

1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

***** MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.



475+00

476+00

477+00

478+00

479+00

BID SUBMITTAL

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	

DRAWN BY:	GNP	8/16
CHECKED BY:	PH	8/16
DESIGNED BY:	PH	8/16
CHECKED BY:	DEM	8/16
APPROVED BY:	DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

www.cphcorp.com

Offices In:

- Florida
- Puerto Rico
- Connecticut
- Maryland
- Texas

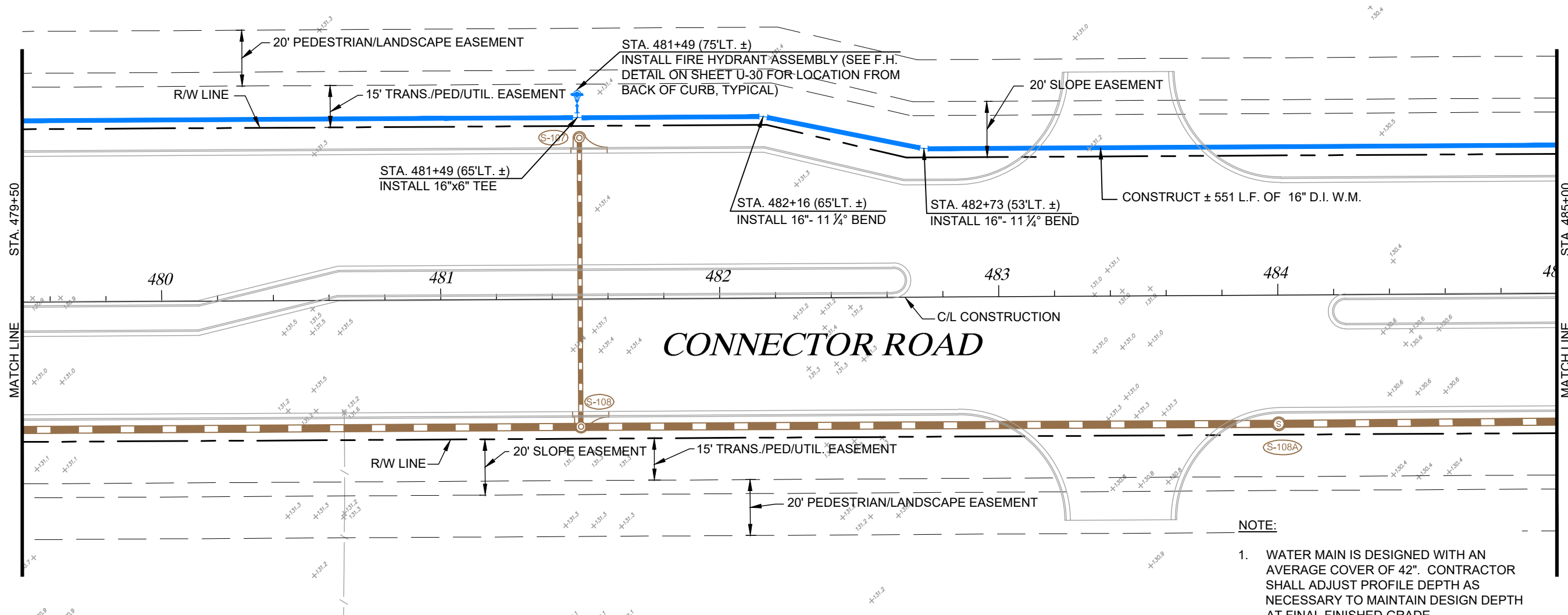
ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:	
PLAN AND PROFILE STA. 475+00 TO STA. 479+50	
PROJECT TITLE:	
PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD	

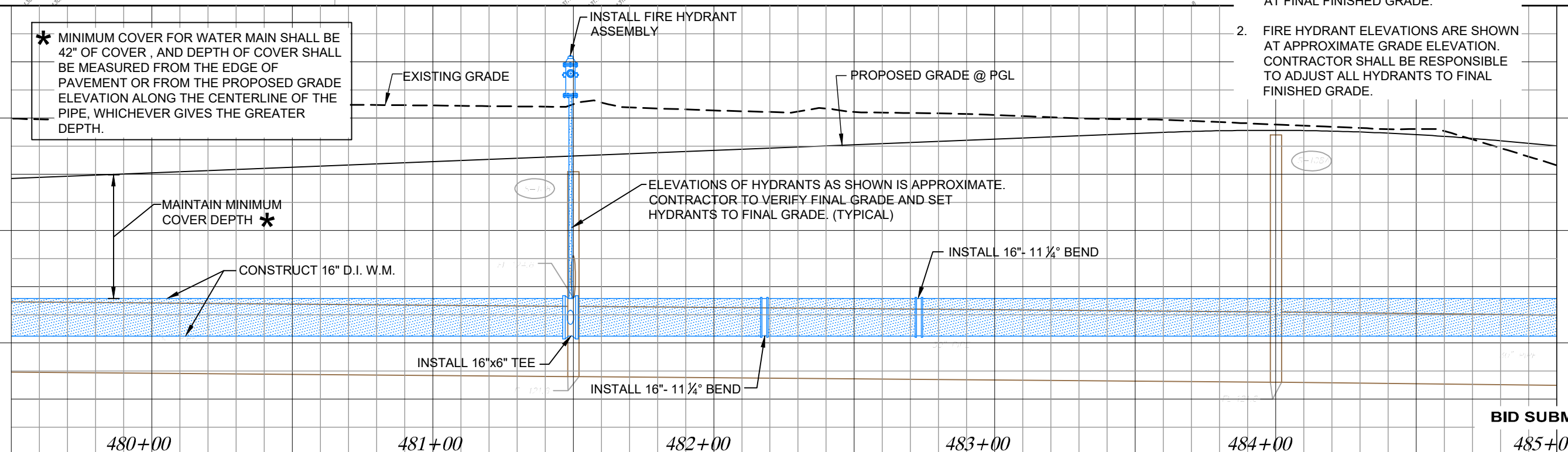
SHEET NO.
U-5

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



- NOTE:**
1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
 2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.



BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

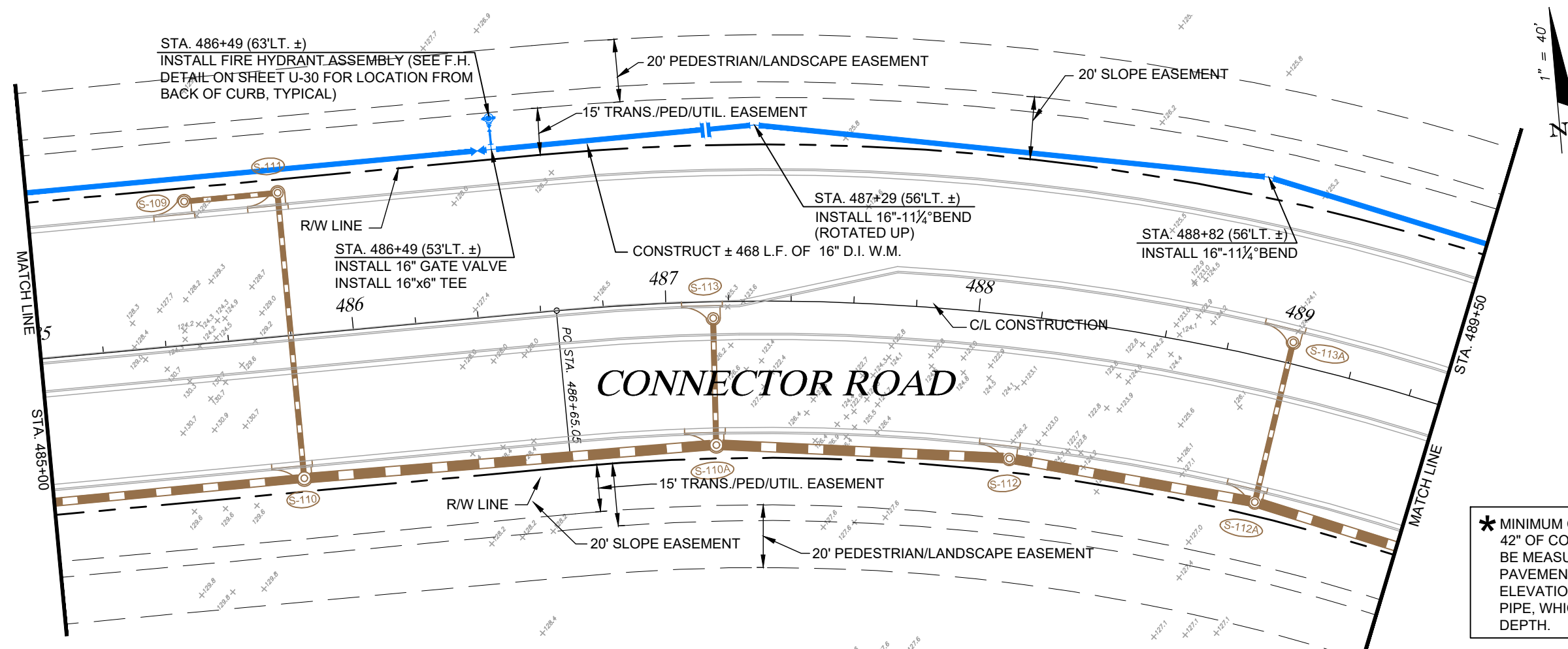
Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:
PLAN AND PROFILE
STA. 479+50 TO STA. 485+00

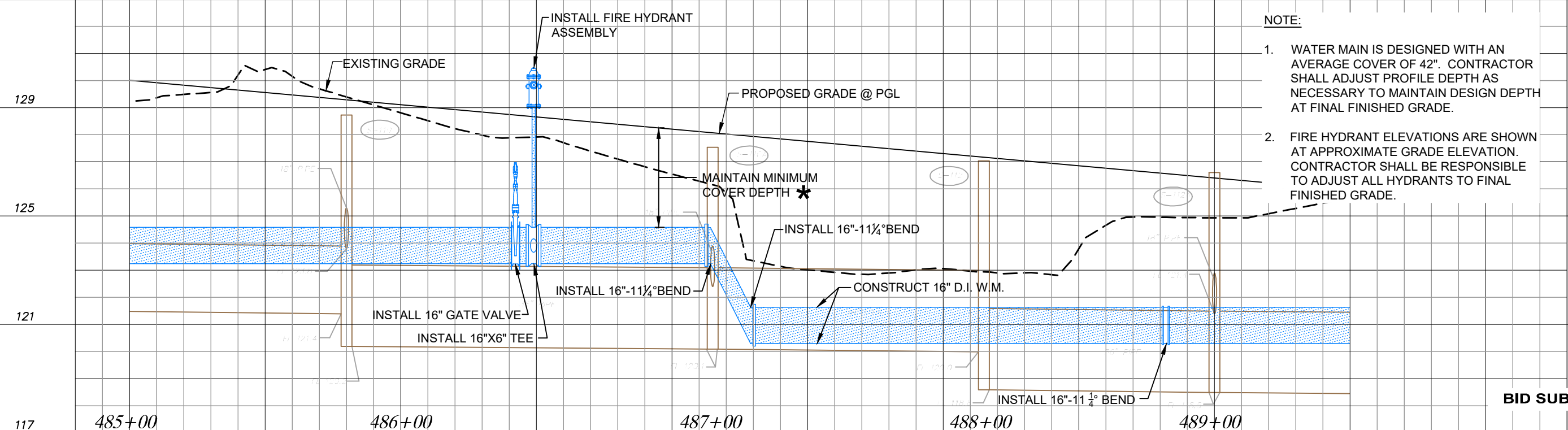
PROJECT TITLE:
PALM PARKWAY TO APOPKA-VINELAND
CONNECTOR ROAD

SHEET NO.
U-6

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.



- NOTE:
1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
 2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

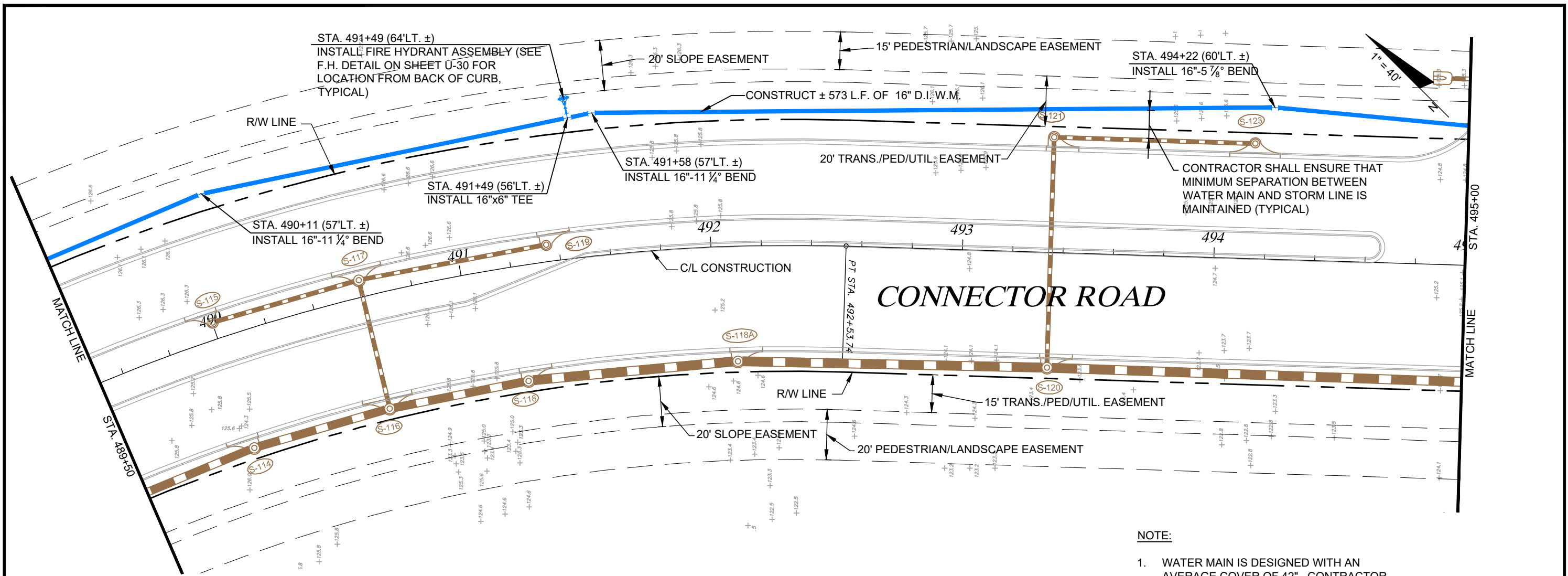
SHEET TITLE: **PLAN AND PROFILE**
STA. 485+00 TO STA. 489+50

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

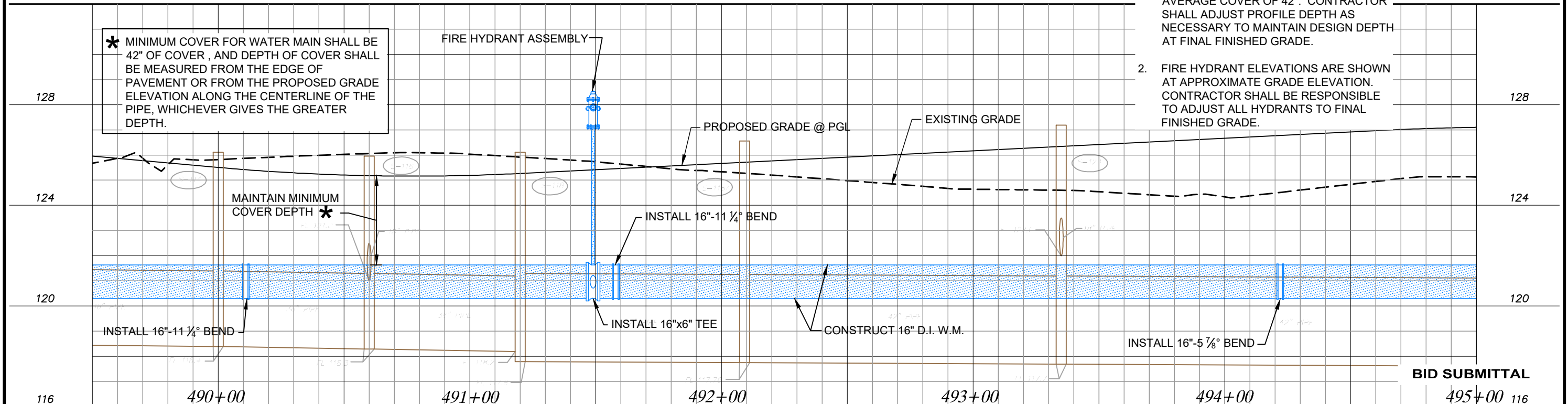
SHEET NO.: **U-7**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



- NOTE:**
1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
 2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.



