

CONSTRUCTION PLANS FOR RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION

OPTION T-7 IMPROVEMENTS BY CITY OF NAPLES, FLORIDA UTILITIES DEPARTMENT

380 RIVERSIDE CIRCLE
NAPLES, FL 34102
PHONE: (239) 213-4745



CITY OF NAPLES, FLORIDA

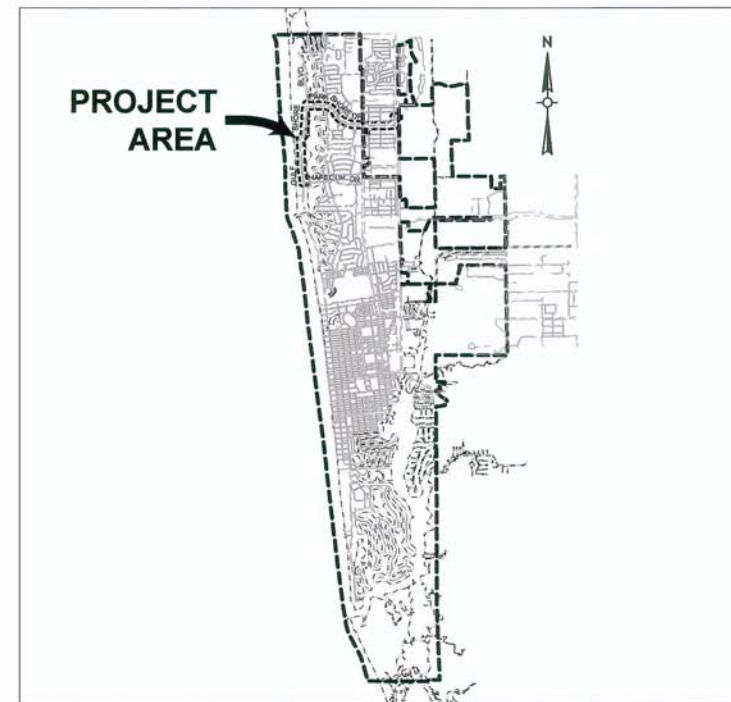
John Sorey III, Mayor
Gary Price, Vice Mayor
Bill Barnett, Council Member
Doug Finlay, Council Member
Teresa Heitmann, Council Member
Sam Saad III, Council Member
Margaret "Dee" Sulick, Council Member

William Moss, City Manager

Robert Middleton, Utility Director
Justin Frederiksen, Deputy Utility Director



LOCATION MAP
NTS



SITE MAP
NTS

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UTILITY SERVICES

WATER
NAPLES UTILITY DEPARTMENT
380 RIVERSIDE CIRCLE
NAPLES, FL 34102
(239) 213-4745

CABLE TV
COMCAST
28100 WESTLINKS DRIVE,
SUITE 4
FT. MYERS, FL 33913
(239) 432-1805

ELECTRIC
FLORIDA POWER & LIGHT
COMPANY
4105 SW 15TH AVENUE
NAPLES, FL 34116
(239) 947-7372

TELEPHONE
CENTURYLINK
3330 KRAFT ROAD
NAPLES, FL 34105
(239) 213-7531

SEWER
NAPLES UTILITY DEPARTMENT
380 RIVERSIDE CIRCLE
NAPLES, FL 34102
(239) 213-4745

GAS
TECO PEOPLES GAS
5901 ENTERPRISE PARKWAY
FORT MYERS, FL 33905
(239) 896-0812

COMMUNICATIONS
U.S. METROPOLITAN TELECOM
24017 PRODUCTION CIRCLE
BONITA SPRINGS, FL 34135
(239) 631-9291

NUVAL LLC
9148 PARK AVENUE
MARCO ISLAND, FL 34145
(239) 642-4545

NOTE:
CONTRACTOR SHALL CALL SUNSHINE
STATE ONE CALL OF FLORIDA, INC. AT
LEAST 48 HOURS PRIOR TO EXCAVATION
1-(800)-432-4770

APRIL 2013

Weston & Sampson

4210 METRO PARKWAY, SUITE 250, FORT MYERS, FL 33917
CERTIFICATE OF AUTHORIZATION NO. 26190

RECLAIMED WATER IMPROVEMENTS
ENGINEER OF RECORD
[Signature]
April 11, 2013
Jeffrey A. Wilson, P.E.
FL License No. 41792
File No. XXX-XX

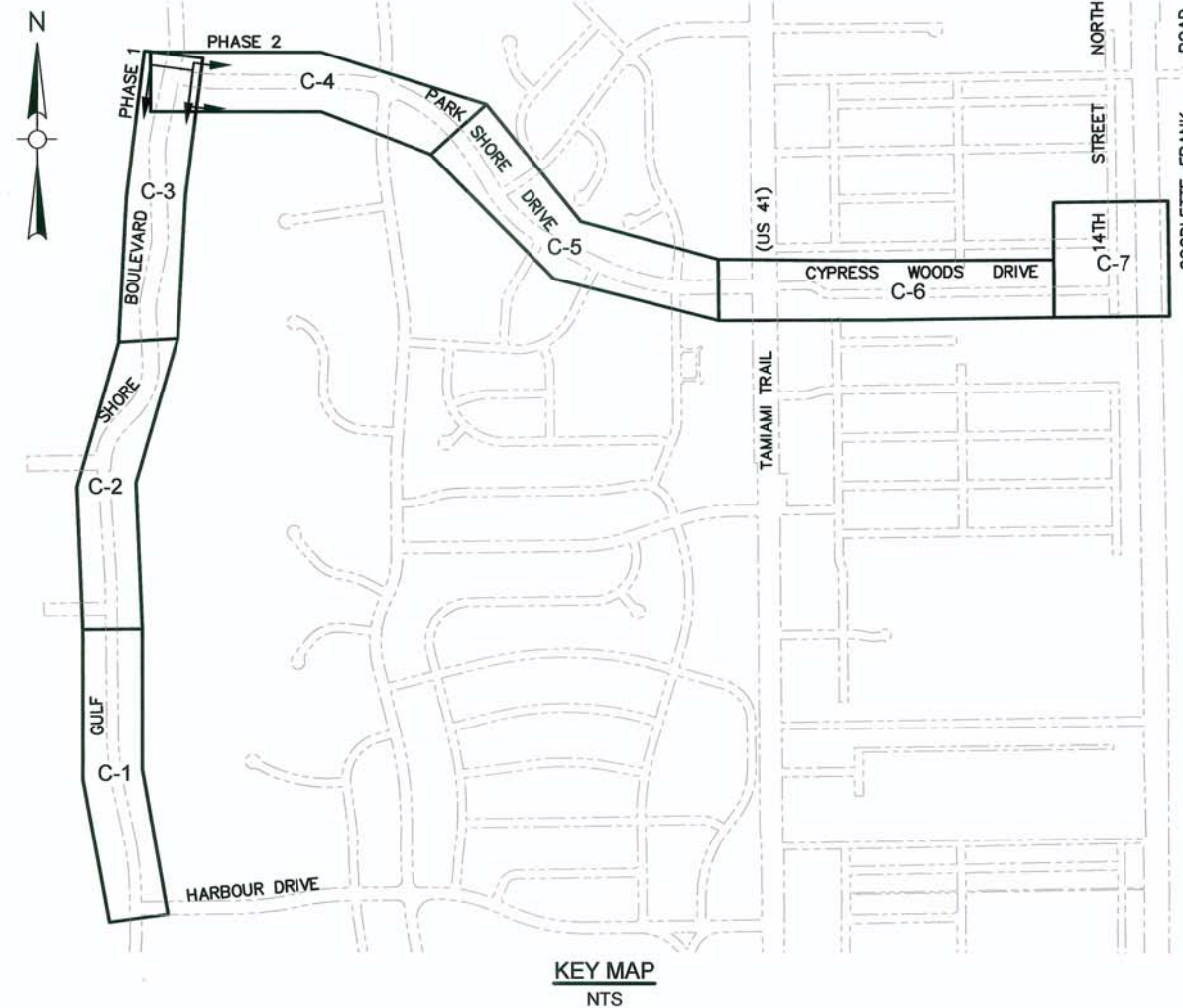
GENERAL NOTES & INSTRUCTIONS:

- ALL WATER MAIN AND PIPING FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF NAPLES STANDARD DETAILS AND SPECIFICATIONS (LATEST UPDATE). THE MINIMUM COVER FOR ALL PROPOSED UTILITIES SHALL BE 30" UNLESS OTHERWISE INDICATED ON THE CONSTRUCTION PLANS OR APPROVED BY THE CITY UTILITY ENGINEER.
- CONTRACTOR SHALL NOT EXCEED 75% OF THE MANUFACTURERS' RECOMMENDED MAXIMUM DEFLECTION WHEN DEFLECTING PIPE. FITTINGS MAY BE USED FOR PIPE ALIGNMENT CHANGES RATHER THAN DEFLECTING JOINTS AT THE CONTRACTOR'S EXPENSES.
- CONTRACTOR SHALL KEEP A RECORD OF ALL CHANGES AND MAINTAIN AN AS-BUILT PLAN AT ALL TIMES. THIS PLAN WILL BE FURNISHED TO THE ENGINEER IMMEDIATELY AFTER PRESSURE TESTING IS COMPLETED FOR THE PREPARATION OF AS-BUILTS. THE CONTRACTOR SHALL ALSO NOTATE ALL OTHER UTILITIES LOCATED DURING EXCAVATION. THE CONTRACTOR SHALL OBTAIN GPS LOCATIONS OF NEW AND EXISTING UTILITIES DURING CONSTRUCTION AND PROVIDE THE GPS LOCATIONS TO THE ENGINEER IN A FORMAT COMPATIBLE WITH THE CITY'S GIS STANDARDS.
- SEE CITY PROVIDED POTABLE WATER PLANS FOR POTABLE WATER AS-BUILT REQUIREMENTS.
- CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC/ACCESS, EXISTING DRAINAGE, AND EXISTING UTILITIES DURING CONSTRUCTION.
- ALL FINAL FITTINGS, PIPE, AND VALVE LOCATIONS THAT DEVIATE FROM THE PLAN SHALL BE APPROVED IN THE FIELD BY THE OWNER/UTILITY ENGINEER/PROJECT MANAGER.
- THE LOCATION OF EXISTING UTILITIES AND FACILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE CITY. THE INFORMATION IS NOT GUARANTEED, THEREFORE THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES AND FACILITIES IN THE FIELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION, AND SHALL HAVE ALL SERVICE LINES (TELEPHONE, POWER, GAS, CABLE TV, WATER, SANITARY SEWER, FORCE MAINS, STORMWATER, IRRIGATION, AND ANY OTHERS) LOCATED AND FLAGGED PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL UTILITY LINES AND SERVICES DAMAGED DURING CONSTRUCTION, INCLUDING IRRIGATION SERVICES. THE APPROPRIATE UTILITY SHALL BE NOTIFIED OF ALL DAMAGED LINES AND FACILITIES PRIOR TO REPAIRS. ALL NECESSARY REPAIRS SHALL BE PERFORMED IMMEDIATELY UPON DAMAGE OF THE LINE OR FACILITY.
- ALL PAVING, STABILIZED EARTH, DRIVEWAYS, CURBS, SIDEWALKS, SOD, LANDSCAPING, SIGNS, MAIL BOXES, GRASS, FENCING, ETC.; DAMAGED OR REMOVED BY THE CONTRACTOR'S OPERATIONS, SHALL BE RESTORED TO A CONDITION EQUIVALENT TO PRE-CONSTRUCTION OR BETTER CONDITION; UNLESS OTHERWISE APPROVED BY THE UTILITY ENGINEER/PROJECT MANAGER/OWNER.
- ALL ELEVATIONS SHALL BE BASED ON NORTH AMERICAN VERTICAL DATUM (NAVD).
- THE CONTRACTOR IS REQUIRED TO OBTAIN WRITTEN APPROVAL FROM THE UTILITY ENGINEER/PROJECT MANAGER/OWNER FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND NOTIFY THE UTILITY ENGINEER IMMEDIATELY OF ANY REQUIRED PLAN DEVIATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FROM THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT AS REQUIRED (IF APPLICABLE). NO EXTRA COMPENSATION FOR DEWATERING WILL BE ALLOWED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A RIGHT OF WAY PERMIT FROM THE LOCAL AUTHORITY AS REQUIRED, IF APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF THE EXISTING STREETS/PROPERTIES ADJACENT TO THE PROJECT AREA AT ALL TIMES. ALL TRAFFIC MAINTENANCE CONTROL SHALL BE IN ACCORDANCE WITH THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS, INDEX 600 SERIES. CONTRACTOR SHALL SUBMIT AN APPROVED MAINTENANCE OF TRAFFIC PLAN TO THE OWNER/UTILITY ENGINEER PRIOR TO CONSTRUCTION.
- ALL UTILITY CONNECTIONS SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE AGENCY HAVING JURISDICTION OF EACH INDIVIDUAL UTILITY LINE.
- THE CONTRACTOR SHALL MINIMIZE THE WORK AREA OF THE TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS, EXISTING RIGHT-OF-WAY, OR APPROVED EASEMENT. THE CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL FROM THE OWNER/UTILITY ENGINEER/PROJECT MANAGER.
- THE 30" MINIMUM COVER REQUIREMENT FOR THE PROPOSED WATER AND REUSE LINE IMPROVEMENTS SHALL BE MEASURED FROM FINISHED GRADES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSURE MINIMUM COVER REGARDLESS OF EXISTING GRADE. PERIODIC CHECKS (MIN. EVERY 200FT) FOR MINIMUM COVER SHALL BE MADE BY THE CONTRACTOR AND RECORDED ON THE RECORD DRAWINGS.
- ALL MECHANICAL FITTINGS SHALL BE RESTRAINED WITH MEGA-LUG OR APPROVED EQUAL. ALL FLANGED FITTINGS SHALL HAVE MIN. 1/16" RUBBER GASKETS AND STAINLESS STEEL HARDWARE.
- ALL IN-LINE VALVES SHALL BE MAIN SIZED MECHANICAL JOINT AND RESTRAINED WITH MOLDED FLANGE ADAPTOR WITH STEEL RETAINING RING AS SUPPLIED BY THE MANUFACTURER. THE VALVES SHALL BE RESILIENT SEAT GATE VALVES WITH 2" DRIVER NUT AS PER CITY STANDARDS.
- THE CONTRACTOR SHALL NOTIFY RESIDENCES AND BUSINESSES AT LEAST 48 HOURS IN ADVANCE OF ANY DISRUPTION OF SERVICE, INCLUDING DRIVEWAY CUTS.
- CONTRACTOR IS ADVISED TO VISIT THE PROJECT CONSTRUCTION AREA PRIOR TO SUBMITTING THEIR PROPOSAL. THE PROPOSAL SHALL BE FINAL AND ACKNOWLEDGES THAT CONTRACTOR IS FAMILIAR WITH EXISTING SITE CONDITIONS.

