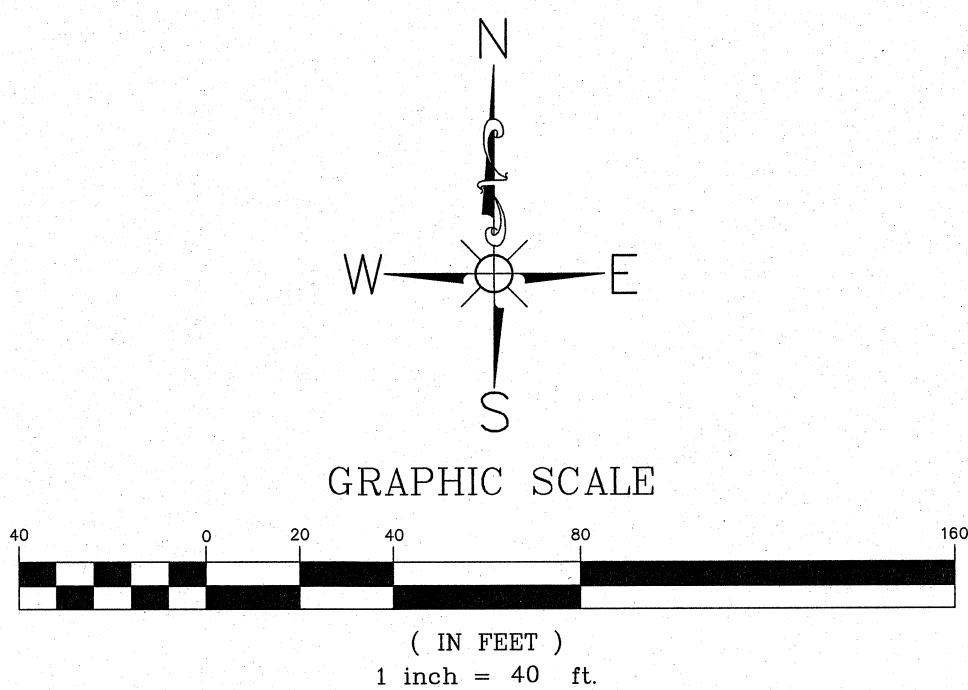


CONSTRUCTION PLANS

PREPARED FOR

RICH TORINO II TORINO LAKES PHASE 4

A PORTION OF TRACT "D" AS SHOWN ON THE PLAT
OF PORT ST. LUCIE SECTION FORTY SEVEN, AS RECORDED
IN PLAT BOOK 16, AT PAGE 40, OF THE PUBLIC RECORDS
OF ST. LUCIE COUNTY, FLORIDA
PORT ST. LUCIE, FLORIDA



OWNER

RICH TORINO II, LLC
2552 PETERS ROAD SUITE B
FORT PIERCE, FLORIDA 34945
(772) 446-7344

CIVIL ENGINEER

ATLANTIC CIVIL ENGINEERING, INC.
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520

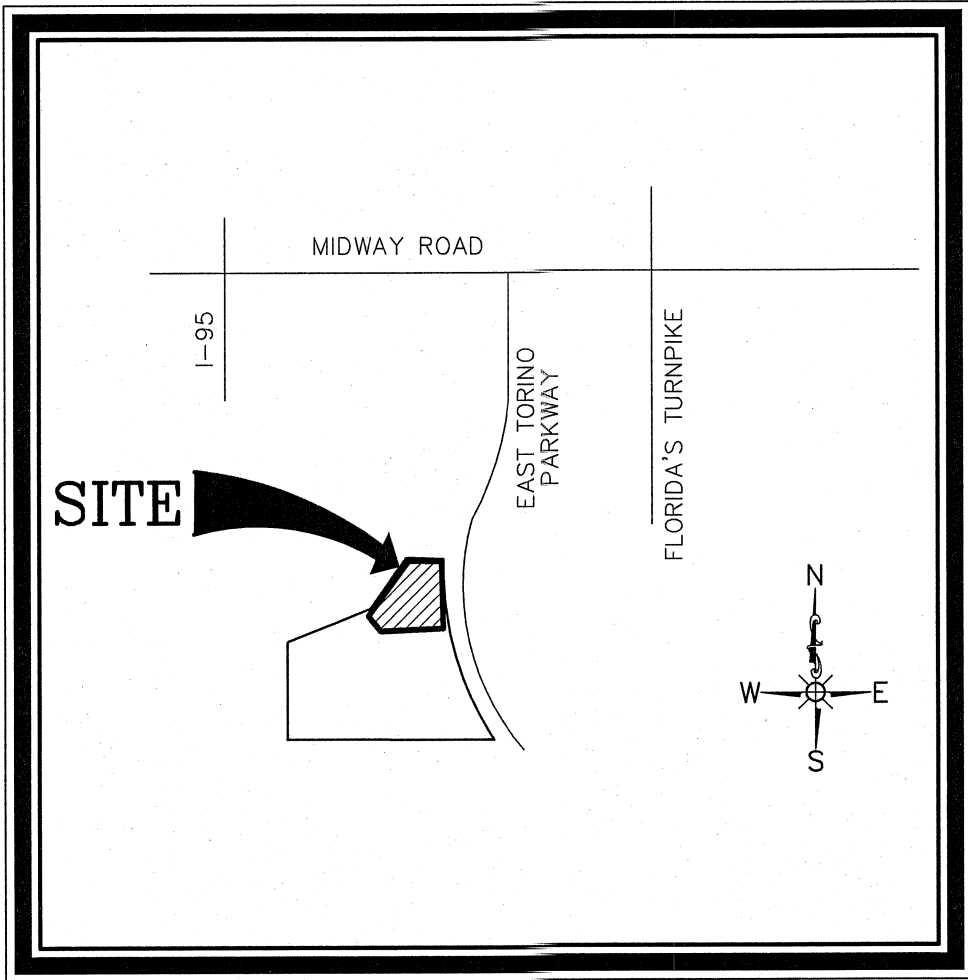
SURVEYOR

LAVENTURE & ASSOCIATES, INC.
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-6430



LOCATION MAP

N.T.S.



VICINITY MAP

N.T.S.

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	OVERALL SITE PLAN
3	DETAILED SITE PLAN
4	PAVING, GRADING & DRAINAGE PLAN
5	UTILITY PLAN
6-7	SANITARY SEWER PLAN & PROFILE
8-9	WATER & SEWER DETAILS
10	PAVING, GRADING & DRAINAGE DETAILS
11	EROSION CONTROL PLAN
12	HORIZONTAL CONTROL PLAN
13	GENERAL NOTES

GENERAL NOTES

- 1.) ALL UTILITY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2019 (OR LATEST) CITY OF PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT'S TECHNICAL SPECIFICATIONS AND CONSTRUCTION STANDARDS.
- 2.) ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.
3. THE PROPERTY OWNER, CONTRACTOR AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICKUP, REMOVAL AND DISPOSAL OF LITTER WITHIN THE PROJECT LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITHIN THE CITY'S RIGHT-OF-WAY IN ACCORDANCE WITH CITY CODE SECTION 41.08 (g).



PREPARED BY
ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS

2552 PETERS ROAD • SUITE D • FORT PIERCE, FLORIDA 34945 • (772) 398-1520 PHONE • (772) 398-1521 FAX

State of Florida Board of Professional Engineers Authorization No. 32020

REVISION	DESCRIPTION	DATE
1	SPRC COMMENTS (MULTIPLE PAGES)	9/30/21

RICHARD M. LADYKO

FL P.E. No. 34288

DATE

JOB No. 2021.0114-2

SHEET 1 OF 13

TORINO LAKES PHASE 4
PSLUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

TORINO LAKES P.U.D.

EXISTING SITE DATA (PHASE 1-3)

COMPONENT	SQ. FT.	ACRES	% OF SITE
PUD AREA	738,837 SF	16.96 AC	100.0%
MULTI-FAMILY AREA	620,461 SF	14.24 AC	84.0%
GEN. COMMERCIAL AREA	118,376 SF	2.72 AC	16.0%
(PHASE 2-3)			

EXISTING MULTI-FAMILY DATA (PHASE 1)

COMPONENT	SQ. FT.	ACRES	% OF SITE
MULTI-FAMILY AREA	620,461 SF	14.24 AC	100.0%
(20) 6-UNIT BUILDINGS	123,220 SF	2.83 AC	19.9%
(7) 4-UNIT BUILDINGS	28,819 SF	0.66 AC	4.6%
CLUBHOUSE	3,570 SF	0.08 AC	0.6%
(2) MAIL CENTERS	600 SF	0.01 AC	0.1%
BUILDING COVERAGE	155,733 SF	3.58 AC	25.1%
PAVEMENT COVERAGE	101,599 SF	2.33 AC	16.4%
CONCRETE COVERAGE	38,599 SF	0.89 AC	6.2%
TOTAL IMPERVIOUS	295,931 SF	6.79 AC	47.7%
TOTAL OPEN SPACE	324,530 SF	7.45 AC	52.3%

MULTI-FAMILY DENSITY (PHASE 1)

148 UNITS/14.24 AC = 10.4 DU/AC

MULTI-FAMILY PARKING (PHASE 1)

REQUIRED: 148 UNITS X 2 SPACES/UNIT = 296 SPACES
+ 5% GUEST PARKING = 15 SPACES
REQUIRED PARKING = 311 SPACES

PROVIDED: 148 UNITS X 2 SPACES/UNIT = 296 SPACES
+ GUEST PARKING = 32 SPACES *
PROVIDED PARKING = 328 SPACES *
* INCLUDES 2 HC

PROPOSED SITE DATA (PHASE 4)

COMPONENT	SQ. FT.	ACRES	% OF SITE
MULTI-FAMILY AREA	130,680 SF	3.00 AC	100.0%

PROPOSED MULTI-FAMILY DATA (PHASE 4)

COMPONENT	SQ. FT.	ACRES	% OF SITE
MULTI-FAMILY AREA	130,680 SF	3.00 AC	100.0%
(5) 6-UNIT BUILDINGS	32,975 SF	0.76 AC	25.2%
(1) 4-UNIT BUILDINGS	4,416 SF	0.10 AC	3.4%
BUILDING COVERAGE	37,391 SF	0.86 AC	28.6%
PAVEMENT COVERAGE	17,559 SF	0.40 AC	13.4%
CONCRETE COVERAGE	10,709 SF	0.25 AC	8.2%
TOTAL IMPERVIOUS	65,659 SF	1.51 AC	50.2%
TOTAL OPEN SPACE	65,021 SF	1.49 AC	49.8%

MULTI-FAMILY DENSITY (PHASE 4)

34 UNITS/3.0 AC = 11.3 DU/AC

MULTI-FAMILY PARKING (PHASE 4)

REQUIRED: 34 UNITS X 2 SPACES/UNIT = 68 SPACES
+ 5% GUEST PARKING = 4 SPACES
REQUIRED PARKING = 72 SPACES

PROVIDED: 34 UNITS X 2 SPACES/UNIT = 68 SPACES
+ GUEST PARKING = 5 SPACES
PROVIDED PARKING = 73 SPACES

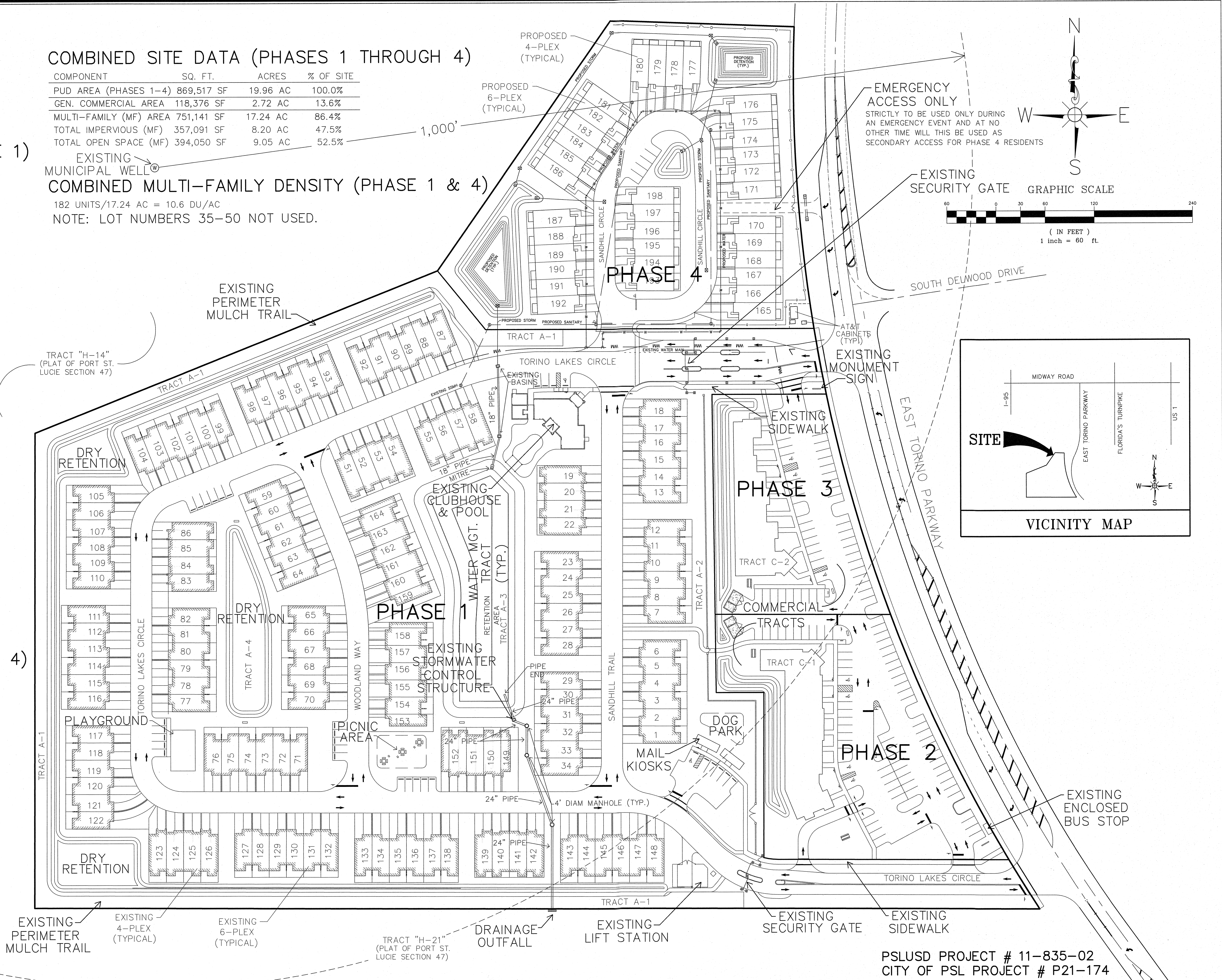
COMBINED SITE DATA (PHASES 1 THROUGH 4)

COMPONENT	SQ. FT.	ACRES	% OF SITE
PUD AREA (PHASES 1-4)	869,517 SF	19.96 AC	100.0%
GEN. COMMERCIAL AREA	118,376 SF	2.72 AC	13.6%
MULTI-FAMILY (MF) AREA	751,141 SF	17.24 AC	86.4%
TOTAL IMPERVIOUS (MF)	357,091 SF	8.20 AC	47.5%
TOTAL OPEN SPACE (MF)	394,050 SF	9.05 AC	52.5%

EXISTING MUNICIPAL WELL
COMBINED MULTI-FAMILY DENSITY (PHASE 1 & 4)

182 UNITS/17.24 AC = 10.6 DU/AC

NOTE: LOT NUMBERS 35-50 NOT USED.



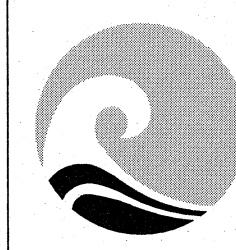
OVERALL SITE PLAN

PREPARED FOR
TORINO LAKES P.U.D.

- REVISIONS -

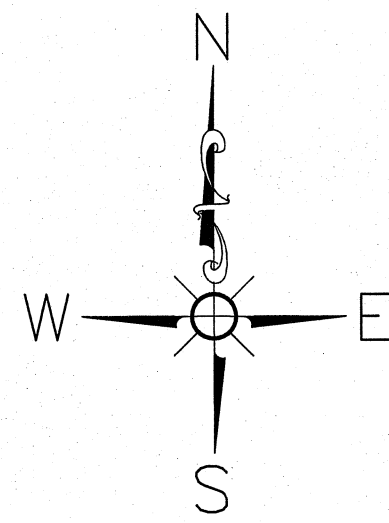
REVISIONS	BY	DATE
REVISE PER SPRC COMMENTS	JOE M	4/27/21
REVISE PER CITY OF PSL ENGINEERING	MRL	5/18/21
ADD 1,000 FOOT RADIUS FOR PUBLIC WELL	JOE M	9/30/21

FIELD	BY	DATE
CALCS.	RCL	6/27/18
DRAWN	JOE M	3/06/20
CHECKED	RCL	3/09/20
FILE REF.	FIELD BK/PG	20-2680-8
	GPS/CALC SHEET	

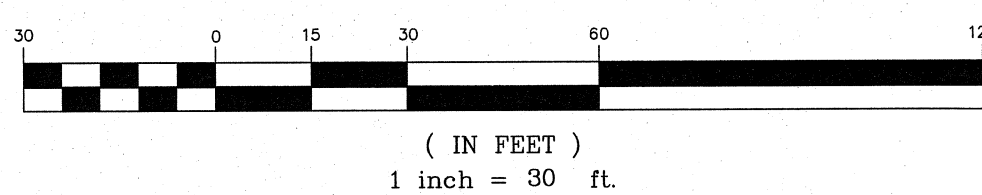


ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

DATE: 1-22-21
SCALE: 1"=60'
JOB No. 2021-0114-2
SHEET 2 OF 13



GRAPHIC SCALE



PROPOSED SITE DATA (PHASE 4)

COMPONENT	ACRES	SQ. FT.	% OF SITE
PROPOSED BUILDINGS	0.86	37,391	28.6
PROPOSED PAVING +	0.65	28,268	21.6
IMPERVIOUS	1.51	65,659	50.2 (ABOVE TOTAL)
OPEN SPACE	1.49	65,021	49.8
TOTAL SITE AREA	3.00	130,680	100.0

EXISTING MUNICIPAL WELL
(SEE SHEET 2 OF 13
FOR 1,000' RADIUS)

GENERAL NOTES

- PROJECT NAME: TORINO LAKES PHASE 4
- LOCATION: A PORTION OF TRACT "D" AS SHOWN ON THE PLAT OF PORT ST. LUCIE SECTION FORTY SEVEN, AS RECORDED IN PLAT BOOK 16, AT PAGE 40, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA.
- OWNER: RICH TORINO II LLC
2552 PETERS RD SUITE B
FORT PIERCE, FL, 34945
SAME AS OWNER
- APPLICANT: ATLANTIC CIVIL ENGINEERING, INC.
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
PHONE: (772) 398-1520
- ENGINEER: LAVENTURE & ASSOCIATES, INC.
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
PHONE: (772) 398-6430
- SURVEYOR: A PORTION OF TRACT "D" AS SHOWN ON THE PLAT OF PORT ST. LUCIE SECTION FORTY SEVEN, AS RECORDED IN PLAT BOOK 16, AT PAGE 40, OF THE PUBLIC RECORDS OF ST. LUCIE COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID TRACT "D", SAID POINT ALSO BEING ON THE WESTERLY RIGHT-OF-WAY LINE OF EAST TORINO PARKWAY, AS SHOWN ON THE SAID PLAT OF PORT ST. LUCIE SECTION FORTY-SEVEN; THENCE NORTH 87°54'54" WEST, ALONG THE NORTH LINE OF SAID TRACT "D", FOR 225.00 FEET; THENCE SOUTH 34°52'49" WEST, ALONG THE NORTHWESTERLY LINE OF SAID TRACT "D" FOR 370.08 FEET; THENCE SOUTH 39°12'30" EAST FOR 92.55 FEET; THENCE DUE EAST FOR 401.20 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF SAID EAST TORINO PARKWAY, SAID POINT ALSO BEING A POINT ON THE ARC OF A CIRCULAR CURVE TO THE RIGHT HAVING A RADIAL BEARING OF NORTH 80°40'26" EAST, A RADIUS OF 1850.00 FEET AND A CENTRAL ANGLE OF 11°24'40"; THENCE NORTHERLY, ALONG THE ARC OF SAID CURVE, AND ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SAID EAST TORINO PARKWAY, FOR 368.44 FEET TO THE POINT OF BEGINNING.