REVISIONS		DATE	BY	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452

Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

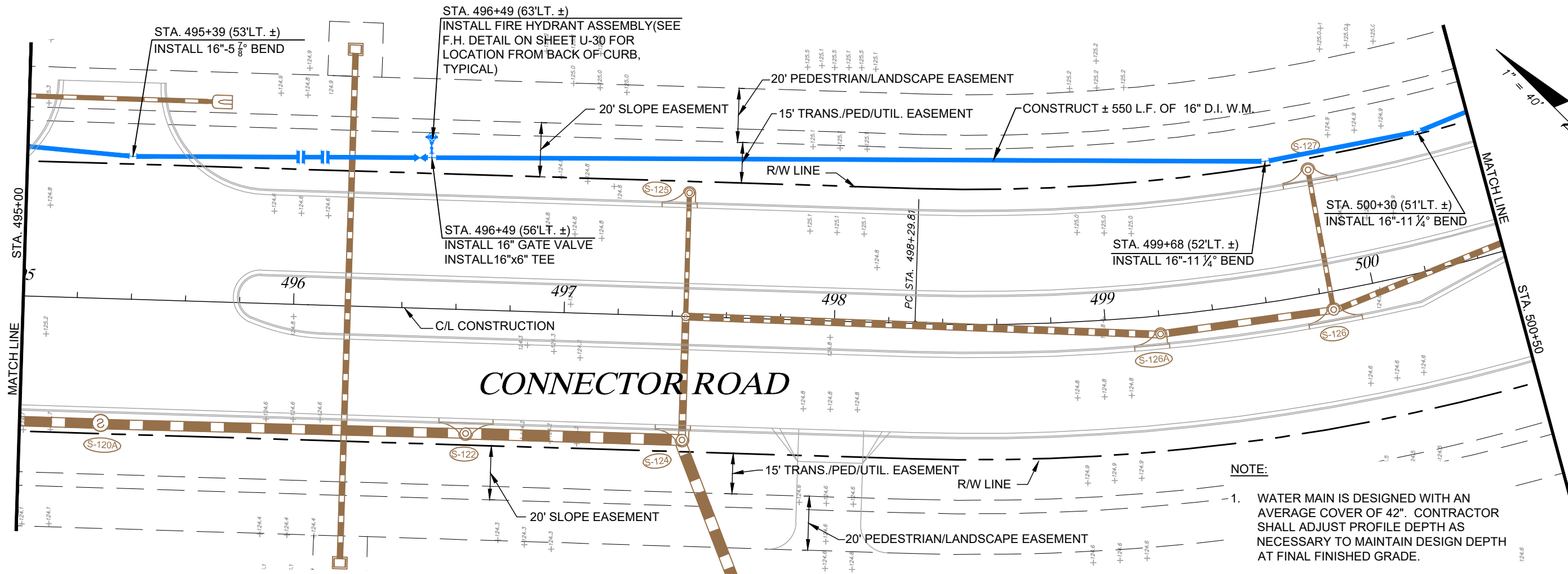
SHEET TITLE: **PLAN AND PROFILE**
STA. 489+50 TO STA. 495+00

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

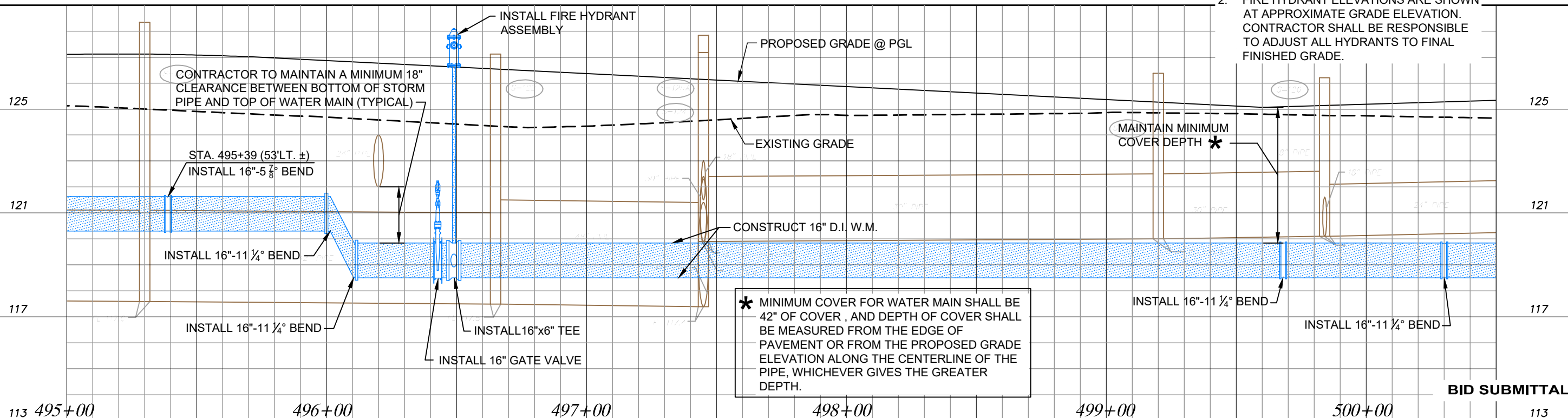
SHEET NO.: **U-8**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



- NOTE:**
1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
 2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.



BID SUBMITTAL

REVISIONS		DATE
DATE	BY	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:		SHEET NO.
PLAN AND PROFILE STA. 495+00 TO STA. 500+50		U-9
PROJECT TITLE: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

20' PEDESTRIAN/LANDSCAPE EASEMENT

15' TRANS./PED/UTIL. EASEMENT

STA. 501+49 (63'LT. ±)
INSTALL FIRE HYDRANT ASSEMBLY (SEE F.H. DETAIL ON SHEET U-30 FOR LOCATION FROM BACK OF CURB, TYPICAL)

FOR CONTINUATION SEE SHEET U-19

STA. 503+44 (52'LT. ±)
INSTALL 16"-11 1/4° BEND

STA. 502+13 (53'LT. ±)
INSTALL 16"-11 1/4° BEND

20' SLOPE EASEMENT

CONTRACTOR SHALL ENSURE THAT MINIMUM SEPARATION BETWEEN WATER MAIN AND STORM LINE IS MAINTAINED (TYPICAL)

STA. 501+49 (57'LT. ±)
INSTALL 16"x6" TEE

CONTRACTOR SHALL ENSURE THAT MINIMUM SEPARATION BETWEEN WATER MAIN AND STORM LINE IS MAINTAINED (TYPICAL)

STA. 503+60 (53'LT. ±)
INSTALL 16"x16" TEE
3-16" GATE VALVES

CONSTRUCT ± 525 L.F. OF 16" D.I. W.M.

MATCH LINE
STA. 500+50

MATCH LINE
STA. 506+00

CONNECTOR ROAD

C/L CONSTRUCTION
= STA. 503+60 (53'LT.) PALM PARKWAY
STA. 11+01.80 GRANBY STREET
N 1479407.17
E 496898.78

15' TRANS./PED/UTIL. EASEMENT
20' PEDESTRIAN/LANDSCAPE EASEMENT

NOTE:

1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

BID SUBMITTAL

INSTALL FIRE HYDRANT ASSEMBLY

PROPOSED GRADE @ PGL

EXISTING GRADE

INSTALL 16" GATE VALVES

CONSTRUCT 16" D.I. W.M.

INSTALL 16"-11 1/4° BEND

INSTALL 16"x6" TEE

INSTALL 16"-11 1/4° BEND

INSTALL 16"-11 1/4° BEND

INSTALL 16"x16" TEE

INSTALL 16"-11 1/4° BEND

MAINTAIN MINIMUM COVER DEPTH *

* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.

113 501+00 502+00 503+00 504+00 505+00 506+00 113

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS		DATE	BY	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm
Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

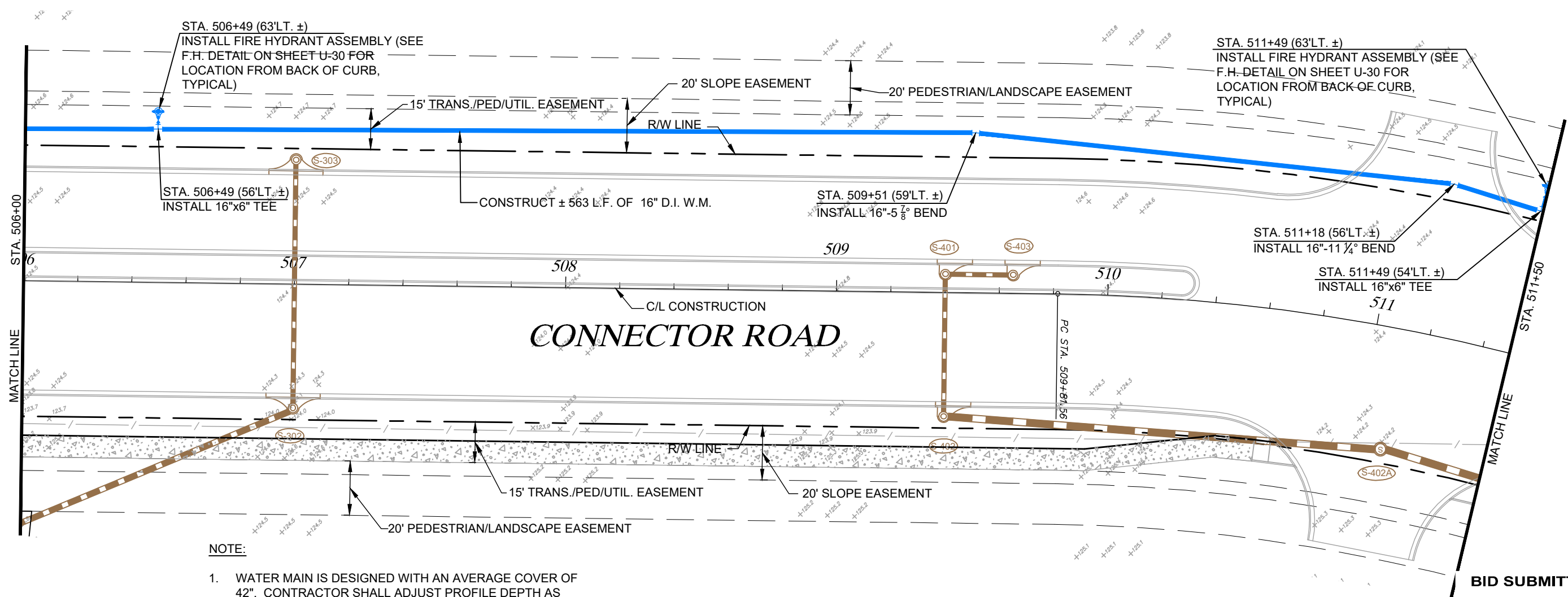
Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

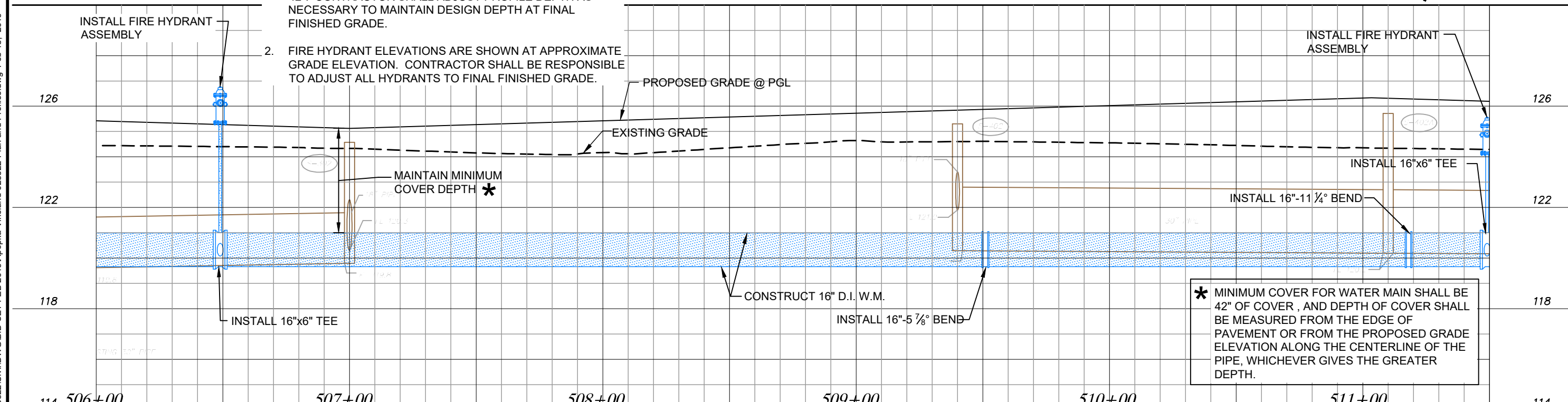
Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

SHEET TITLE:		SHEET NO.
PLAN AND PROFILE STA. 500+50 TO STA. 506+00		U-10
PROJECT TITLE:		
PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



- NOTE:**
1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
 2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.



* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

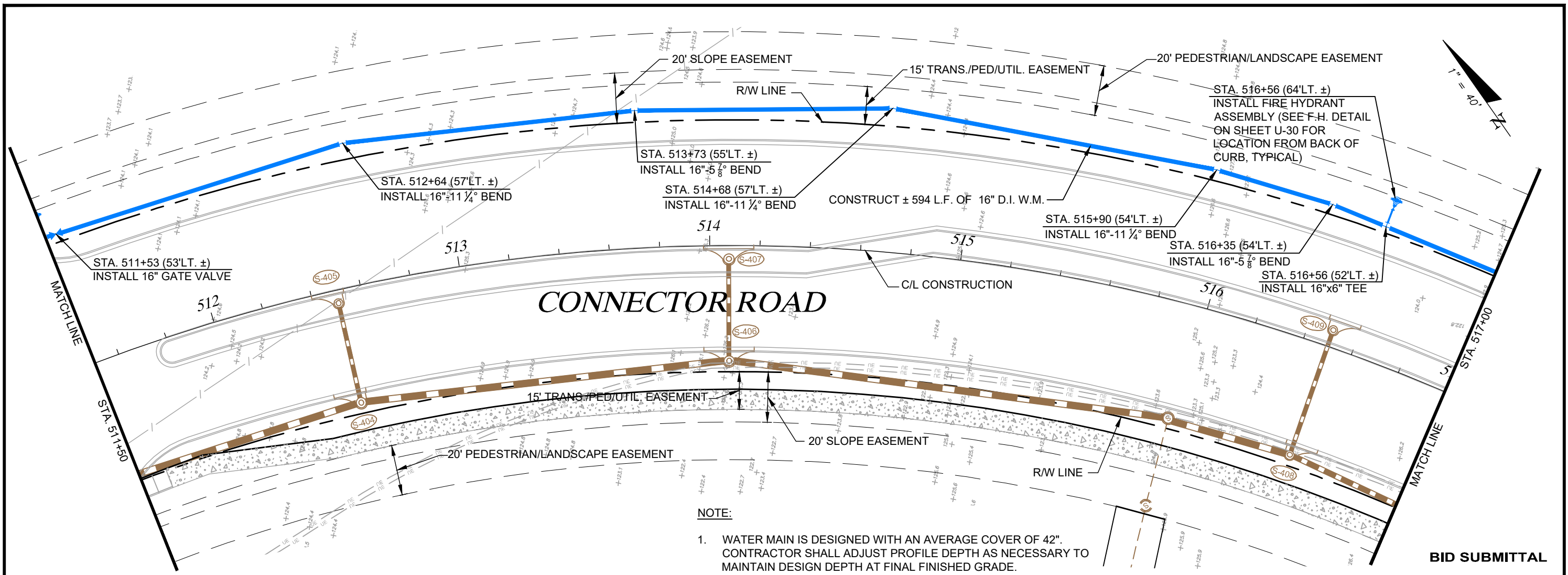
SHEET TITLE: **PLAN AND PROFILE**
STA. 506+00 TO STA. 511+50

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

SHEET NO.: **U-11**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

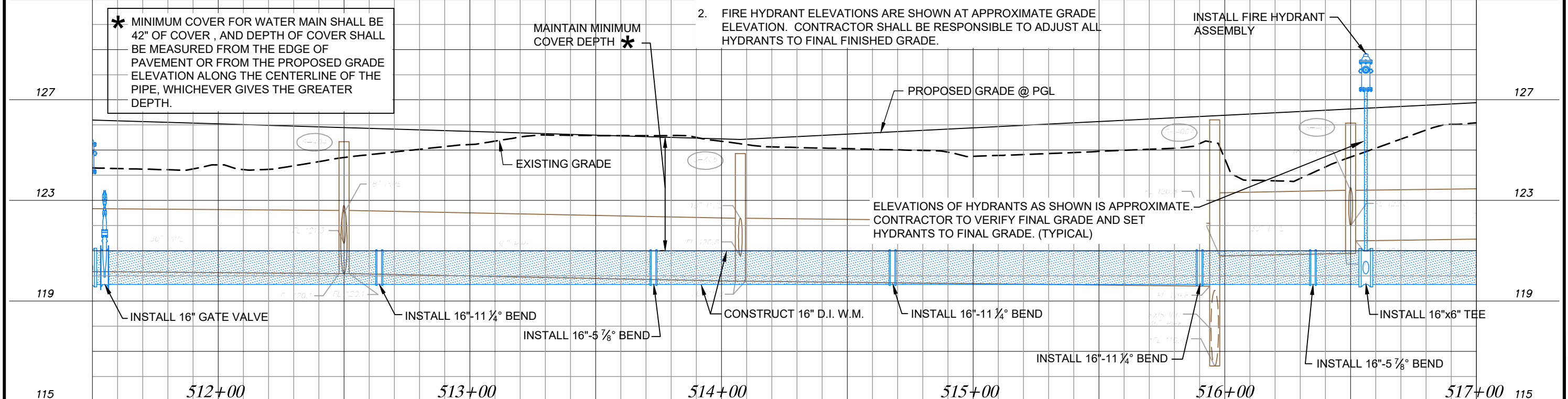
Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



NOTE:

1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.