- NO WORK SHALL BE PERFORMED AT NIGHT. ANY WORK REQUIRED TO BE PERFORMED AT NIGHT SHALL BE SUBJECT TO APPROVAL BY THE OWNER/UTILITY ENGINEER/PROJECT MANAGER. ALL WORK SHALL BE BETWEEN THE HOURS OF 7 A.M. AND 7 P.M.
- THE CONTRACTOR SHALL PERFORM AN AUDIO/VIDEO LOG OF THE ENTIRE PROJECT CONSTRUCTION AREA PRIOR TO ANY CONSTRUCTION ACTIVITIES. THIS LOG WILL ENSURE RESTORATION ACTIVITIES AND AID IN RESOLVING ANY CONFLICTS THAT MAY ARISE.
- THE CONTRACTOR SHALL SUPPLY ALL PIPING, FITTINGS, AND RECLAIMED WATER MAIN ASSOCIATED MATERIALS. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS AND SUPPLIES NECESSARY FOR THE INSTALLATION OF THE SPECIFIED RECLAIMED WATER LINE/CONNECTIONS AND ALL RESTORATION ACTIVITIES.
- ALL RECLAIMED WATER MAIN PIPING SHALL BE C-900/C-905 PVC PIPE (PURPLE) DR-14 TO BE USED THROUGHOUT ENTIRE PROJECT; UNLESS OTHERWISE NOTED ON THE PLANS OR INSTRUCTED BY THE UTILITY ENGINEER/ PROJECT MANAGER.
- THE CONTRACTOR SHALL INSTALL A TRACER WIRE, 1030P-HS BY COPPERHEAD INDUSTRIES, LLC. OR APPROVED EQUAL, ALONG THE ENTIRE LENGTH OF THE REUSE MAIN, ADDITIONAL REUSE CONNECTIONS, AND ANY REUSE METER SERVICE DROPS. THIS TRACER WIRE SHALL BE INSTALLED AT THE TOP-DEAD CENTER OF THE PIPE AND HELD IN PLACE WITH A PIECE OF DUCT TAPE (SUPPLIED BY CONTRACTOR). DROOPING OR MIS-ALIGNMENT OF THE TRACER WIRE IS NOT ACCEPTABLE. A 6" LOOP SHALL BE PROVIDED AT EACH SERVICE CONNECTION/TAP SO THAT THE TRACER WIRE WILL BE SPICED FROM THE MAIN TRACER WIRE TO THE SERVICE TRACER WIRE; WITH A 78B MIN. SELF-SEALING WIRE NUT. A 18" TO 24" LOOP OF TRACER WIRE SHALL BE LEFT IN EACH METER BOX AND CAPPED WITH A WIRE CONNECTOR. LOCATOR BALLS SHALL BE PLACED AT THE BEGINNING AND END OF EACH MAIN LINE DEFLECTION; AT EACH TAP; AT EACH BRANCH LINE; AND EVERY 100 LINEAR FEET OF PIPE, AS SPECIFIED IN SECTION 02650, LAYING AND JOINTING BURIED PIPELINES. SERIAL NUMBERS OF LOCATOR BALLS SHALL BE INCLUDED ON THE AS-BUILT DRAWINGS.
- THE CONTRACTOR SHALL ACCURATELY LOG ALL ELEVATIONS AND DIMENSIONS OF ALL DEFLECTIONS, TAPS, AND BRANCHES ON THE PLANS PRIOR TO BACKFILL.
- ANY TIME STRUCTURES, CURBS, AND/OR DRIVES THAT ARE UNDERMINED OR DISTURBED DURING PROJECT INSTALLATIONS; THE CONTRACTOR SHALL PROVIDE PROPER COMPACTION TO WITHIN 12" OF FINISH GRADE. FLOWABLE FILL SHALL USED TO STABILIZE THE REMAINDER OF THE EXCAVATION TO FINAL FINISH GRADE. THE CONTRACTOR SHALL REPAIR/REPLACE ANY FACILITIES DAMAGED DURING THE PROJECTS EXCAVATIONS.
- REQUIRED CLEARANCES:** CONTRACTOR SHALL MAINTAIN A MINIMUM 3 FEET HORIZONTALLY FROM POTABLE WATER MAINS AND 12 INCHES VERTICALLY; OTHERWISE NOTIFY UTILITY ENGINEER/PROJECT MANAGER IMMEDIATELY.

SPECIAL NOTE TO CONTRACTOR:

IT IS THE LAW IN FLORIDA: TWO BUSINESS DAYS BEFORE YOU DIG - CALL SUNSHINE 1-800-432-4770. (811)** CONTRACTOR SHALL PRE-MARK PROPOSED WORK AREA WITH WHITE PAINT PRIOR TO REQUESTING LOCATIONS AS REQUIRED BY STATUTE.



KEY MAP
NTS

LEGEND:

BACKFLOW PREVENTER	FLAG POLE	SPIGOT	FOUND CONCRETE MONUMENT
BENCH MARK	FORCE MAIN	SPRINKLER	FOUND DRILL HOLE
BOLLARD	GAS PIPELINE MARKER	STEEL POST	FOUND IRON ROD
CABLE RISER	GUARD RAIL	TELEPHONE CANISTER	FOUND IRON ROD & CAP
CABLE TV BOX	GUY POLE	TELEPHONE MANHOLE	FOUND NAIL
CATCH BASIN	GUY WIRE	TELEPHONE RISER	FOUND NAIL & DISK
CENTERLINE	IRRIGATION BOX	TOE OF SLOPE	FOUND PARKER KALON NAIL
CLEANOUT	IRRIGATION VALVE	TOP OF BANK	FOUND PARKER KALON NAIL & DISK
COORDINATE NUMBER	LIGHT POLE	UNDERGROUND UTILITIES	SET CONCRETE MONUMENT
CONCRETE POWER POLE	MAIL BOX	WATER MAIN	SET DRILL HOLE
DRAINAGE MANHOLE	MITERED END	WATER LINE FLAG	SET 5/8" IRON ROD & CAP
ELECTRICAL BOX	MONITORING WELL	WATER METER	SET 5/8" PARKER KALON NAIL & DISK
ELECTRIC METER	OVERHEAD POWER LINE	WATER VALVE	TOPOGRAPHY AND PIPE INVERTS
ELECTRIC LINE	POWER POLE	WOOD POST	NEW RECLAIMED WATER MAIN
EXISTING ELEVATION	POWER POLE w/RISER	WOOD SUPPORT POLE	NEW REDUCER
FENCE - BARBED WIRE	SANITARY SEWER LINE	YARD DRAIN	EXISTING REDUCER
FENCE - CHAIN LINK	SEWER MANHOLE	BUSH	NEW BLOWOFF ASSEMBLY
FENCE - WOOD	SEWER VALVE	CABBAGE PALM	
FIBER OPTIC MARKER	SECURITY SENSOR	OAK TREE	
FIRE HYDRANT	SIGN SINGLE POST	PALM TREE	
FIRE VALVE	SIGN DOUBLE POST	PINE TREE	
		SHADE TREE (VARIOUS TYPE)	

SURVEY CONTROL INFORMATION

POINT NUMBER	APPROXIMATE STATION	DESCRIPTION	NORTHING	EASTING	ELEVATION
BM K604	STA 10+44 (C-1)	MAG W/ BLUE DISK	672248.3129	389476.7943	3.92
BM K606	STA 20+70 (C-1)	MAG W/ BLUE DISK	673261.8169	389281.9729	5.16
BM K608	STA 31+33 (C-2)	MAG W/ BLUE DISK	674321.6504	389296.6032	3.95
BM K610	STA 41+90 (C-2)	MAG W/ BLUE DISK	675373.1423	389211.5518	5.27
BM K612	STA 51+76 (C-3)	MAG W/ BLUE DISK	676273.8771	389531.4686	4.58
BM K614	STA 62+05 (C-3)	MAG W/ BLUE DISK	677292.4817	389564.8317	5.24
BM K616	STA 12+32 (C-4)	MAG W/ BLUE DISK	677939.1161	389863.8441	7.99
BM K618	STA 19+77 (C-4)	MAG W/ BLUE DISK	677886.2487	390604.2146	8.03
BM K620	STA 30+41 (C-4)	MAG W/ BLUE DISK	677623.2399	391580.1325	4.52
BM K622	STA 41+15 (C-5)	MAG W/ BLUE DISK	676844.6027	392289.9472	7.24
BM 686	STA 51+22 (C-5)	PK W/ BLUE DISK	676463.2766	393217.1576	9.97
BM 687	STA 56+31 (C-6)	PK W/ BLUE DISK	676466.2044	393726.5833	13.93
BM 731	STA 64+78 (C-6)	PK W/ BLUE DISK	676472.1074	394565.7799	12.10
BM 732	STA 73+68 (C-6)	PK W/ BLUE DISK	676480.7412	395456.0039	10.90
BM 734	STA 84+90 (C-7)	PK W/ BLUE DISK	676803.9003	396243.7510	9.77

Weston & Sampson
4210 Metro Parkway, Suite 250
Fort Myers, FL 33908
(239) 497-4801 (800) 5AMPSON
Certificate of Authorization No. 28190
www.westonandsampson.com

ISSUED FOR BIDDING

1 04/13 DCM Dr. By Date No. Description

JAW App. By
RLH Ck. By
DCM Dr. By

CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION T-7

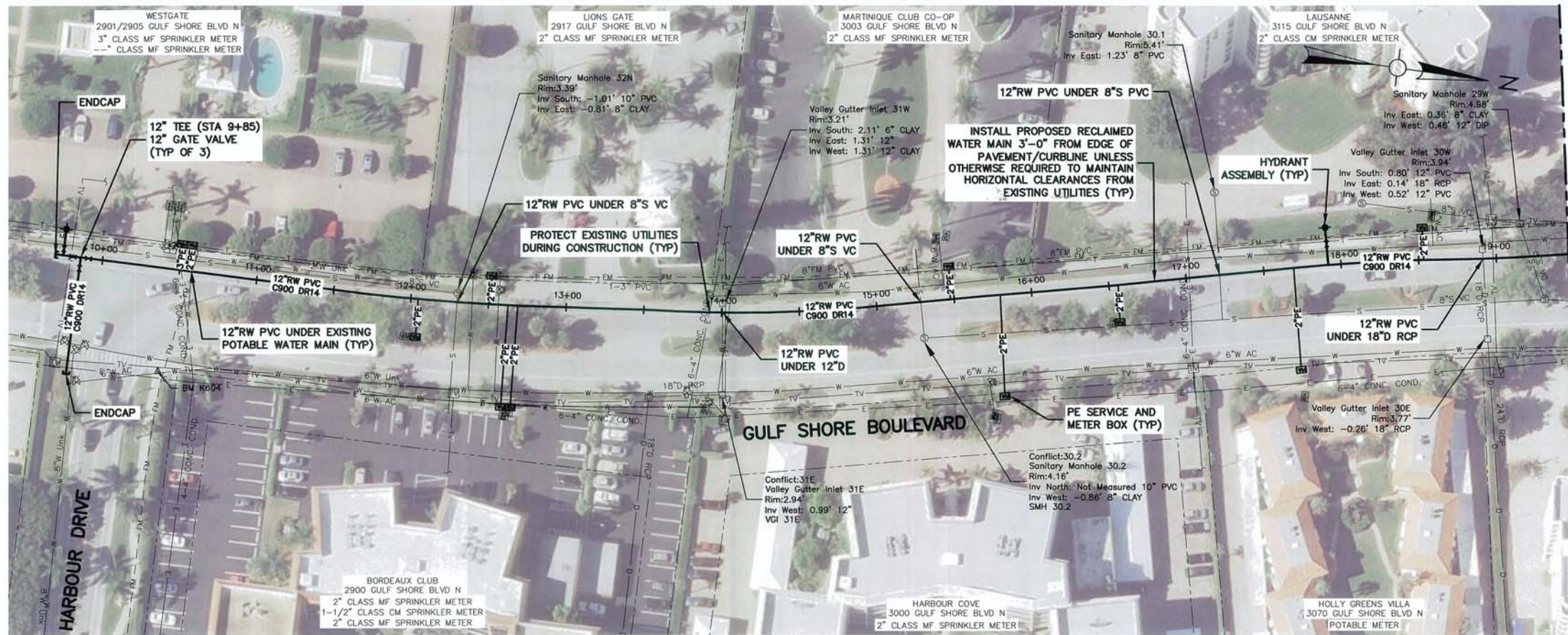
GENERAL NOTES / KEY MAP

SCALE: NOTED
JOB NO. 2120311
CONTRACT: NOTED
FILE NO. NAPLES RW1M1

G-1

FILE NO. SHEET 2 OF 16

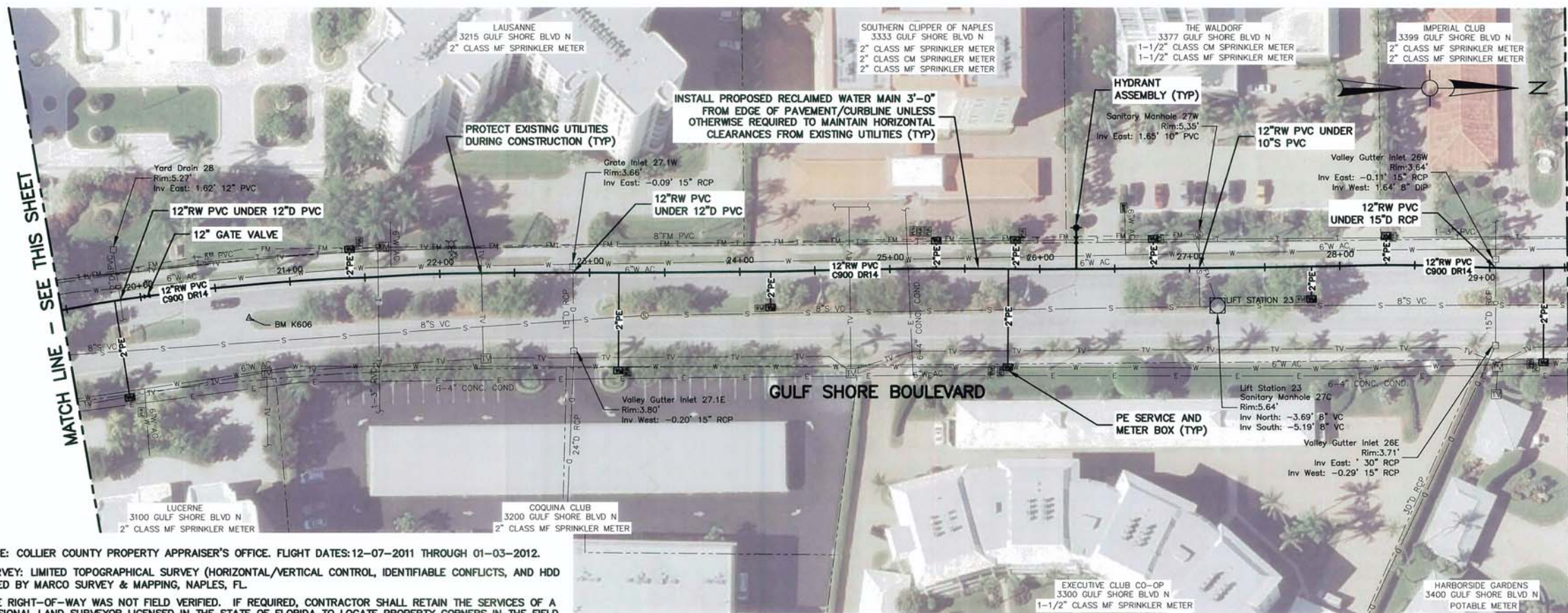
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PLAN
SCALE: 1"=40'



MATCH LINE - SEE THIS SHEET



PLAN
SCALE: 1"=40'



MATCH LINE - SEE SHEET C-2

NOTES:

1. BASE AERIAL SOURCE: COLLIER COUNTY PROPERTY APPRAISER'S OFFICE. FLIGHT DATES: 12-07-2011 THROUGH 01-03-2012.
2. TOPOGRAPHICAL SURVEY: LIMITED TOPOGRAPHICAL SURVEY (HORIZONTAL/VERTICAL CONTROL, IDENTIFIABLE CONFLICTS, AND HDD PROFILES) PERFORMED BY MARCO SURVEY & MAPPING, NAPLES, FL.
3. RIGHT-OF-WAY: THE RIGHT-OF-WAY WAS NOT FIELD VERIFIED. IF REQUIRED, CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA TO LOCATE PROPERTY CORNERS IN THE FIELD AND VERIFY RIGHT-OF-WAY IN ADVANCE OF THE WORK.
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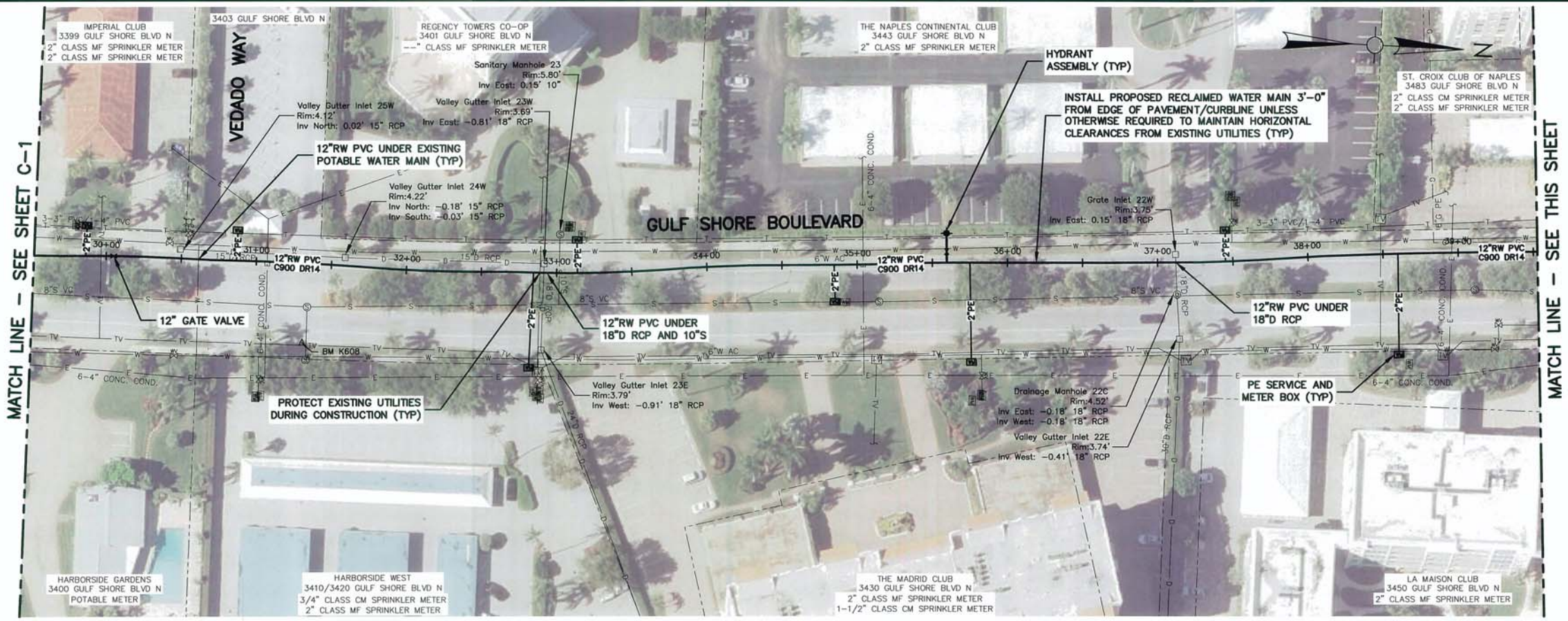
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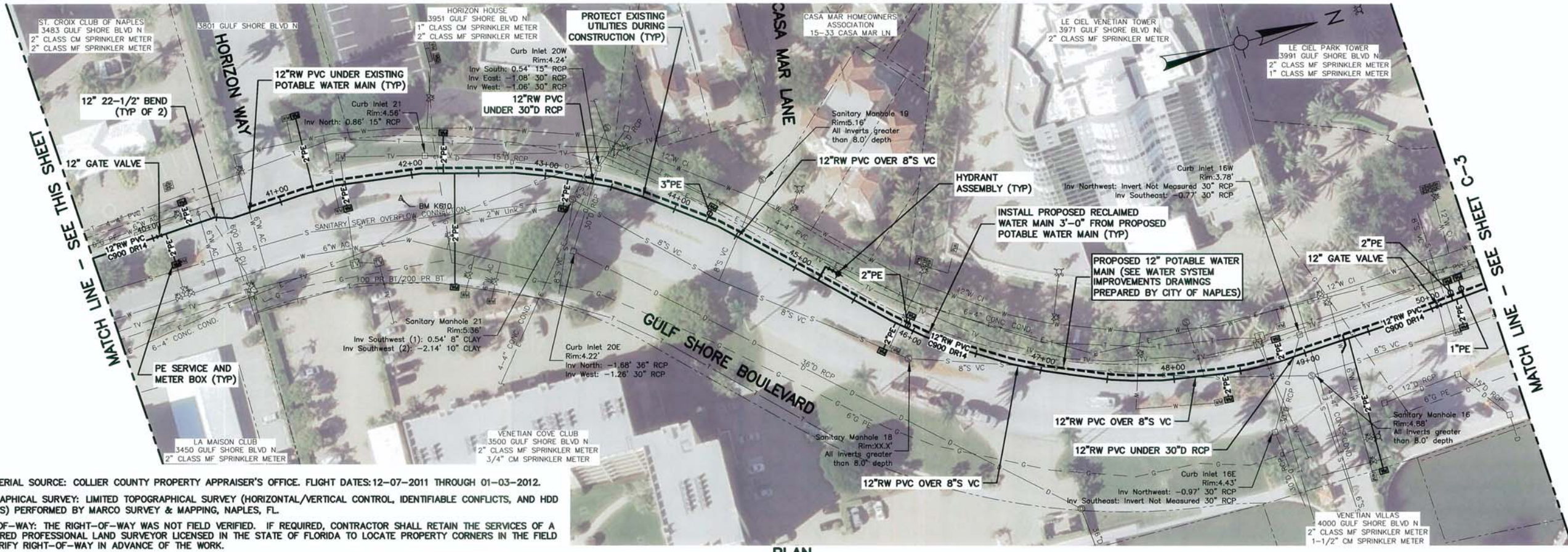
No.	Date	Dr. By	Chk. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

(RECLAIMED WATER)
Handwritten signature
Jeffrey A. Wilson, P.E.
FL License No. 41792

CITY OF NAPLES, FLORIDA RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION OPTION 1-7					
GULF SHORE BOULEVARD STA 10+00 TO 29+52					
CADD NO. NAPLES RWM1	SCALE: AS SHOWN	CONTRACT: NOTED	JOB NO. 2120311	DR. BY JAW	APP. BY JAW



PLAN
SCALE: 1"=40'



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SCALE: 1"=40'



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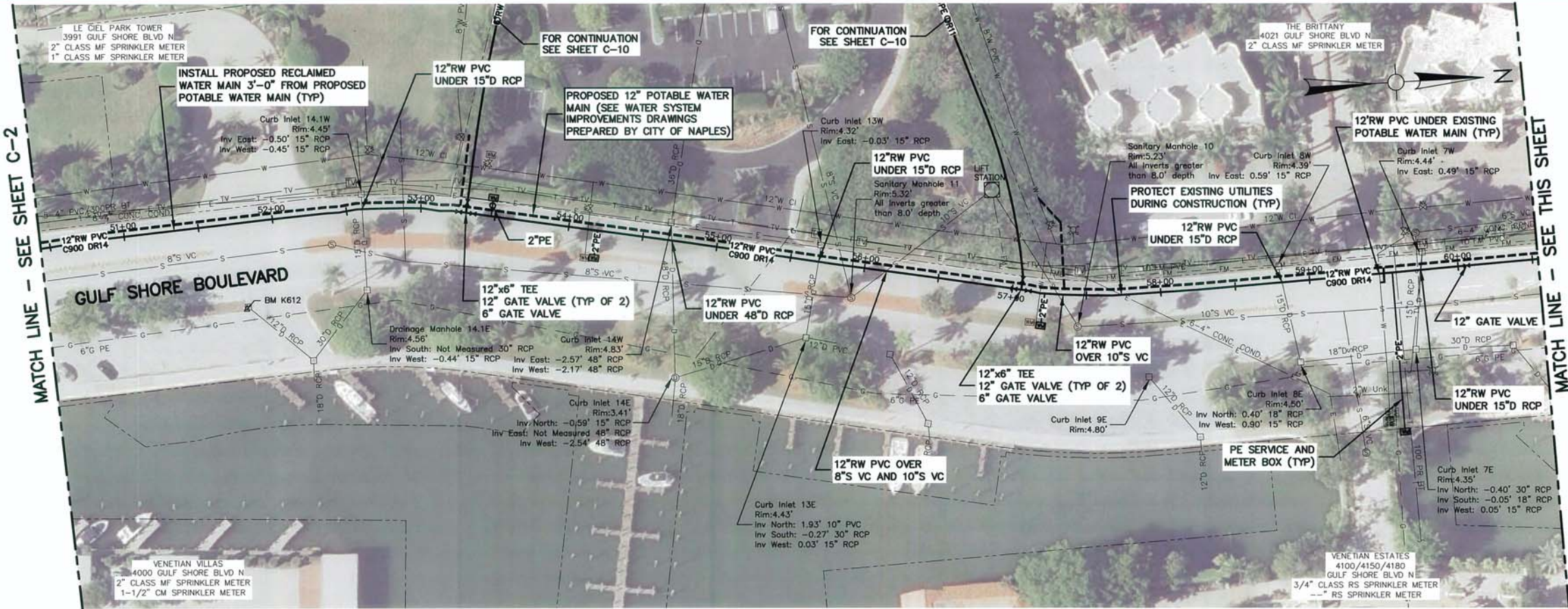
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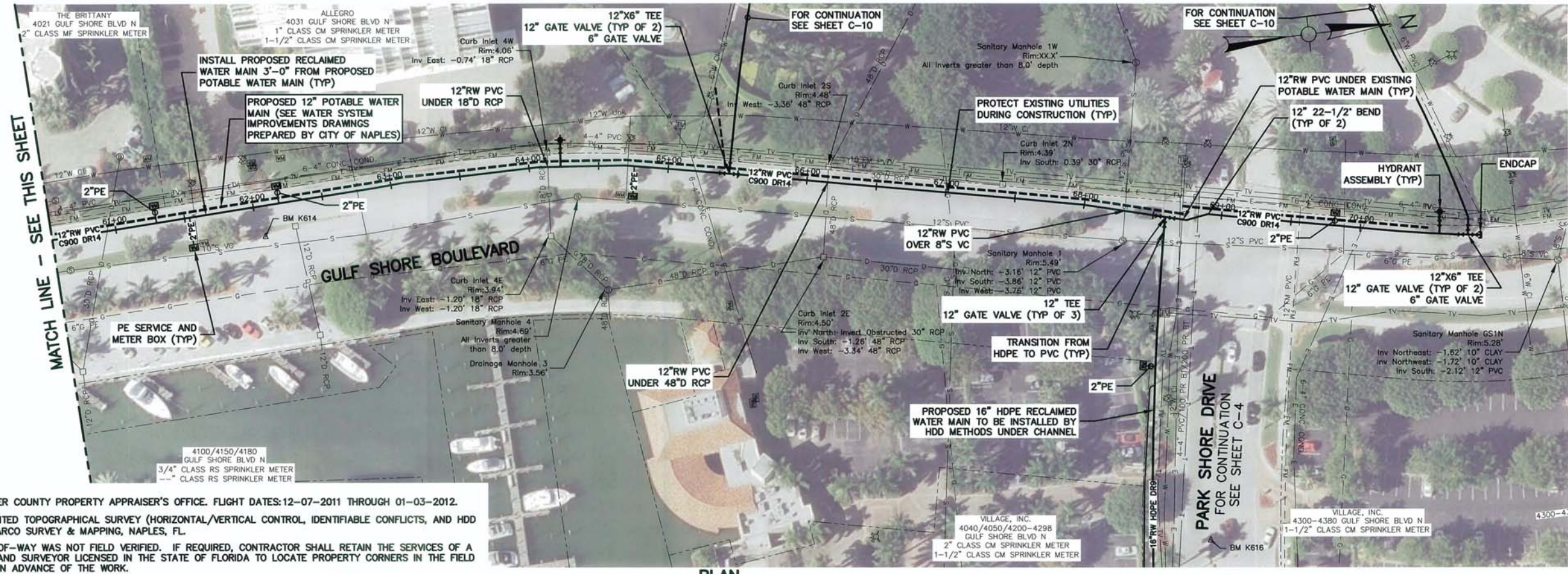
(RECLAIMED WATER)
[Signature]
Jennifer A. Wilson, P.E.
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CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION T-7
GULF SHORE BOULEVARD STA 29+52 TO 50+44

C-2
SHEET 4 OF 16



PLAN
SCALE: 1"=40'



PLAN
SCALE: 1"=40'

- NOTES:**
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(RECLAIMED WATER)
[Signature]
Jeffrey A. Wilson, P.E.
FL License No. 41792

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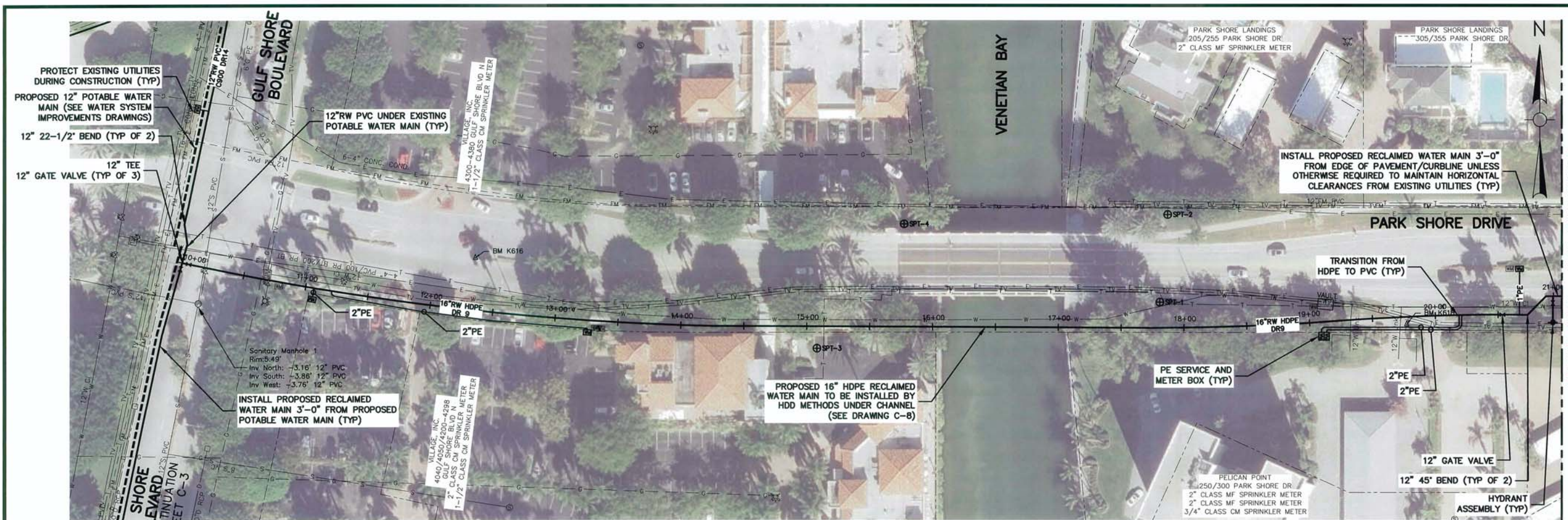
GULF SHORE BOULEVARD STA 50+44 TO 70+27