SAID LANDS CONTAINS 3.00 ACRES, MORE OR LESS.
3420-735-0004-010-7
PROPOSED MULTI-FAMILY DEVELOPMENT
- PARCEL ID NO: 130,680 SQ. FT. (3.00 ACRES) GROSS AREA
- TYPE OF PROJECT: 37,391 SQ. FT. (0.86 ACRES) (6 BUILDINGS/34 UNITS)
- PROJECT SIZE: ROI (RESIDENTIAL, OFFICE, INSTITUTIONAL)
- BUILDING SIZE: 1 (INSTITUTIONAL)
- FUTURE LAND USE: ZONE X
- EXISTING ZONING: REQUIRED 34 UNITS X 2.0 SPACES/UNIT + 5% (GUEST) = 72 SPACES
PROVIDED 73 SPACES
- FLOOD ZONE:
- PARKING: BEGIN CONSTRUCTION: DECEMBER 2021
CONSTRUCTION TO BE COMPLETED: 365 DAYS
- DEVELOPMENT SCHEDULE: PSLUSD
PSLUSD
- UTILITY SERVICE: STORMWATER MANAGEMENT WILL CONSIST OF AN ON-SITE STORMWATER MANAGEMENT SYSTEM WITH A PROPOSED CONNECTION TO THE EXISTING, PERMITTED STORMWATER MANAGEMENT SYSTEM (PHASE 1) AND OUTFALL AT THE CITY OF PORT ST. LUCIE CANAL SOUTH OF THE SUBJECT SITE. DESIGN SHALL MEET CITY OF PORT ST. LUCIE AND SOUTH FLORIDA WATER MANAGEMENT DISTRICT CRITERIA.

TRAFFIC STATEMENT

(ITE LAND USE (10TH EDITION))

DAILY TRIP GENERATION

34 DWELLING UNITS = 7.32 DAILY TRIPS / DU = 249 DAILY TRIPS

AM PEAK TRIP GENERATION

34 DWELLING UNITS = 0.46 AM PEAK / DU = 16 AM PEAK HOUR TRIPS (4 IN, 12 OUT)

PM PEAK TRIP GENERATION

34 DWELLING UNITS = 0.56 PM PEAK / DU = 19 PM PEAK HOUR TRIPS (12 IN, 7 OUT)

BUILDING SETBACKS

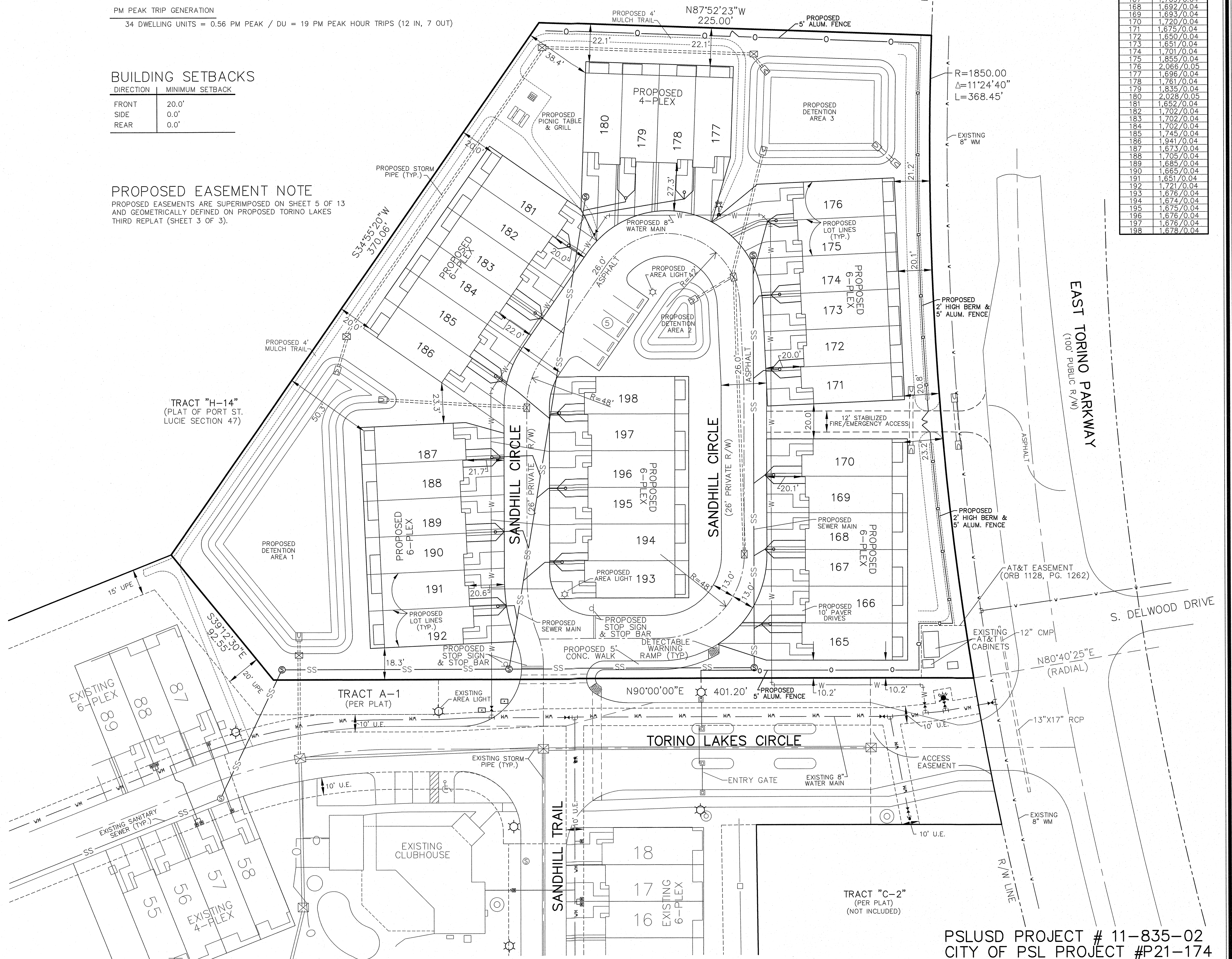
DIRECTION	MINIMUM SETBACK
FRONT	20.0'
SIDE	0.0'
REAR	0.0'

PROPOSED EASEMENT NOTE

PROPOSED EASEMENTS ARE SUPERIMPOSED ON SHEET 5 OF 13 AND GEOMETRICALLY DEFINED ON PROPOSED TORINO LAKES THIRD REPLAT (SHEET 3 OF 3).

AREA TABLE

LOT NUMBER	AREA SQUARE FEET/ACRES
165	2,100/0.05
166	1,852/0.04
167	1,709/0.04
168	1,692/0.04
169	1,693/0.04
170	1,720/0.04
171	1,675/0.04
172	1,650/0.04
173	1,651/0.04
174	1,701/0.04
175	1,855/0.04
176	2,066/0.05
177	1,696/0.04
178	1,761/0.04
179	1,835/0.04
180	2,028/0.05
181	1,652/0.04
182	1,702/0.04
183	1,702/0.04
184	1,702/0.04
185	1,745/0.04
186	1,941/0.04
187	1,673/0.04
188	1,705/0.04
189	1,685/0.04
190	1,665/0.04
191	1,691/0.04
192	1,721/0.04
193	1,676/0.04
194	1,674/0.04
195	1,675/0.04
196	1,676/0.04
197	1,676/0.04
198	1,678/0.04



SITE PLAN TORINO LAKES PHASE 4

- REVISIONS -		BY	DATE
ADD LOT AREA TABLE; ADD UTILITIES		JOE M	9/16/21

BY	DATE
MRL	6/08/21
DESIGNED	5/20/21
CHECKED	6/09/21
QA/QC	6/16/21
SURVEY REF.	DRAWING NAME
20,2680-8	2019-0114.dwg

ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

DATE: 8-4-21	JOB No. 2021.0114-2
HORIZ SCALE: 1"=30'	SHEET 3 OF 13
VERT SCALE: N/A	

PROPOSED SITE DATA (PHASE II)

COMPONENT	ACRES	SQ. FT.	% OF SITE
PROPOSED BUILDINGS	0.86	37,391	28.6
PROPOSED PAVING +	0.65	28,268	21.6
IMPERVIOUS	1.51	65,659	50.2 (ABOVE TOTAL)
OPEN SPACE	1.49	65,021	49.8
TOTAL SITE AREA	3.00	130,680	100.0

STORAGE DATA (PHASE II)

PROPOSED DETENTION AREA 1 (3.0' DEPTH)

COMPONENT	ACRES	SQ. FT.	% OF SITE
TOB	0.219	9,524	7.3
BOT	0.139	6,071	4.6

PROPOSED DETENTION AREA 2 (3.0' DEPTH)

COMPONENT	ACRES	SQ. FT.	% OF SITE
TOB	0.034	1,479	1.1
BOT	0.012	528	0.4

PROPOSED DETENTION AREA 3 (3.0' DEPTH)

COMPONENT	ACRES	SQ. FT.	% OF SITE
TOB	0.115	5,008	3.8
BOT	0.070	3,033	2.3

IMPERVIOUS AREA TABULATIONS

DRIVEWAYS & SIDEWALKS	10709 SF	0.246 AC
ROADWAY	17559 SF	0.403 AC
TOTAL IMPERVIOUS	28268 SF	0.649 AC

CITY CODE SECTION 41.08 (g) NOTE

THE PROPERTY OWNER, CONTRACTOR AND AUTHORIZED REPRESENTATIVES SHALL PROVIDE PICKUP, REMOVAL AND DISPOSAL OF LITTER WITHIN THE PROJECT LIMITS AND SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE AREA FROM THE EDGE OF PAVEMENT TO THE PROPERTY LINE WITHIN THE CITY'S RIGHT-OF-WAY IN ACCORDANCE WITH CITY CODE SECTION 41.08 (g).

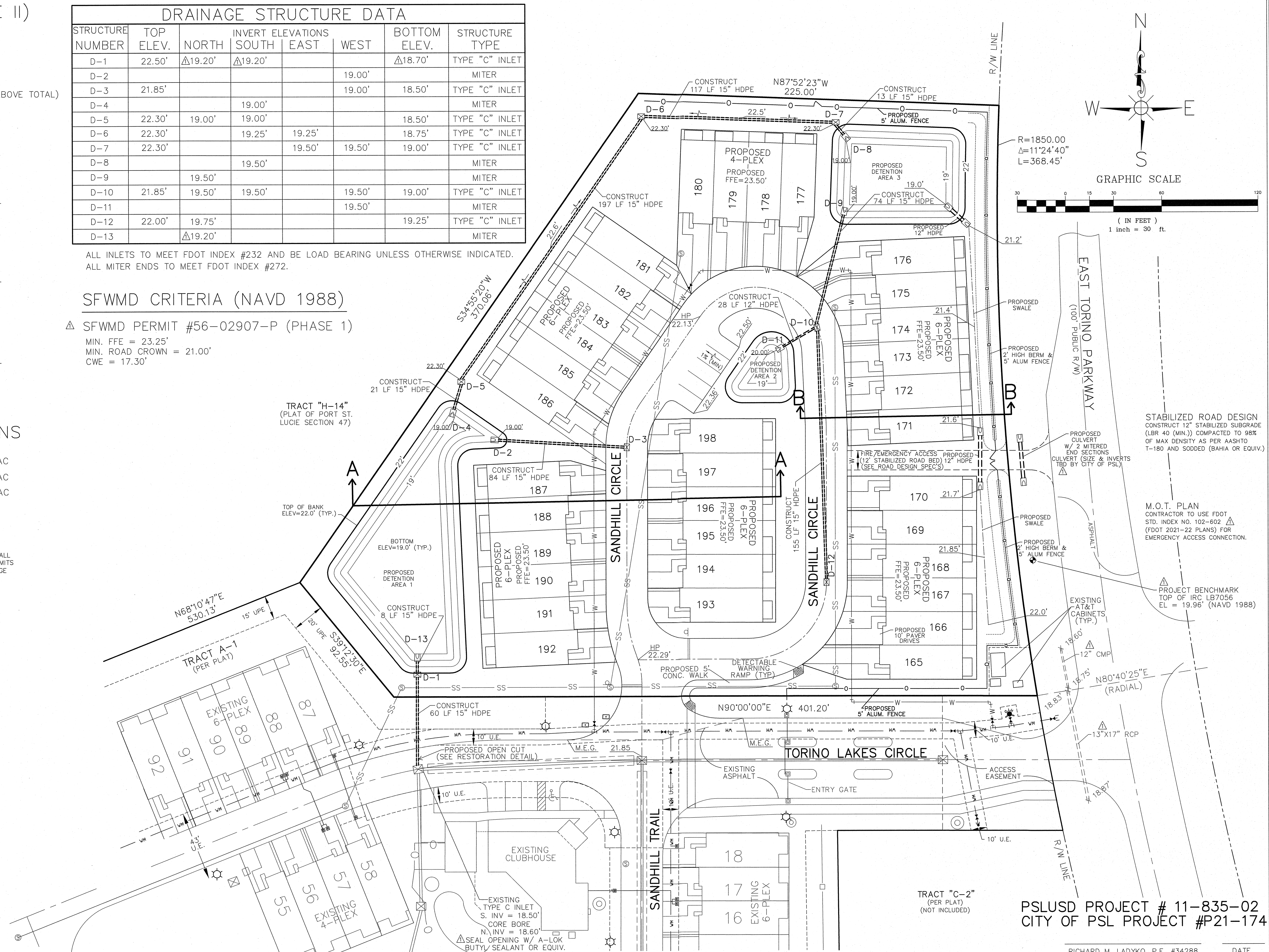
DRAINAGE STRUCTURE DATA						
STRUCTURE NUMBER	TOP ELEV.	NORTH	INVERT ELEVATIONS			STRUCTURE TYPE
			SOUTH	EAST	WEST	
D-1	22.50'	Δ19.20'	Δ19.20'			TYPE "C" INLET
D-2	21.85'				19.00'	MITER
D-3	21.85'				19.00'	TYPE "C" INLET
D-4			19.00'			MITER
D-5	22.30'	19.00'	19.00'		18.50'	TYPE "C" INLET
D-6	22.30'		19.25'	19.25'	18.75'	TYPE "C" INLET
D-7	22.30'		19.50'	19.50'	19.00'	TYPE "C" INLET
D-8		19.50'				MITER
D-9		19.50'				MITER
D-10	21.85'	19.50'	19.50'		19.50'	TYPE "C" INLET
D-11					19.50'	MITER
D-12	22.00'	19.75'			19.25'	TYPE "C" INLET
D-13		Δ19.20'				MITER

ALL INLETS TO MEET FDOT INDEX #232 AND BE LOAD BEARING UNLESS OTHERWISE INDICATED.
ALL MITER ENDS TO MEET FDOT INDEX #272.

SFWMD CRITERIA (NAVD 1988)

Δ SFWMD PERMIT #56-02907-P (PHASE 1)

MIN. FFE = 23.25'
MIN. ROAD CROWN = 21.00'
CWE = 17.30'



PAVING, GRADING, & DRAINAGE PLAN

PREPARED FOR

TORINO LAKES PHASE 4

REVISIONS

NO.	DESCRIPTION	BY	DATE
1	ADD SFWMD DATA; MISC. LABELS; OMIT WEST SIDEWALK; ADD BM	JOE M	9/16/21

FIELD	JPH	3/06/20
CALCS.	RCL	6/27/18
DRAWN	MRL	3/06/20
CHECKED	RML	3/09/20
FILE REF.	FIELD BK/PG	20,2680-8
	GPS/CALC SHEET	

ATLANTIC CIVIL ENGINEERING, INC.

CONSULTING ENGINEERS

2552 PETERS ROAD SUITE D

FORT PIERCE, FLORIDA 34945

(772) 398-1520 PHONE (772) 398-1521 FAX

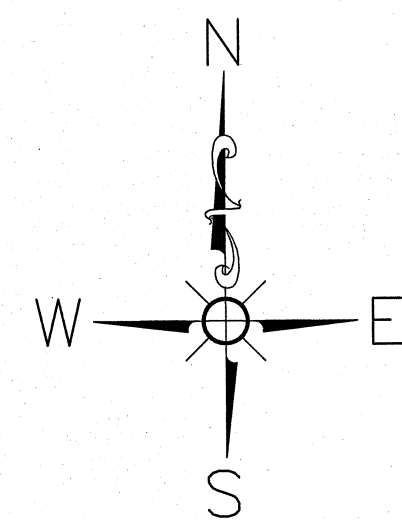
CERTIFICATE OF AUTHORIZATION #32020

DATE: 8-4-21

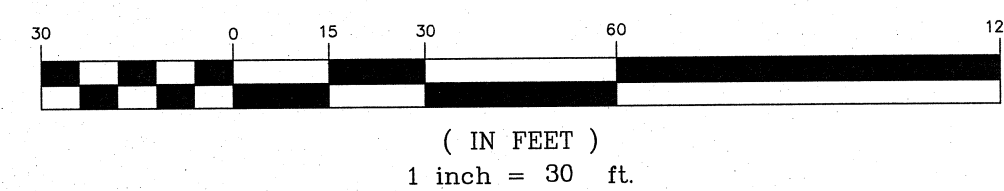
SCALE: 1"=30'

JOB No. **21.0114-2**

SHEET **4** OF **13**



GRAPHIC SCALE



SANITARY STRUCTURES

STRUCTURE NUMBER	TOP ELEV.	INVERT NORTH	INVERT SOUTH	INVERT EAST	INVERT WEST
EXIST (**)	22.13'	16.45'			16.35'
S-1	22.30'		18.59'		
S-2	22.60'	17.50'		17.50'	17.40'
S-3	22.40'		16.78'	16.88'	
S-4	22.34'	18.19' Δ			18.09' Δ
S-5	22.23'		19.14' Δ		

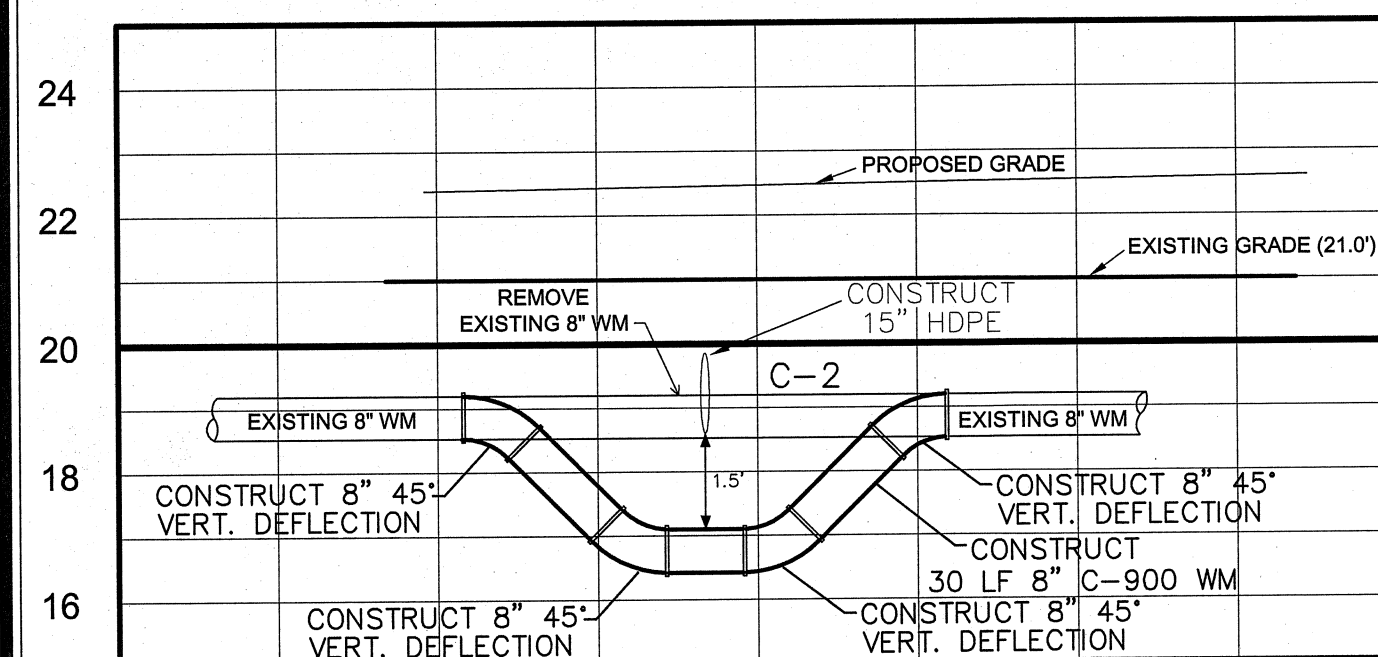
Δ** CORE BORE NORTH INV. ELEV=16.45' AND WATERTIGHT WITH APPROVED PSLUSD SEALANT AND PROCEDURES.