REVISIONS		DATE	DESCRIPTION
DATE	BY		

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Landsc. Lic. No. LC0000298

SHEET TITLE: **PLAN AND PROFILE**
STA. 511+50 TO STA. 517+00

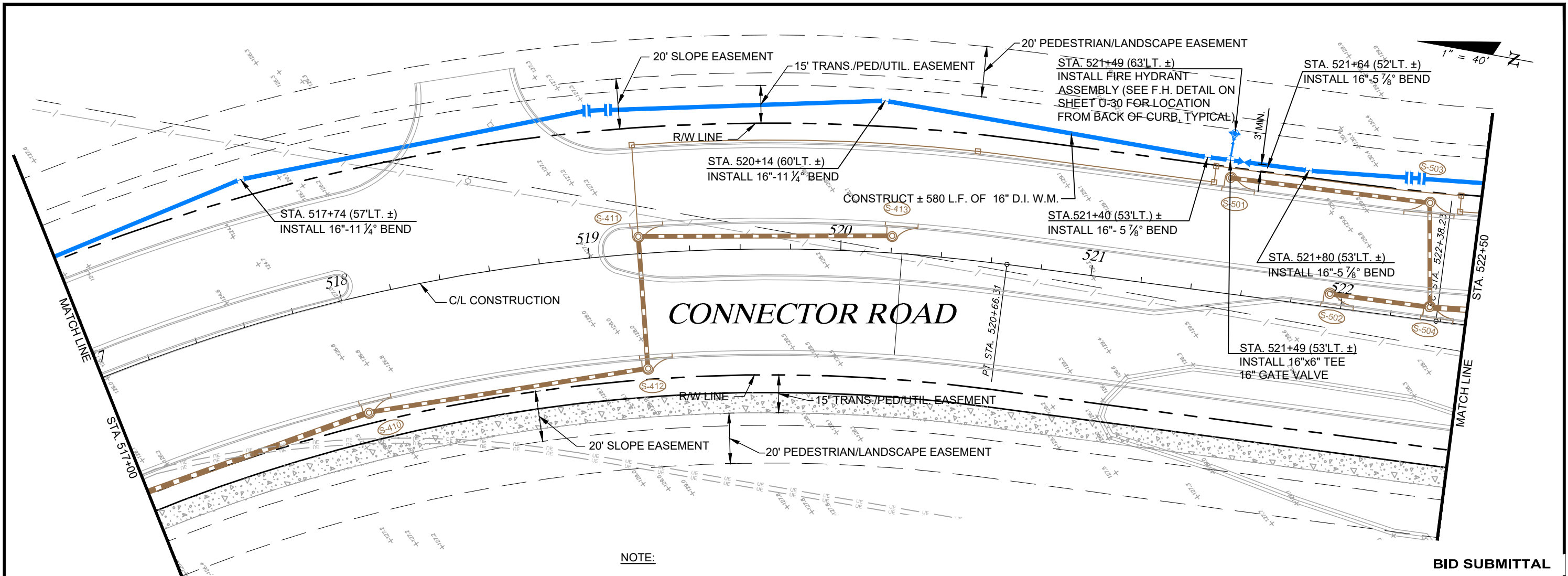
PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

SHEET NO.: **U-12**

BID SUBMITTAL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

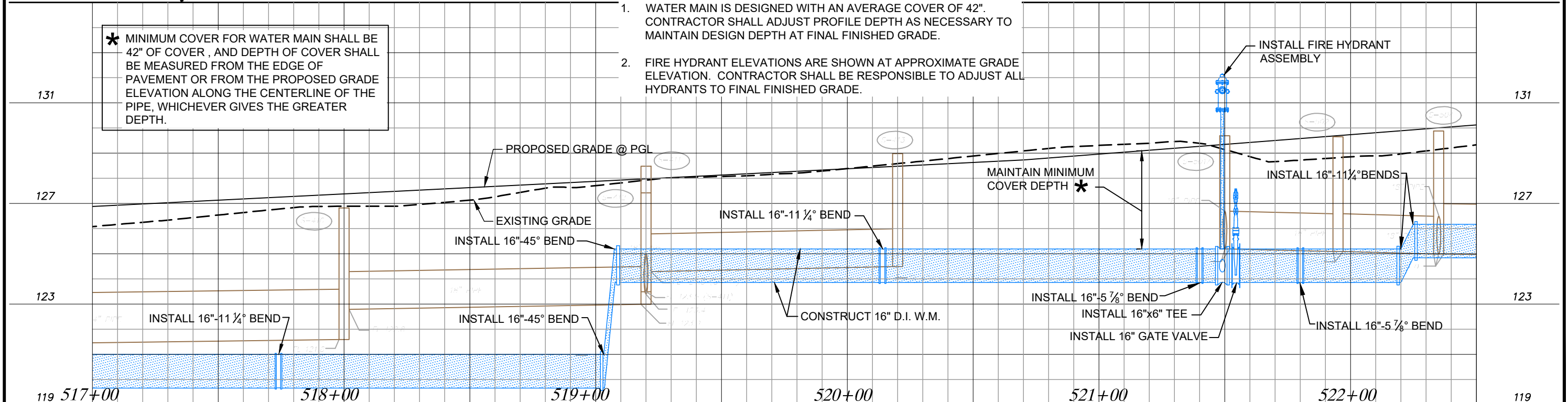
Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



NOTE:

1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.



BID SUBMITTAL

REVISIONS		DATE
DATE	BY	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

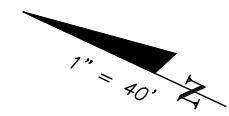
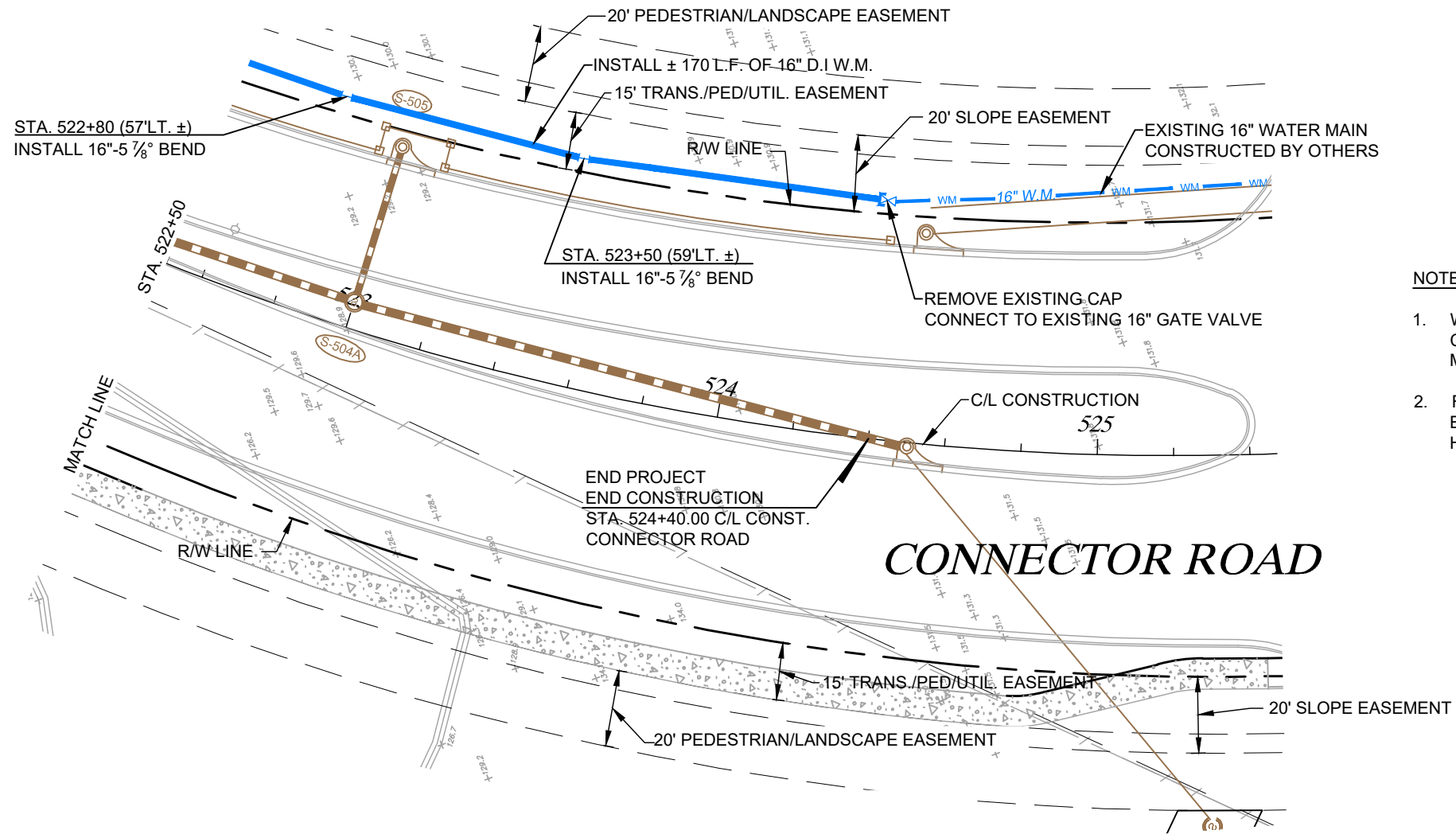
Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE: **PLAN AND PROFILE**
STA. 517+00 TO STA. 522+50

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

SHEET NO.: **U-13**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

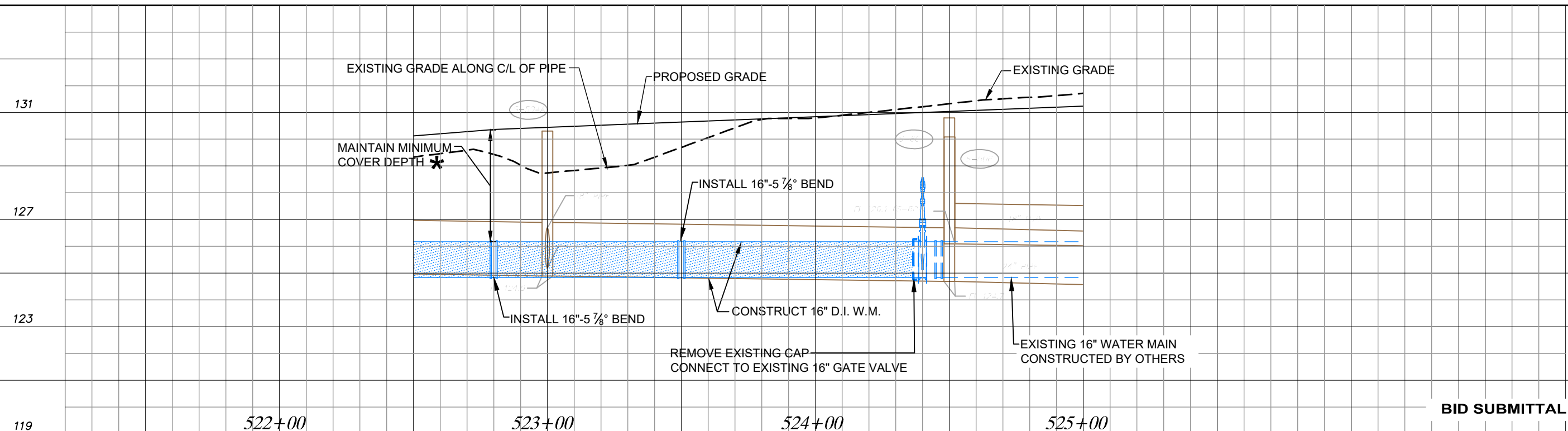


NOTE:

1. WATER MAIN IS DESIGNED WITH AN AVERAGE COVER OF 42". CONTRACTOR SHALL ADJUST PROFILE DEPTH AS NECESSARY TO MAINTAIN DESIGN DEPTH AT FINAL FINISHED GRADE.
2. FIRE HYDRANT ELEVATIONS ARE SHOWN AT APPROXIMATE GRADE ELEVATION. CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST ALL HYDRANTS TO FINAL FINISHED GRADE.

*** MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER , AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.**

CONNECTOR ROAD



BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M/E/P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. ~ Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Landscp. Lic. No. LC0000298

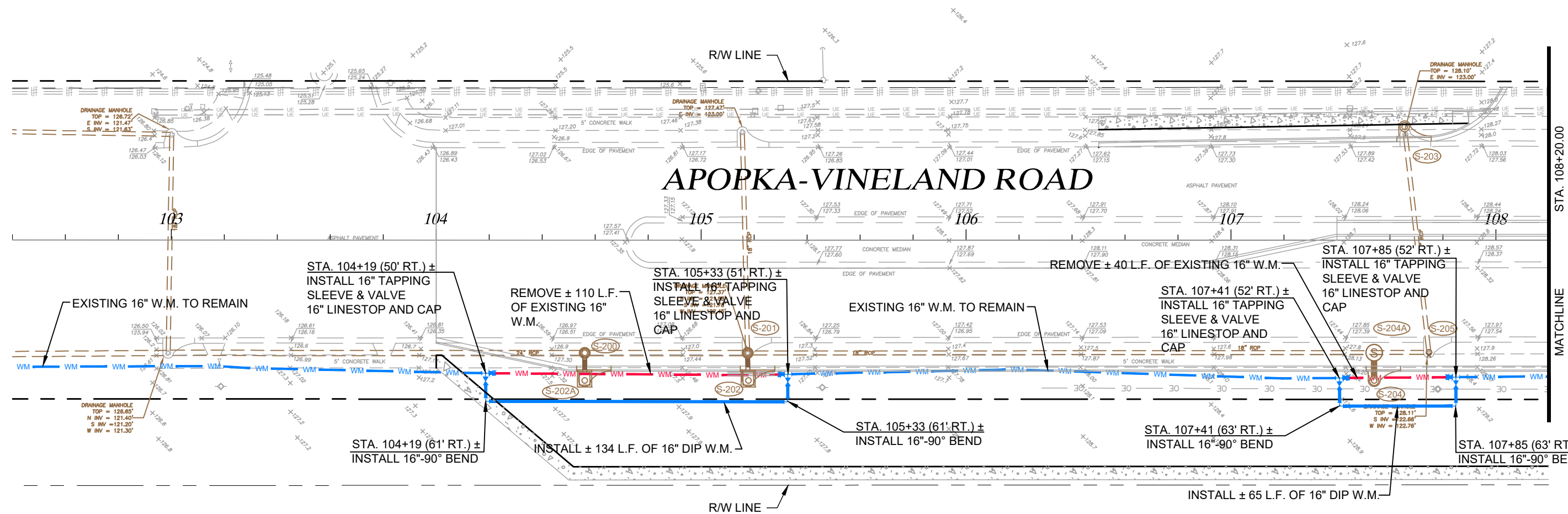
SHEET TITLE:
PLAN AND PROFILE
STA. 522+50 TO STA. 525+00

PROJECT TITLE:
PALM PARKWAY TO APOPKA-VINELAND
CONNECTOR ROAD

SHEET NO.
U-14

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 40'



BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

www.cphcorp.com

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452

Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

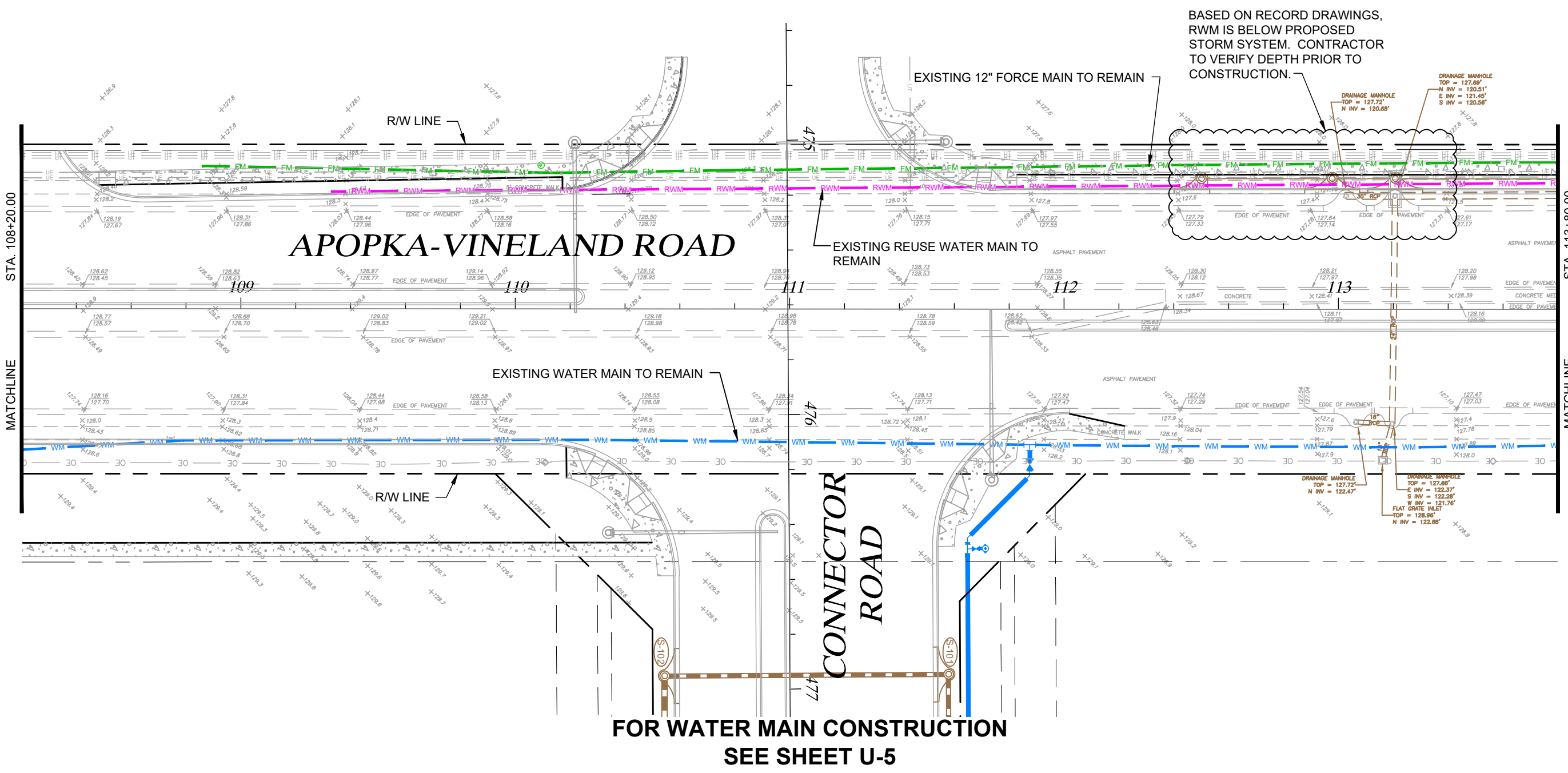
SHEET TITLE: **PLAN (APOPKA VINELAND ROAD)**
STA. 103+00 TO STA. 108+20

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**

SHEET NO.: **U-15**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 40'



BASED ON RECORD DRAWINGS,
RWM IS BELOW PROPOSED
STORM SYSTEM. CONTRACTOR
TO VERIFY DEPTH PRIOR TO
CONSTRUCTION.

EXISTING 12" FORCE MAIN TO REMAIN

EXISTING REUSE WATER MAIN TO REMAIN

EXISTING WATER MAIN TO REMAIN

FOR WATER MAIN CONSTRUCTION
SEE SHEET U-5

BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

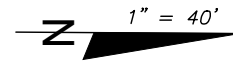
SHEET TITLE: **PLAN (APOPKA VINELAND ROAD)**
STA. 108+20 TO STA. 113+80

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND**
CONNECTOR ROAD

SHEET NO.
U-16

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



STA. 119+33 (56' LT.) ±
INSTALL 12" TEMPORARY
LINESTOP WITH BYPASS
CUT EXISTING 12" F.M.

REMOVE ± 26 L.F. OF EXISTING 12" F.M.
INSTALL ± 26 L.F. OF 12" PVC F.M.

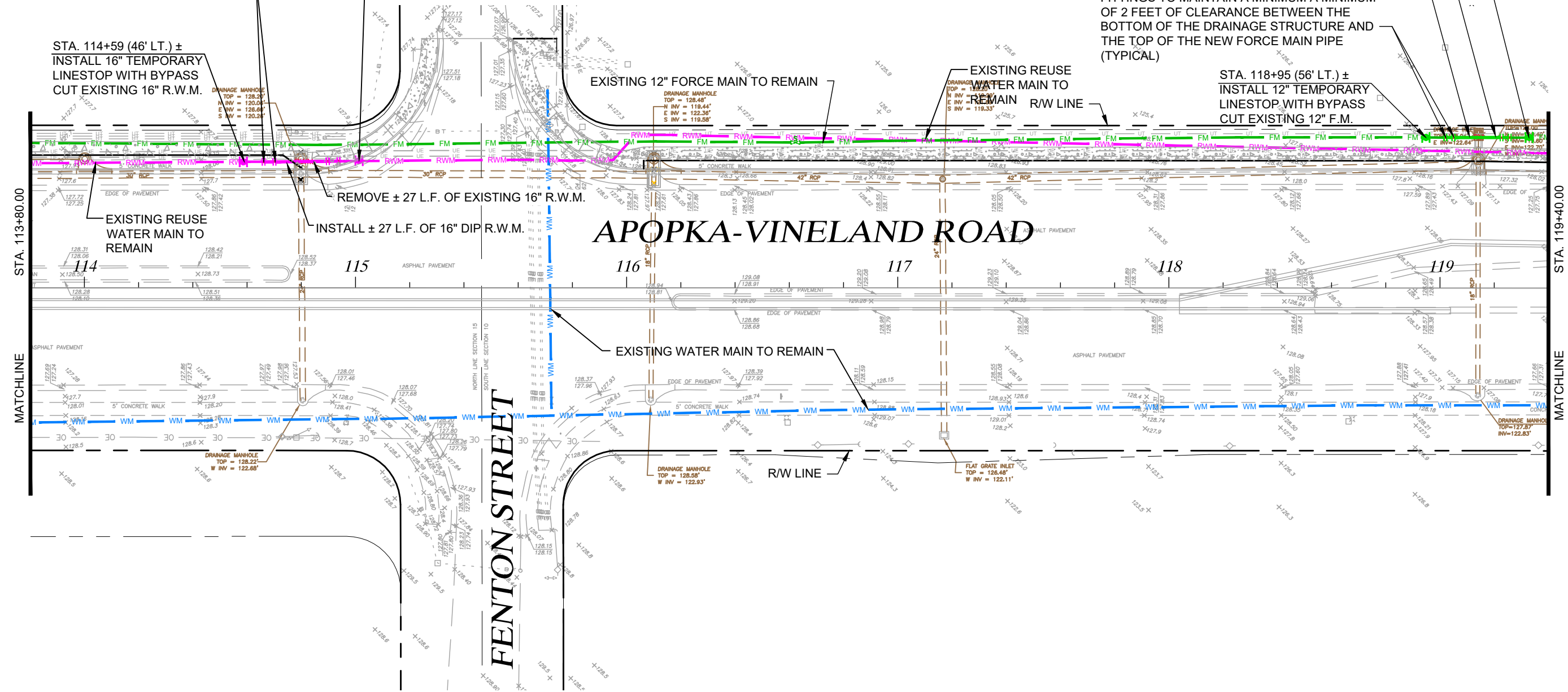
CONTRACTOR TO INSTALL ALL NECESSARY
FITTINGS TO MAINTAIN A MINIMUM A
MINIMUM OF 2 FEET OF CLEARANCE
BETWEEN THE BOTTOM OF THE DRAINAGE
STRUCTURE AND THE TOP OF THE NEW
RECLAIMED WATER MAIN PIPE (TYPICAL)

STA. 115+01 (47' LT.) ±
INSTALL 16" TEMPORARY
LINESTOP WITH BYPASS
CUT EXISTING 16" R.W.M.

CONTRACTOR TO INSTALL ALL NECESSARY
FITTINGS TO MAINTAIN A MINIMUM A
MINIMUM OF 2 FEET OF CLEARANCE
BETWEEN THE BOTTOM OF THE DRAINAGE
STRUCTURE AND THE TOP OF THE NEW FORCE MAIN PIPE
(TYPICAL)

STA. 114+59 (46' LT.) ±
INSTALL 16" TEMPORARY
LINESTOP WITH BYPASS
CUT EXISTING 16" R.W.M.

STA. 118+95 (56' LT.) ±
INSTALL 12" TEMPORARY
LINESTOP WITH BYPASS
CUT EXISTING 12" F.M.



APOPKA-VINELAND ROAD

FENTON STREET

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	

DRAWN BY:	GNP	8/16
CHECKED BY:	PH	8/16
DESIGNED BY:	PH	8/16
CHECKED BY:	DEM	8/16
APPROVED BY:	DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

www.cphcorp.com

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452

Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

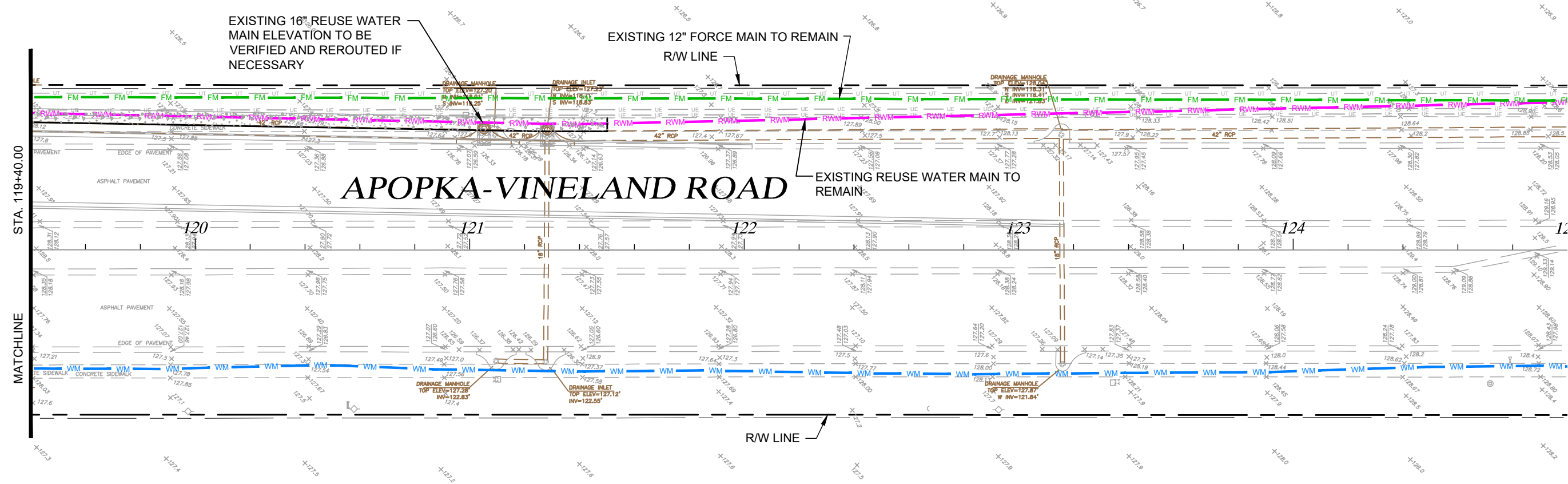
SHEET TITLE: **PLAN (APOPKA-VINELAND ROAD)**
STA. 113+80 TO STA. 108+20

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**

SHEET NO.: **U-17**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 40'



Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

BID SUBMITTAL

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects	M / E / P
Engineers	Planners
Environmental	Surveyors
Landscape Architects	Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

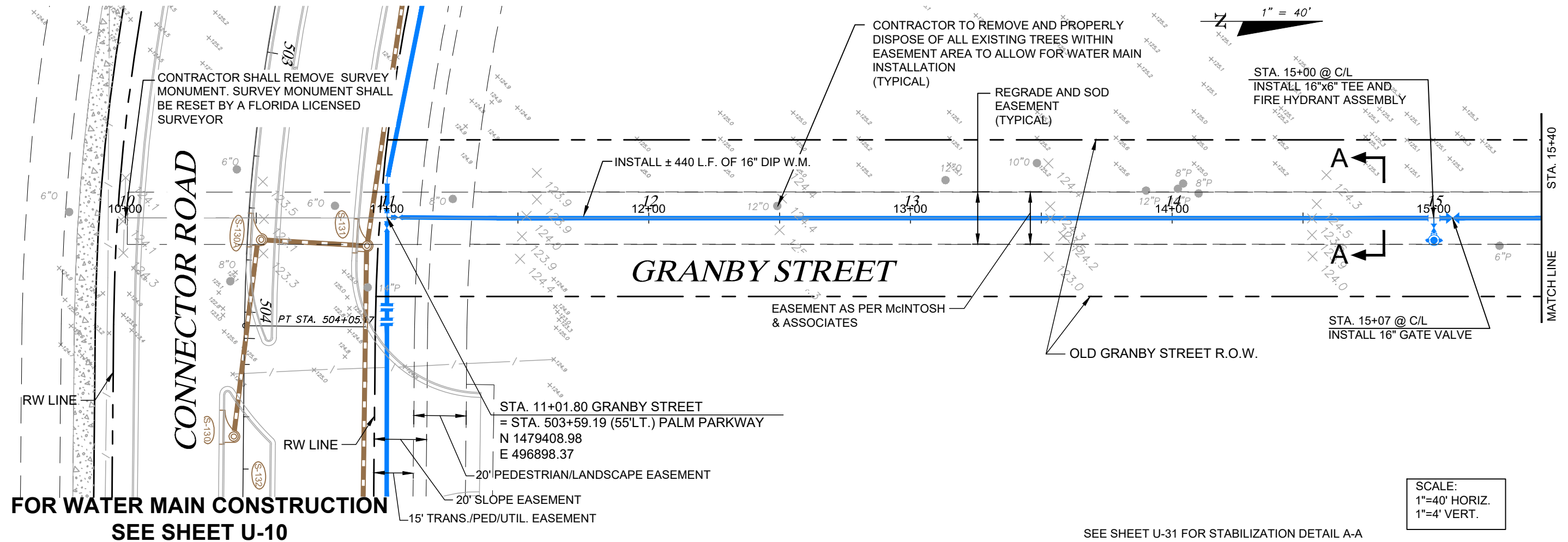
SHEET TITLE: **PLAN (APOPKA-VINELAND ROAD)
 STA. 119+40 TO STA. 125+00**

PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND
 CONNECTOR ROAD**

SHEET NO.: **U-18**

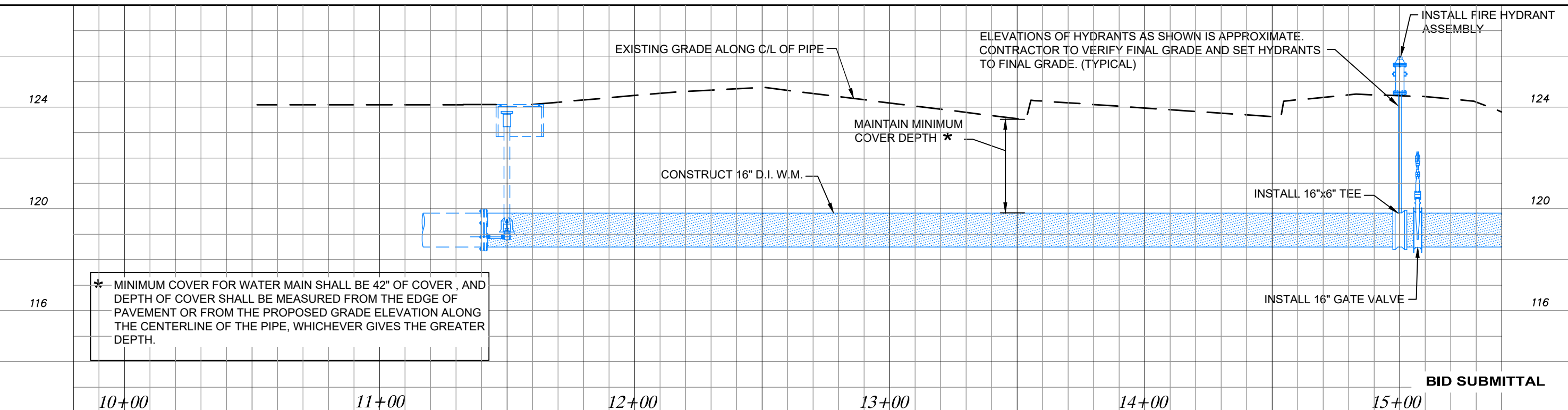
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

**FOR WATER MAIN CONSTRUCTION
SEE SHEET U-10**



**FOR WATER MAIN CONSTRUCTION
SEE SHEET U-10**

SEE SHEET U-31 FOR STABILIZATION DETAIL A-A



* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.