SCALE: NOTED
CONTRACT: 2120311
JOB NO.: 2120311
DR. BY: JAW
CHK. BY: JAW
APP. BY: JAW

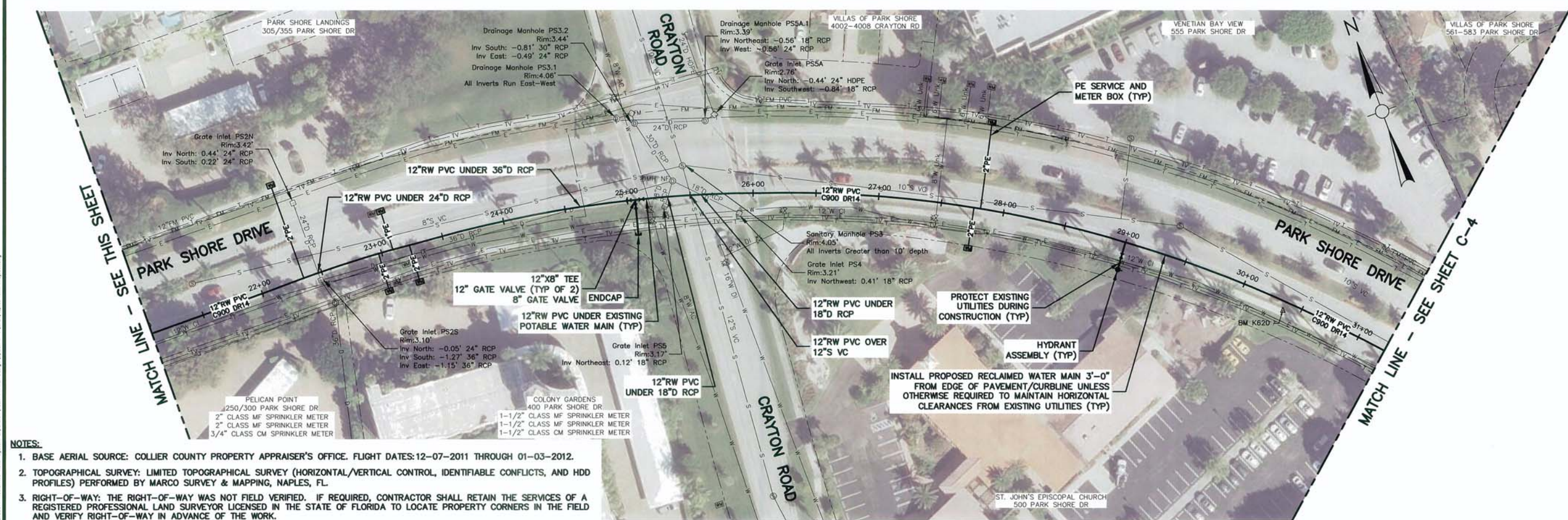
CLASS NO.: NAPLES RW1
FILE NO.: 1

C-3

SHEET 5 OF 16



PLAN
SCALE: 1"=40'



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 3. RIGHT-OF-WAY: THE RIGHT-OF-WAY WAS NOT FIELD VERIFIED. IF REQUIRED, CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA TO LOCATE PROPERTY CORNERS IN THE FIELD AND VERIFY RIGHT-OF-WAY IN ADVANCE OF THE WORK.
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MATCH LINE - SEE THIS SHEET

MATCH LINE - SEE SHEET C-4

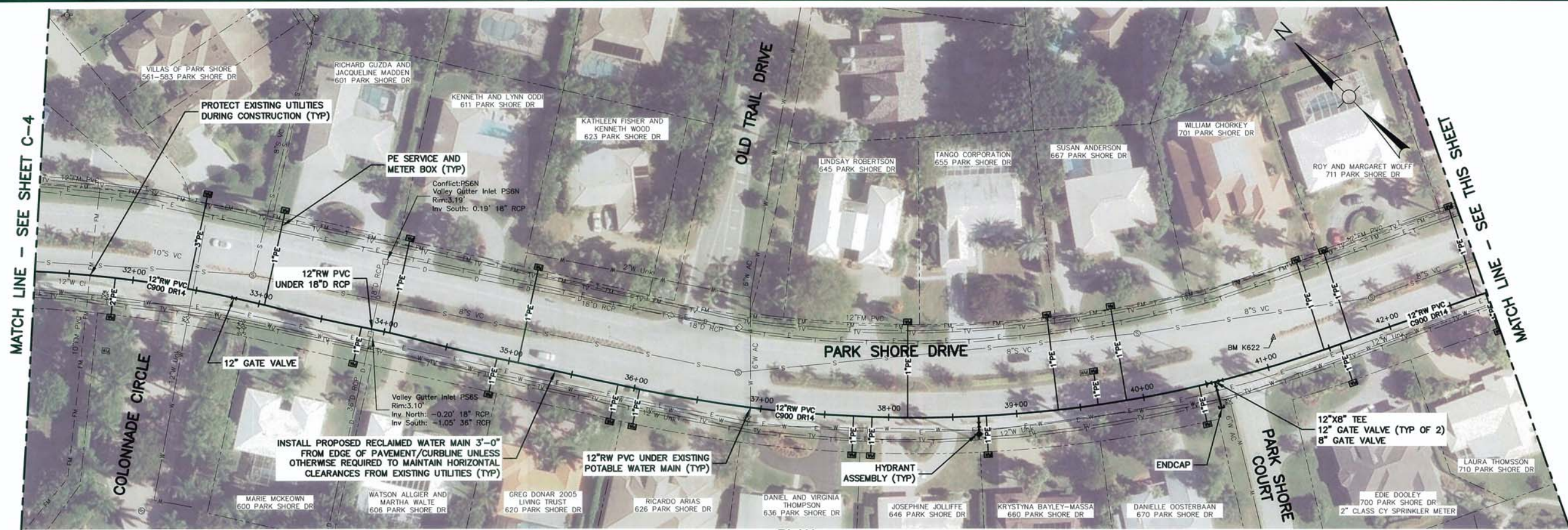
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Fort Myers, FL 33916
(239) 437-4801 (800) 5AMPSON
Certificate of Authorization No. 26190
www.westonandsampson.com

No.	Date	Dr. By	Chk. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

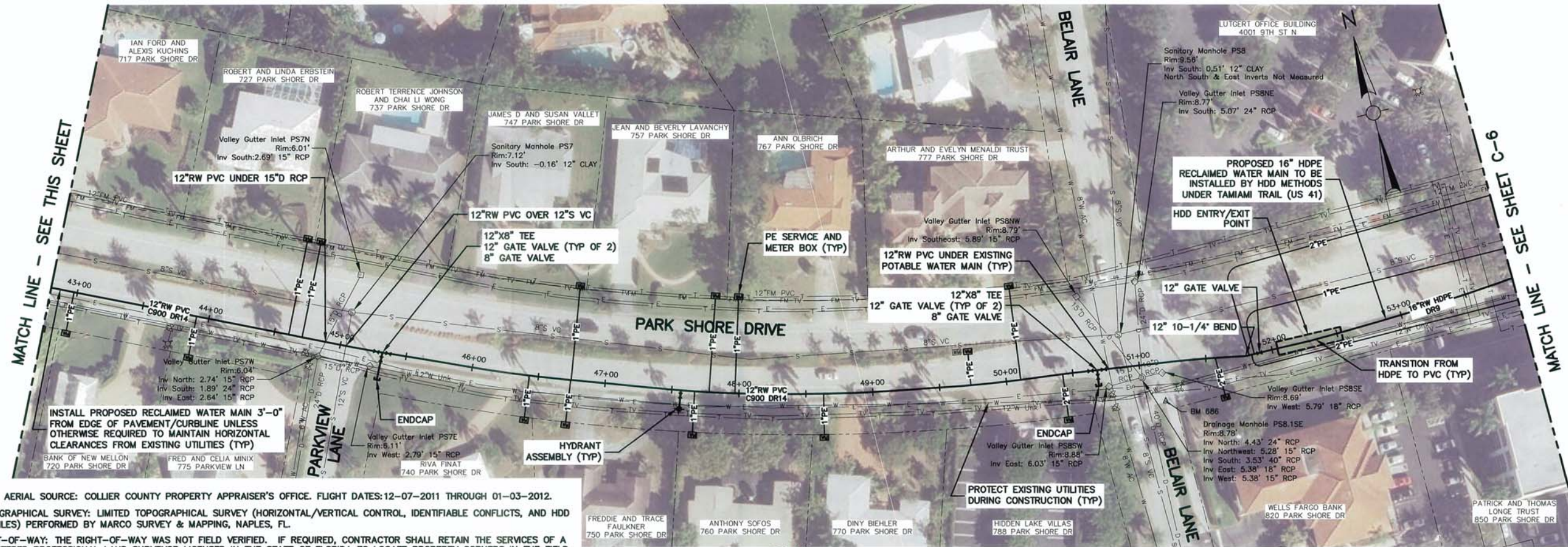
(RECLAIMED WATER)
[Signature]
Jeffrey A. Wilson, P.E.
FL License No. 41792

CITY OF NAPLES, FLORIDA					
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION					
OPTION 1-7					
PARK SHORE DRIVE STA 10+00 TO 31+23					
CADD NO.	SCALE:	CONTRACT:	NOTED	FILE NO.	
NAPLES RWM1	RWM1				
JOB NO.	SCALE:	CONTRACT:	NOTED	FILE NO.	
2120311					
DR. BY	CHK. BY	APP. BY			
DCM	RLH	JAW			

C-4
SHEET 6 OF 16



PLAN
SCALE: 1"=40'



PLAN
SCALE: 1"=40'



H:\Naples_City\210311-Expanded\Notes_System_Expansion\Notes_4-11-13\210311-Expanded\Notes\Project.dwg
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- NOTES:**
1. BASE AERIAL SOURCE: COLLIER COUNTY PROPERTY APPRAISER'S OFFICE. FLIGHT DATES: 12-07-2011 THROUGH 01-03-2012.
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1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

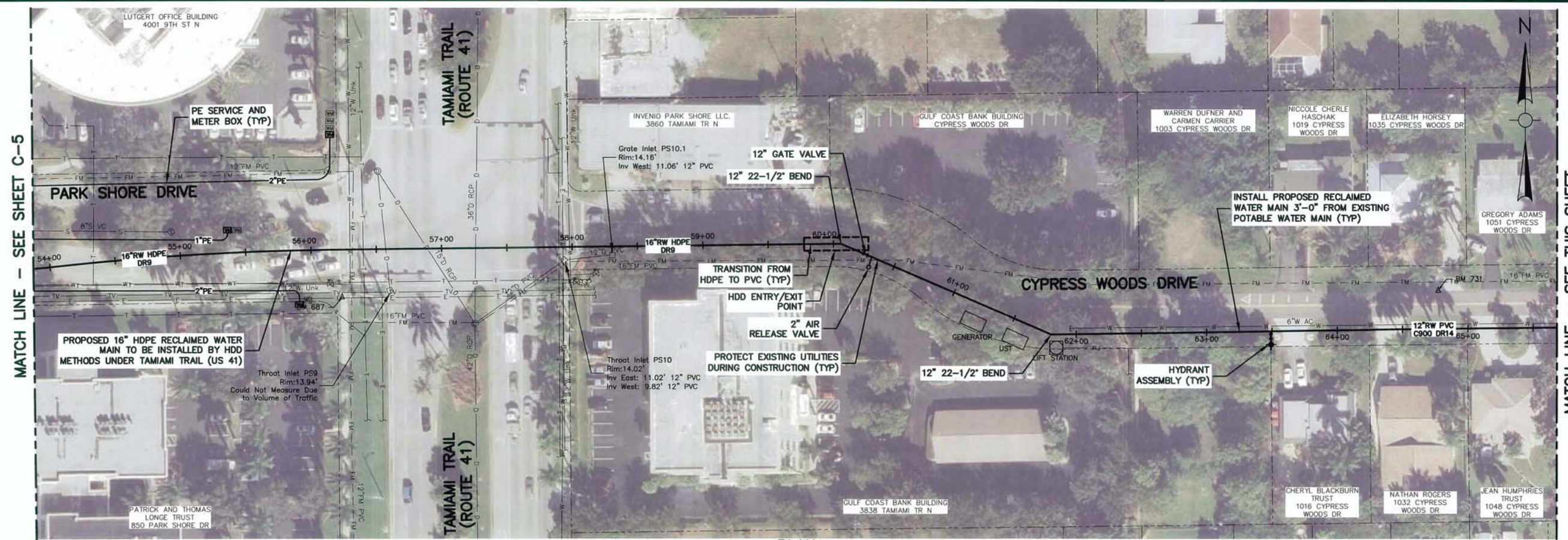
(RECLAIMED WATER)

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 FL License No. 41792

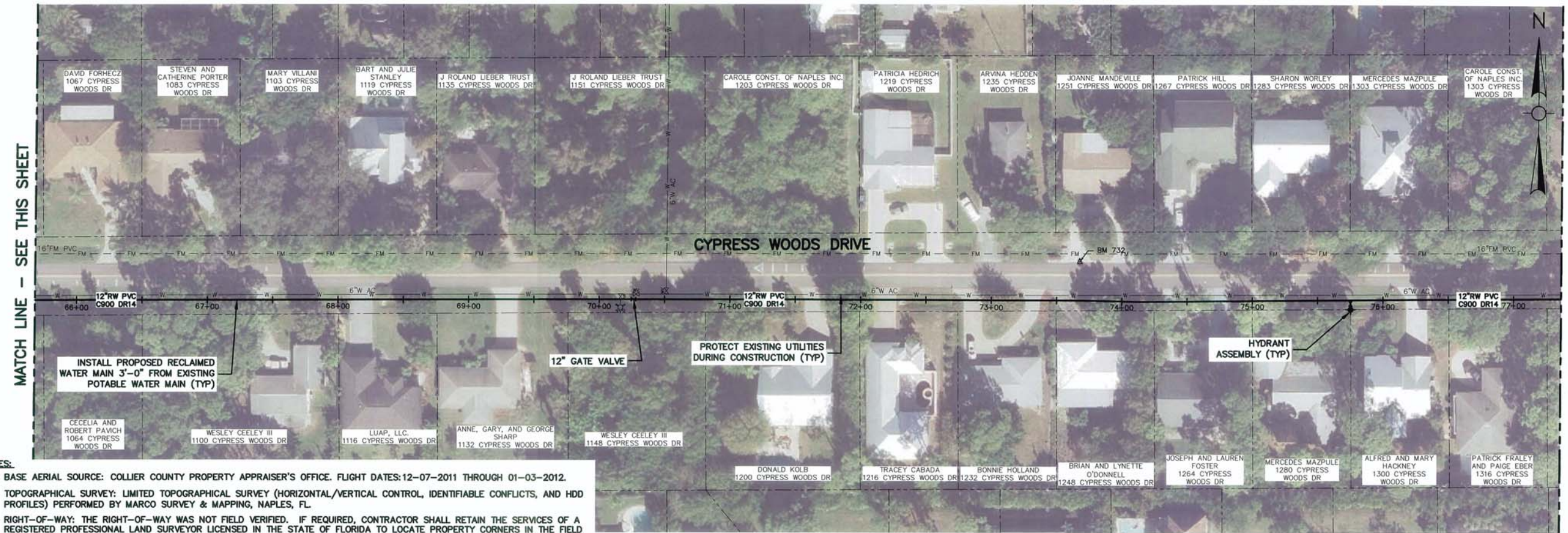
CITY OF NAPLES, FLORIDA
 RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
 OPTION T-7
PARK SHORE DRIVE STA 31+23 TO 53+87

SCALE: NOTED
 CONTRACT: 2120311
 JOB NO.: 2120311
 DR. BY: []
 CHK. BY: []
 APP. BY: []

This is a PDF copy of a sign/sealed document that has been filed with the City of Naples, FL Utilities Department



PLAN
SCALE: 1"=40'



PLAN
SCALE: 1"=40'