CONFLICT TABLE

CONFLICT NUMBER	GROUND ELEV.	UPPER PIPE	UPPER PIPE BOTTOM ELEV.	LOWER PIPE	LOWER PIPE TOP ELEV.	SEPARATION
1	22.3'	EXIST. 8" WM	18.8'	8" SAN	17.3'	1.5'
2 (*)	22.1'	15" HDPE	18.8'	EXIST. 8" WM	19.2'	* ADJUST WM
3	22.4'	15" HDPE	19.5'	8" SAN	17.6'	1.9'
4	22.5'	8" WM	19.6'	8" SAN	18.1'	1.5'
5	22.5'	15" HDPE	19.0'	8" WM	17.5'	1.5'
6	22.5'	8" SAN	18.4'	8" WM	16.9'	1.5'
7	22.4'	15" HDPE	19.3'	8" WM	17.8'	1.5'

* LOWER EXISTING 8" WM TO TOP ELEV=17.30' SEPARATION=1.5' (STORM OVER WATER)

TRACT "H-14"
(PLAT OF PORT ST. LUGIE SECTION 47)



Δ C-2 CONFLICT PROFILE

GENERAL UTILITY NOTES

- 1) ALL MANHOLES LOCATED IN UNPAVED AREAS SHALL HAVE THE RIM ELEVATION 2" HIGHER THAN THE SURROUNDING GROUND. A CONCRETE COLLAR SHALL BE PLACED AROUND EACH MANHOLE AND SLOPED AWAY FROM THE RIM TO MATCH EXISTING GROUND.
- 2) CONTRACTOR TO PROVIDE 5' MINIMUM SEPARATION BETWEEN INSTALLED WATER MAIN AND SEWER SERVICE CLEAN-OUT.
- 3) WATER MAINS OVER SANITARY LATERALS WHERE POSSIBLE.

UTILITY PLAN

TORINO LAKES PHASE 4

- REVISIONS -

ADD HYDRANT; ADD SAN SEWER SLOPES; MISC REVISIONS & LABELLING	BY	DATE
	JOE M	9/30/21

DRAWN	BY	DATE
DESIGNED	MRL	6/26/21
CHECKED		
QA/QC		
SURVEY REF.	DRAWING NAME	

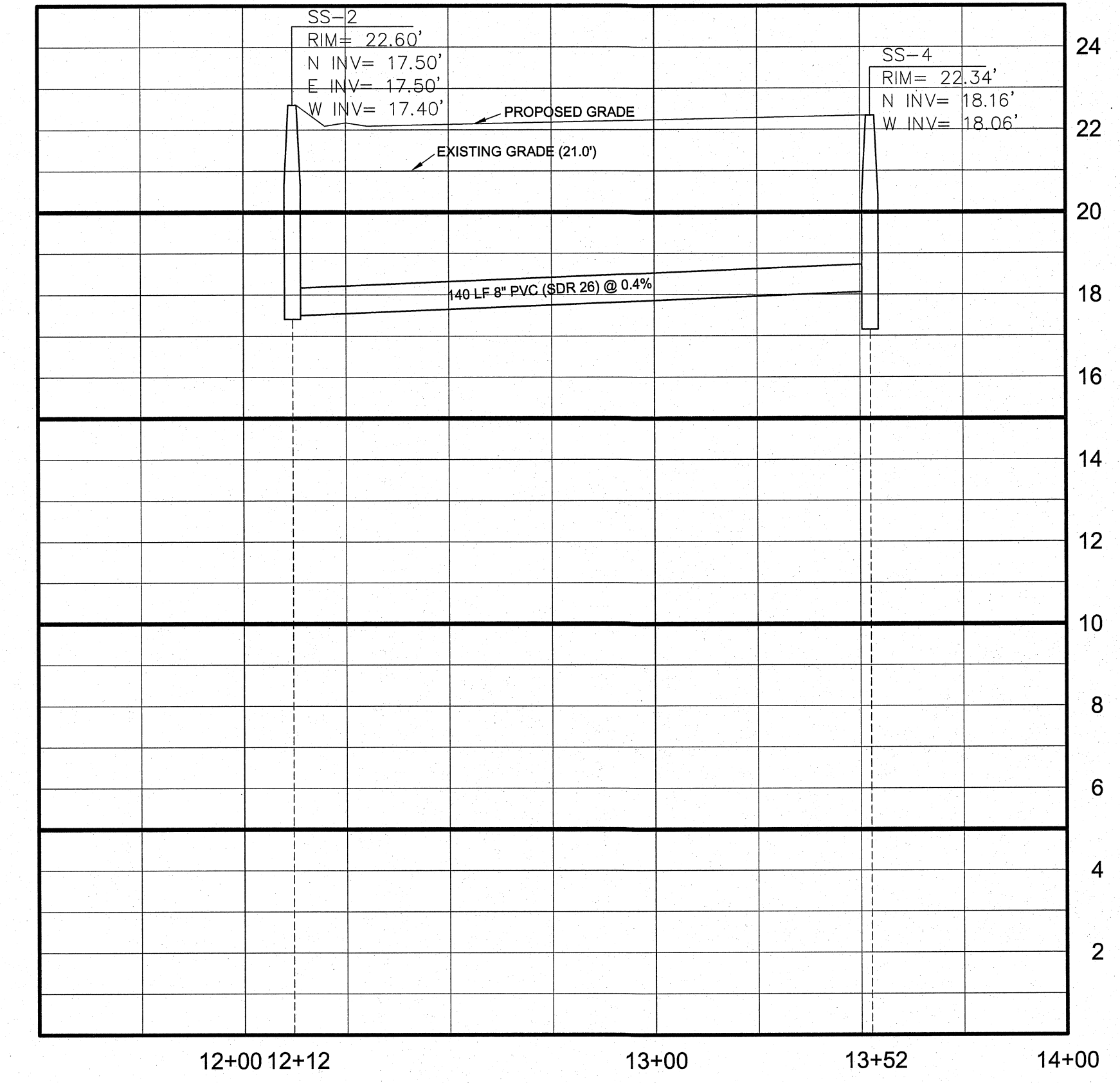
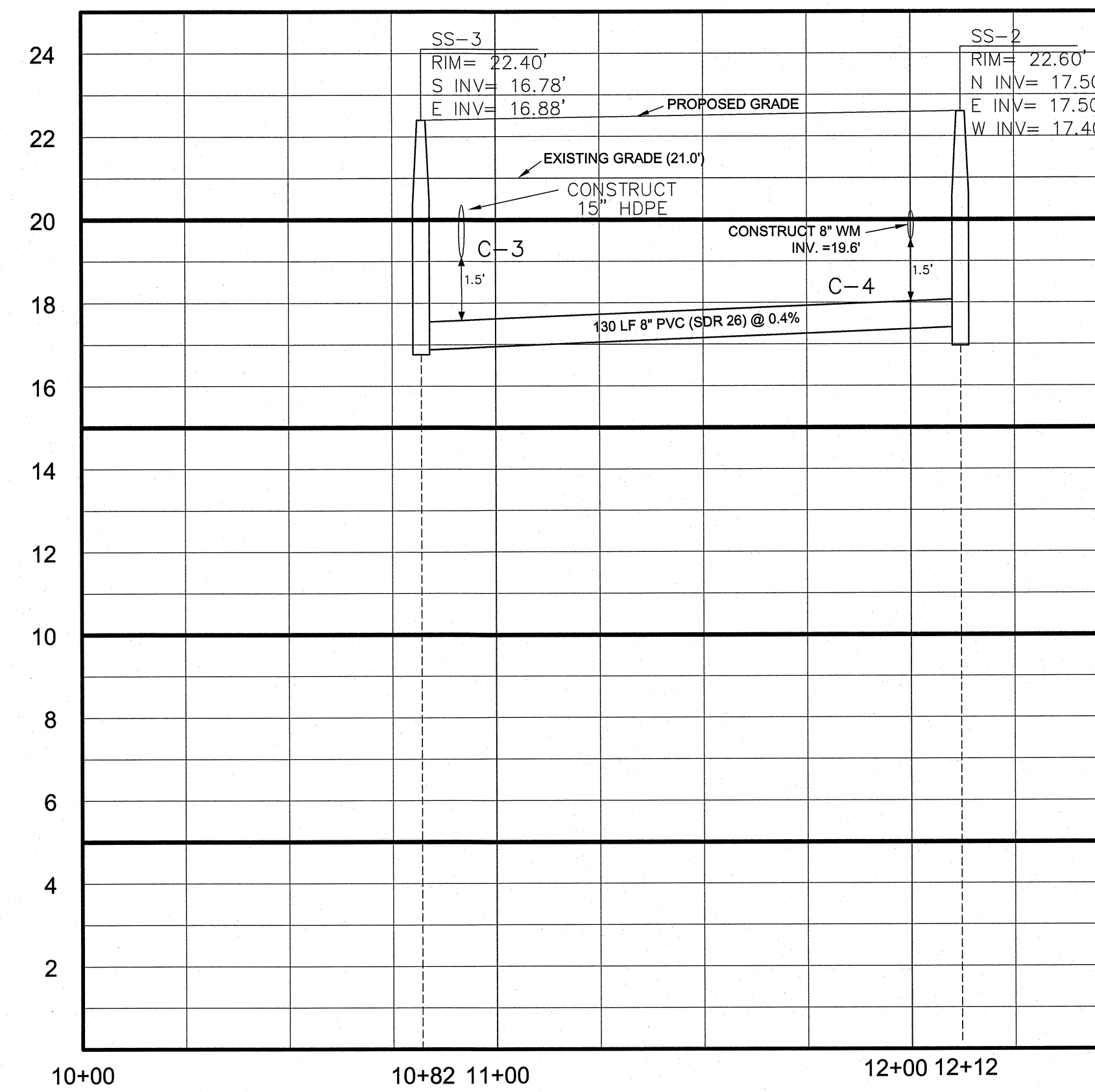
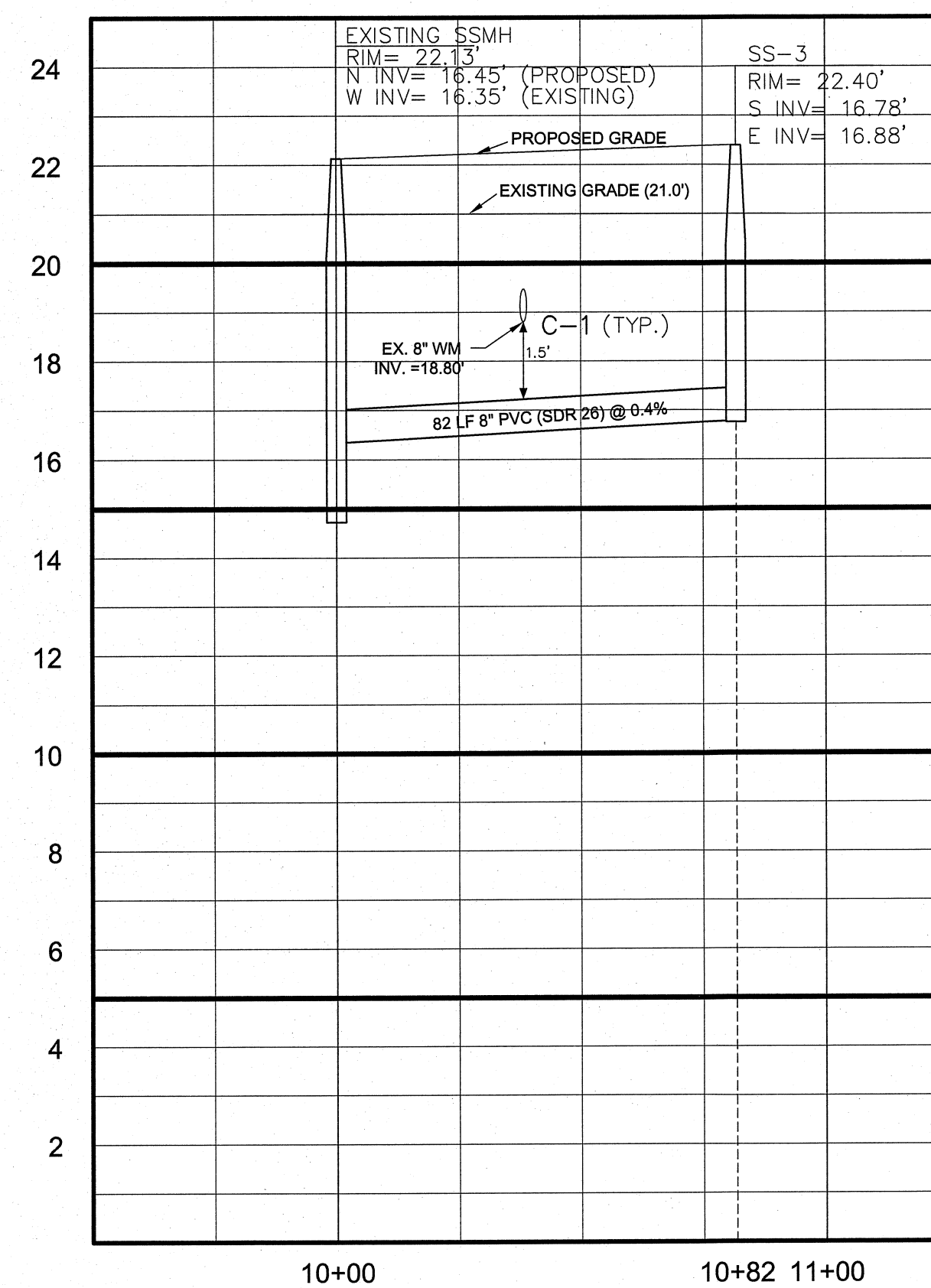
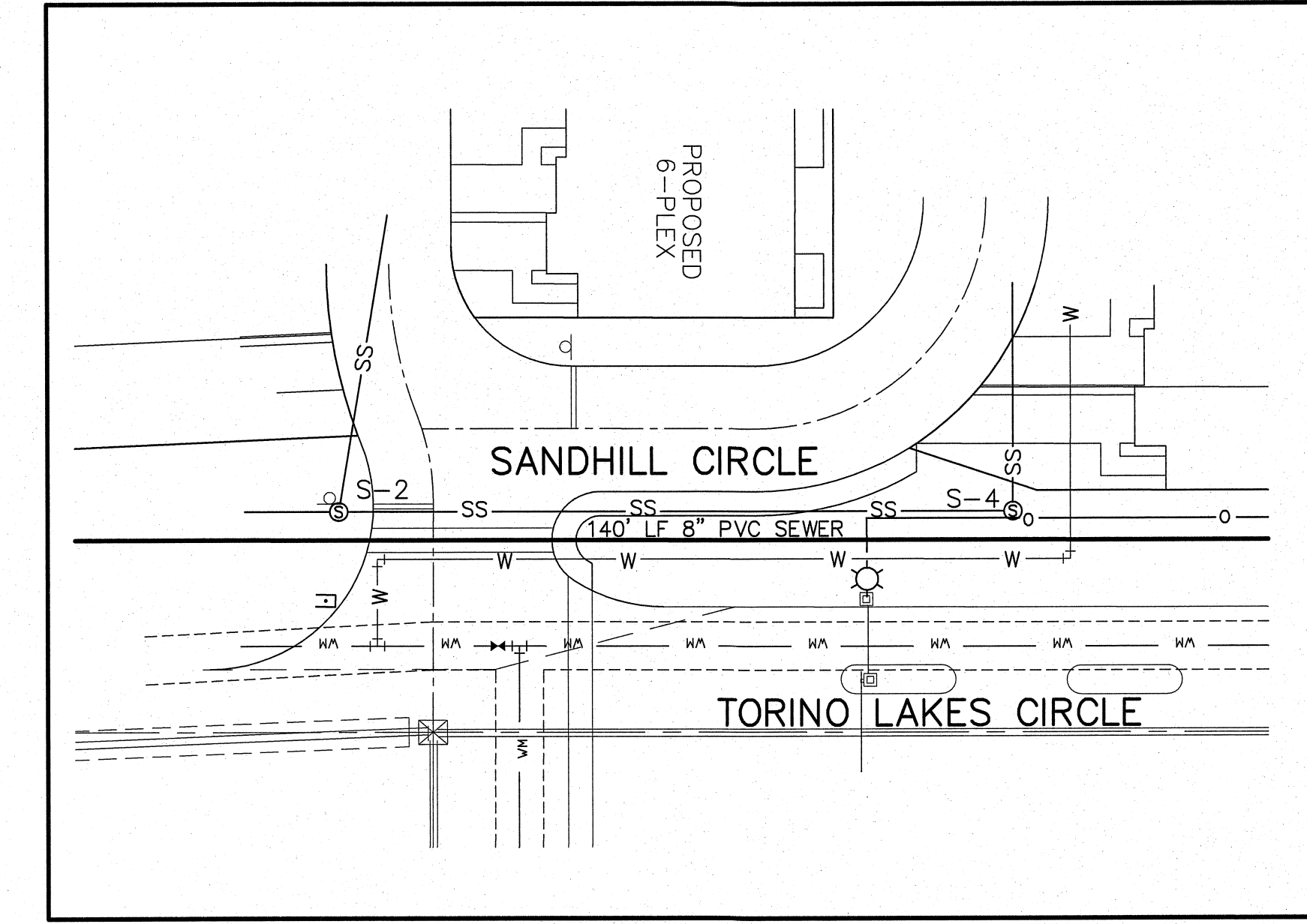
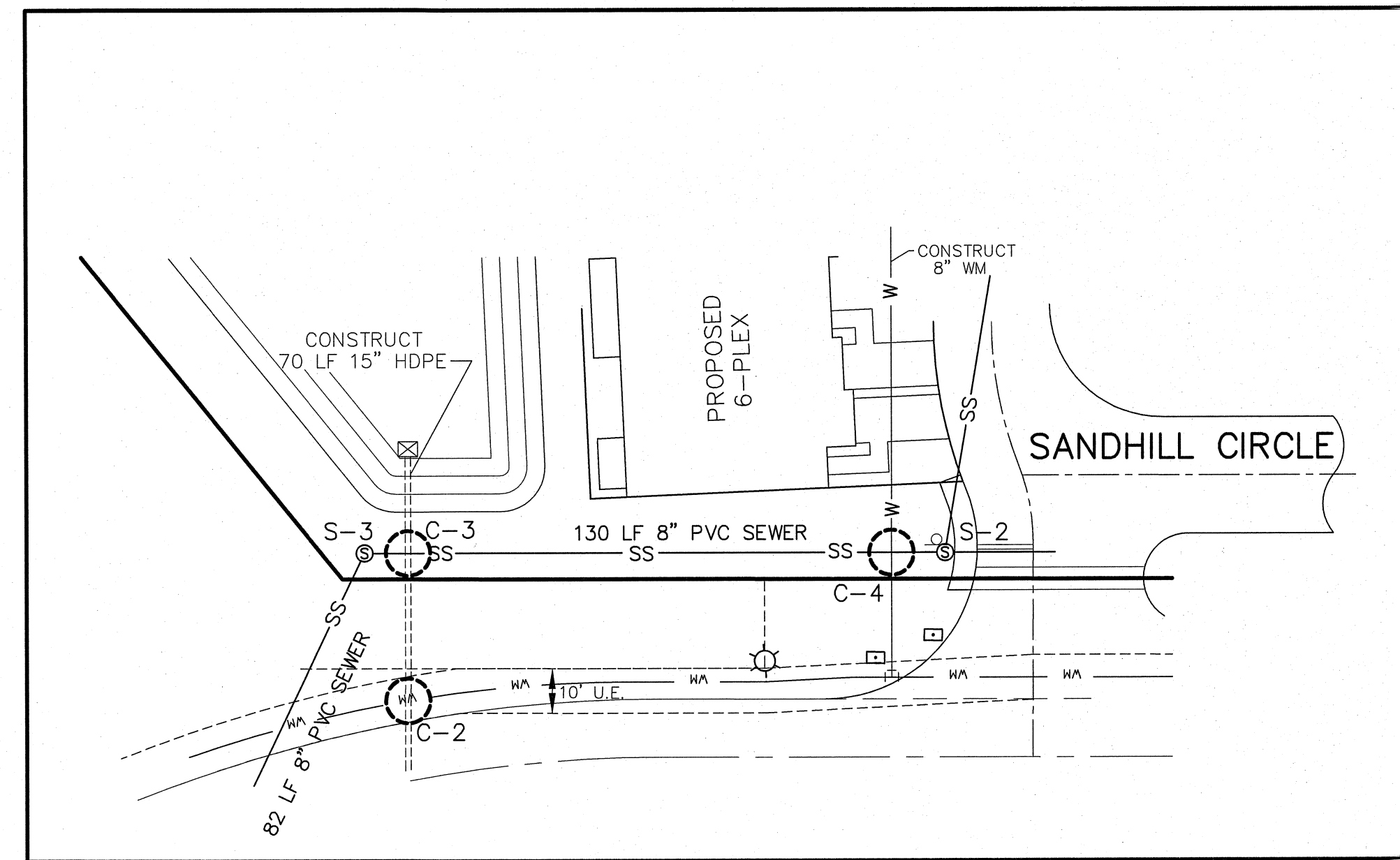
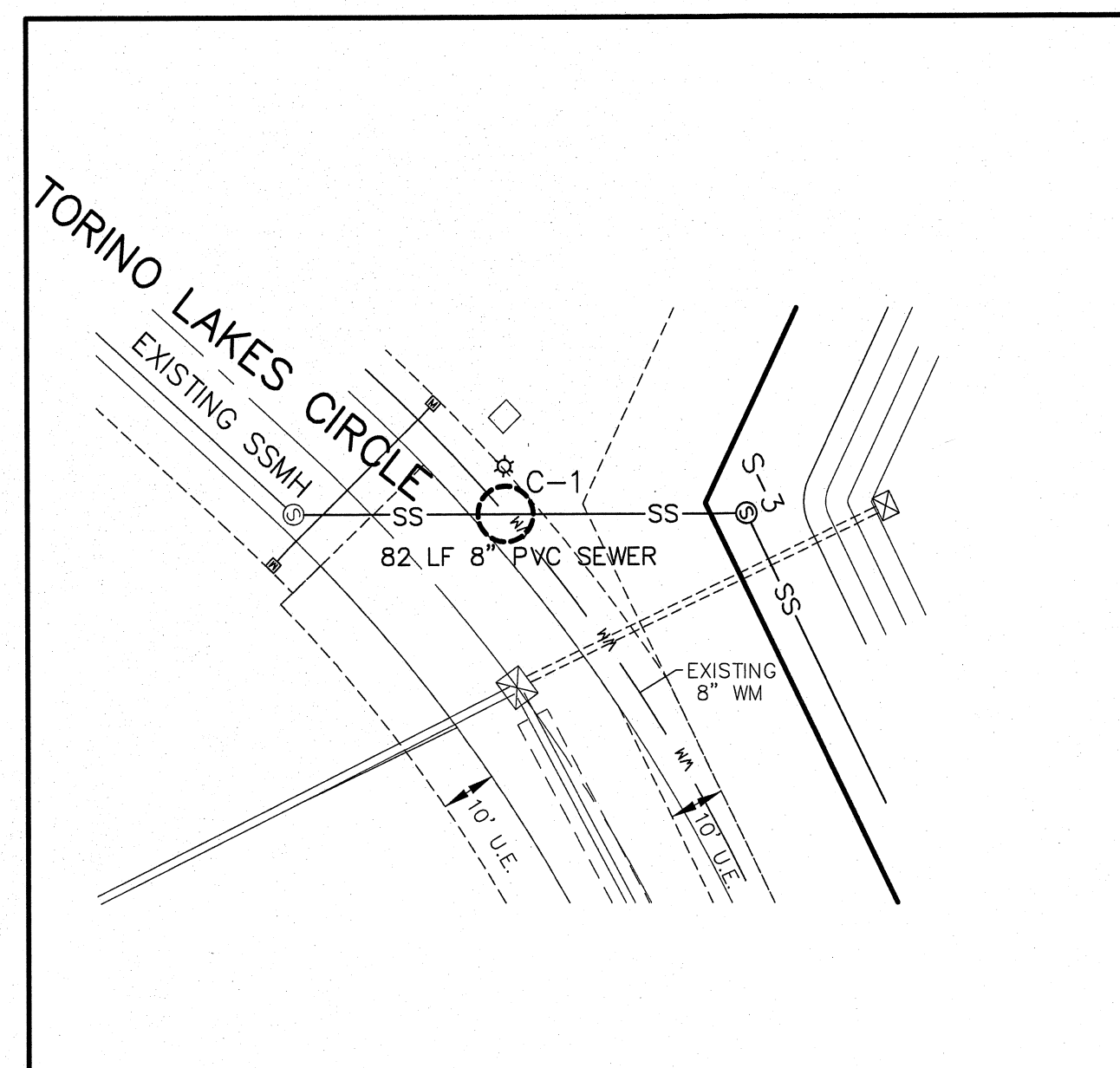