BID SUBMITTAL

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

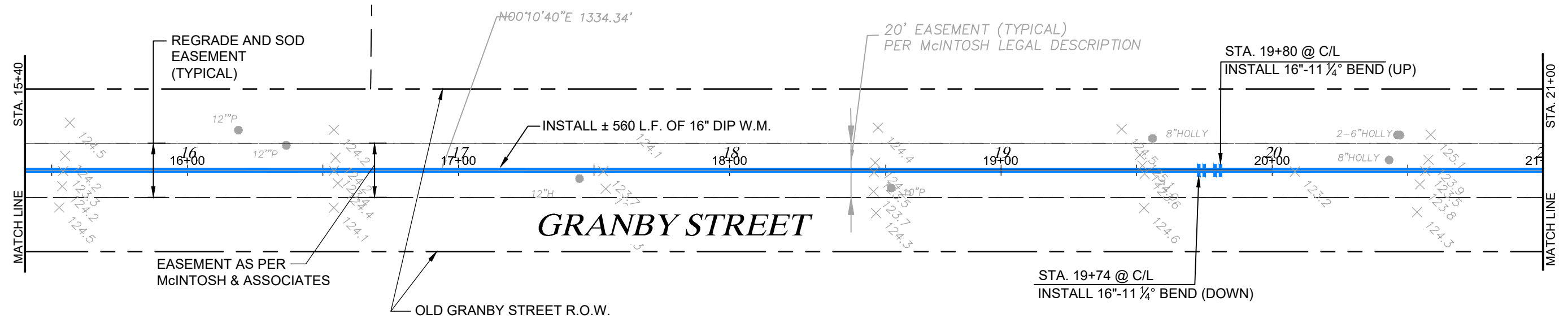
Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

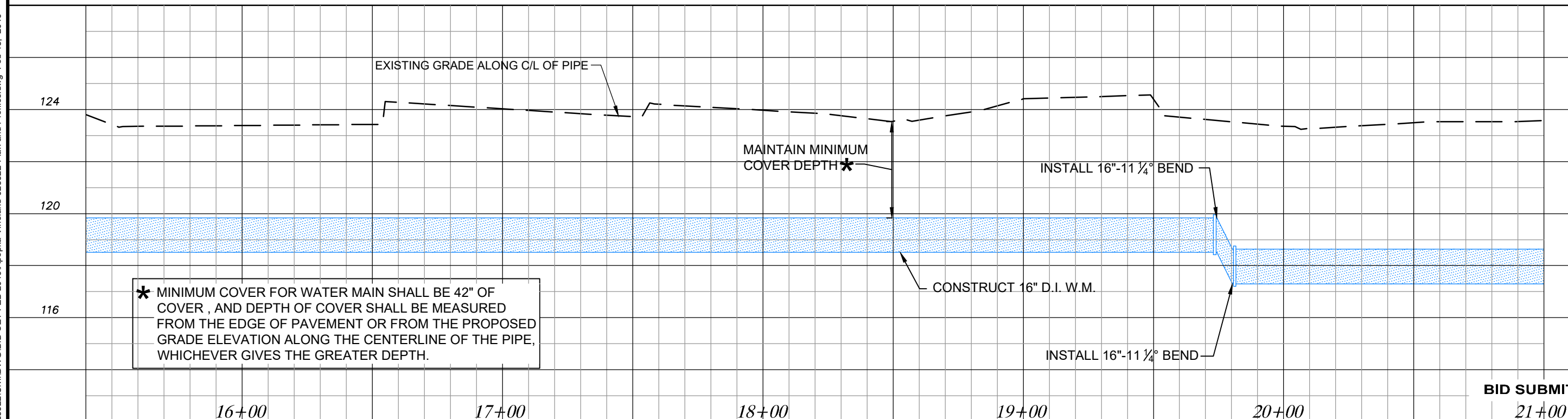
Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:		SHEET NO.
PLAN AND PROFILE (GRANBY STREET) STA. 10+00 TO STA. 15+00		U-19
PROJECT TITLE:		
PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SCALE:
1"=40' HORIZ.
1"=4' VERT.



* MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.

BID SUBMITTAL

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm
Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

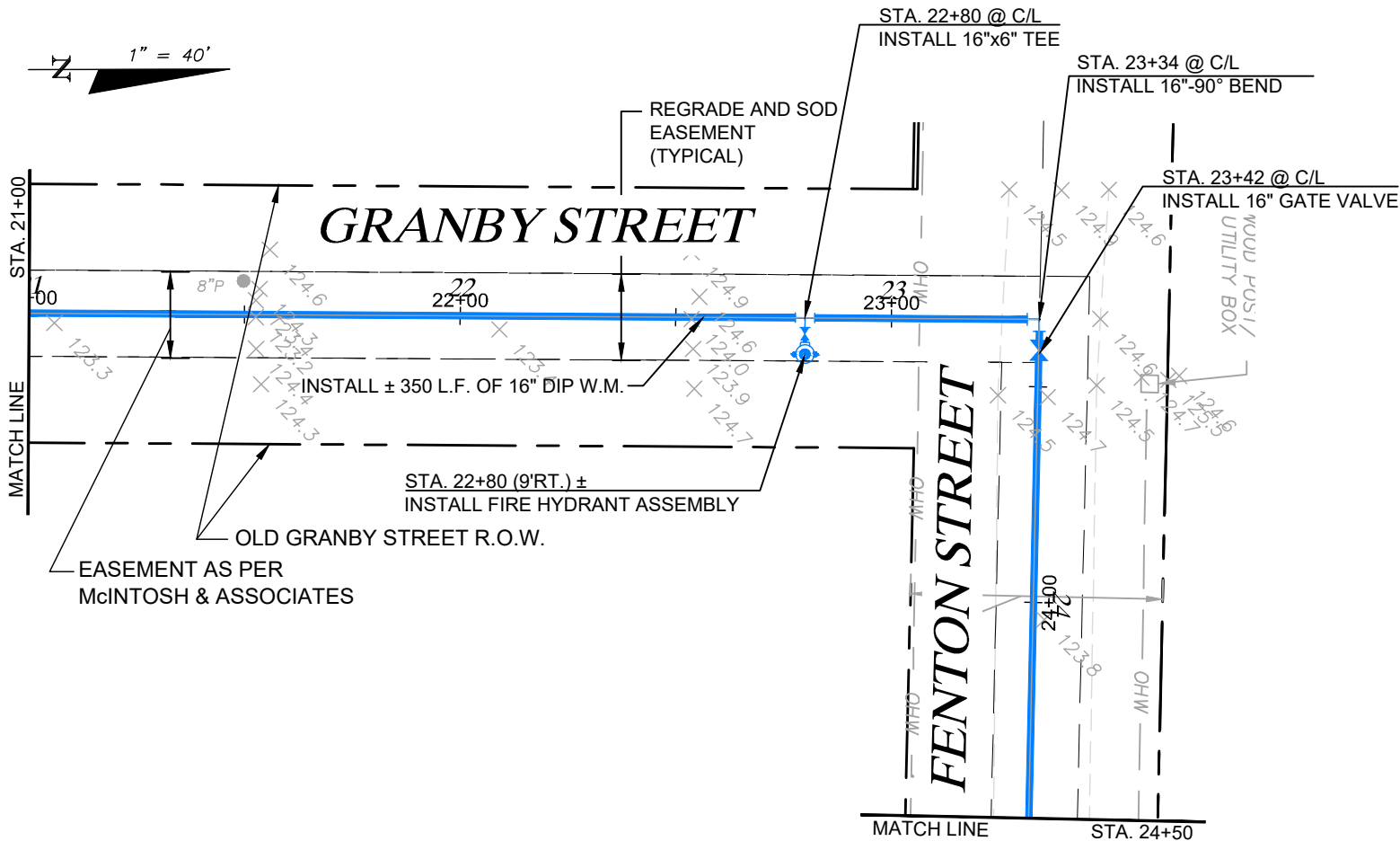
SHEET TITLE: **PLAN AND PROFILE (GRANBY STREET)**
STA. 15+00 TO STA. 21+00
PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**

SHEET NO.: **U-20**

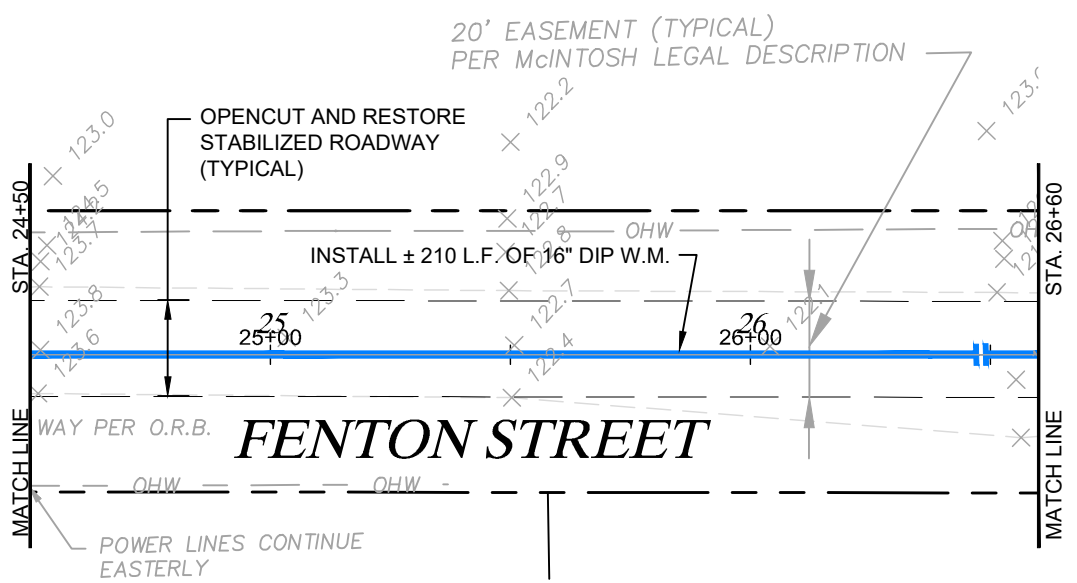
Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

1" = 40'

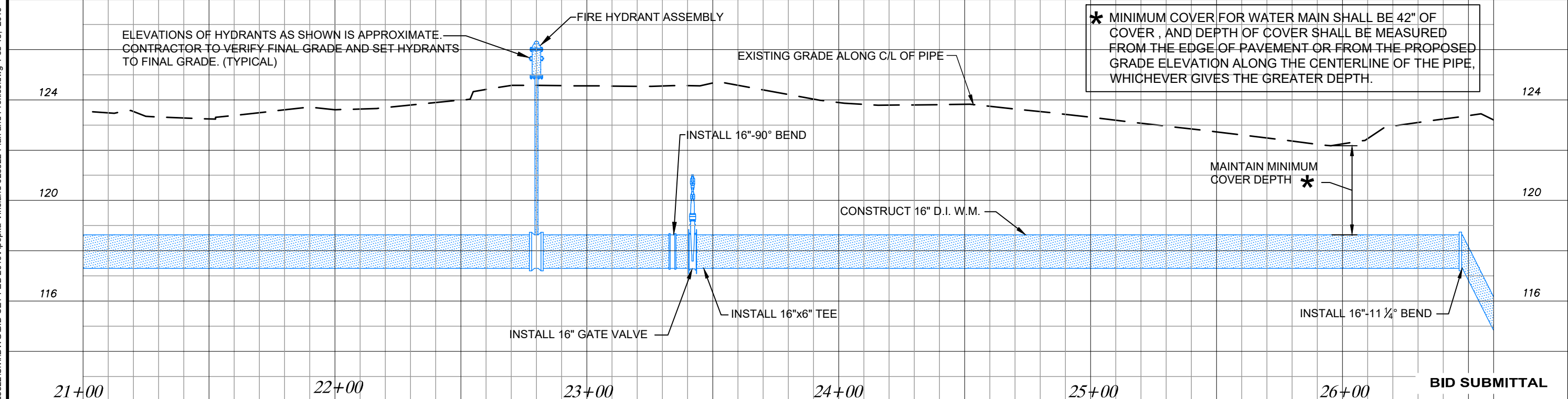


1" = 40'



SCALE:
1"=40' HORIZ.
1"=4' VERT.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm
Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

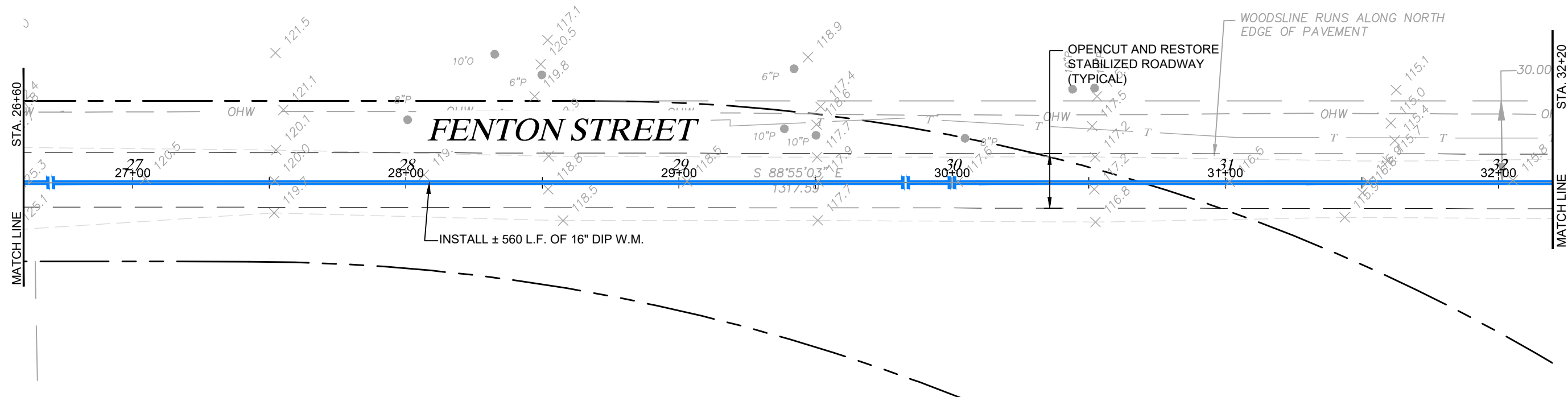
Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

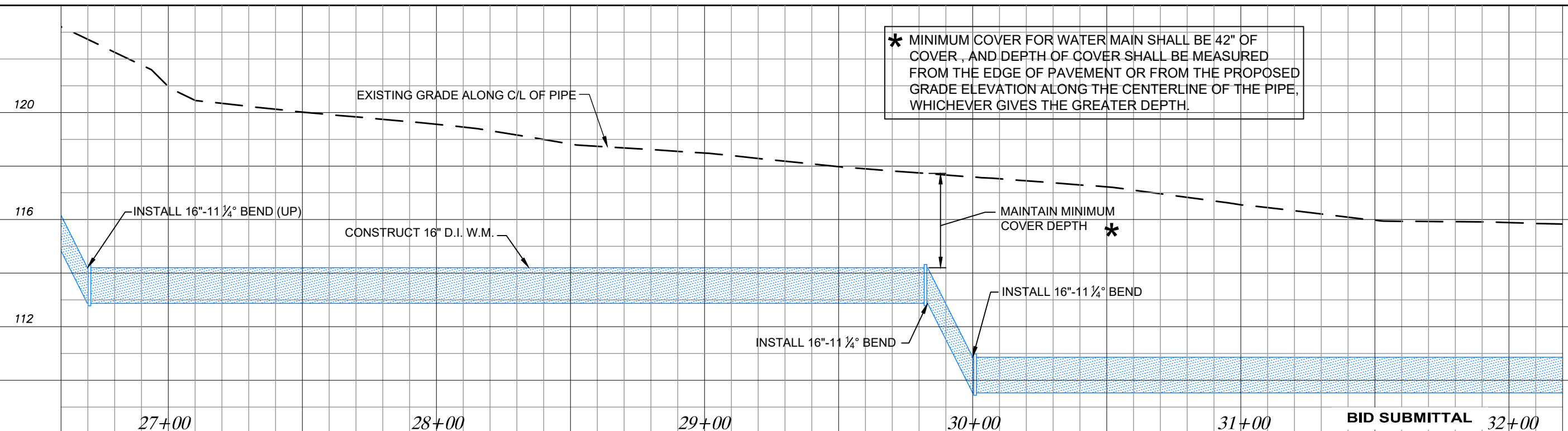
Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

PLAN AND PROFILE (GRANBY ST. & FENTON ST.)
STA. 21+00 TO STA. 26+60
PROJECT TITLE: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD
SHEET TITLE: U-21

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SCALE:
1"=40' HORIZ.
1"=4' VERT.



Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Landsc. Lic. No. LC0000298

SHEET TITLE: **PLAN AND PROFILE (FENTON STREET)**
STA. 26+60 TO STA. 32+20

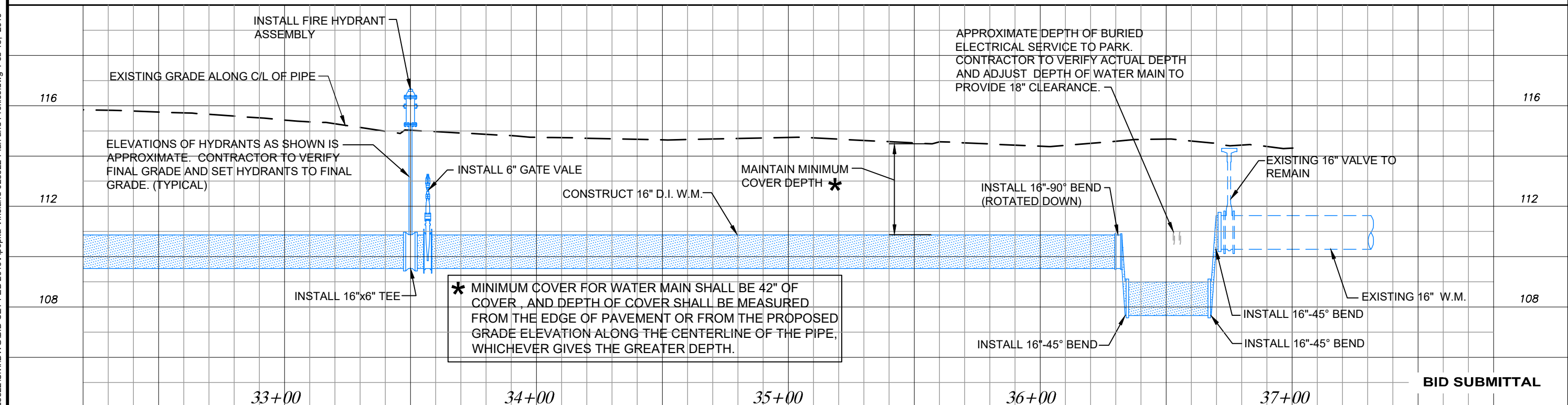
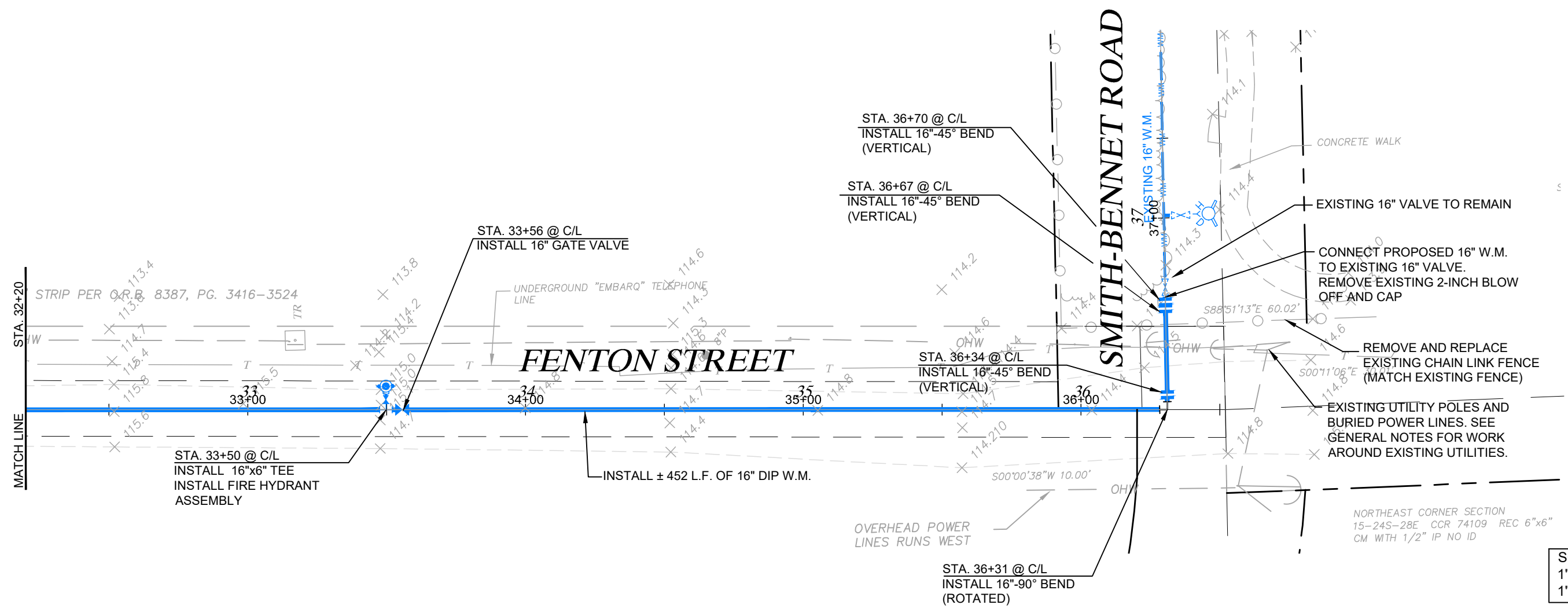
PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**

SHEET NO.: **U-22**

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



SCALE:
1"=40' HORIZ.
1"=4' VERT.



*** MINIMUM COVER FOR WATER MAIN SHALL BE 42" OF COVER, AND DEPTH OF COVER SHALL BE MEASURED FROM THE EDGE OF PAVEMENT OR FROM THE PROPOSED GRADE ELEVATION ALONG THE CENTERLINE OF THE PIPE, WHICHEVER GIVES THE GREATER DEPTH.**

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	6/16
CHECKED BY: PH	6/16
DESIGNED BY: PH	6/16
CHECKED BY: DEM	6/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

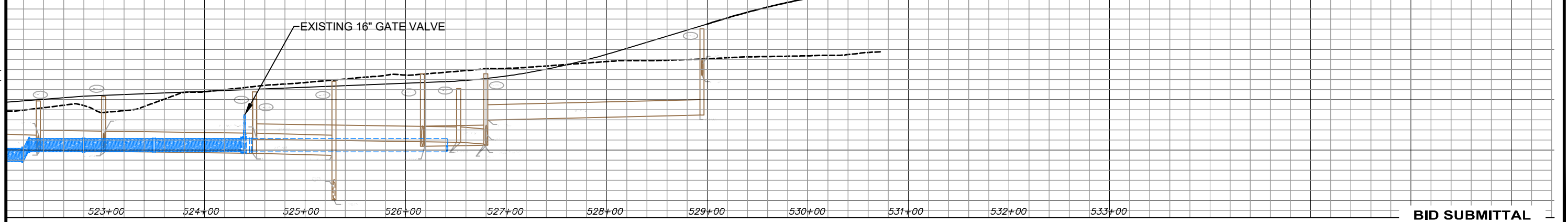
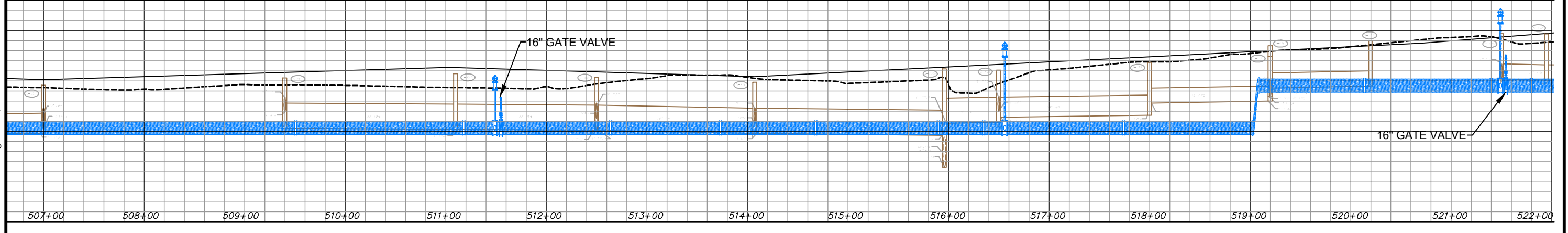
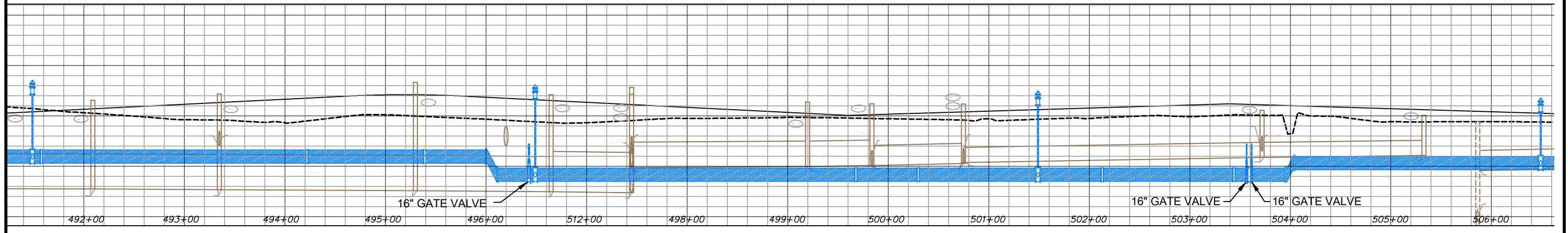
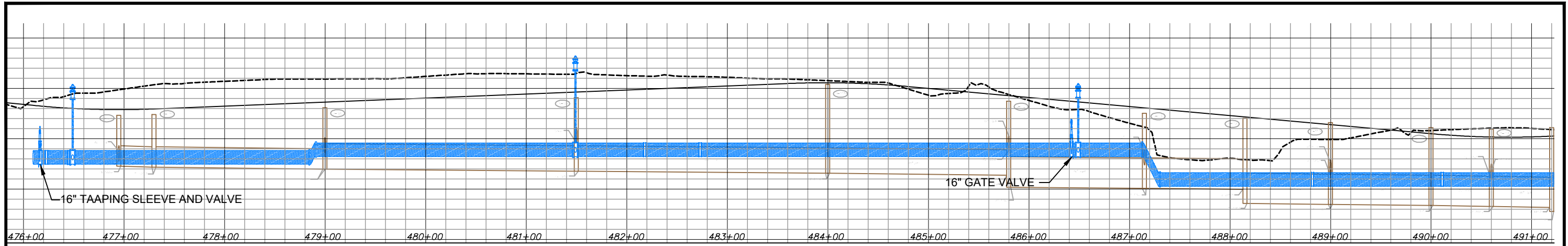
Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452

Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

SHEET TITLE:	PLAN AND PROFILE (FENTON STREET) STA. 32+20 TO STA. 37+00	SHEET NO.:	U-23
PROJECT TITLE:	PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Plan and Profiles.dwg Feb 18, 2019



BID SUBMITTAL

REVISIONS	
DATE	DESCRIPTION

NAMES	DATE
DRAWN BY: GNP	8/16
CHECKED BY: PH	8/16
DESIGNED BY: PH	8/16
CHECKED BY: DEM	8/16
APPROVED BY: DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

Offices In:

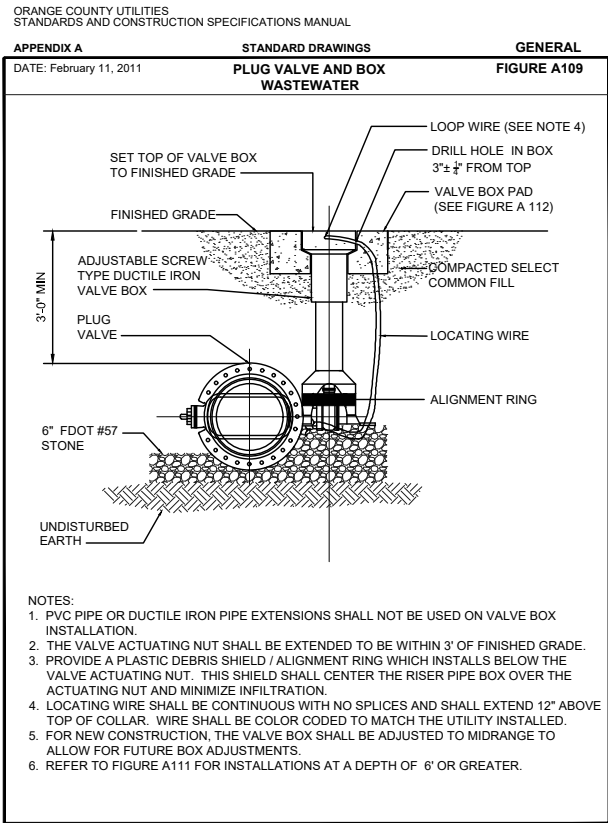
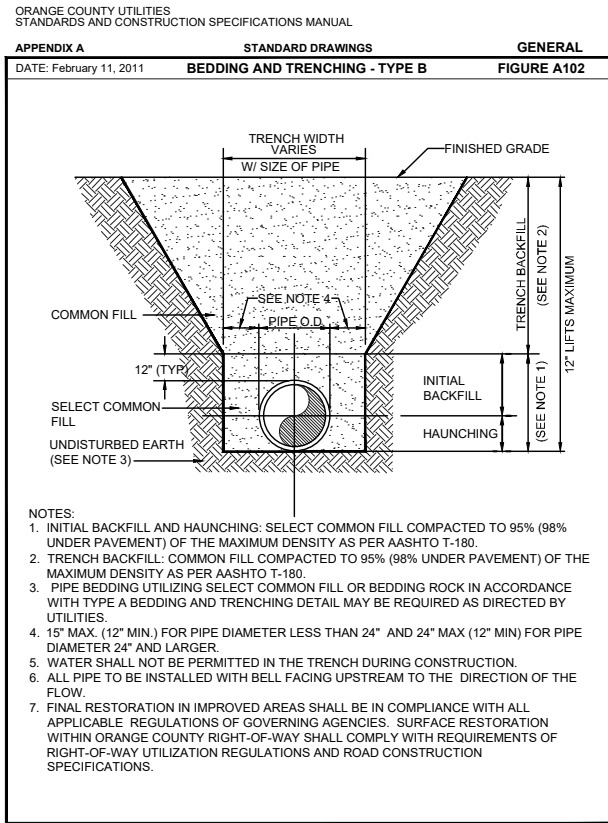
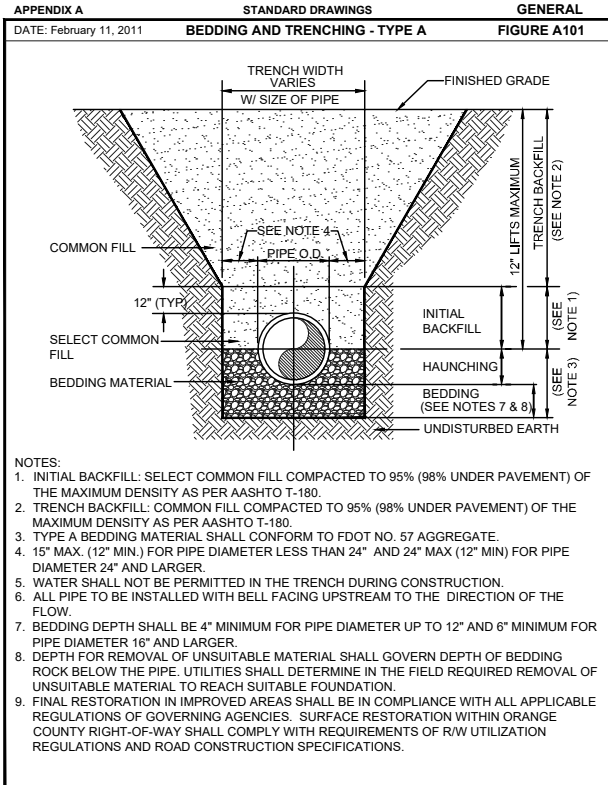
- Florida
- Puerto Rico
- Connecticut
- Maryland
- Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