- NOTES:**
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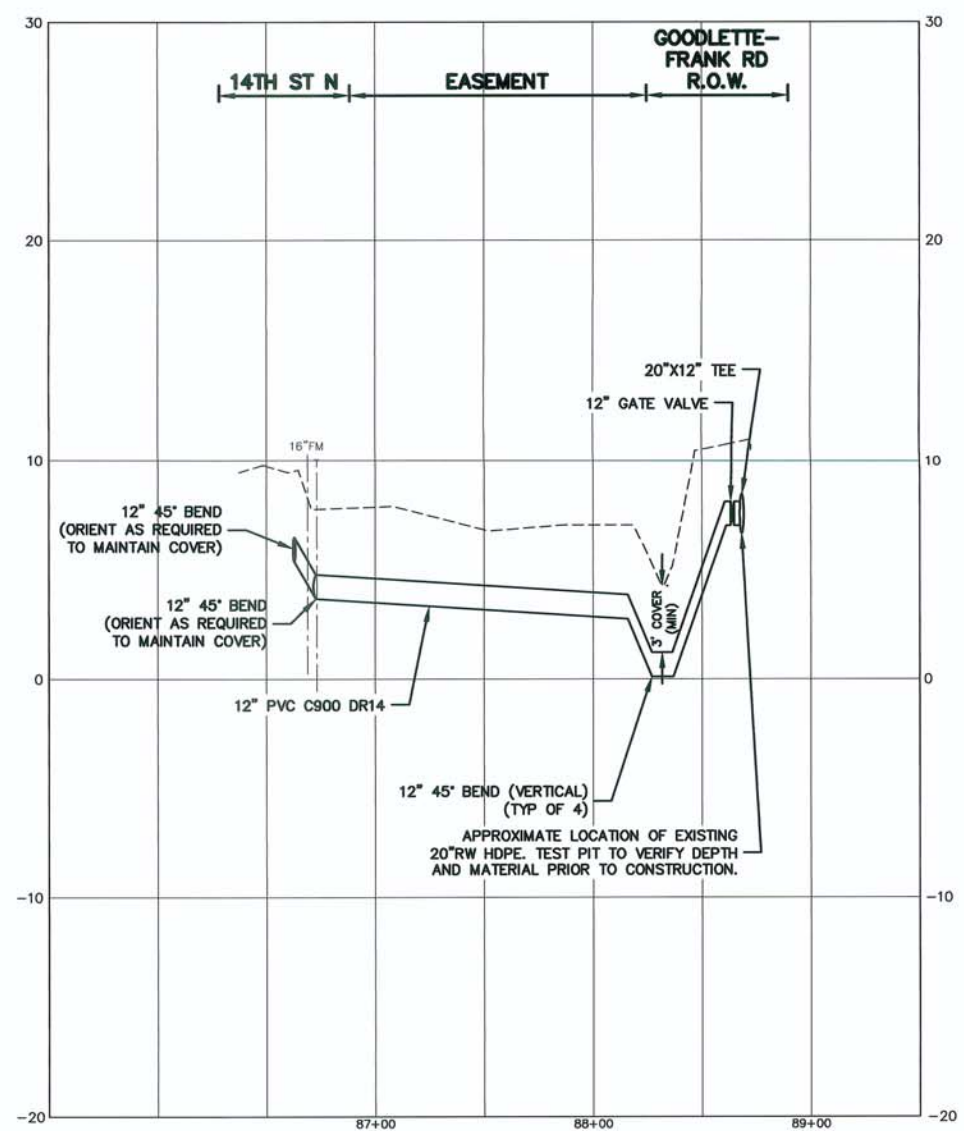
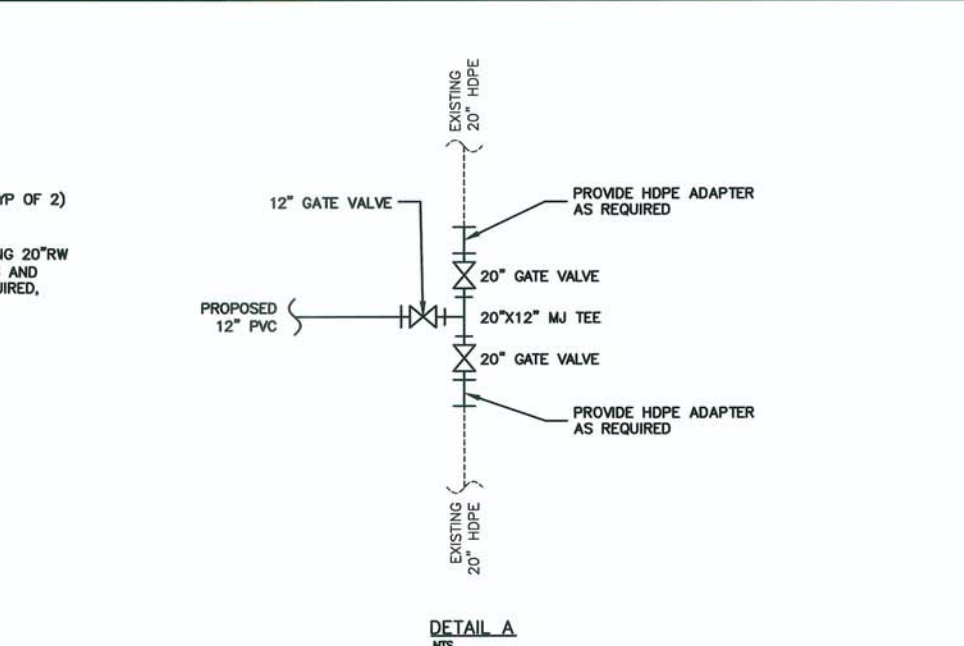
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No.	Date	Dr. By	Chk. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

(RECLAIMED WATER)
Jeffrey A. Wilson, P.E.
Jeffrey A. Wilson, P.E.
FL License No. 41792

CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION T-7
**PARK SHORE DRIVE STA 53+87 TO 57+97
CYPRESS WOODS DRIVE STA 57+97 TO 77+36**

SCALE: 1"=40'
CONTRACT: 2120311
JOB NO.: 2120311
DR. BY: DSJ/BJ
CHK. BY: APB/BJ



MATCH LINE - SEE SHEET C-6

- NOTES:**
1. BASE AERIAL SOURCE: COLLIER COUNTY PROPERTY APPRAISER'S OFFICE. FLIGHT DATES: 12-07-2011 THROUGH 01-03-2012.
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EASEMENT PROFILE
SCALE: 1"=40' HORZ; 1"=4' VERT

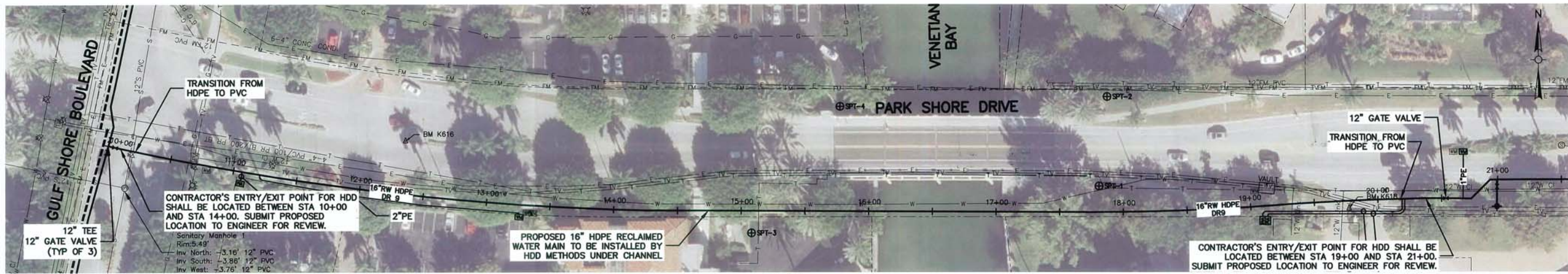
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Fort Myers, FL 33916
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No.	Date	Dr. By	Ch. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

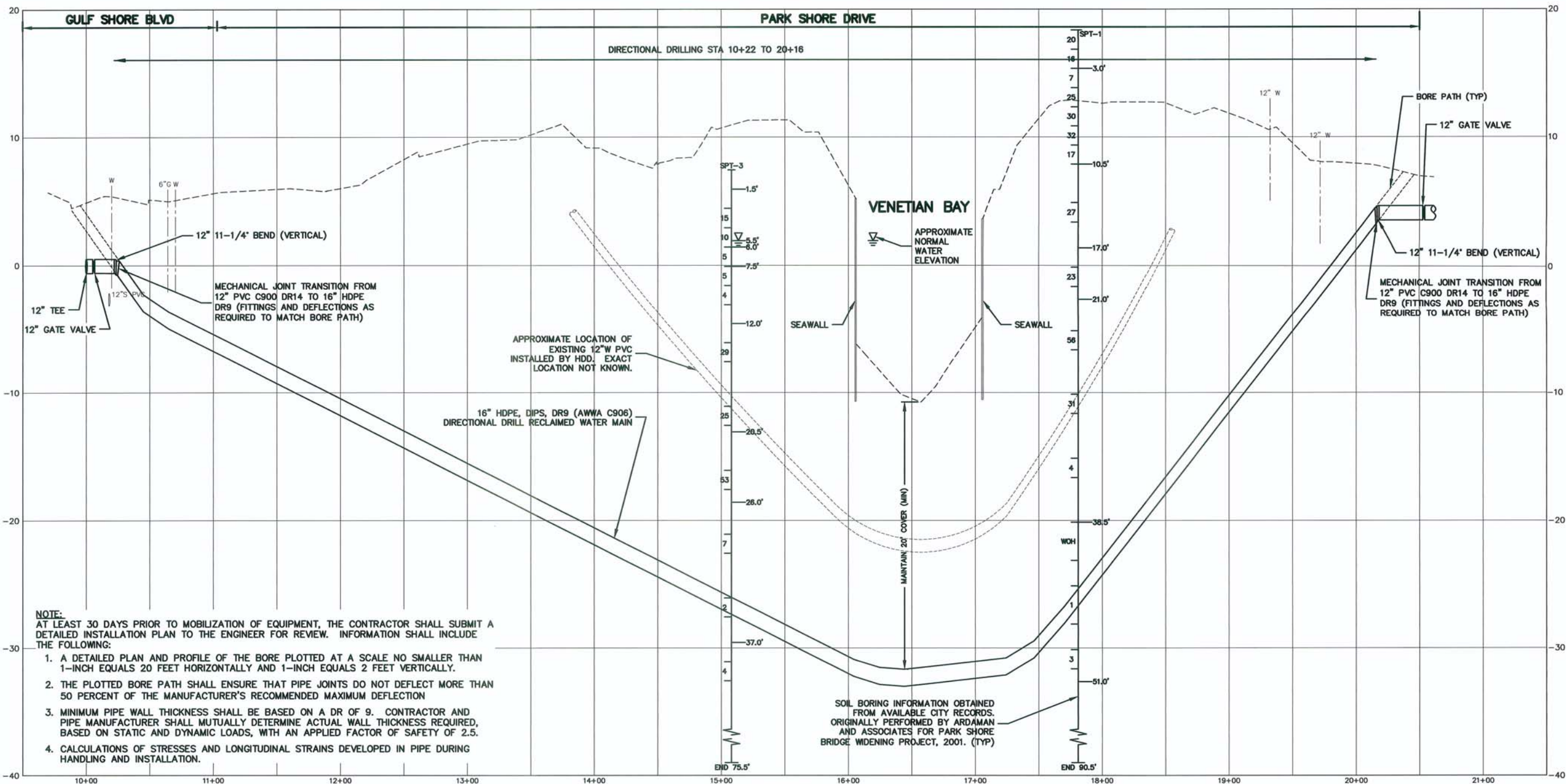
(RECLAIMED WATER)
[Signature]
Jeffrey A. Wilson, P.E.
FL License No. 41792

CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION 1-7
CYPRESS WOODS DRIVE STA 77+36 TO 81+46
14TH STREET NORTH STA 81+46 TO 88+68

SCALE: NOTED
CONTRACT: 2120311
JOB NO.: 2120311
DR. BY: []
CHK. BY: []
APP. BY: []



PLAN
SCALE: 1"=40'



PROFILE
SCALE: 1"=40' HORZ; 1"=4' VERT

- NOTE:**
AT LEAST 30 DAYS PRIOR TO MOBILIZATION OF EQUIPMENT, THE CONTRACTOR SHALL SUBMIT A DETAILED INSTALLATION PLAN TO THE ENGINEER FOR REVIEW. INFORMATION SHALL INCLUDE THE FOLLOWING:
1. A DETAILED PLAN AND PROFILE OF THE BORE PLOTTED AT A SCALE NO SMALLER THAN 1-INCH EQUALS 20 FEET HORIZONTALLY AND 1-INCH EQUALS 2 FEET VERTICALLY.
 2. THE PLOTTED BORE PATH SHALL ENSURE THAT PIPE JOINTS DO NOT DEFLECT MORE THAN 50 PERCENT OF THE MANUFACTURER'S RECOMMENDED MAXIMUM DEFLECTION
 3. MINIMUM PIPE WALL THICKNESS SHALL BE BASED ON A DR OF 9. CONTRACTOR AND PIPE MANUFACTURER SHALL MUTUALLY DETERMINE ACTUAL WALL THICKNESS REQUIRED, BASED ON STATIC AND DYNAMIC LOADS, WITH AN APPLIED FACTOR OF SAFETY OF 2.5.
 4. CALCULATIONS OF STRESSES AND LONGITUDINAL STRAINS DEVELOPED IN PIPE DURING HANDLING AND INSTALLATION.

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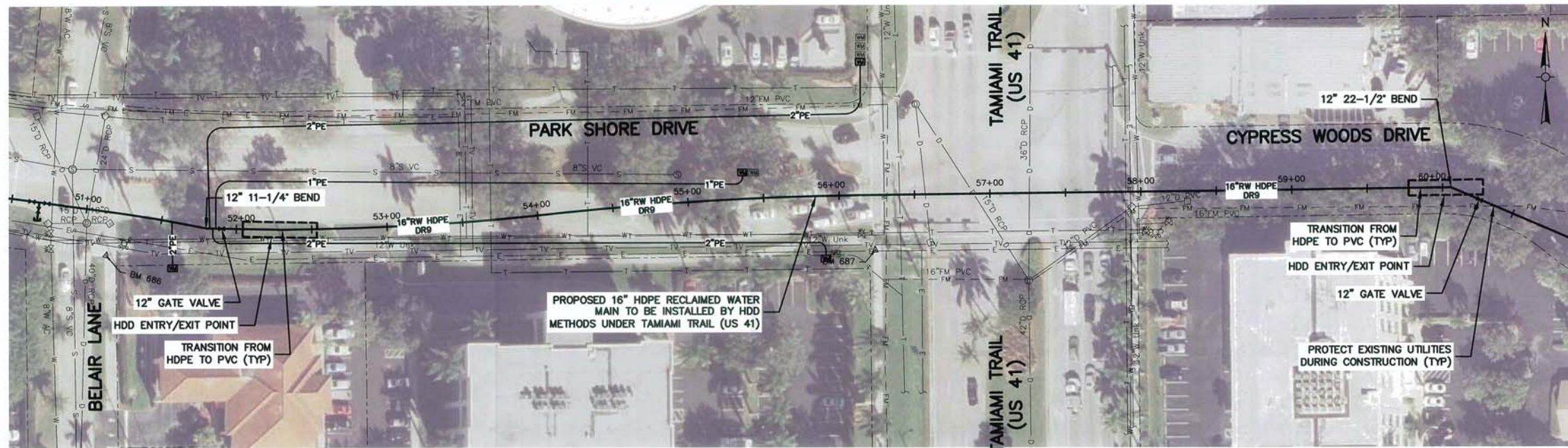
No.	Date	Dr. By	Ch. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