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2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

DATE: 5/14/21
HORIZ SCALE: 1"=30'
VERT SCALE: N/A

JOB No. 2021.0114-2
SHEET 5 OF 13

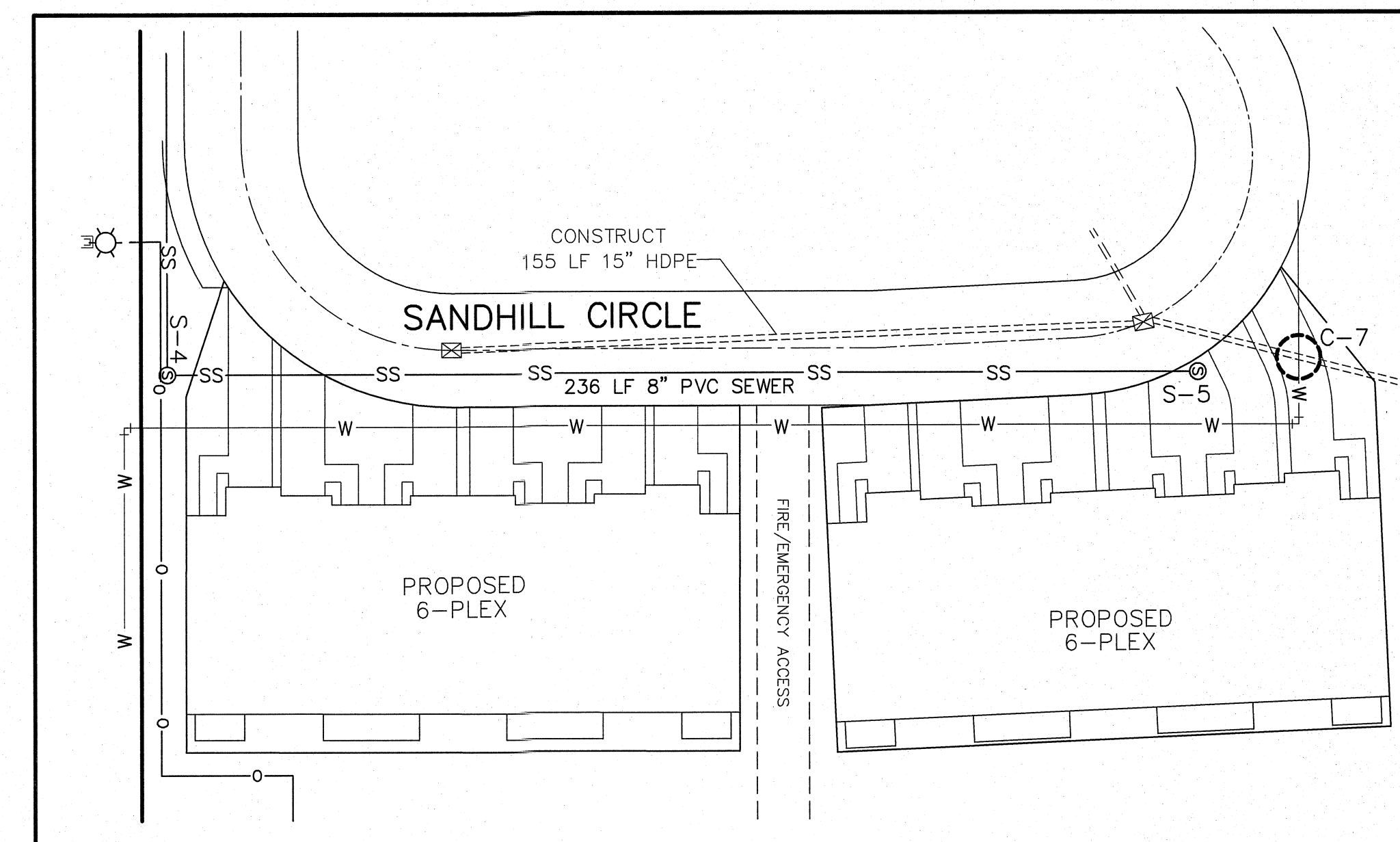
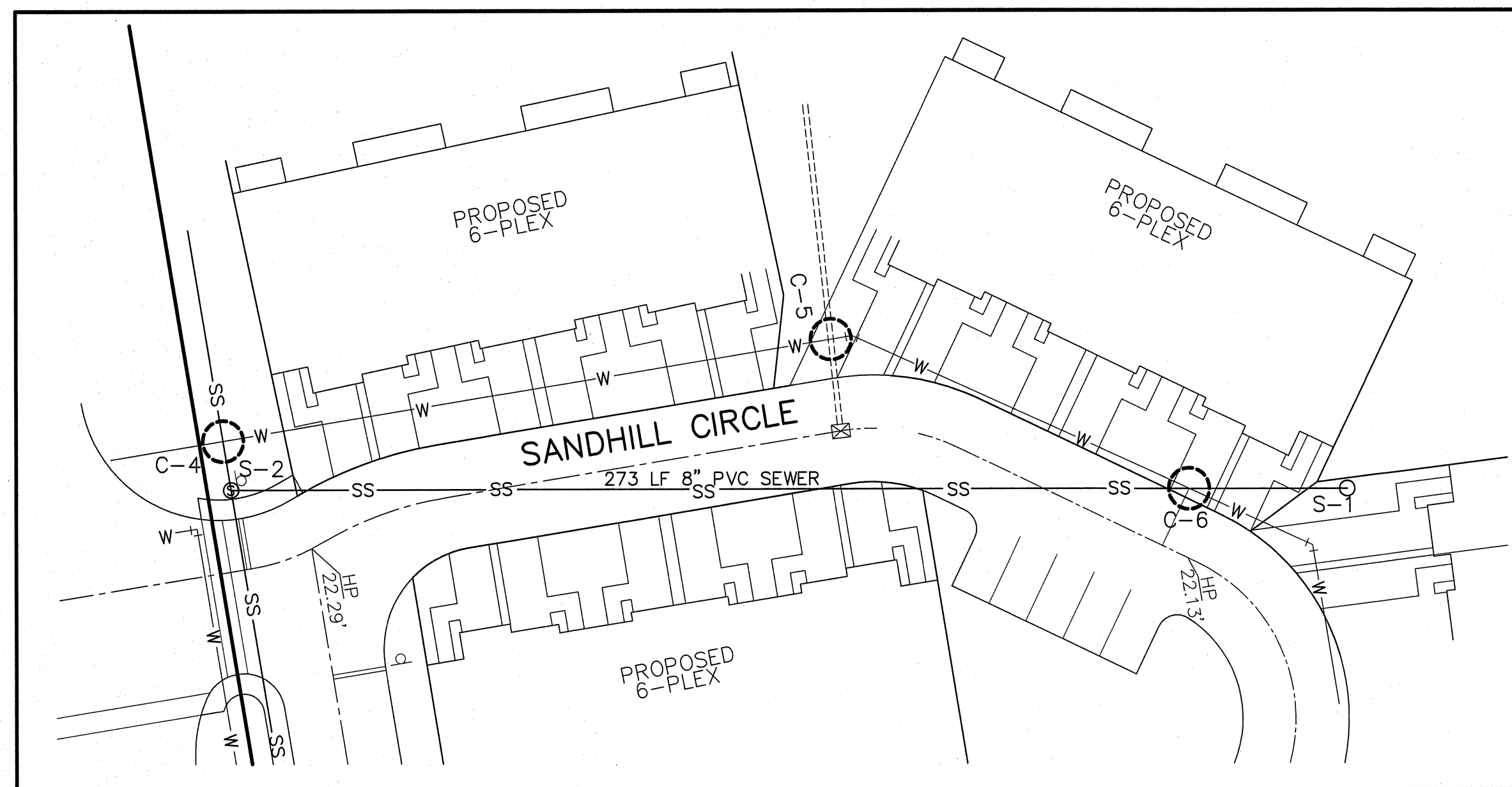
RICHARD M. LADYKO FL P.E. No. 34288 DATE



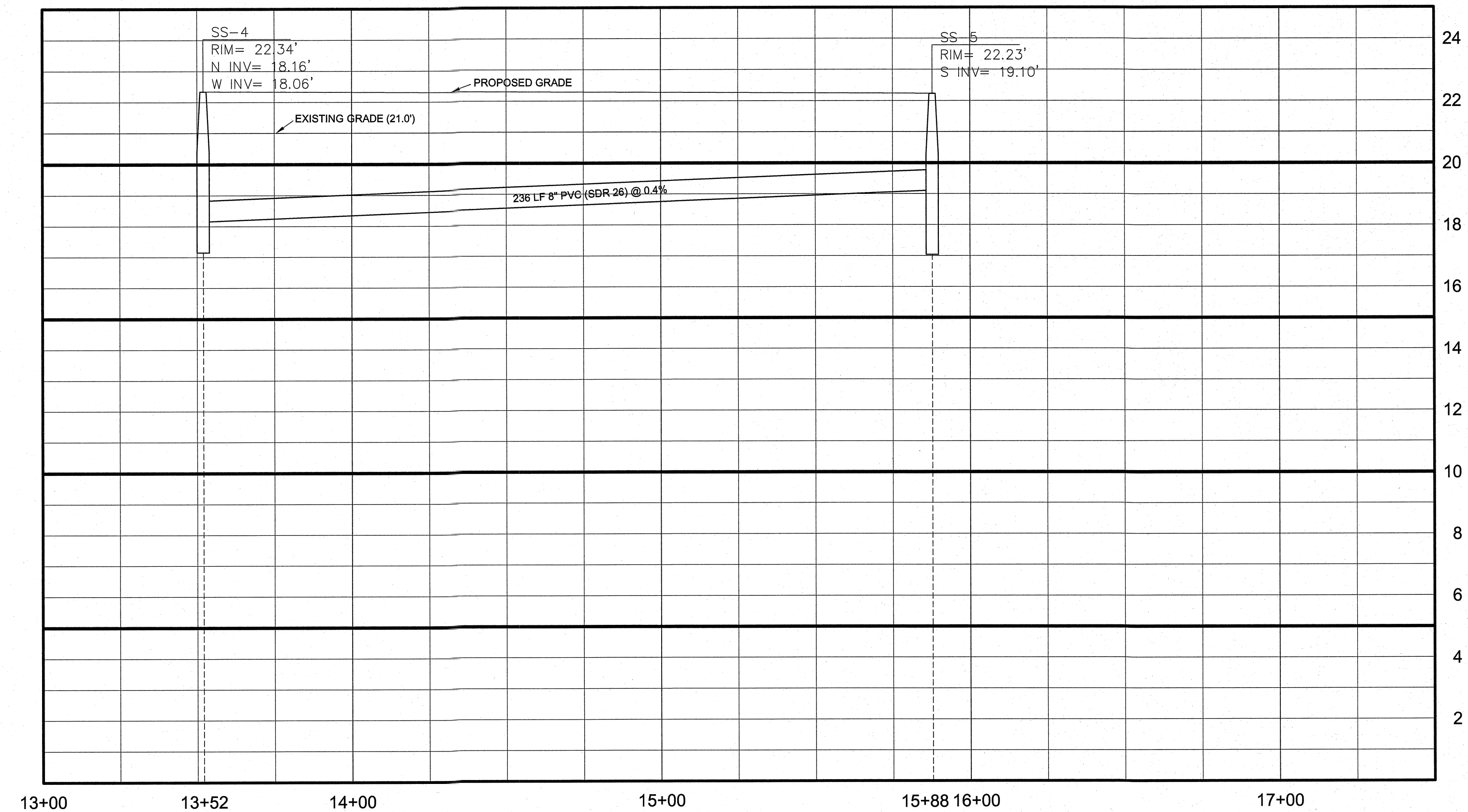
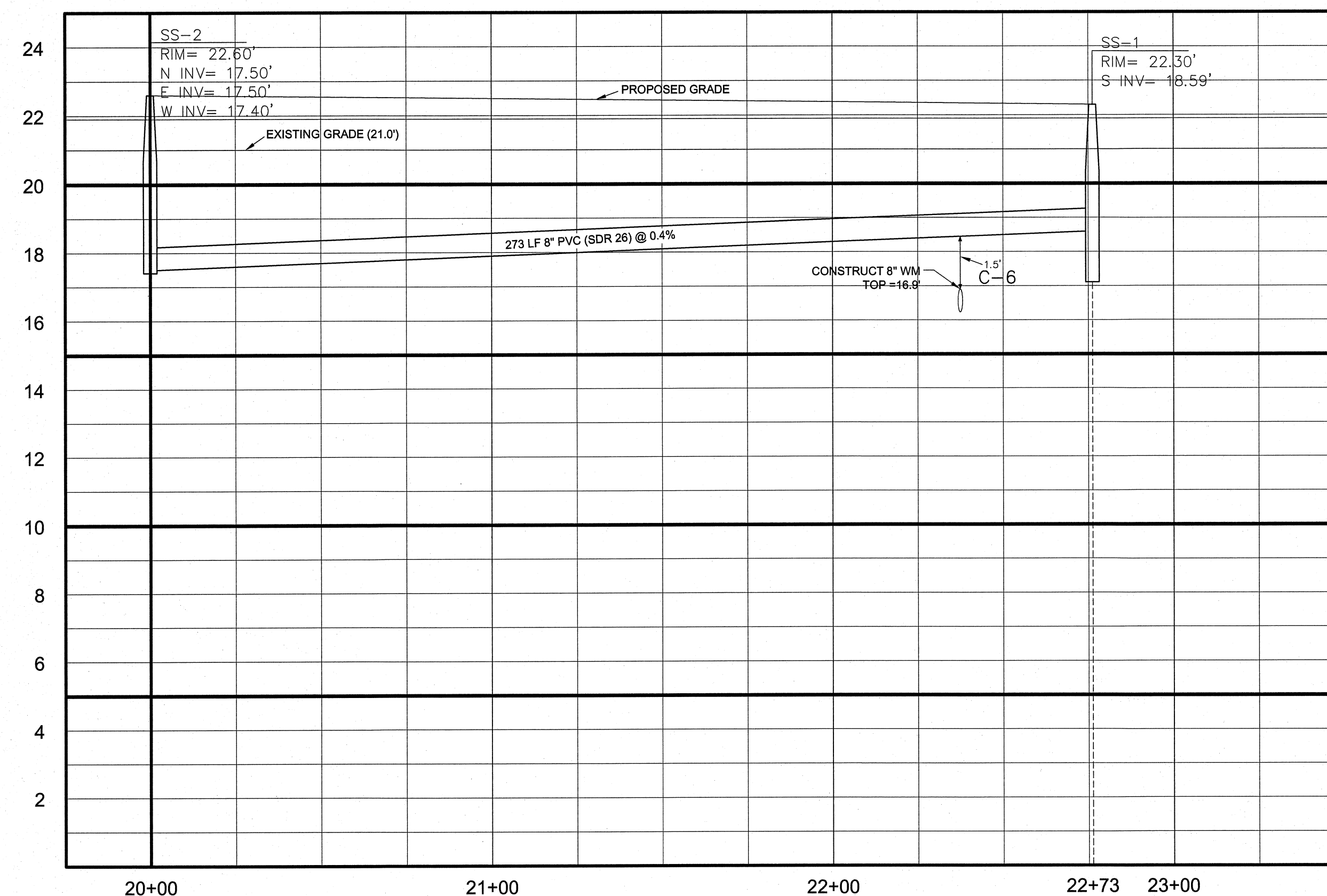
PSLUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

PLAN AND PROFILE PREPARED FOR TORINO LAKES PHASE 4		- REVISIONS - <table border="1"> <tr> <th>BY</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		BY	DATE							<table border="1"> <tr> <th>BY</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		BY	DATE							ATLANTIC CIVIL ENGINEERING, INC. CONSULTING ENGINEERS 2552 PETERS ROAD SUITE D FORT PIERCE, FLORIDA 34945 (772) 398-1520 PHONE (772) 398-1521 FAX CERTIFICATE OF AUTHORIZATION #32020		DATE: 8-4-21 SCALE: 1"=30' JOB No. 21.0114-2 SHEET 6 OF 13	
BY	DATE																								
BY	DATE																								



LERDY



HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 3'

PSLUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

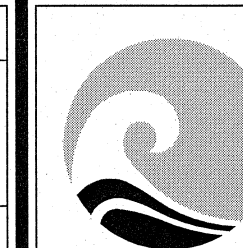
RICHARD M. LADYKO, P.E. #34288 DATE

PLAN AND PROFILE
PREPARED FOR
TORINO LAKES PHASE 4

- REVISIONS -

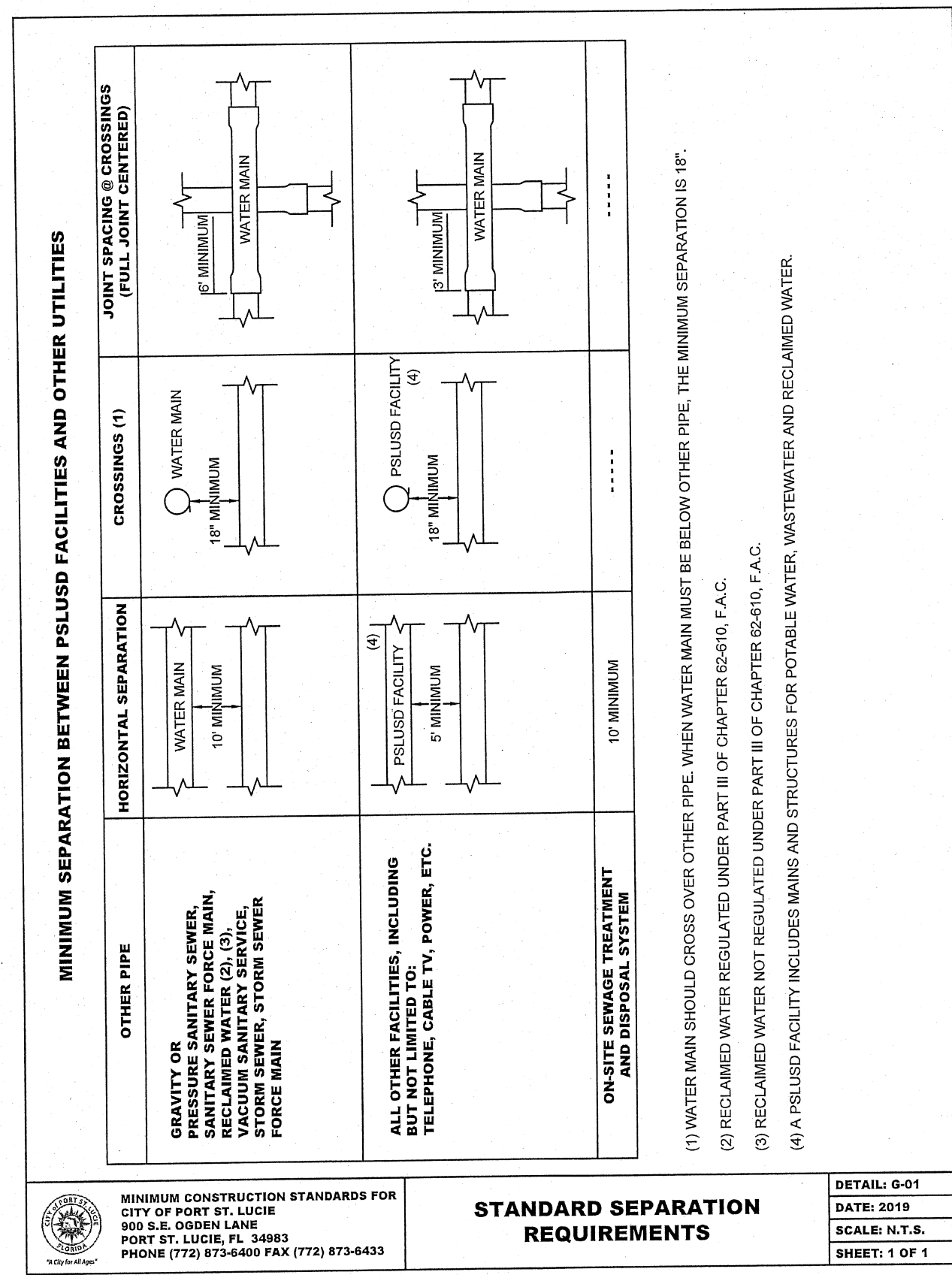
BY DATE

FILE REF.	FIELD BK/PG
20.2680-8	SPS/CALC SHEET

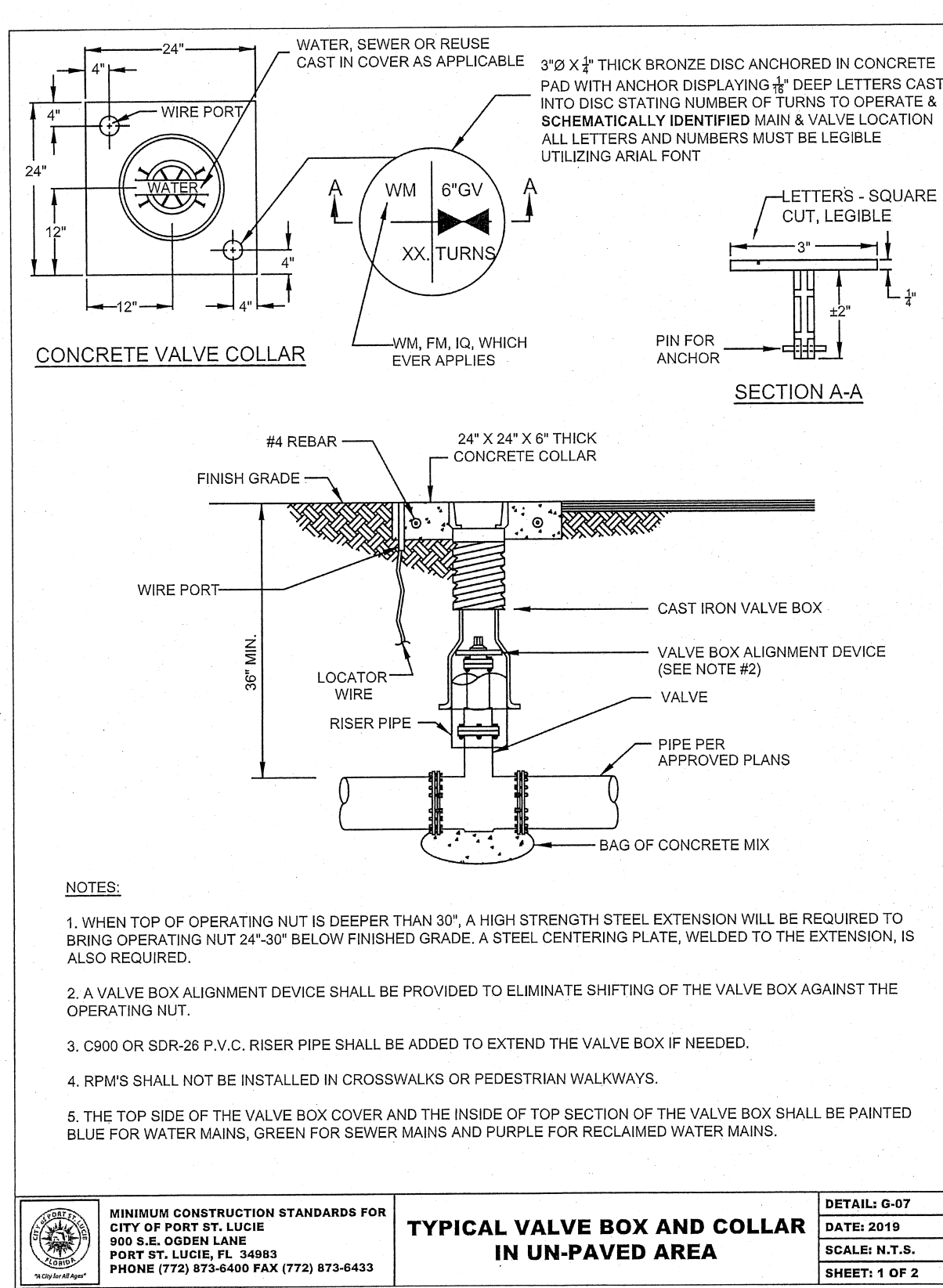


ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

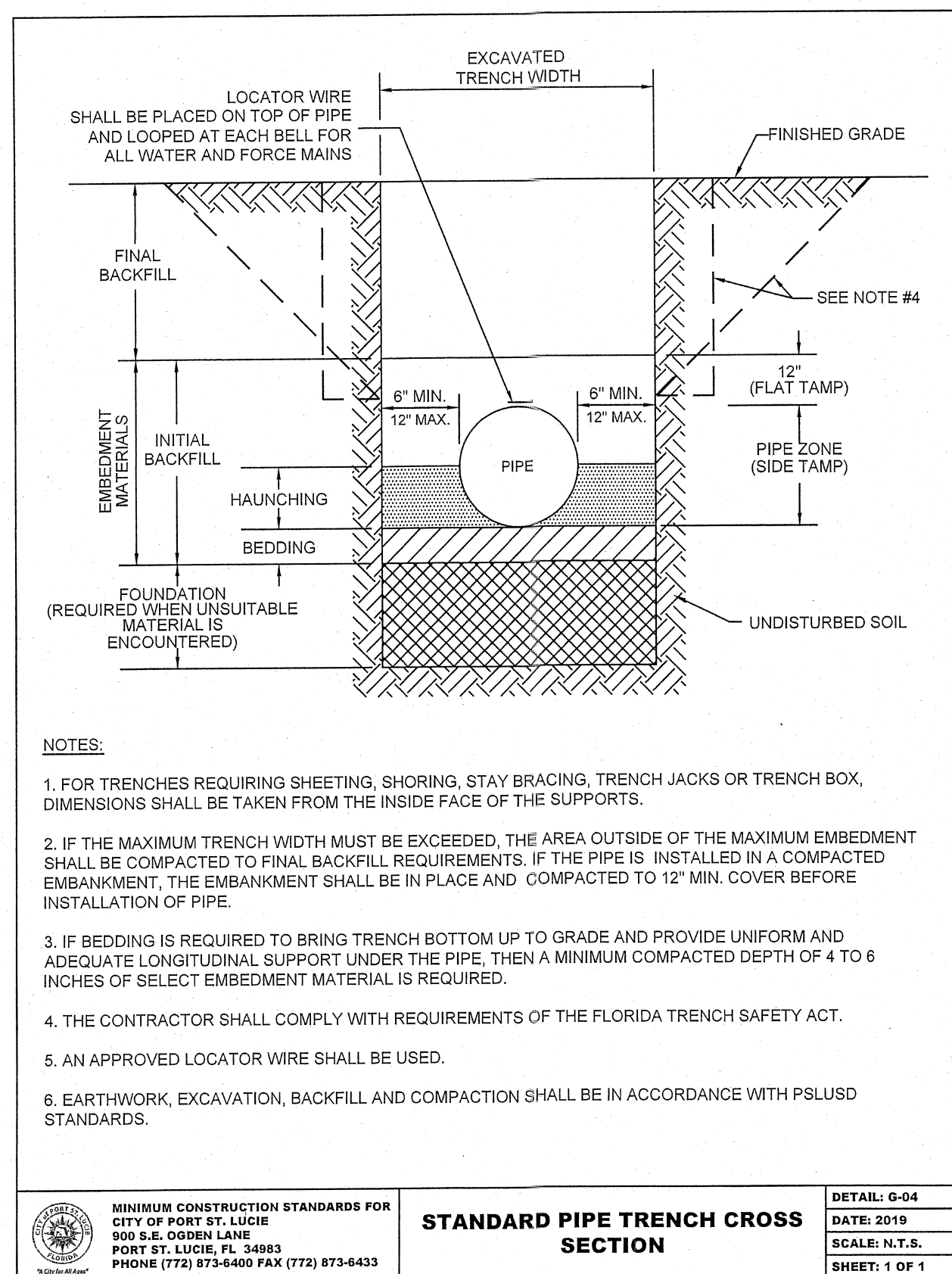
DATE: 8-4-21
SCALE: 1"=30'
JOB No. **21.0114-2**
SHEET **7** OF **13**