SHEET TITLE:	OVERALL PROJECT PIPES PROFILES	SHEET NO.:	U-24
PROJECT TITLE:	PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 RESTRAINED PIPE TABLE WATER AND RECLAIMED WATER MAINS FIGURE A104-1

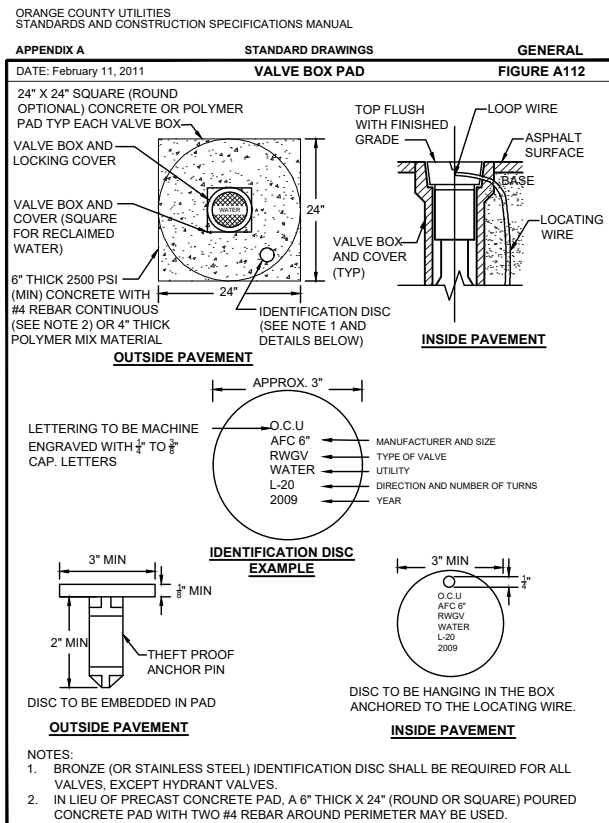
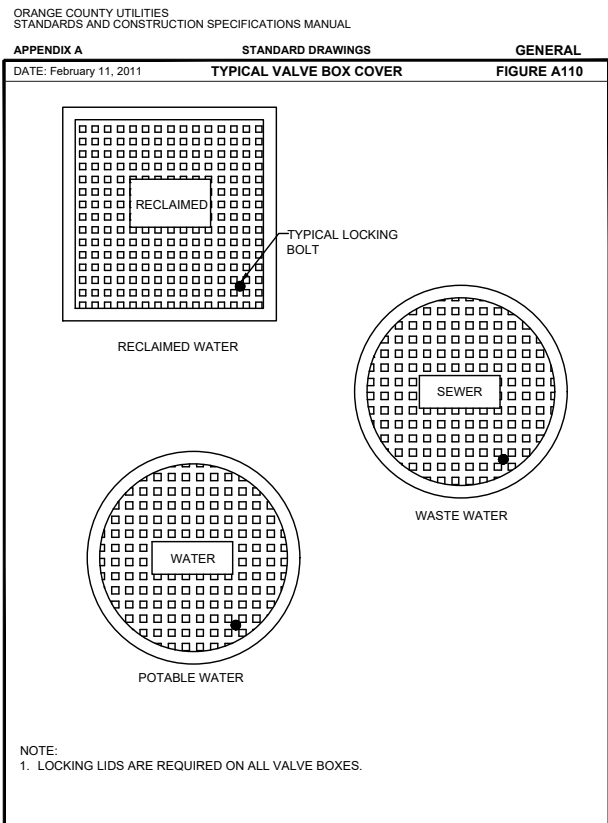
TYPE	MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)									
	PVC					DIP				
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	25	36	46	55	64	65	77	89	105	120
45° BEND	10	15	19	23	26	27	32	37	44	50
22-1/2° BEND	5	8	9	11	13	13	15	18	21	24
11-1/4° BEND	3	4	5	6	8	7	8	9	10	12
PLUG OR BRANCH OF TEE	53	74	97	117	135	138	166	194	231	265
VALVE	27	38	49	59	68	69	83	97	116	133
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER.									

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
WORKING PRESSURE: 150 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25
THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC SOIL DESIGNATIONS, LAYING CONDITIONS, PIPE MATERIAL, ETC. FOR DIP ENCASED IN POLYETHYLENE, INCREASE THE GIVEN VALUE BY A FACTOR OF 1.25.

APPENDIX A STANDARD DRAWINGS GENERAL
DATE: February 11, 2011 RESTRAINED PIPE TABLE WASTEWATER FORCE MAINS FIGURE A104-2

TYPE	MINIMUM LENGTH (FT) TO BE RESTRAINED ON EACH SIDE OF FITTING(S)									
	PVC PIPE SIZE									
	4"	6"	8"	10"	12"	16"	20"	24"	30"	36"
90° BEND	18	24	31	38	43	55	65	75	88	100
45° BEND	8	10	13	15	18	23	26	31	38	43
22-1/2° BEND	4	5	6	8	9	11	13	15	18	20
11-1/4° BEND	2	3	4	5	6	8	9	10	11	13
PLUG OR BRANCH OF TEE	38	50	65	79	90	147	139	163	194	223
VALVE	19	25	32	40	45	59	70	82	98	112
REDUCER	VARIES BY SIZE; TO BE DETERMINED BY THE DESIGN ENGINEER.									

NOTES:
1. FITTINGS SHALL HAVE RESTRAINED JOINTS UNLESS OTHERWISE INDICATED.
2. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN LENGTH SHOWN IN THE TABLE.
3. WHERE TWO OR MORE FITTINGS ARE IN SERIES, SELECT FITTING RESTRAINT LENGTH THAT YIELDS THE LONGEST RESTRAINT DISTANCE.
4. ALL INLINE VALVES SHALL BE RESTRAINED.
5. WHERE INTERNAL RESTRAINED JOINTS ARE USED, THE ENTIRE BELL SHALL BE PAINTED RED.
6. LENGTHS SHOWN IN THE TABLE WERE CALCULATED IN ACCORDANCE WITH PROCEDURES OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" GUIDELINES PUBLISHED BY DIPRA, USING THE ASSUMPTIONS SHOWN BELOW:
WORKING PRESSURE: 100 PSI
SOIL DESIGNATION: SM (SAND SILT)
LAYING CONDITIONS: 3
DEPTH OF COVER: 3 FT
SAFETY FACTOR: 1.5
CONVERSION FACTOR FOR PVC PIPE: 1.25
THE DESIGN ENGINEER SHALL INCREASE THE VALUES IN THE TABLE AS WARRANTED BY SITE-SPECIFIC PARAMETERS, SUCH AS SOIL DESIGNATIONS AND LAYING CONDITIONS.



Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const-Details.dwg Feb 18, 2019

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	

DRAWN BY:	GNP	2/19
CHECKED BY:	PH	2/19
DESIGNED BY:	PH	2/19
CHECKED BY:	DEM	2/19
APPROVED BY:	DAVID E. MAHLER	



A Full Service A & E Firm

Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

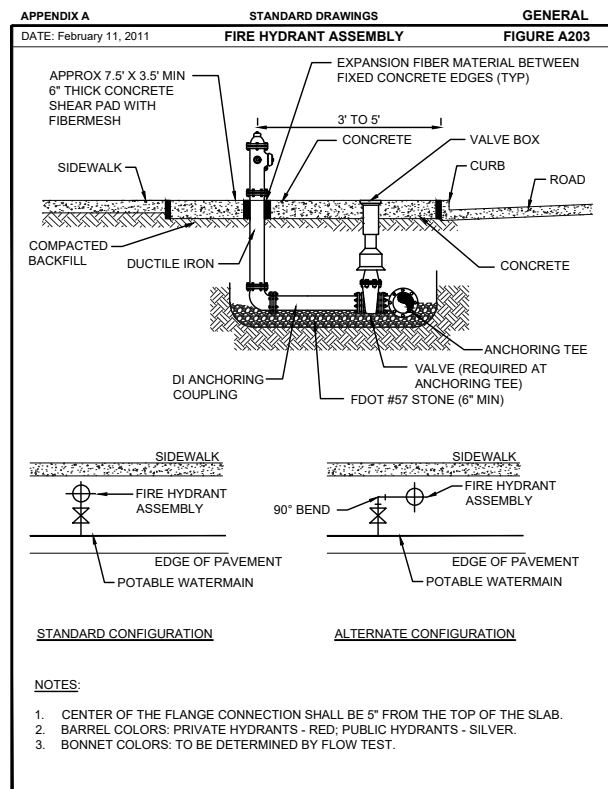
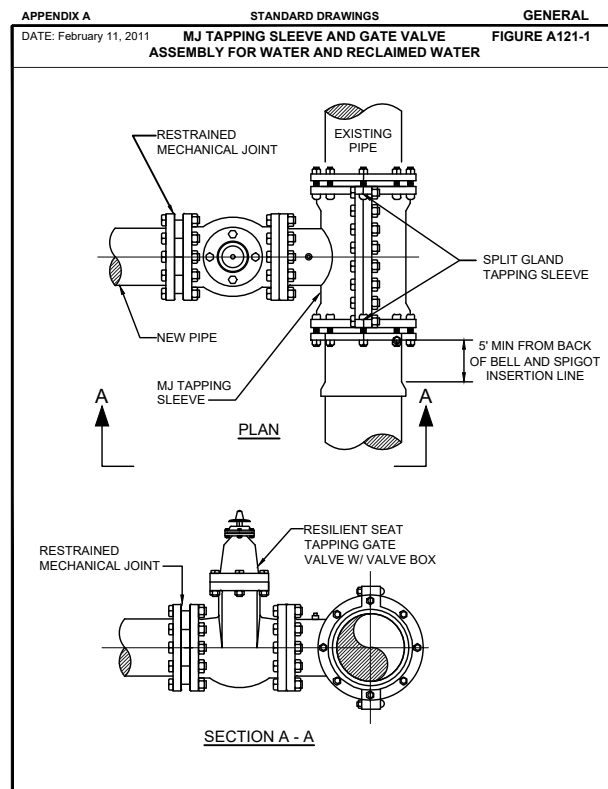
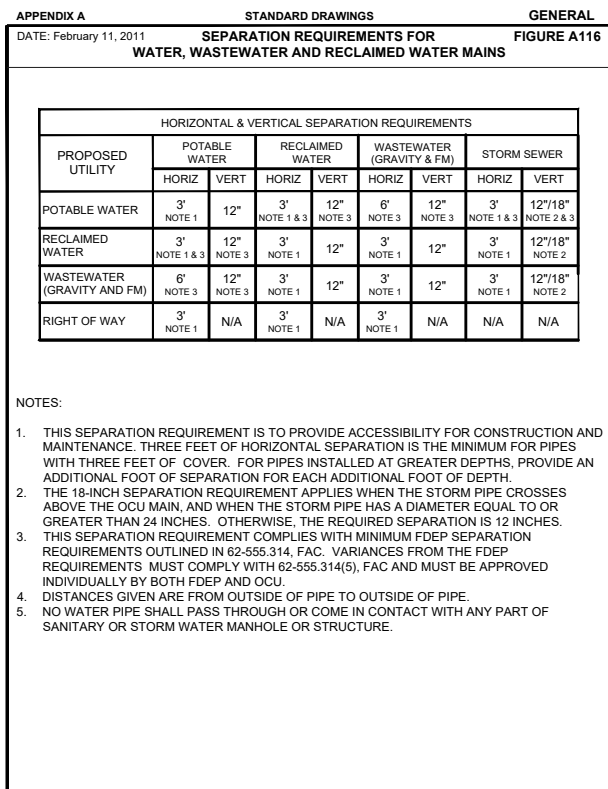
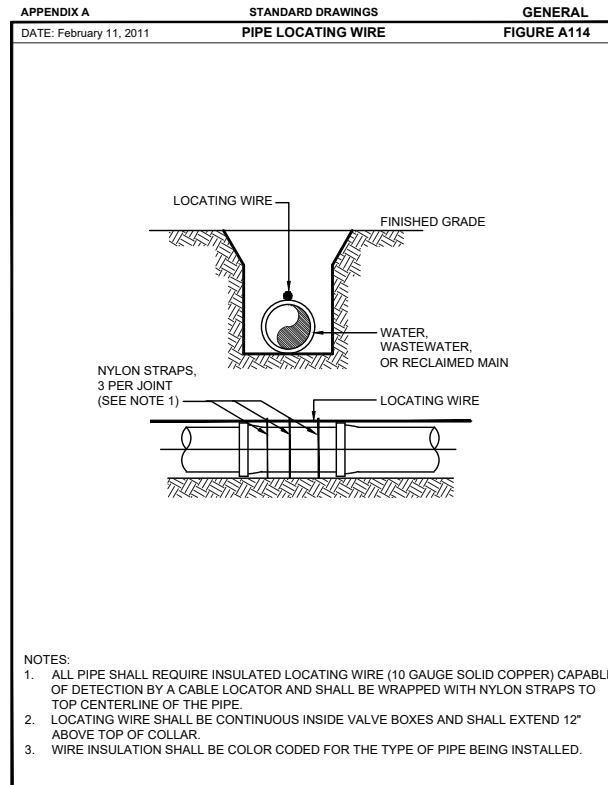
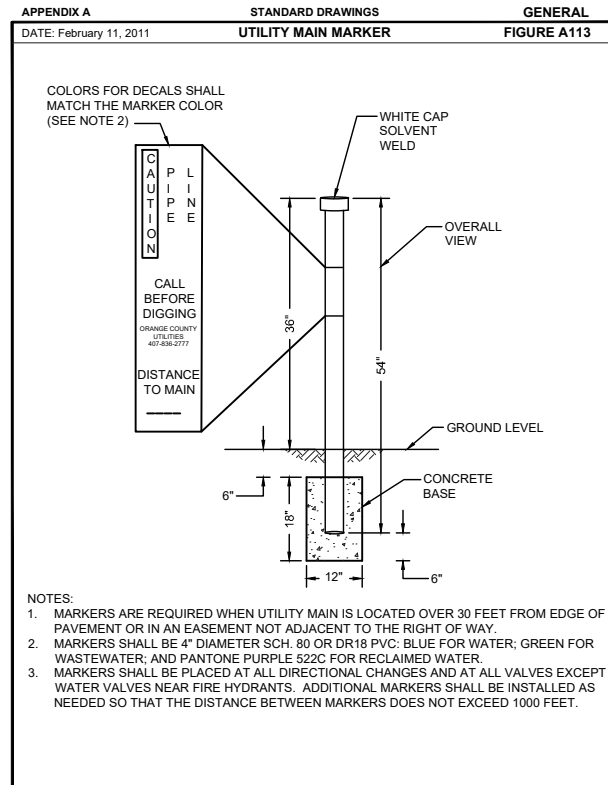
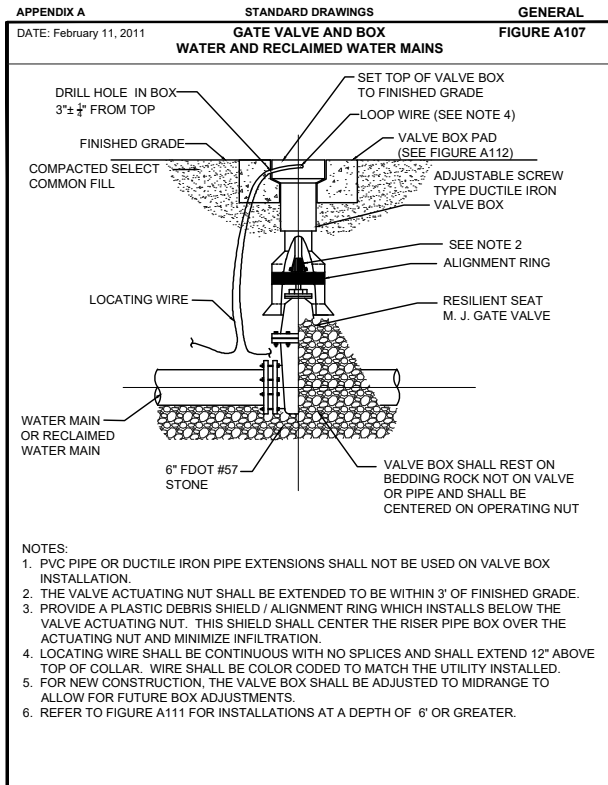
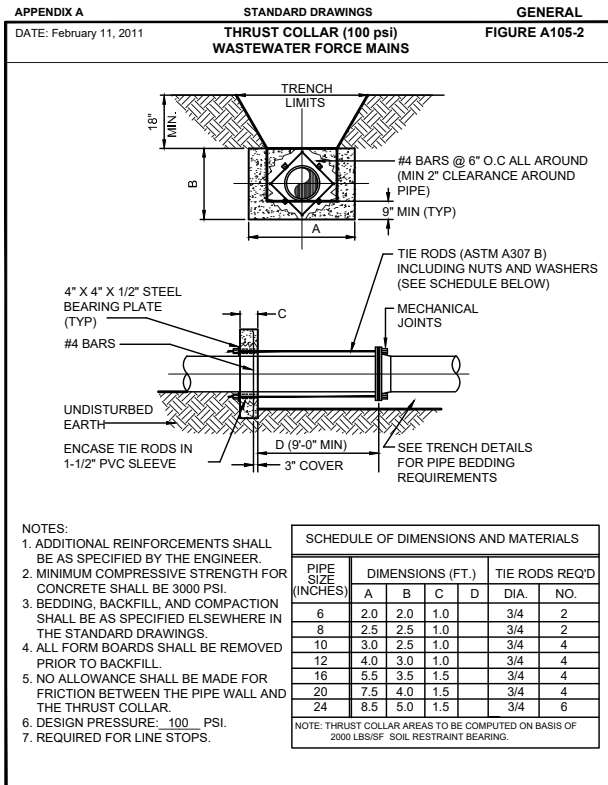
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