(RECLAIMED WATER)
[Signature]
Jeffrey A. Wilson, P.E.
FL License No. 41792

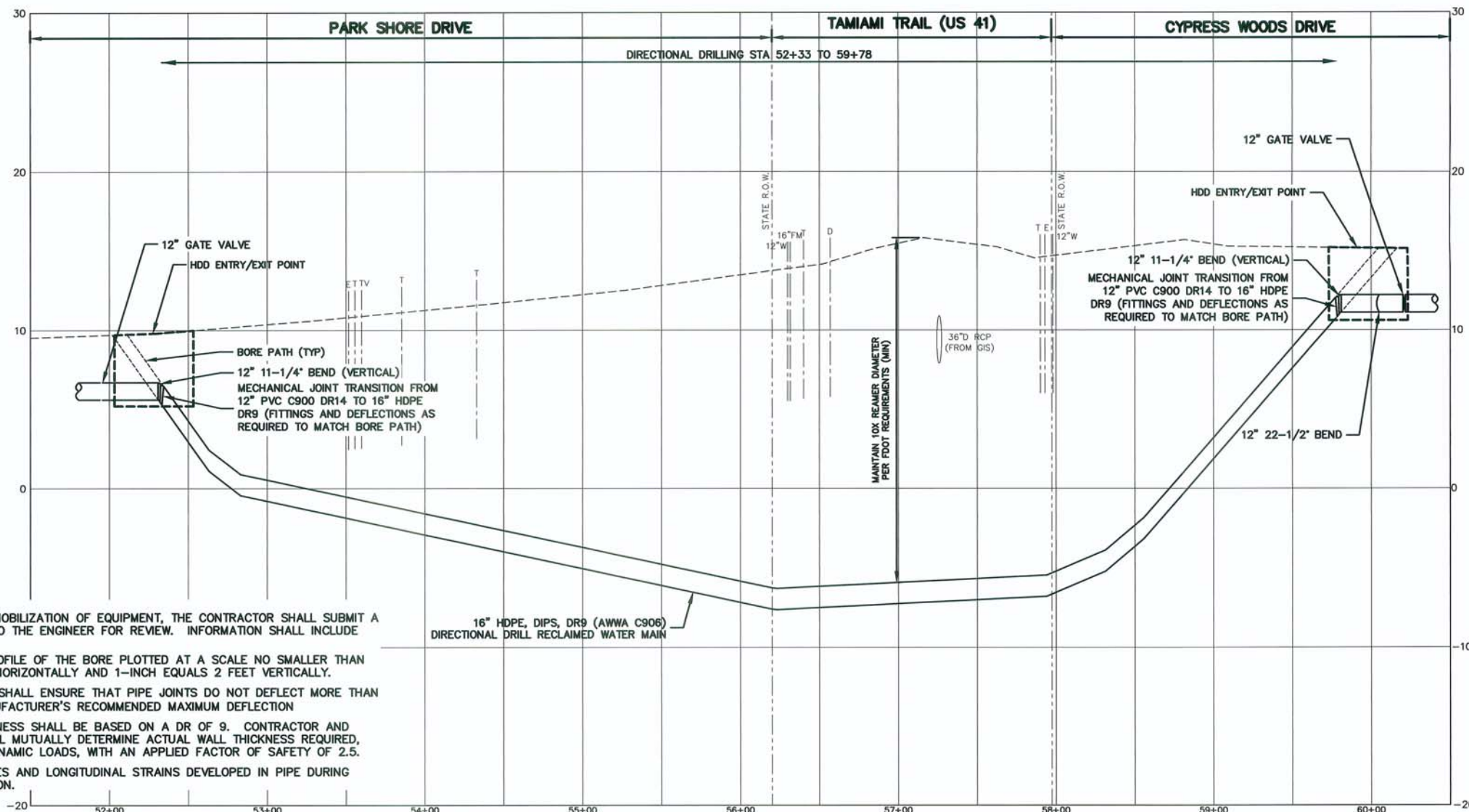
CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION T-7
**HDD PLAN AND PROFILE
VENETIAN BAY CROSSING**

SCALE: NOTED
JOB NO.: 2120311
CONTRACT: NOTED
JOB NO.: NAPLES RW11
SCALE: NOTED
JOB NO.: 2120311
CONTRACT: NOTED

FILE NO. 1



PLAN
SCALE: 1"=40'



PROFILE
SCALE: 1"=40' HORZ; 1"=4' VERT

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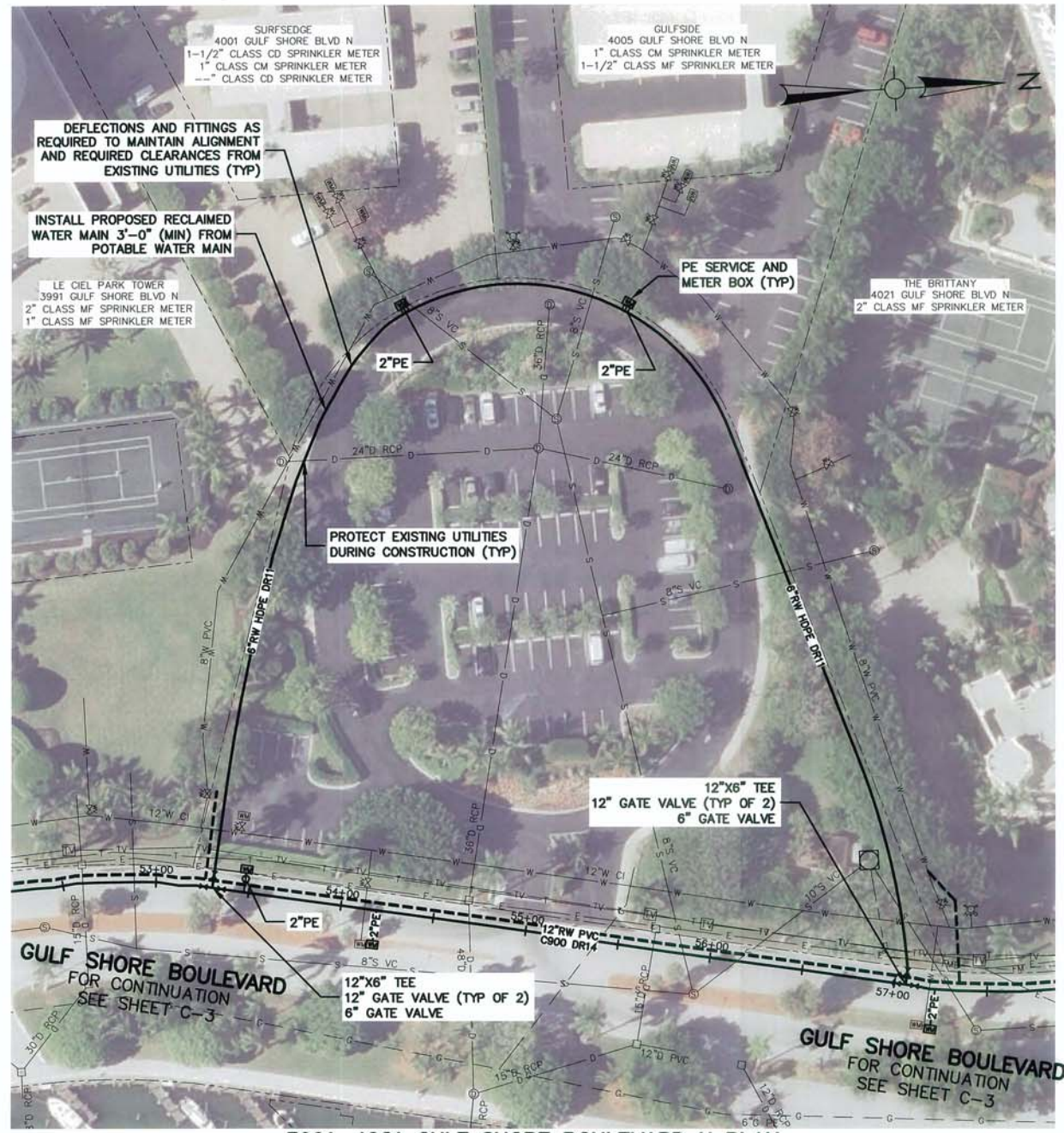
No.	Date	Dr. By	Ch. By	App. By	Description
1	04/13	DCM	RLH	JAW	ISSUED FOR BIDDING

(RECLAIMED WATER)
[Signature]
Jeffrey A. Wilson, P.E.
FL License No. 41792

CITY OF NAPLES, FLORIDA
RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION T-7
**HDD PLAN AND PROFILE
TAMIAMI TRAIL (US 41) CROSSING**

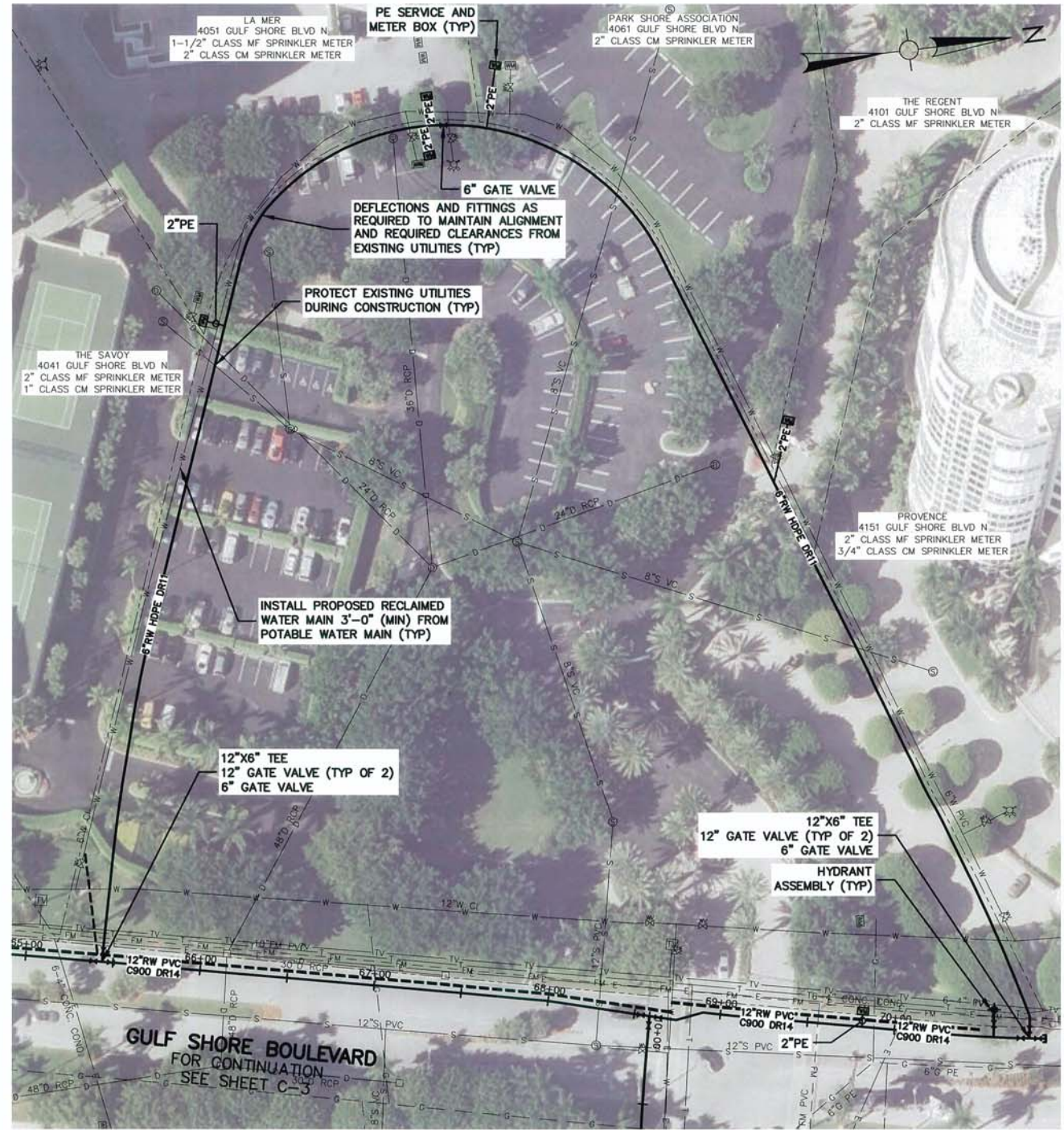
SCALE: NOTED
CONTRACT: 2120311
JOB NO.: 2120311
DR. BY: DSALBY
CHK. BY: APP. BY:
CADD NO.: NAPLES RWM1
FILE NO.: 1

C-9
SHEET 11 OF 16



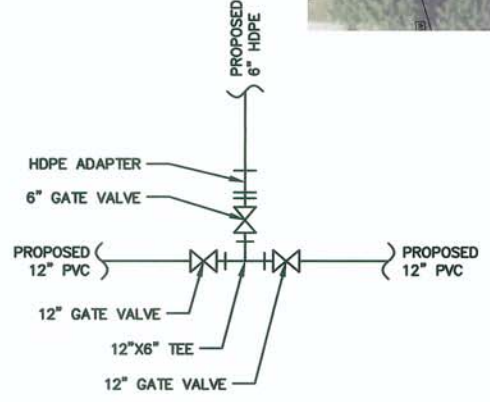
3991-4021 GULF SHORE BOULEVARD N PLAN

SCALE: 1"=40'



4041-4151 GULF SHORE BOULEVARD N PLAN

SCALE: 1"=40'



TYPICAL CONNECTION DETAIL

- NOTES:**
- IT SHALL BE THE INTENT TO HORIZONTALLY DIRECTIONAL DRILL 6" HDPE DR11 PIPE FOR EACH OF THESE LOOPS TO MINIMIZE SURFACE DISTURBANCES. CONTRACTOR SHALL SUBMIT ENTRY/EXIT LOCATION(S) AND BORE PATH(S) IN ADVANCE FOR REVIEW BY THE ENGINEER.
 - BASE AERIAL SOURCE: COLLIER COUNTY PROPERTY APPRAISER'S OFFICE. FLIGHT DATES: 12-07-2011 THROUGH 01-03-2012.
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No.	Date	Dr./By	App/By	Description
1	04/13	DCM	RLH	ISSUED FOR BIDDING
 Jeremy A. Wilson, P.E. FL License No. 41792				

CITY OF NAPLES, FLORIDA
 RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
 OPTION 1-7

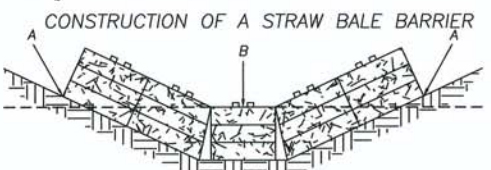
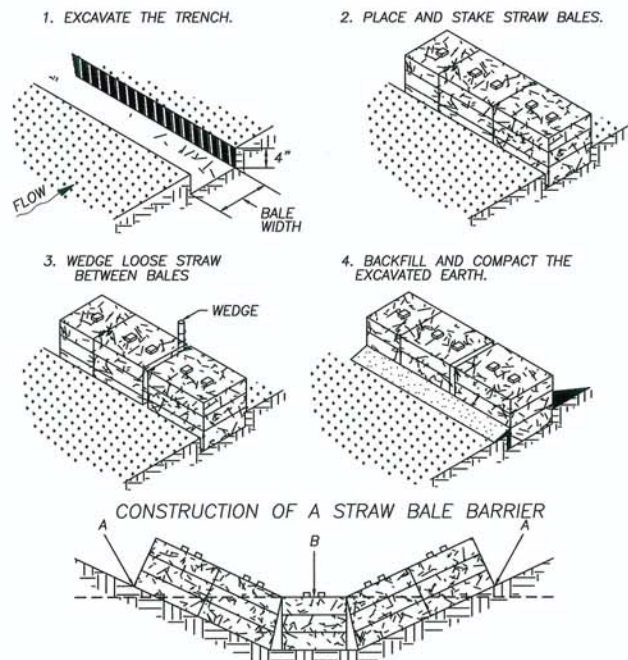
3991-4021 GULF SHORE BOULEVARD N
4041-4151 GULF SHORE BOULEVARD N