SHEET TITLE: **CONSTRUCTION DETAILS**
PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**
SHEET NO.: **U-25**

BID SUBMITTAL

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.



Drawing name: J:\O28522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const-Details.dwg Feb 18, 2019

REVISIONS		NAMES	DATE
DATE	BY	DESCRIPTION	
		DRAWN BY: GNP	2/19
		CHECKED BY: PH	2/19
		DESIGNED BY: PH	2/19
		CHECKED BY: DEM	2/19
		APPROVED BY: DAVID E. MAHLER	

www.cphcorp.com

A Full Service A & E Firm

Architects M / E / P
Engineers Planners
Environmental Surveyors
Landscape Architects Traffic/Transportation

Offices In:
• Florida
• Puerto Rico
• Connecticut
• Maryland
• Texas

ORANGE COUNTY UTILITIES		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
1117 E. Robinson St. - Orlando, FL 32801
Ph: 407.425.0452
Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

SHEET TITLE: **CONSTRUCTION DETAILS**

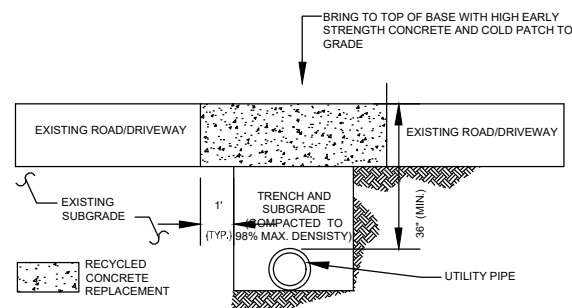
PROJECT TITLE: **PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD**

SHEET NO.: **U-26**

BID SUBMITTAL

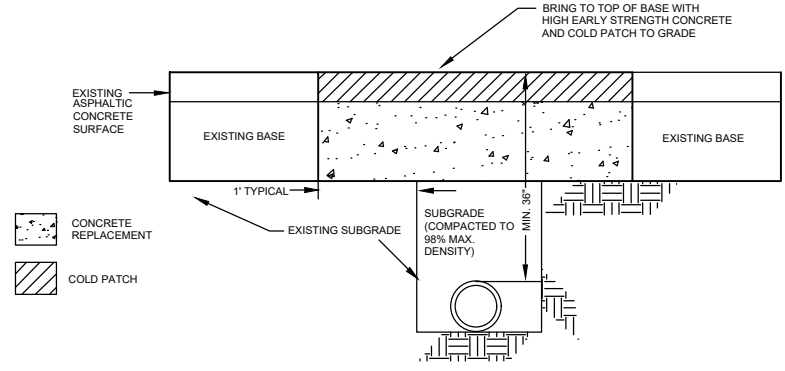
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const Details.dwg Feb 19, 2019



- GENERAL NOTES:**
- ROAD/DRIVEWAY REPLACEMENT SHALL BE RECYCLED CRUSHED CONCRETE WITH FINES OR LIMEROCK.
 - ALL JOINT CUTS SHALL BE MECHANICALLY SAW-CUT.
 - SUB-GRADE TO BE COMPACTED TO 98% MAX. DENSITY AS DETERMINED BY AASHTO T-180. CUT TO BE REPLACED WITH ROAD/DRIVEWAY BASE MATERIAL AT A MINIMUM 6" THICK RECYCLED CONCRETE WITH FINES LBR40 OR STABILIZED MATERIAL MEETING LBR OF 100.

FENTON ROAD/DRIVEWAY RESTORATION DETAIL



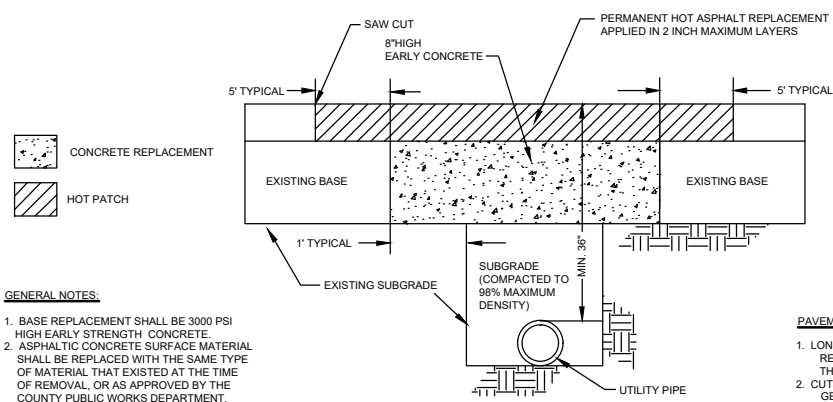
NOTE:
SUB-GRADE CUT TO BE COMPACTED TO 98% MAX. DENSITY AS DETERMINED BY AASHTO T-180. CUT TO BE REPLACED WITH 3000 PSI HIGH EARLY CONCRETE TO TOP OF EXISTING BASE. CUT AREA TO BE PLATED OR PROTECTED ON DAY OF POUR. TEMPORARY COLD PATCH TO BE APPLIED AND BROUGHT TO GRADE NEXT DAY. PERMANENT REPAIR TO BE MADE WITHIN 30 DAYS.

STANDARD ROADWAY OPENCUT DETAIL

TEMPORARY COLD PATCH OVER CONCRETE BASE - TYPICAL OF MAJOR OPEN CUTS

- PAVEMENT RESTORATION**
- LONGITUDINAL CUTS MAY REQUIRE OVERLAY/ RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
 - CUTS AT AN INTERSECTION OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/RESURFACING TO THE END OF ALL RETURN RADII AND ALSO TO A POINT TEN (10) FEET BEYOND THE CUT, WHICHEVER IS GREATER.
 - ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT.

- GENERAL NOTES:**
- BASE REPLACEMENT SHALL BE 3000 PSI HIGH EARLY STRENGTH CONCRETE.
 - ASPHALT CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL THAT EXISTED AT THE TIME OF REMOVAL, OR AS APPROVED BY THE COUNTY PUBLIC WORKS DEPARTMENT.
 - MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE (1 1/2") INCH OR AS APPROVED BY THE COUNTY PW DEPARTMENT.
 - ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

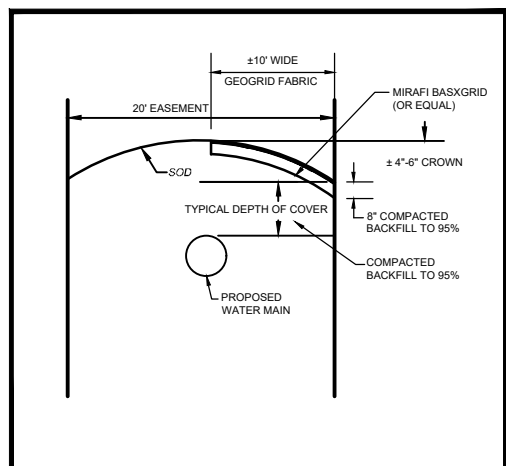


- GENERAL NOTES:**
- BASE REPLACEMENT SHALL BE 3000 PSI HIGH EARLY STRENGTH CONCRETE.
 - ASPHALTIC CONCRETE SURFACE MATERIAL SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL THAT EXISTED AT THE TIME OF REMOVAL, OR AS APPROVED BY THE COUNTY PUBLIC WORKS DEPARTMENT.
 - MINIMUM ASPHALTIC CONCRETE SURFACE OVERLAY THICKNESS SHALL BE ONE (1 1/2") INCH, OR AS APPROVED BY THE COUNTY PW DEPARTMENT.
 - ALL JOINT CUTS SHALL BE MECHANICALLY SAW CUT.

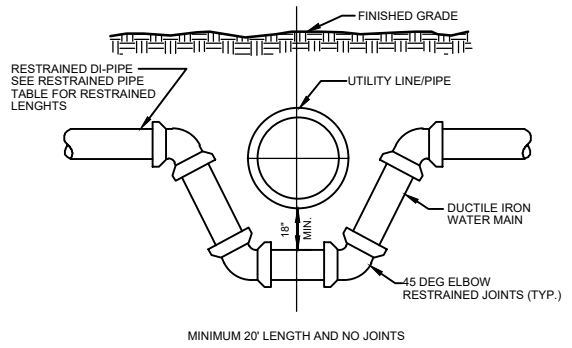
STANDARD ROADWAY OPENCUT DETAIL

FINAL RESTORATION - TYPICAL OF MAJOR OPEN CUTS

- PAVEMENT RESTORATION**
- LONGITUDINAL CUTS MAY REQUIRE OVERLAY/ RESURFACING OF THE COMPLETE WIDTH OF THE TRAVELED WAY.
 - CUTS AT INTERSECTIONS OF STREETS GENERALLY MAY REQUIRE A COMPLETE OVERLAY/ RESURFACING TO THE END OF ALL RETURN RADII AND ALSO TO A POINT TEN (10) FEET BEYOND THE CUT, WHICHEVER IS GREATER.
 - ACTUAL REQUIREMENTS WILL BE AS STATED ON THE APPROVED PERMIT.



GRANBY EASEMENT SECTION 'A - A'



- NOTES:**
- THIS METHOD TO BE USED WHEN INSUFFICIENT COVER EXISTS TO ALLOW UTILITY PIPE TO CROSS ABOVE STORM SEWER WITH 18" VERTICAL SEPARATION AND MAINTAIN 36" MIN. COVER TO FINISHED GRADE.
 - SUBMIT SHOP DRAWINGS FOR EACH PARTICULAR SITUATION.
 - ALL RESTRAINED JOINTS. NO THRUST COLLARS TO BE USED WITH THIS METHOD.

UTILITY TRANSITION DETAIL

BID SUBMITTAL

REVISIONS		DATE	DESCRIPTION
DATE	BY		

DATE	BY	DESCRIPTION



A Full Service A & E Firm

Architects M / E / P
 Engineers Planners
 Environmental Surveyors
 Landscape Architects Traffic/Transportation

www.cphcorp.com

Offices In:
 • Florida
 • Puerto Rico
 • Connecticut
 • Maryland
 • Texas

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	ORANGE	

Plan Prepared By:
CPH, Inc.
 1117 E. Robinson St. - Orlando, FL 32801
 Ph: 407.425.0452
 Licenses:
 Eng. C.O.A. No. 3215
 Survey L.B. No. 7143
 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298

CONSTRUCTION DETAILS

PROJECT TITLE: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD

SHEET TITLE: U-27

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

Drawing name: J:\028522\Civil\DWG\BID SET FEB 2019\Apopka-Vineland-028522-Cover Sheet-Notes-Const Details.dwg Feb 18, 2019

VALVES								
ID Number	Plan Sheet #	Easting	Northing	Elevation	Valve Type	Main Type	Size	Valve Manufacturer
TSV-1								
PV-1								
BO-1								
PV-1								
CV-1								
BFP-1								

FITTINGS							
ID Number	Plan Sheet #	Easting	Northing	Elevation	Main Type	Fitting Type	Comments
FM-1							
WM-1							

HYDRANTS							
ID Number	Plan Sheet #	Easting	Northing	Elevation	Manufacturer	Model #	Comments
FH-1							


EXISTING OC UTILITY CROSSING							
ID Number	Plan Sheet #	Easting	Northing	Existing Pipe Elevation	Proposed Crossing Elevation	Existing Main Type	Comments
Confl-1							

PIPES											
ID Number	Plan Sheet #	Easting	Northing	Elevation	Main Type	Type of Shot	Construction Method	Material	Pressure Class	Manufacturer	Comments
FM-1											
WM-1											

METERS						
ID Number	Plan Sheet #	Easting	Northing	Elevation	Main Type	Comments
MM-1						
RWMM-1						

*** CONTRACTOR SHALL POPULATE TABLES WITH INFORMATION FOR ALL CONSTRUCTED WATER AND SANITARY FACILITIES. CONTRACTOR SHALL USE AS MANY SHEETS AS NECESSARY.**

BID SUBMITTAL

REVISIONS <table border="1"> <thead> <tr> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		DATE	BY	DESCRIPTION				<table border="1"> <thead> <tr> <th>NAMES</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>DRAWN BY: GNP</td> <td>2/19</td> </tr> <tr> <td>CHECKED BY: PH</td> <td>2/19</td> </tr> <tr> <td>DESIGNED BY: PH</td> <td>2/19</td> </tr> <tr> <td>CHECKED BY: DEM</td> <td>2/19</td> </tr> <tr> <td>APPROVED BY: DAVID E. MAHLER</td> <td> </td> </tr> </tbody> </table>	NAMES	DATE	DRAWN BY: GNP	2/19	CHECKED BY: PH	2/19	DESIGNED BY: PH	2/19	CHECKED BY: DEM	2/19	APPROVED BY: DAVID E. MAHLER		 <p>A Full Service A & E Firm</p> <p>Architects M / E / P Engineers Planners Environmental Surveyors Landscape Architects Traffic/Transportation</p> <p>www.cphcorp.com</p>	<p>Offices In:</p> <ul style="list-style-type: none"> • Florida • Puerto Rico • Connecticut • Maryland • Texas 	<p>ORANGE COUNTY UTILITIES</p> <table border="1"> <thead> <tr> <th>ROAD NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> </thead> <tbody> <tr> <td> </td> <td>ORANGE</td> <td> </td> </tr> </tbody> </table>	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		ORANGE		<p>Plan Prepared By: CPH, Inc. 1117 E. Robinson St. - Orlando, FL 32801 Ph: 407.425.0452 Licenses: Eng. C.O.A. No. 3215 Survey L.B. No. 7143 Arch. Lic. No. AA2600926 Lndscp. Lic. No. LC0000298</p>	<p>SHEET TITLE: ASSET TABLES</p> <p>PROJECT TITLE: PALM PARKWAY TO APOPKA-VINELAND CONNECTOR ROAD</p> <p>SHEET NO.: U-28</p>
DATE	BY	DESCRIPTION																													
NAMES	DATE																														
DRAWN BY: GNP	2/19																														
CHECKED BY: PH	2/19																														
DESIGNED BY: PH	2/19																														
CHECKED BY: DEM	2/19																														
APPROVED BY: DAVID E. MAHLER																															
ROAD NO.	COUNTY	FINANCIAL PROJECT ID																													
	ORANGE																														

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.