SCALE: NOTED
 CONTRACT: 2120311
 JOB NO.: NAPLES R1M1
 DRAWN BY: JAW
 CHECKED BY: RLH
 APPR'D BY: JAW

C-10

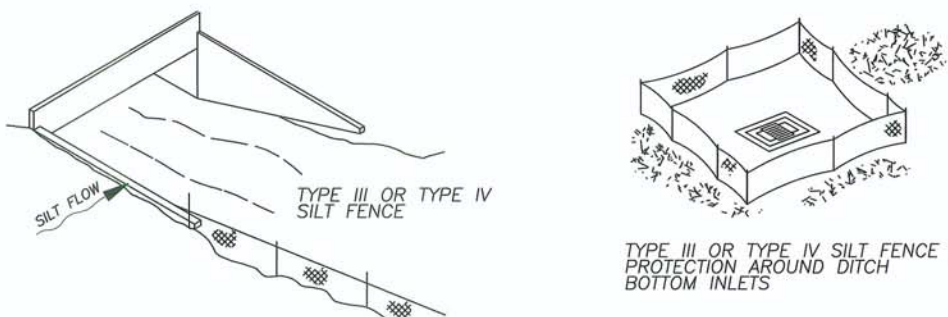
FILE NO. 1

SHEET 12 OF 16

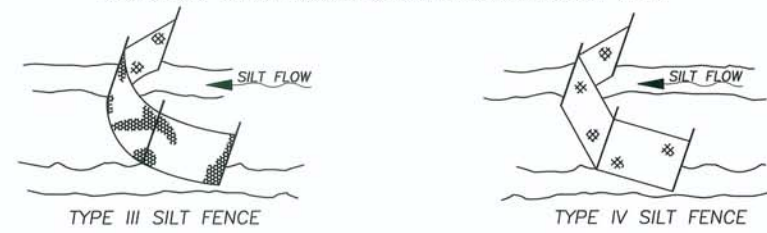


POINTS A SHOULD BE HIGHER THAN POINT B

PROPER PLACEMENT OF A STRAW BALE BARRIER IN DRAINAGE WAY

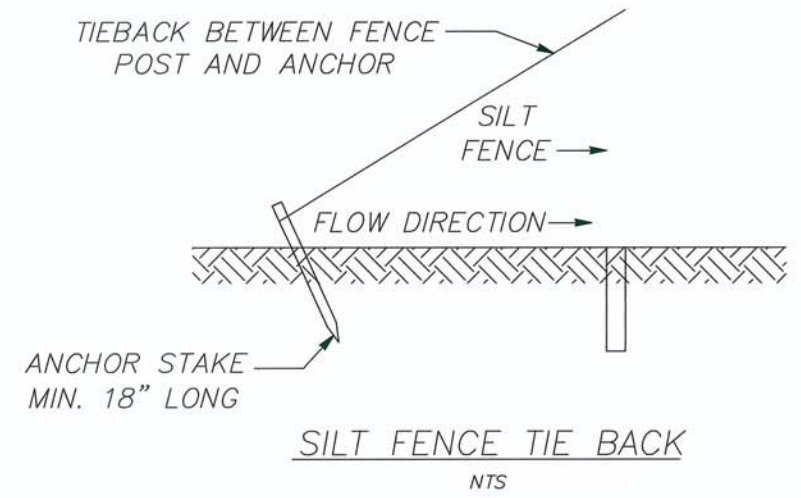


DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.



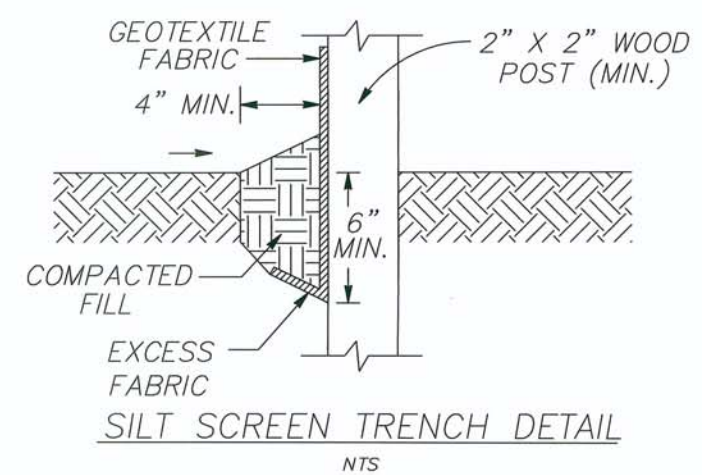
NOTE: SPACING FOR TYPE IV AND TYPE V FENCES TO BE IN ACCORDANCE WITH DITCH INSTALLATIONS AT DRAINAGE

SILT FENCE APPLICATIONS

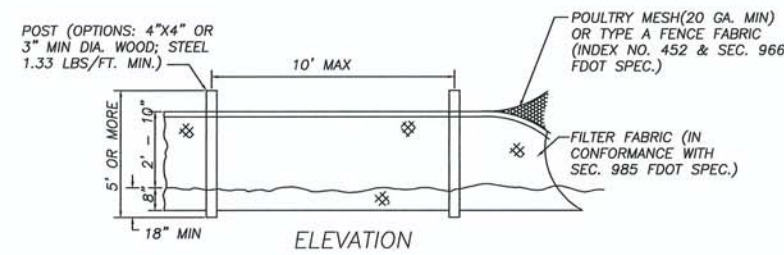


ANCHOR STAKE MIN. 18" LONG

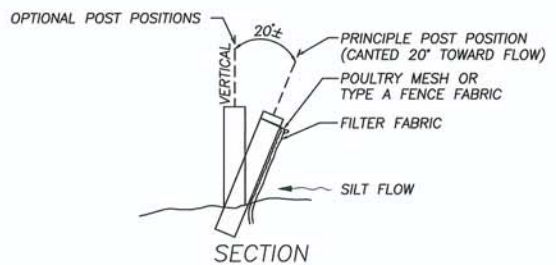
SILT FENCE TIE BACK
NTS



SILT SCREEN TRENCH DETAIL
NTS



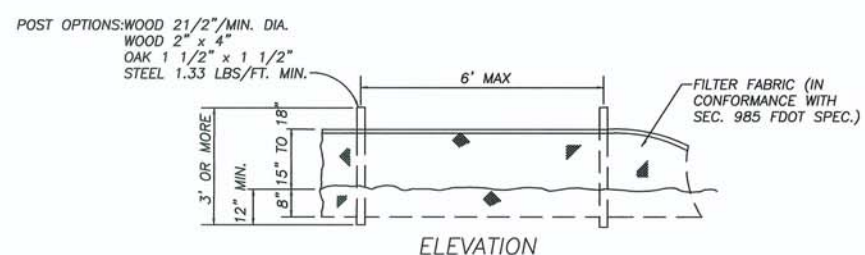
ELEVATION



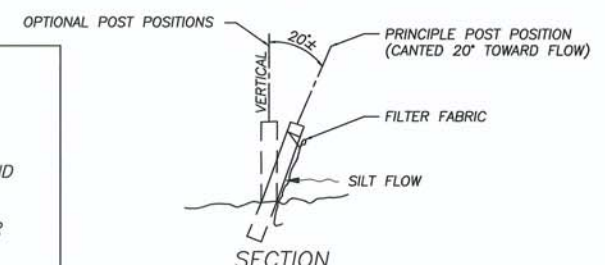
SECTION

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF)

TYPE IV SILT FENCE



ELEVATION



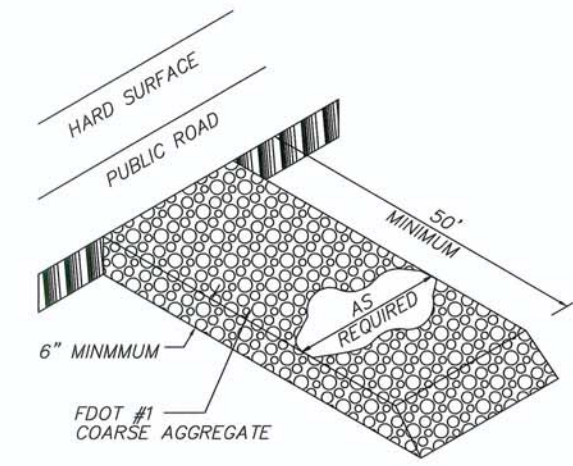
SECTION

NOTE: SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE (LF)

TYPE III SILT FENCE

NOTE:

1. THE USE OF STRAW BALE BARRIERS AND SILT FENCE SHALL BE INCREASED AS NECESSARY TO CONTAIN EROSION.
2. CONTRACTOR SHALL INSTALL SILT FENCE AND HAY OR STRAW BALE BARRIERS PER FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX 102 OR APPROVED EQUIVALENT PRIOR TO ANY SITE ACTIVITIES.
3. REFER TO THE "PAVING, GRADING AND DRAINAGE PLAN" AND "DEMOLITION PLAN" FOR ADDITIONAL INFORMATION.



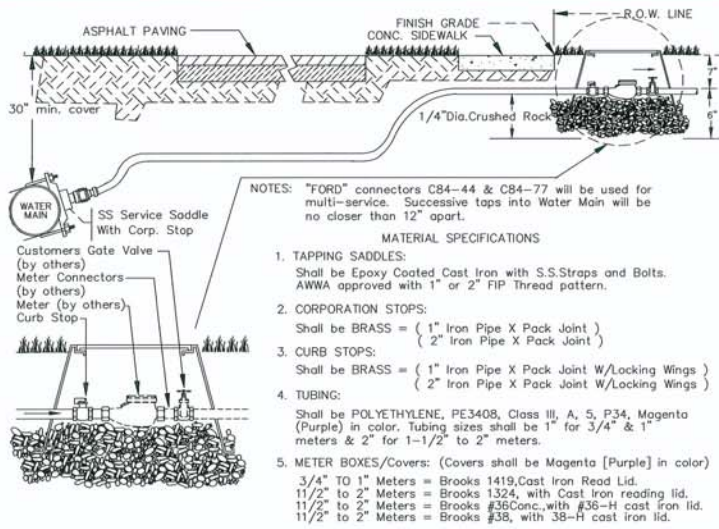
GRAVEL CONSTRUCTION ENTRANCE
N.T.S.

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Fort Myers, FL 33918
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ISSUED FOR BIDDING	Description
JAW	App:By
RLH	Chk:By
DCM	Dr:By
1 04/13	Date
No.	No.

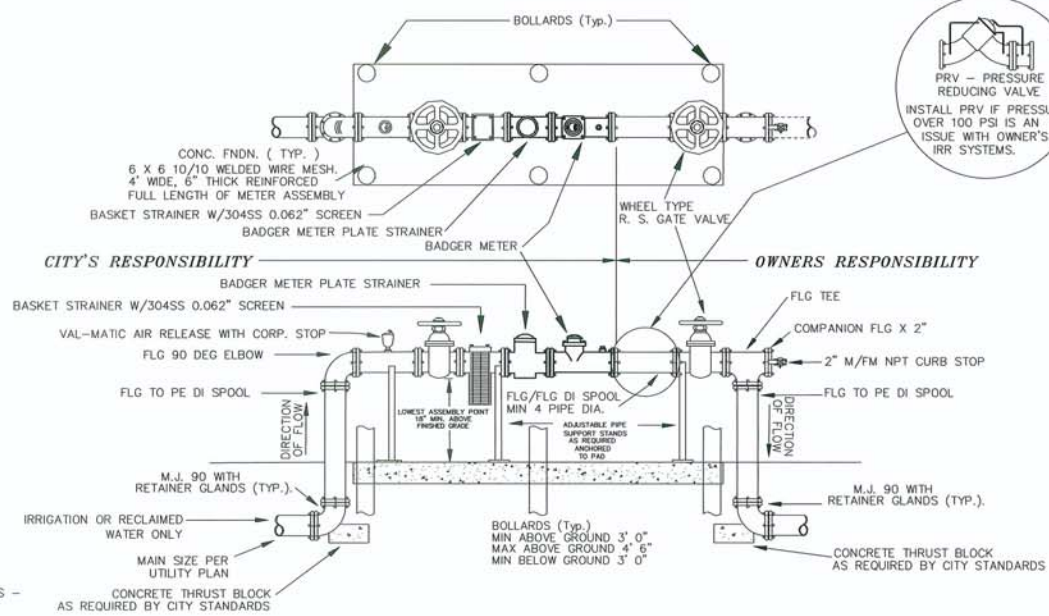
CITY OF NAPLES, FLORIDA		RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION		OPTION T-7	
SCALE:	NOTED	CONTRACT:	2120311	DR:BY	CHK:BY
CADD NO.	NAPLES RW11	JOB NO.	2120311	APP:BY	
BEST MANAGEMENT PRACTICES DETAILS					

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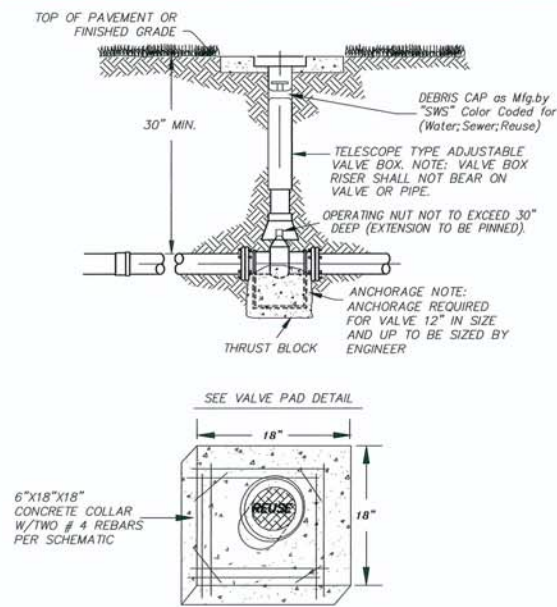
RECLAIMED WATER METER SETTING DETAIL
N.T.S.

- NOTES: "FORD" connectors C84-44 & C84-77 will be used for multi-service. Successive taps into Water Main will be no closer than 12" apart.
- MATERIAL SPECIFICATIONS**
- TAPPING SADDLES:** Shall be Epoxy Coated Cast Iron with S.S. Straps and Bolts. AWWA approved with 1" or 2" FIP Thread pattern.
 - CORPORATION STOPS:** Shall be BRASS = (1" Iron Pipe X Pack Joint) (2" Iron Pipe X Pack Joint)
 - CURB STOPS:** Shall be BRASS = (1" Iron Pipe X Pack Joint W/ Locking Wings) (2" Iron Pipe X Pack Joint W/ Locking Wings)
 - TUBING:** Shall be POLYETHYLENE, PE3408, Class III, A, 5, P34, Magenta (Purple) in color. Tubing sizes shall be 1" for 3/4" & 1" meters & 2" for 1-1/2" to 2" meters.
 - METER BOXES/Covers:** (Covers shall be Magenta [Purple] in color)
 - 3/4" TO 1" Meters = Brooks 1419, Cast Iron Read Lid.
 - 1 1/2" TO 2" Meters = Brooks 1324, with Cast Iron reading lid.
 - 1 1/2" TO 2" Meters = Brooks #36 Conc. with #36-H cast iron lid.
 - 1 1/2" TO 2" Meters = Brooks #38, with 38-H cast iron lid.

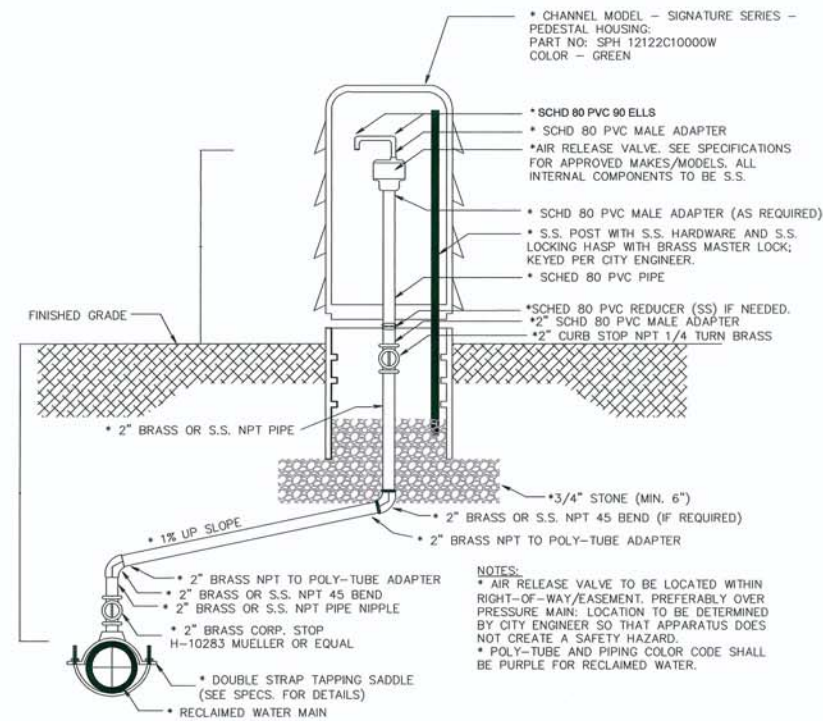


METER AND PRESSURE REDUCING VALVE DETAIL
3" AND LARGER FOR RECLAIMED WATER
N.T.S.

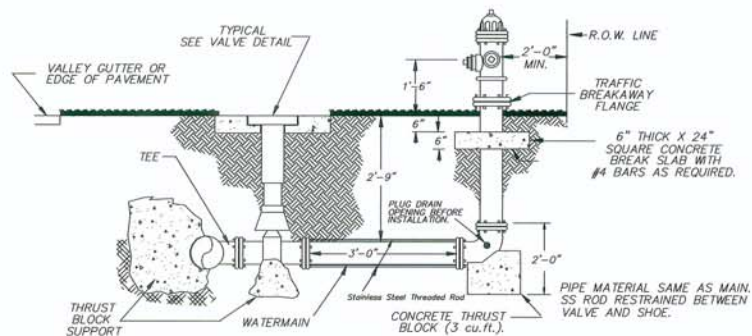
- NOTES:**
- ALL ABOVE GROUND PIPES WILL BE FLANGED END D.I.P. CLASS 51, SUBMITTED FOR REVIEW AND APPROVAL.
 - ALL ABOVE GROUND FITTINGS SHALL BE CONNECTED WITH 316 STAINLESS STEEL BOLTS, NUTS, & WASHERS AS REQUIRED.
 - SIX (6) VEHICULAR GUARD POSTS TO BE INSTALLED AROUND METER. CONFIGURATION TO BE ILLUSTRATED ON CONSTRUCTION DOCUMENTS BOLLARDS MAY NOT BE REQUIRED NEAR SECLUDED/PROTECTED AREAS.
 - THIS ASSEMBLY IS PERMITTED FOR RECLAIMED OR IRRIGATION SERVICE ONLY.
 - ALL PLANTINGS SHALL BE A MINIMUM OF 3' FROM EDGE OF SLAB, AND PROVIDE A 3' ACCESS OPENING.
 - ALL ABOVE GROUND PIPING INCLUDING ASSEMBLY WILL BE PAINTED RUSTOLEUM FEDERAL SAFETY MAGENTA OR AS PER CITY ORDINANCE 66-66H.
 - BASKET STRAINER SHALL BE EQUAL TO: MUELLER STEAM SPECIALTY (SIZE)-155M-N IRON BODY FLANGE TYPE WITH 304 STAINLESS STEEL BASKET - SCREEN SIZE 0.062" OR APPROVED EQUAL.



TYPICAL IN-LINE VALVE
N.T.S.

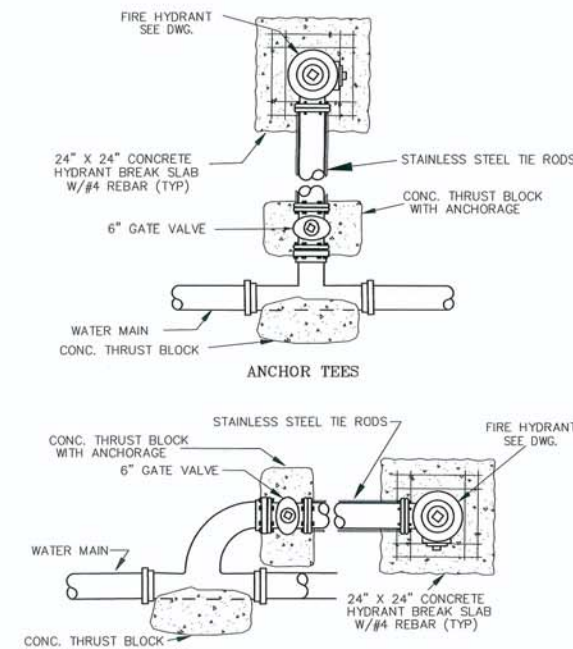


RECLAIMED WATER MAIN AIR RELEASE VALVE DETAIL
N.T.S.

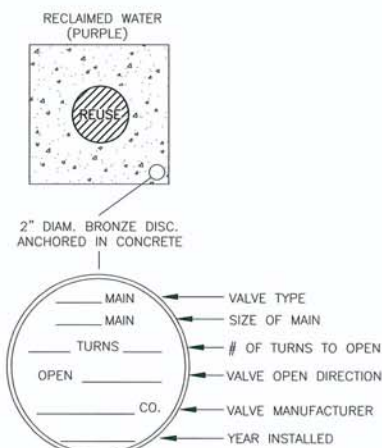


HYDRANT DETAIL
N.T.S.

- CITY OF NAPLES FIRE HYDRANT REQUIREMENTS:**
- ALL HYDRANTS INSTALLED ON CITY WATER MAINS SHALL MEET AWWA C-502-85 (LATEST REVISION) & AWWA MANUAL M-17 FOR DRY BARRELL FIRE HYDRANTS.
 - ALL HYDRANTS SHALL CARRY AWWA RECOMMENDATIONS FOR UNIFORM COLOR SCHEME AS PER FEDERAL STANDARD 595A (PURPLE).
 - IN ADDITION TO MEETING AWWA, CITY HYDRANTS SHALL BE UL/FM APPROVED (2) 2 1/2" HOSE NOZZLES; (3) AND EQUIPPED WITH (1) 4 1/2" PUMPER NOZZLE; 5-1/4" DIAMETER MAIN VALVE. SHOE INTERIOR AND EXTERIOR SHALL BE COATED WITH 8 MIL. EPOXY. PUMPER NOZZLE AND HOSE NOZZLE CAPS SHALL BE SECURED WITH CHAINS.
 - FINAL LANDSCAPING ELEVATION/GRADE SHALL BE A MINIMUM 18" AND MAXIMUM OF 24" TO THE CENTERLINE OF THE PUMPER NOZZLE. ALL FENCING, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED CLOSER THAN 3' FROM HYDRANT TO ALLOW FREE UNRESTRICTED ACCESS.
 - UPON HYDRANT INSTALLATION, HYDRANT SHALL BE FLOW TESTED AS PER AWWA M17 AND APPROPRIATELY COLOR CODED PER FEDERAL STANDARD 575A.
 - MANUFACTURE YEAR MUST BE CAST ON BARREL.
 - SIX (6") TO 12" TAPPING SADDLE MAY BE EITHER 316 STAINLESS STEEL OR C.I. AT CITY ENGINEER'S OPTION. ALL LINE SIZE TAPS AND THOSE OVER 12" SHALL BE C.I.
 - HYDRANTS SHALL BE LUBRICATED WITH FOOD GRADE GREASE, NO OIL ALLOWED, INCLUDING INTERNAL BONNET LUBRICATION.



HYDRANT TEES DETAIL
N.T.S.



VALVE PAD DETAIL
N.T.S.

- VALVE TYPE
- SIZE OF MAIN
- # OF TURNS TO OPEN
- VALVE OPEN DIRECTION
- VALVE MANUFACTURER
- YEAR INSTALLED

NOTE: THIS SHEET PRESENTS DETAILS WHICH HAVE BEEN DEVELOPED/DESIGNED BY OTHERS AND ARE STANDARDS FOR THE CITY OF NAPLES UTILITIES DEPARTMENT. THEY HAVE BEEN REVIEWED/EVALUATED BY AN ENGINEER OF RECORD AND ARE ACCEPTABLE FOR USE ON THIS PROJECT.

Weston & Sampson
4210 Metro Parkway, Suite 250
Fort Myers, FL 33918
(239) 497-4601 (600) 5AMPSON
Certificate of Authorization No. 26190
www.westonandsampson.com

ISSUED FOR BIDDING	DESCRIPTION
JAW	App. By
RLH	Ck. By
DCM	Dr. By
1 04/13	Date
1	No.

RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION
OPTION 1-7

CITY OF NAPLES STANDARD DETAILS

SCALE: NOTED

CONTRACT: 2120311

JOB NO. 2120311

DATE: 11-1-11

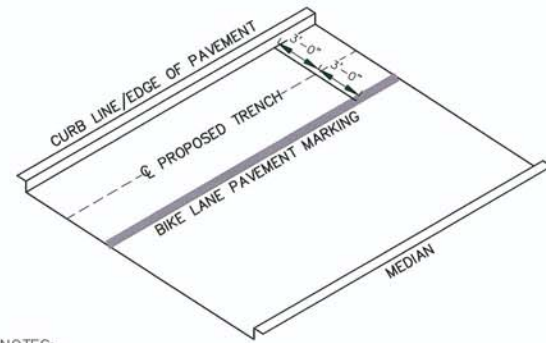
DESIGNED BY: JAW

CHECKED BY: RLH

DATE: 04/13

SCALE: AS SHOWN

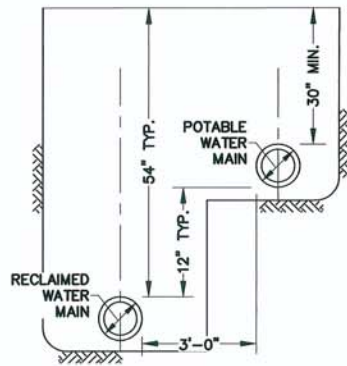
FILE NO. C-13



NOTES:

1. PROPOSED RECLAIMED WATER MAIN TO BE INSTALLED 3'-0" FROM CURB LINE IN THE EXISTING BIKE LANE ON GULF SHORE BOULEVARD AND PARK SHORE DRIVE.
2. SEE PAVEMENT RESTORATION DETAIL FOR PAVING LIMITS AND PAVEMENT PROFILE.

PROPOSED RECLAIMED WATER MAIN LOCATION
N.T.S.



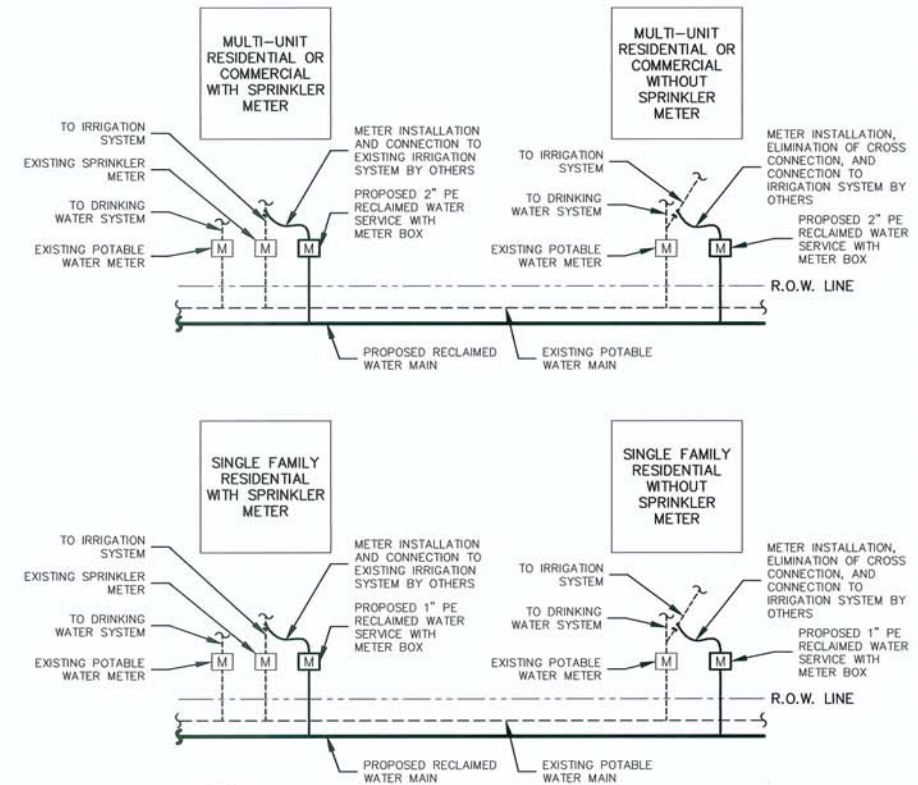
RECLAIMED WATER MAIN PARALLEL TO POTABLE WATER MAIN
N.T.S.

OTHER PIPE	HORIZONTAL SEPARATION	CROSSINGS (1)	JOINT SPACING AT CROSSINGS (FULL JOINT CENTERED)
STORM SEWER, STORMWATER FORCE MAIN, RECLAIMED WATER (2)	WATER MAIN 3'-0" MIN.	WATER MAIN 12" MIN. EXCEPT STORM SEWER: 12" PREFERRED AND 6" MIN.	WATER MAIN ALTERNATE 3'-0" MIN.
VACUUM SANITARY SEWER	WATER MAIN 10'-0" PREFERRED 3'-0" MIN.	WATER MAIN 12" PREFERRED 6" MIN.	WATER MAIN ALTERNATE 3'-0" MIN.
GRAVITY OR PRESSURE SANITARY SEWER, SANITARY SEWER FORCE MAIN, RECLAIMED WATER (4)	WATER MAIN 10'-0" PREFERRED 6'-0" MIN. (3)	WATER MAIN 12" MIN. EXCEPT GRAVITY SEWER: 12" PREFERRED AND 6" MIN.	WATER MAIN ALTERNATE 6'-0" MIN.
ON-SITE SEWAGE TREATMENT AND DISPOSAL	10'-0" MIN.	--	--

NOTES:

1. WATER MAIN SHALL CROSS ABOVE OTHER PIPE. WHEN WATER MAIN MUST BE BELOW OTHER PIPE, THE MINIMUM SEPARATION IS 12 INCHES.
2. RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
3. 3'-0" FOR GRAVITY SANITARY SEWER WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST 6" ABOVE THE TOP OF THE GRAVITY SANITARY SEWER.
4. RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

LOCATION OF PUBLIC WATER SYSTEM MAINS IN ACCORDANCE WITH F.A.C. RULE 62-555.314
N.T.S.



NOTES:

1. CONTRACTOR TO INSTALL APPROPRIATELY SIZED TAPPING SADDLE, CORPORATION AND CURB STOPS, SERVICE PIPING, AND METER BOX (WITHOUT METER) FOR ALL SERVICE CONNECTIONS.
2. FINAL LOCATION OF METER BOX TO BE APPROVED BY THE CITY AND THE PROPERTY OWNER.
3. CONTRACTOR TO PROVIDE FITTINGS, COUPLINGS, AND ADAPTERS AS REQUIRED TO MATCH EXISTING METER SIZE (IF ANY) AT THE METER BOX.

RECLAIMED WATER SERVICE TRANSFER DETAIL
N.T.S.

Weston & Sampson
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No.	Date	Dr. By	Ck. By	App. By	Description
1	04/13	DCM	RUH	JAW	ISSUED FOR BIDDING

(RECLAIMED WATER)
[Signature]
John A. Weston, P.E.
FL License No. 31792

CITY OF NAPLES, FLORIDA RECLAIMED WATER DISTRIBUTION SYSTEM EXPANSION OPTION 1-7	CONTRACT: NOTED	SCALE: NAPLES RIWM1	JOB NO. 2120311	DR. BY: DSJLBY	CHK. BY: APP. BY:
STANDARD DETAILS					
FILE NO. C-14					