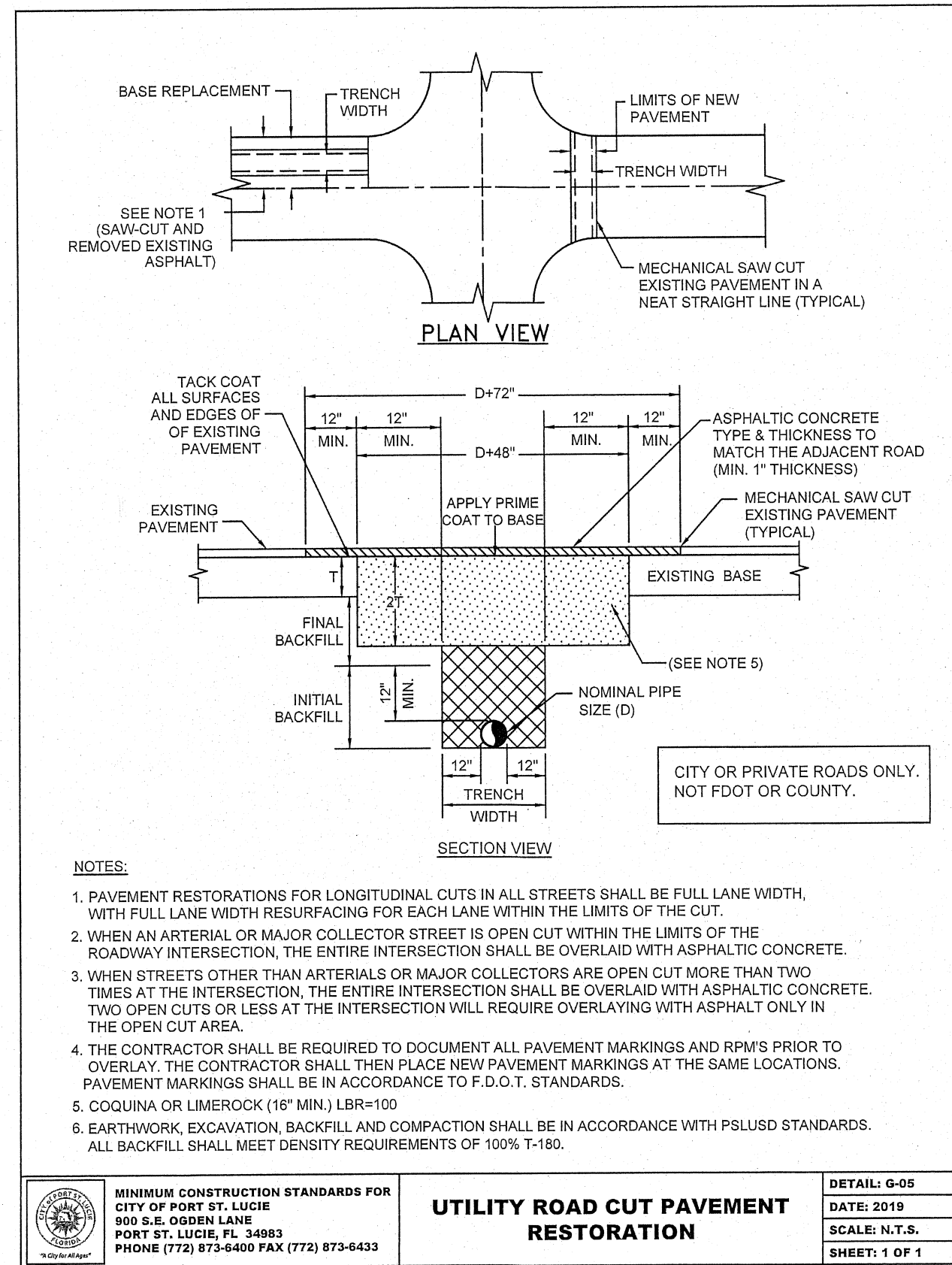
STANDARD SEPARATION
REQUIREMENTS



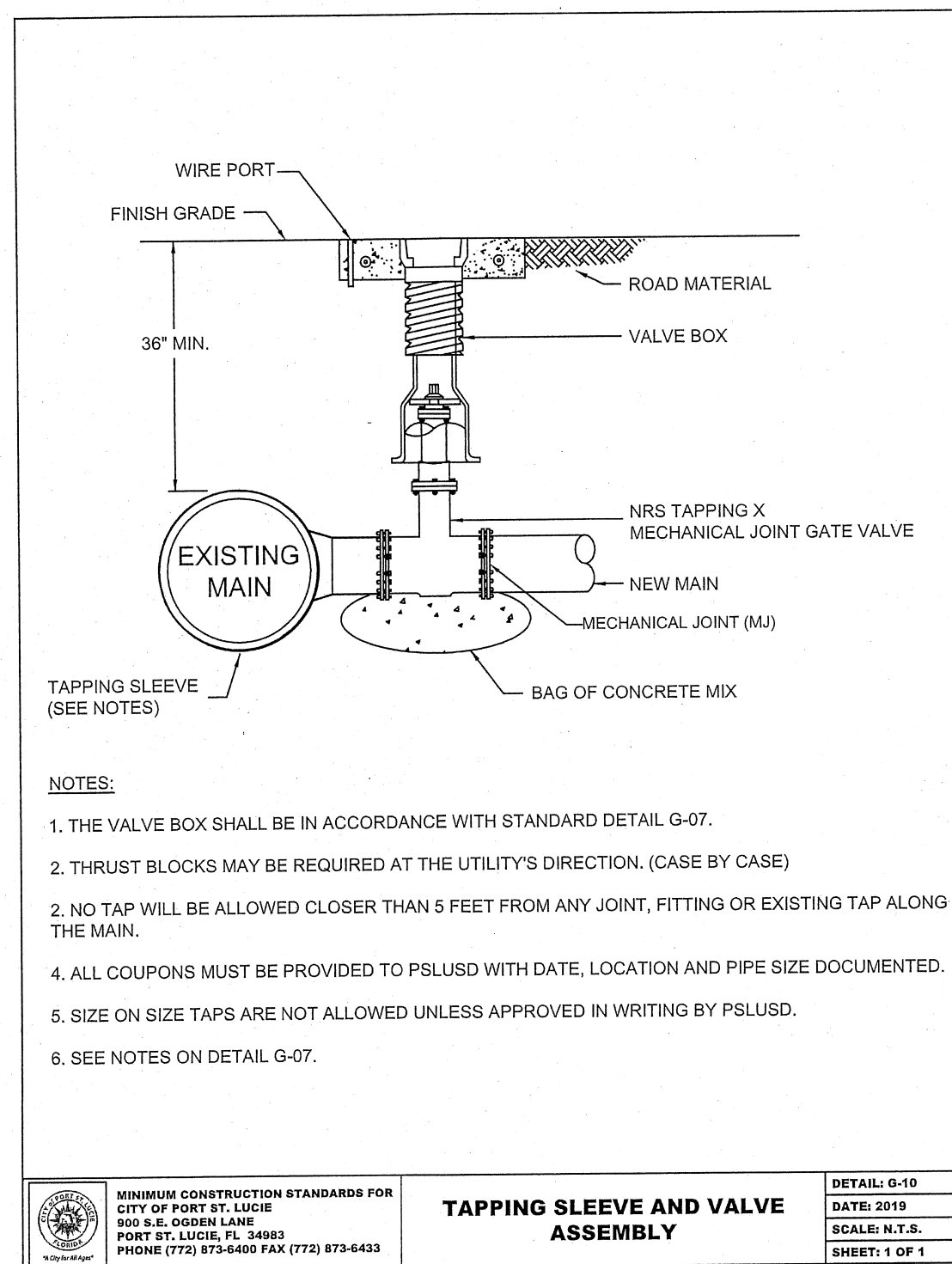
TYPICAL VALVE BOX AND COLLAR
IN UN-PAVED AREA



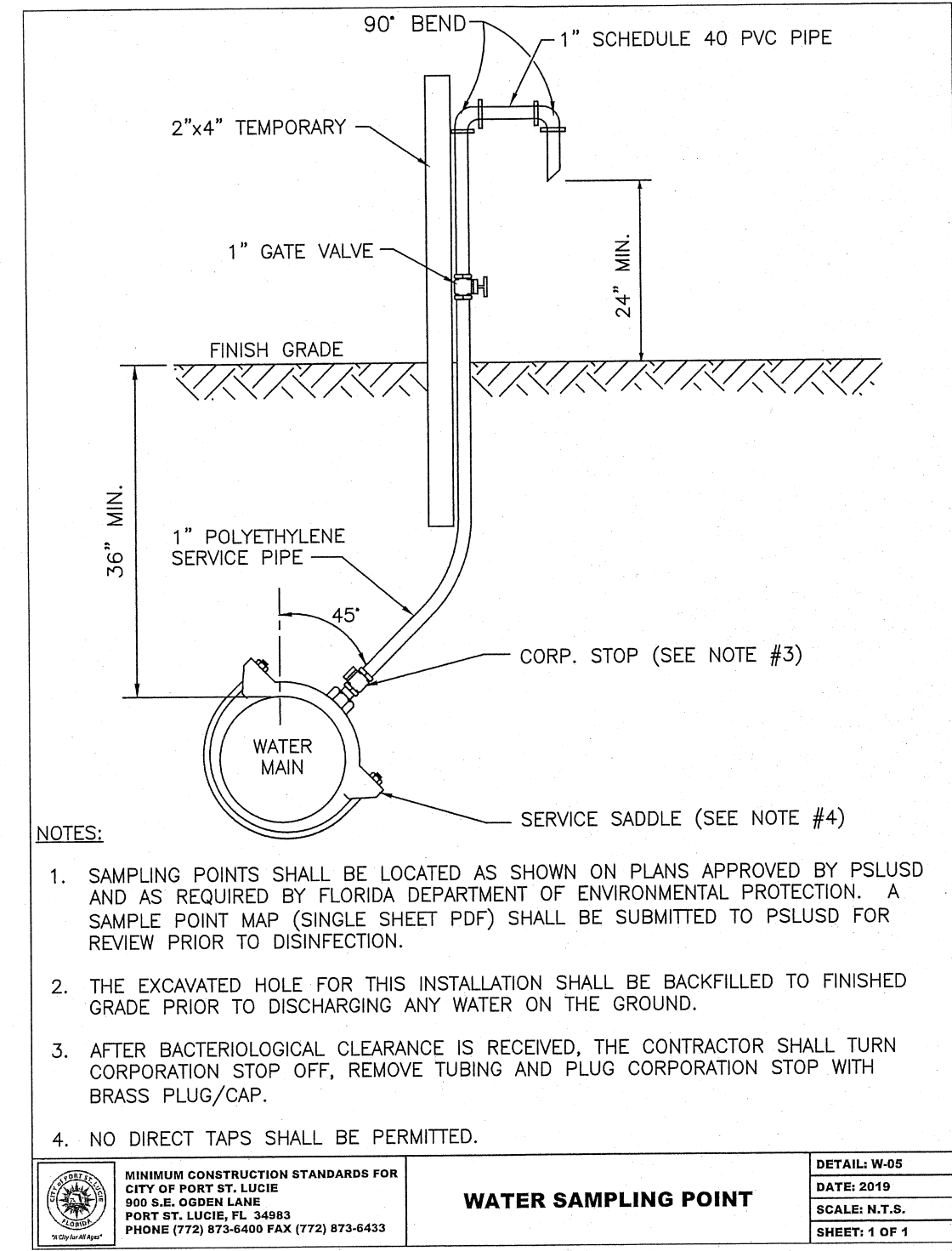
STANDARD PIPE TRENCH CROSS
SECTION



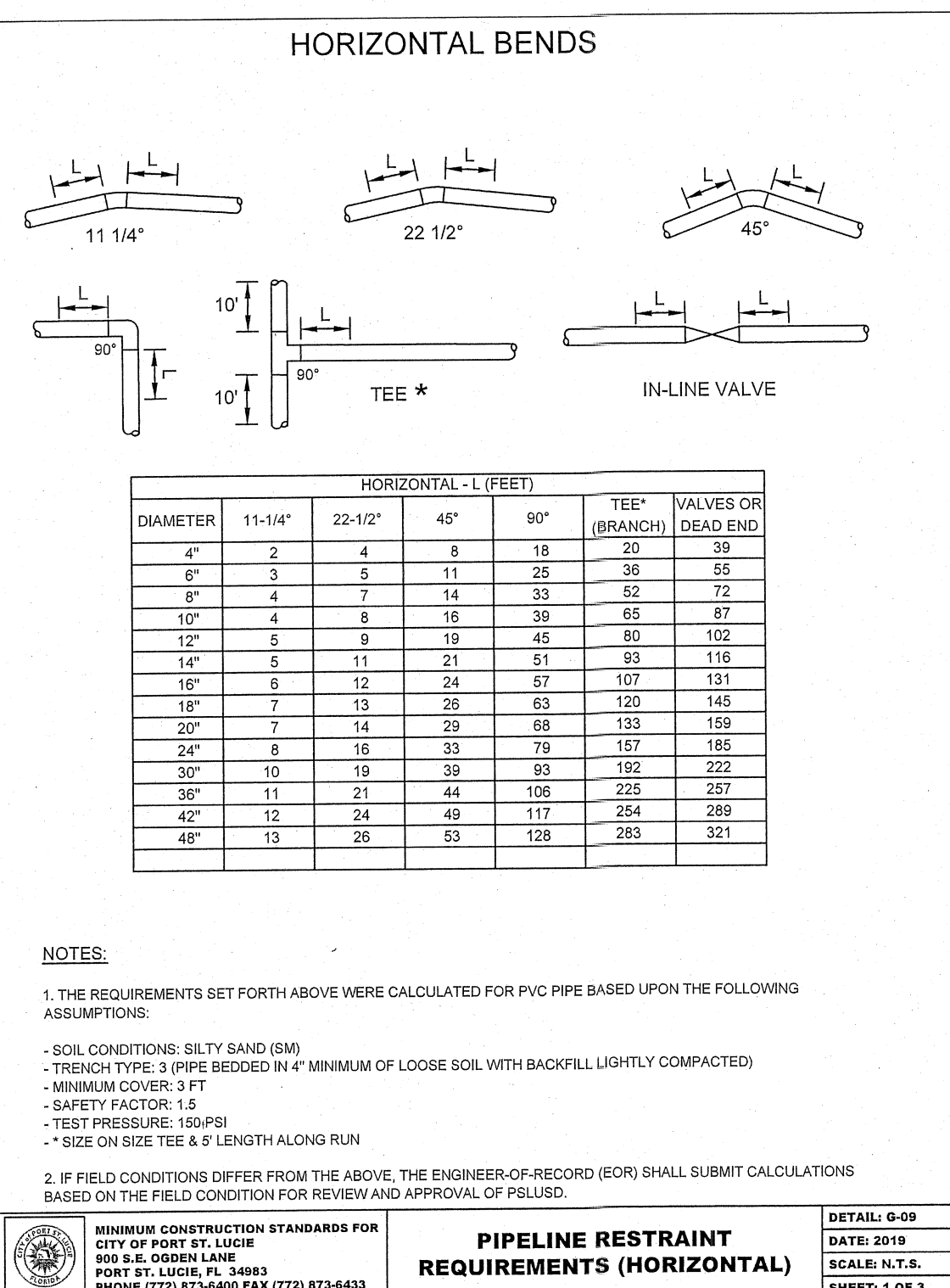
UTILITY ROAD CUT PAVEMENT
RESTORATION



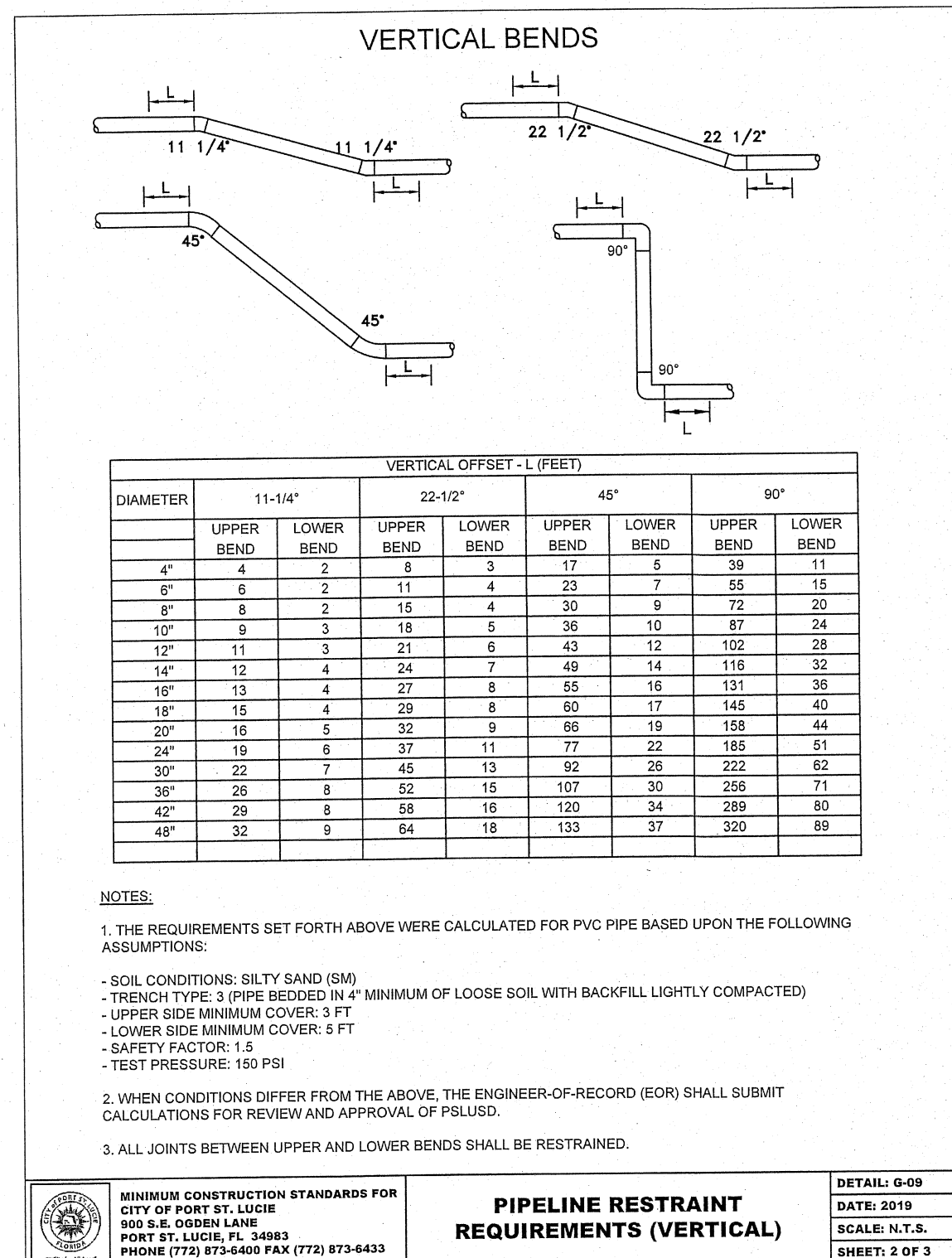
TAPPING SLEEVE AND
VALVE ASSEMBLY



WATER SAMPLING POINT



PIPELINE RESTRAINT
REQUIREMENTS (HORIZONTAL)



PIPELINE RESTRAINT
REQUIREMENTS (VERTICAL)

PSUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

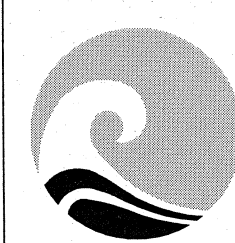
WATER AND SEWER DETAILS

TORINO LAKES PHASE 4

- REVISIONS -

BY DATE

DRAWN
DESIGNED
CHECKED
QA/QC
SURVEY REF
DRAWING NAME



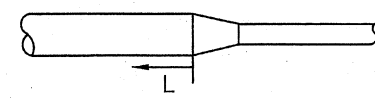
ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

DATE: 8-4-21
HORIZ SCALE: 1"=40'
VERT SCALE: N/A

JOB No. 2021.0114-2
SHEET 8 OF 13

RICHARD M. LADYKO, P.E. #34288 DATE

REDUCER



L = RETAINED LENGTH AT LARGER SIZE OF REDUCER (FEET)																
DIAMETER	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"	42"	48"		
4"		29	52	71	89	105	121	136	151	179	217	253	285	316		
6"			31	53	74	93	111	127	143	172	211	249	282	315		
8"				29	54	76	96	114	131	163	204	243	277	310		
10"					30	55	78	98	117	151	195	235	271	305		
12"						30	56	79	100	137	184	226	263	299		
14"							30	56	79	120	171	216	255	292		
16"								30	56	101	156	204	245	283		
18"									30	80	140	190	233	273		
20"										56	121	175	221	263		
24"											76	141	192	238		
30"												78	140	194		
36"													75	139		
42"														75		

NOTES:

1. THE REQUIREMENTS SET FORTH ABOVE WERE CALCULATED FOR PVC PIPE BASED UPON THE FOLLOWING ASSUMPTIONS:

- SOIL CONDITIONS: SILTY SAND (SM)
- TRENCH TYPE: 3 (PIPE BEDDED IN 4" MINIMUM OF LOOSE SOIL WITH BACKFILL LIGHTLY COMPACTED)
- MINIMUM COVER: 3 FT
- SAFETY FACTOR: 1.5
- TEST PRESSURE: 150 PSI

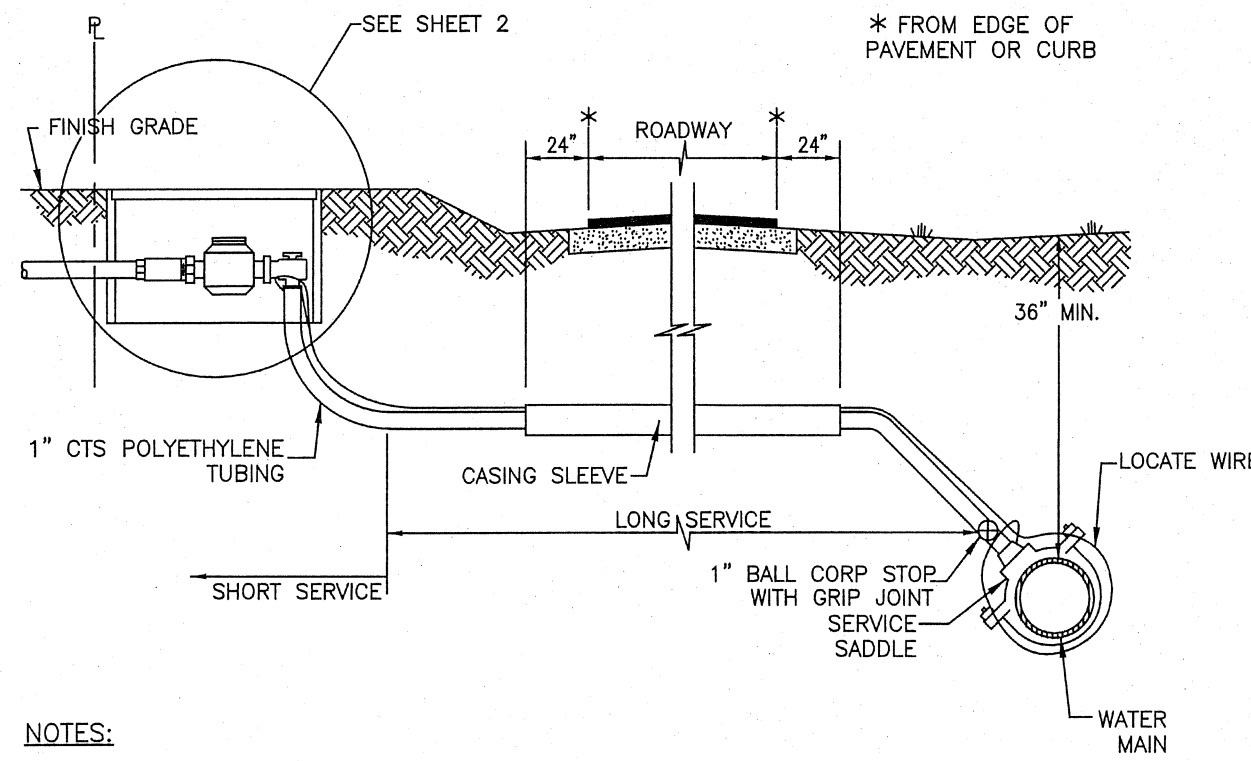
2. IF FIELD CONDITIONS DIFFER FROM THE ABOVE, THE ENGINEER-OF-RECORD (EOR) SHALL SUBMIT CALCULATIONS BASED ON THE FIELD CONDITION FOR REVIEW AND APPROVAL OF PSLUSD.



MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

PIPELINE RESTRAINT
REQUIREMENTS (REDUCER)

DETAIL: W-09
DATE: 2019
SCALE: N.T.S.
SHEET: 3 OF 3

PIPELINE RESTRAINT
REQUIREMENTS (REDUCER)

NOTES:

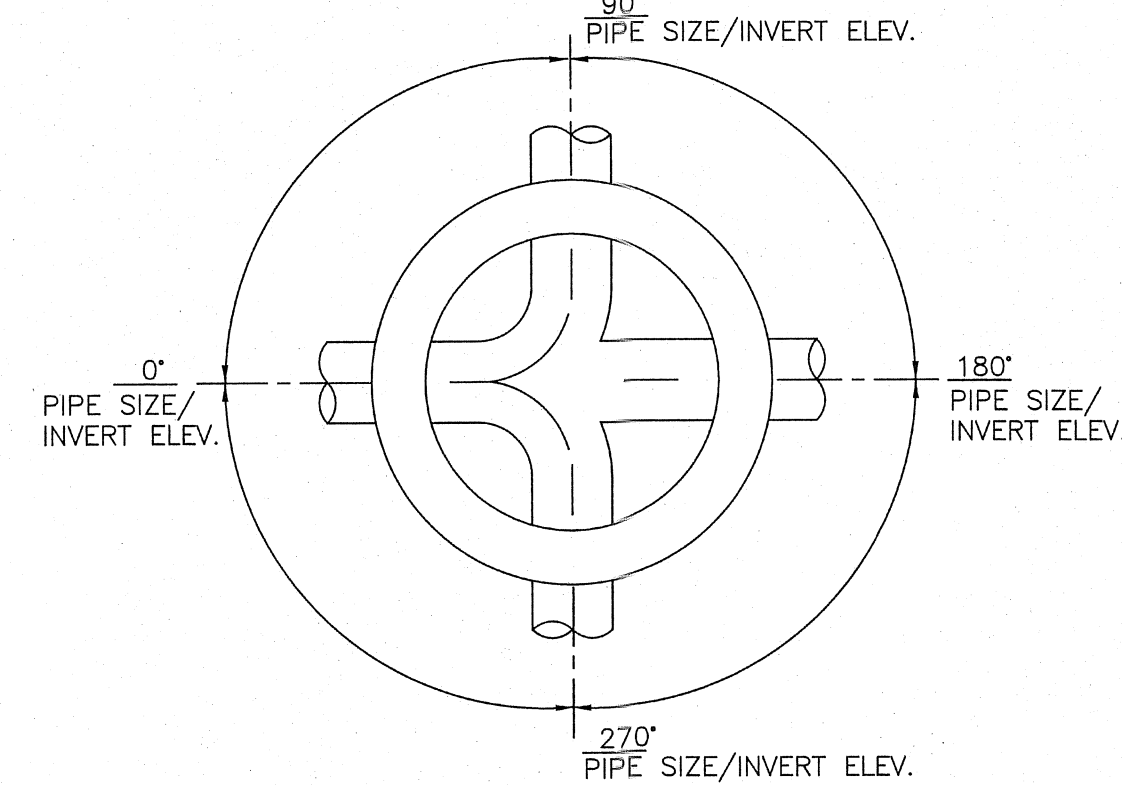
- SUCCESSIVE TAPS INTO THE WATER MAIN SHALL BE A MINIMUM OF 18" ON CENTER.
- ALL SERVICES REQUIRE 36" MINIMUM COVER AT ALL POINTS ALONG SERVICE.
- 1" SERVICES REQUIRE A 2" MINIMUM I.D. CASING PIPE. CASING PIPE SHALL BE SCHEDULE 40 PVC OR POLYETHYLENE.
- TRACE WIRE TO BE INSTALLED AS PER THIS DETAIL.
- METERS SHALL BE LOCATED IMMEDIATELY OUTSIDE THE PROPERTY LINE IN THE RIGHT-OF-WAY UNLESS OTHERWISE DIRECTED BY PSLUSD (SEE SHEET 2).



MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
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RESIDENTIAL WATER
SERVICE CONNECTION

DETAIL: W-01
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 2

RESIDENTIAL WATER
SERVICE CONNECTION

PLAN VIEW

NOTES:

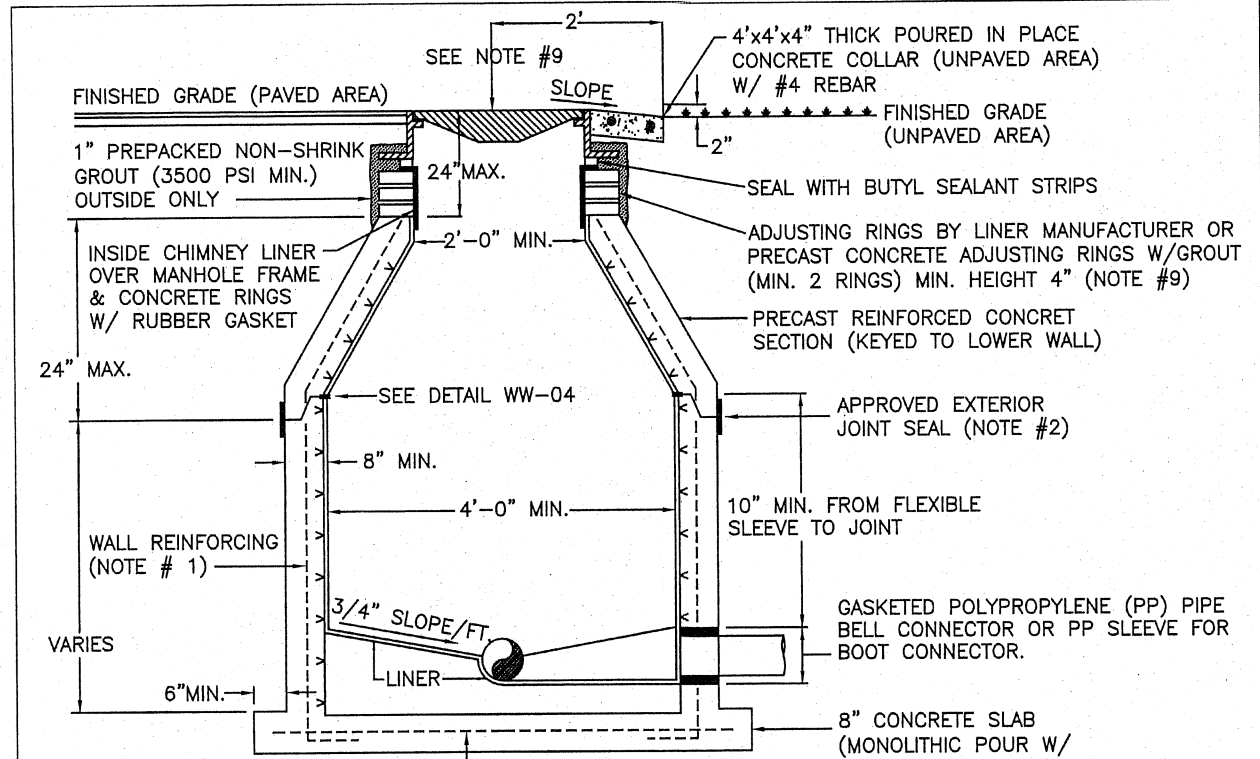
- THE ENGINEER-OF-RECORD SHALL SUBMIT TO PSLUSD THE SHOP DRAWINGS FOR EACH STRUCTURE, PROVIDING THE DIAMETER OF EACH PIPE, INVERT ELEVATION OF EACH PIPE, RIM ELEVATION AND THE NUMBER OF DEGREES BETWEEN PIPES. (15 DEGREE INCREMENTS IF POSSIBLE)
- MANHOLE INTERIOR SHALL BE LINED UTILIZING A CORROSION BARRIER SYSTEM. LISTED ON THE PSLUSD QUALIFIED PRODUCT LIST.
- MANHOLE EXTERIOR SHALL BE COATED WITH A PRIMER AND TWO COATS OF A WATER BASED EPOXY 3-5 MILS EACH PER THE PSLUSD SPECIFICATIONS. APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION.



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900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

INVERT FLOW CHANNELS
FOR
MANHOLES

DETAIL: WW-01
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

INVERT FLOW CHANNELS
FOR MANHOLES

NOTES:

- MANHOLE FABRICATION SHALL BE IN ACCORDANCE W/ ASTM C-478, LATEST REVISION.
- SEALANT SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION BETWEEN MANHOLE SECTIONS & AT ALL JOINTS (SEE DETAIL WW-04). ALSO AN APPROVED EXTERNAL JOINT SEAL MAY BE APPLIED AT THE JOINTS. (EXTERNAL JOINT SEAL IS OPTIONAL)
- ALL PIPE OPENINGS SHALL BE GAS AND WATER TIGHT WITH NO EXPOSED CONCRETE SURFACES.
- CAST OPENINGS SHALL BE MANUFACTURED WITH PRECAST HOLE W/ CAST-IN LINER SLEEVE SIZED FOR APPROPRIATE PIPE AND FLEXIBLE CONNECTOR. APPROVED FLEXIBLE MANHOLE CONNECTORS SHALL BE USED AT PIPE CONNECTIONS. HOLE SIZE PER BOOT MANUFACTURER'S SPECIFICATIONS. DOUBLE STAINLESS STEEL PIPE CLAMPS MUST BE INSTALLED ON THE FLEXIBLE SLEEVES WHERE REQUIRED BY BOOT MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- FLOW CHANNELS SHALL BE CONSTRUCTED TO DIRECT FLOW INTO FLOW STREAM (SEE DETAIL WW-01).
- LIFT HOLES ARE PERMITTED BUT MUST BE GROUTED ONCE MANHOLE IS IN PLACE.
- MANHOLE AND BASE WILL BE LINED INSIDE WITH AN APPROVED LINER SYSTEM.
- AN APPROVED COVER & FRAME SHALL BE PROVIDED. APPROVED INSIDE MANHOLE CHIMNEY SEALANT SHALL BE APPLIED OVER THE MANHOLE FRAME, CONCRETE RINGS, AND LINER SECTION IN ACCORDANCE WITH THE SPECIFICATIONS.
- MAXIMUM HEIGHT OF CHIMNEY SHALL NOT EXCEED 24 INCHES INCLUDING FRAME CASTING.

CONT. ON SHEET 2 OF 2

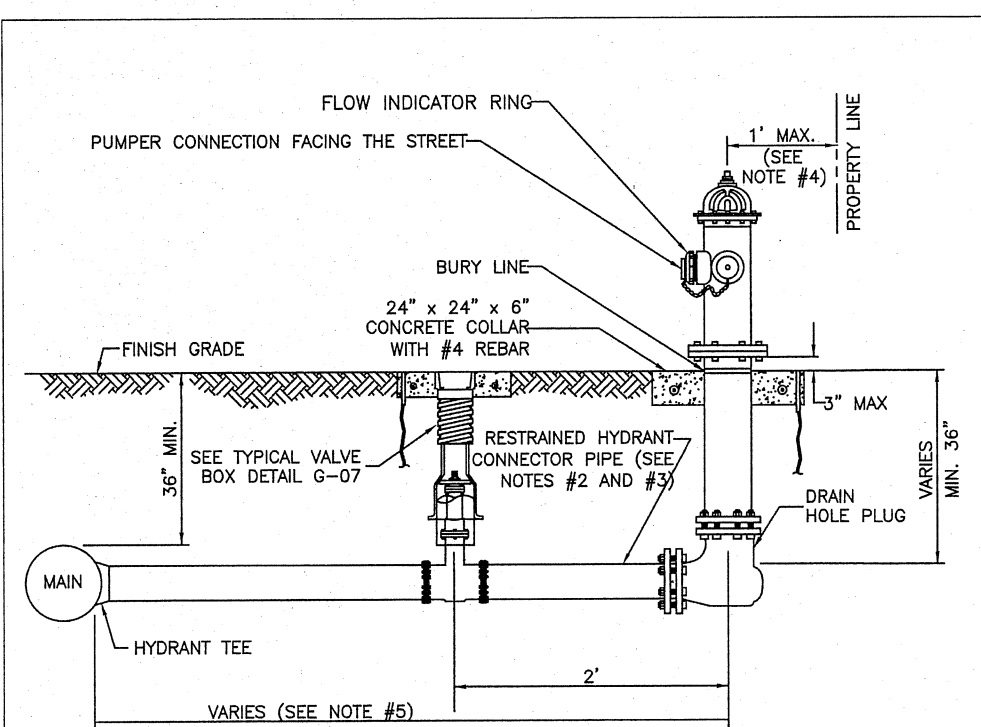


MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

STANDARD PRECAST MANHOLE

DETAIL: WW-02
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 2

STANDARD PRECAST MANHOLE



NOTES:

- HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600. THE HYDRANTS SHALL BE PAINTED BY THE MANUFACTURER WITH 2 COATS (MIN).
- VERTICAL BENDS MAY BE NECESSARY TO OBTAIN COVER UNDER SWALES OR AT HYDRANT LOCATION. VERTICAL BENDS OR OFFSETS ARE INCLUDED IN HYDRANT ASSEMBLY. ALL BENDS MUST BE RESTRAINED.
- CONNECTOR PIPE AND ANY REQUIRED VERTICAL BENDS SHALL HAVE AN ANCHORING FEATURE ON BOTH ENDS SO THAT WHEN USED WITH M.J. SPLIT GLANDS, A RESTRAINED JOINT IS PROVIDED.
- WHEN INSTALLED WITH SIDEWALK OR CURB, PROVIDE MIN. 2 FOOT CLEARANCE TO ANY PORTION OF THE HYDRANT, UTILIZING THE SIDE LOT EASEMENT IF NECESSARY.
- A GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE FIRE HYDRANT. IF DISTANCE FROM THE WATER MAIN TO THE FIRE HYDRANT IS GREATER THAN 20 FEET, A SECOND GATE VALVE SHALL BE INSTALLED WITHIN 2 FEET OF THE MAIN.
- ANY DEVIATIONS FROM THE CRITERIA ABOVE REQUIRE A WRITTEN RECOMMENDATION FROM THE ENGINEER-OF-RECORD AND WRITTEN APPROVAL BY PSLUSD.

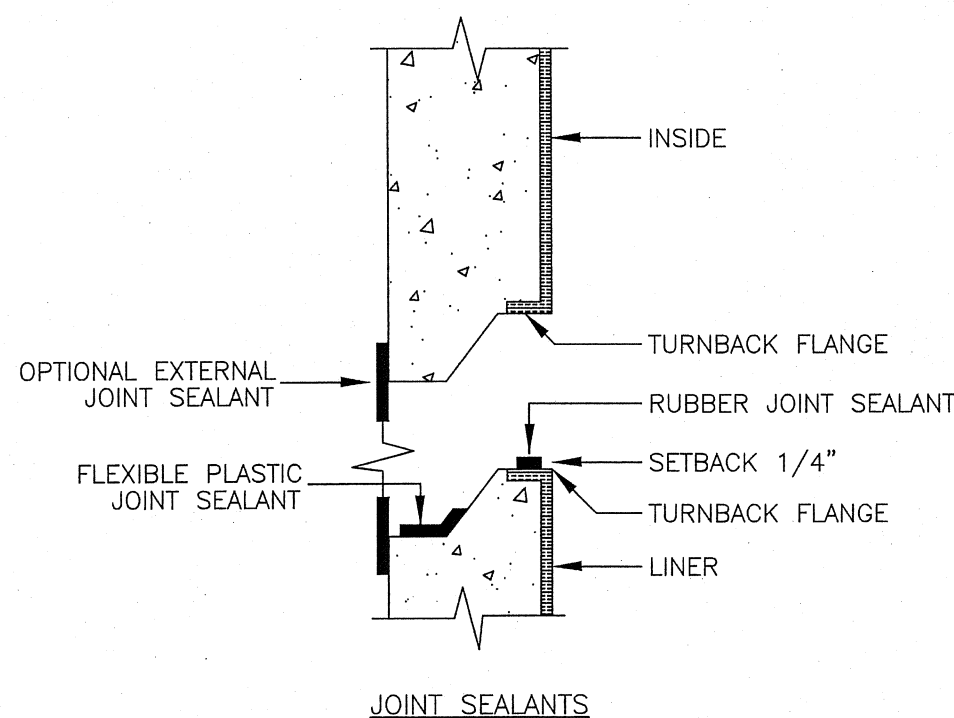


MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

FIRE HYDRANT ASSEMBLY

DETAIL: W-06
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

FIRE HYDRANT ASSEMBLY



NOTES:

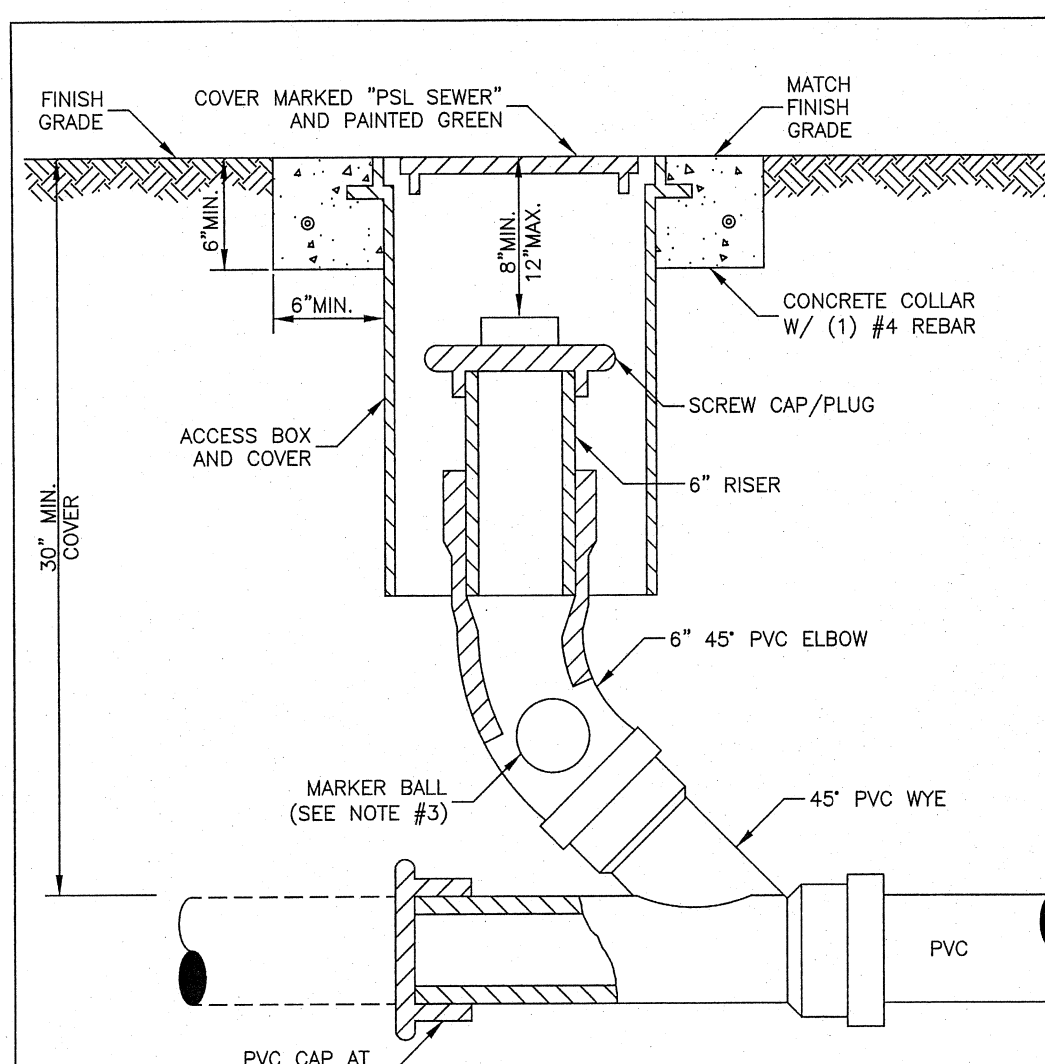
- APPROVED JOINT SEALANTS SHALL BE USED.
- WELDED CAP STRIPS AT JOINTS OR WELDED JOINTS MAY BE ACCEPTABLE IF APPROVED IN WRITING BY PSLUSD.



MINIMUM CONSTRUCTION STANDARDS FOR
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MANHOLE/WETWELL
JOINT DETAIL

DETAIL: WW-08
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

MANHOLE/WETWELL
JOINT DETAIL

NOTES:

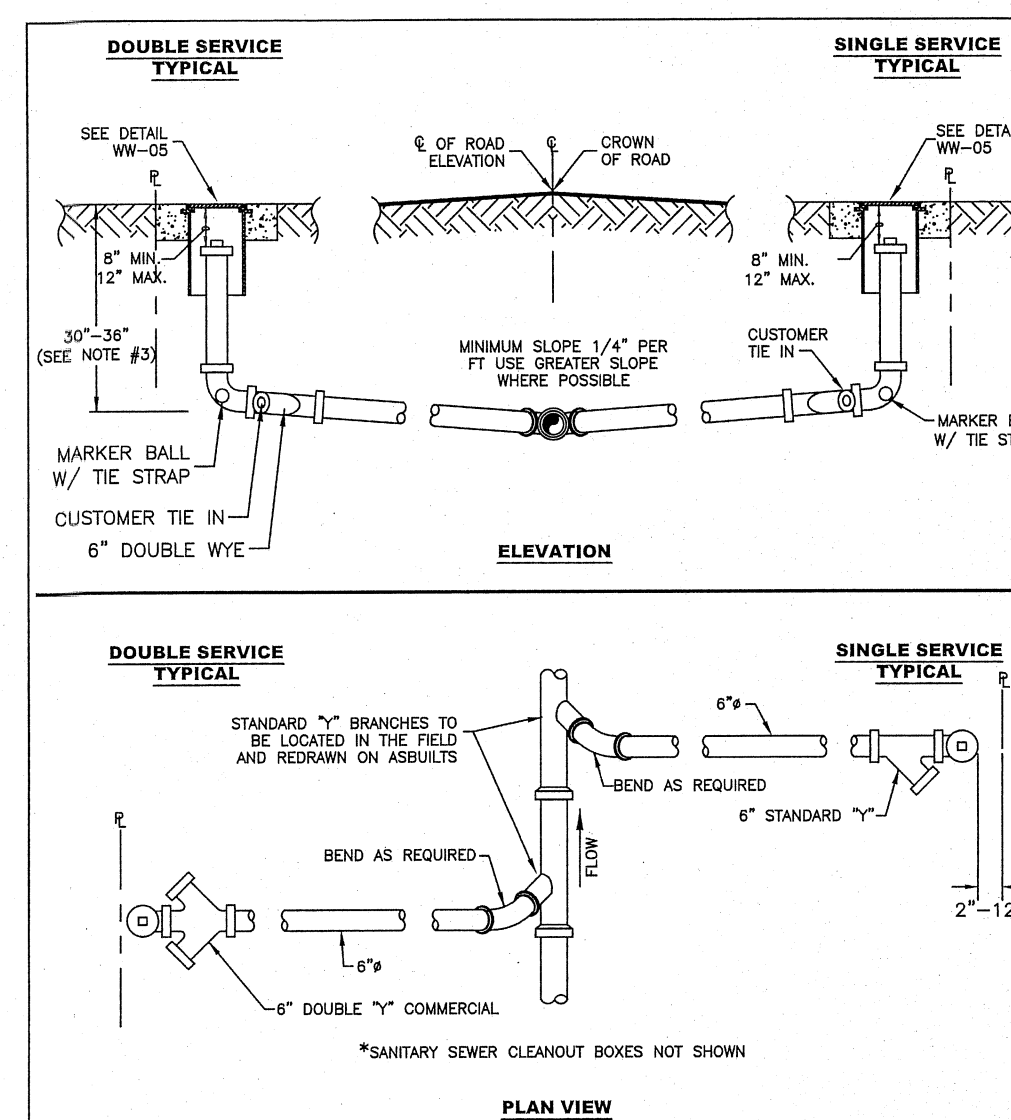
- AN ACCESS BOX AND COVER SHALL BE USED.
- CLEANOUT ASSEMBLY SHALL BE INSTALLED AT A MAXIMUM 75' INTERVALS AND AT TERMINAL POINT OF THE PSLUSD RESPONSIBILITY. THE LOCATION SHALL BE IN ACCORDANCE WITH THE PSLUSD UTILITY STANDARDS.
- MARKER BALL SHALL BE STRAPPED TO THE ELBOW.



MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
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SANITARY SEWER CLEANOUT

DETAIL: WW-08
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

SANITARY SEWER
CLEANOUT

NOTES:

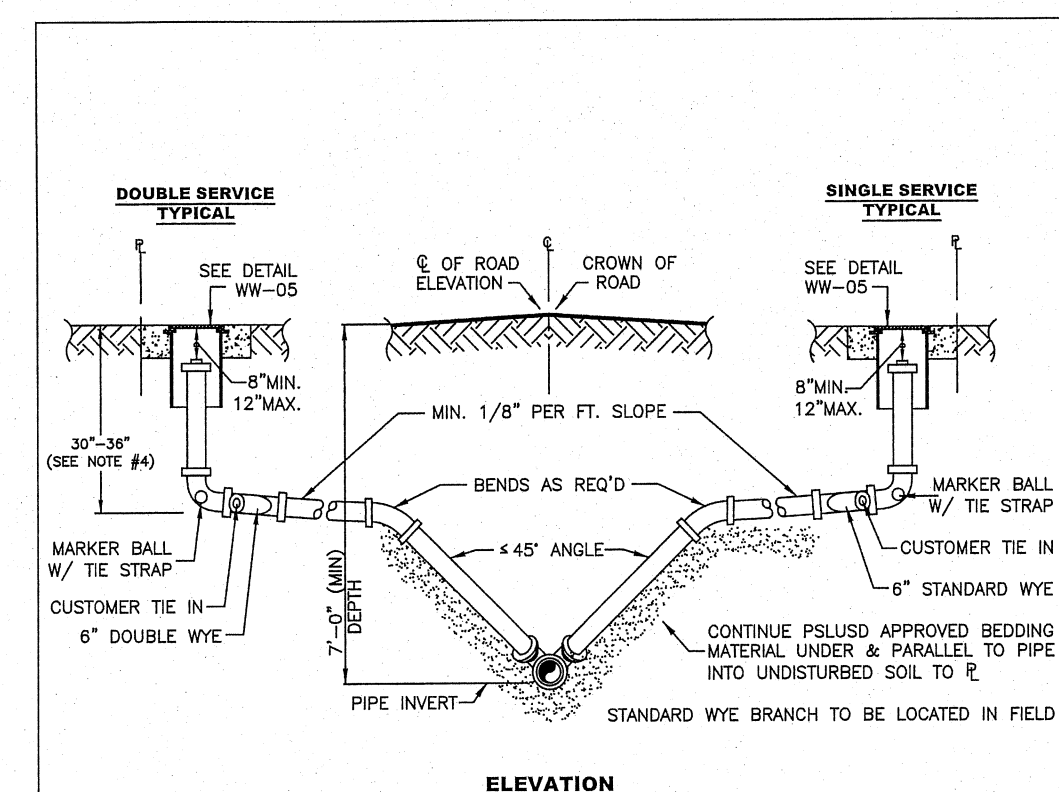
- SANITARY SEWER LATERALS SHALL BE 6" IN DIAMETER.
- THE ENGINEER OF RECORD SHALL ENSURE THAT THE PROPOSED PLUMBING SUB-OUT ELEVATION FOR EACH BUILDING WILL ALLOW FOR A GRAVITY CONNECTION TO THE SANITARY SEWER LATERAL WITH THE REQUIRED SLOPE. HORIZONTAL AND VERTICAL SEPARATION SHALL BE MAINTAINED AS REQUIRED IN THE UTILITY STANDARDS MANUAL.



MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
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SANITARY SEWER LATERAL
(SHALLOW)

DETAIL: WW-08
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

SANITARY SEWER
LATERAL (SHALLOW)

NOTES:

- PSLUSD APPROVED BEDDING MATERIAL SHALL BE USED FOR EXCAVATION BACK FILL.
- LOCATE MARKER BALL WITH TIE STRAPS TO BE ATTACHED TO 6" ELBOW.
- THE ENGINEER OF RECORD SHALL ENSURE THAT THE PROPOSED PLUMBING SUB-OUT ELEVATION FOR EACH BUILDING WILL ALLOW FOR A GRAVITY CONNECTION TO THE SANITARY SEWER LATERAL WITH THE REQUIRED SLOPE. HORIZONTAL AND VERTICAL SEPARATION SHALL BE MAINTAINED AS REQUIRED IN THE UTILITY STANDARDS MANUAL.



MINIMUM CONSTRUCTION STANDARDS FOR
CITY OF PORT ST. LUCIE
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PORT ST. LUCIE, FL 34983
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SANITARY SEWER LATERAL
(DEEP)

DETAIL: WW-07
DATE: 2019
SCALE: N.T.S.
SHEET: 1 OF 1

SANITARY SEWER LATERAL (DEEP)

PSLUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

WATER AND SEWER DETAILS

TORINO LAKES PHASE 4

- REVISIONS -

BY DATE

BY DATE

DRAWN

DESIGNED

CHECKED

QA/QC

SURVEY REF.

DRAWING NAME



ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS

2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX

CERTIFICATE OF AUTHORIZATION #32020

DATE: 8-4-21

HORIZ SCALE: 1"=40'

VERT SCALE: N/A

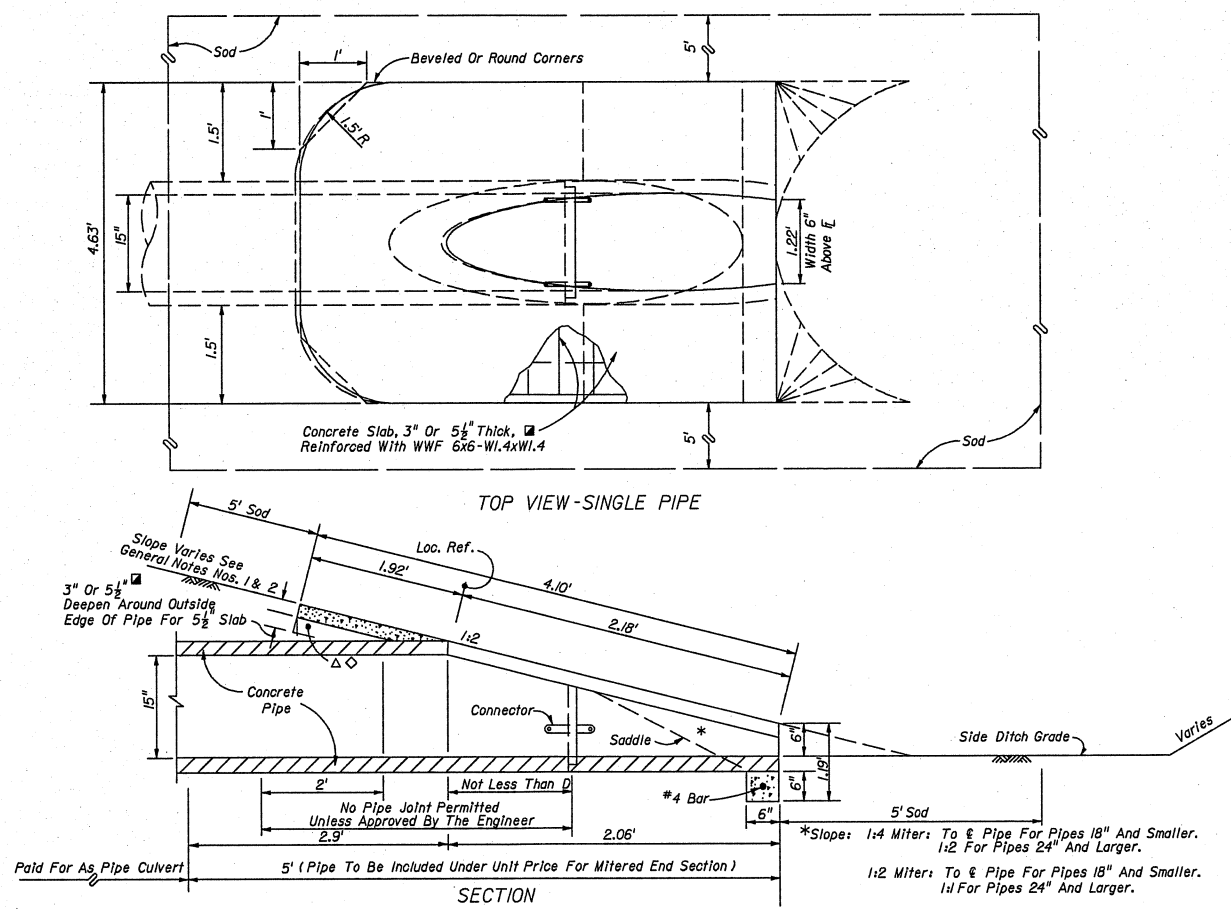
SHEET 9 OF 13

RICHARD M. LADYKO, P.E. #34288

DATE

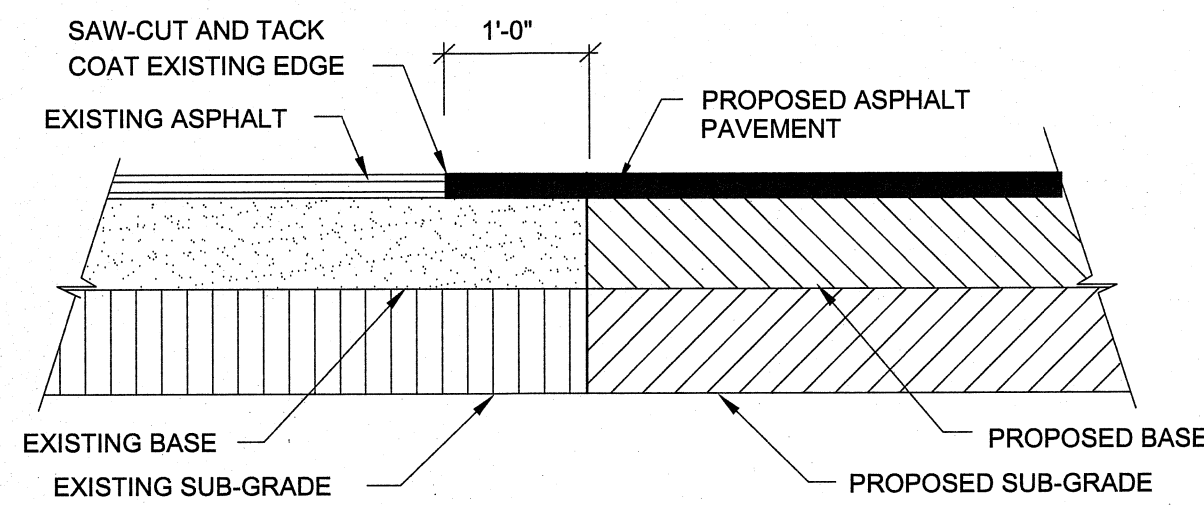
JOB No. 2021.0114-2

SHEET 9 OF 13



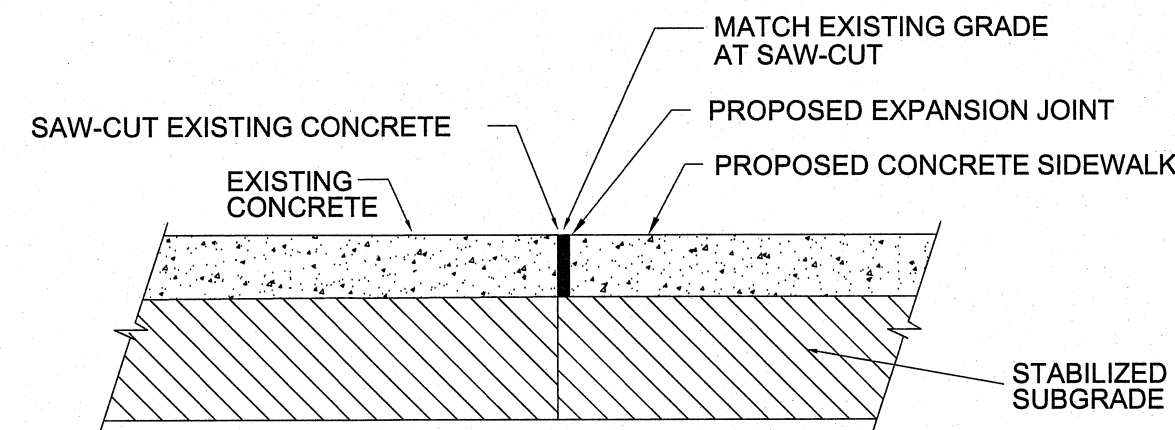
15" R.C.P. MITERED END SECTION

CONSTRUCT MITERS PER FDOT INDEX 273
 PER 2020-21 FDOT DESIGN STANDARDS



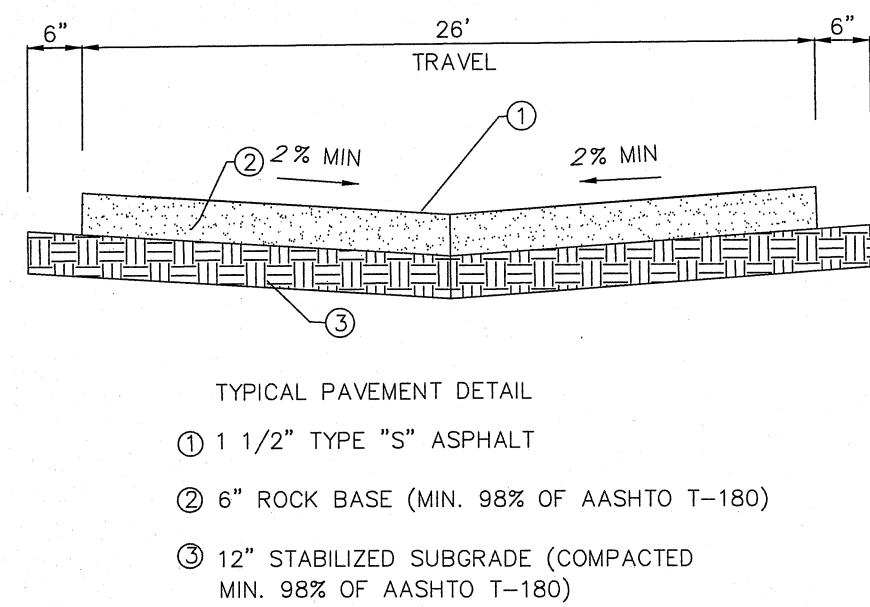
PAVEMENT SAW-CUT AND BUTT JOINT

N.T.S.

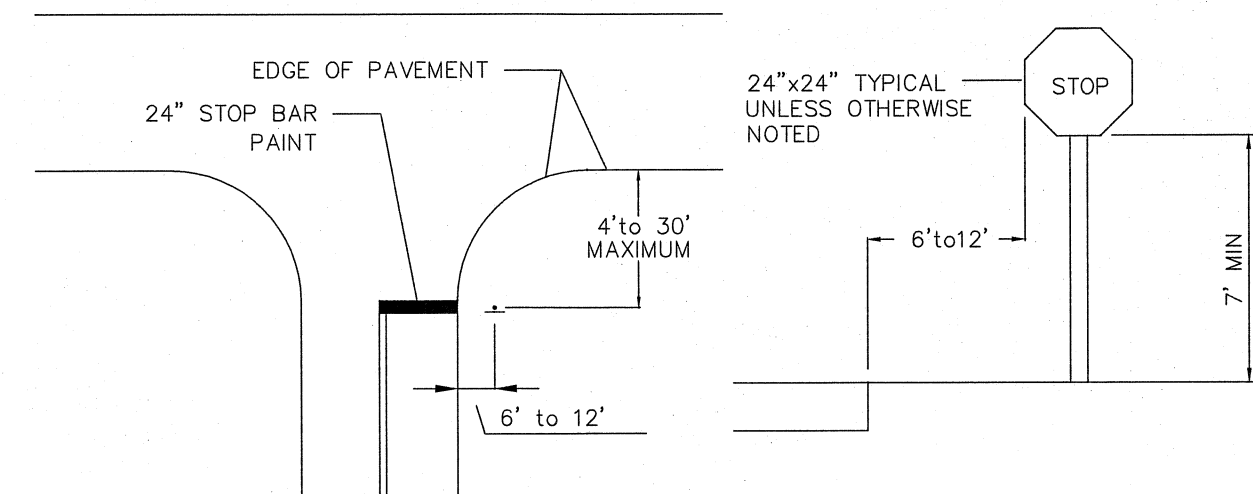


CONCRETE SAW-CUT AND BUTT JOINT

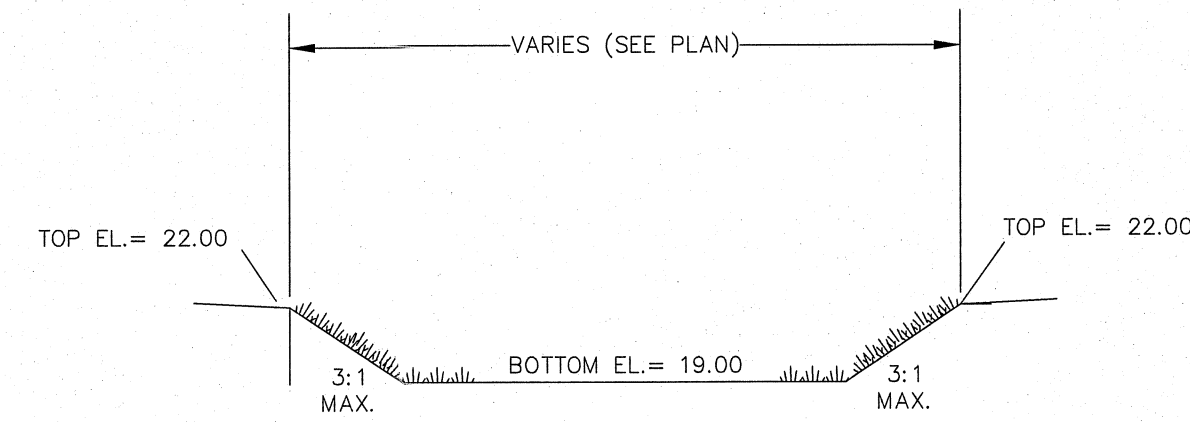
N.T.S.



FLEXIBLE PAVEMENT SECTION



TYPICAL STOP SIGN LOCATION DETAIL



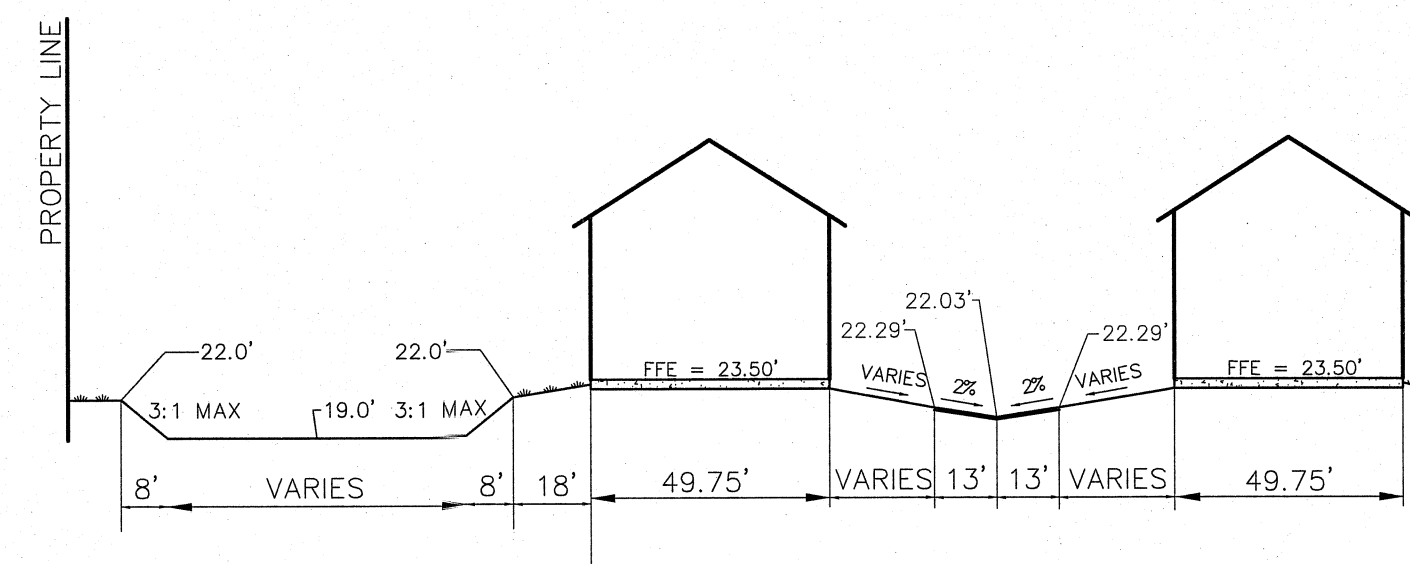
DRY DETENTION SECTION

- NOTES:
1. TOP PORTION OF FTP 25 & 26 SHALL HAVE A REFLECTIVE BLUE BACKGROUND WITH WHITE REFLECTIVE SYMBOL AND BORDER.
 2. BOTTOM PORTION SHALL HAVE A REFLECTIVE WHITE BACKGROUND WITH BLACK OPAQUE LEGEND AND BORDER.
 3. FTP 25 & 26 MAY BE FABRICATED ON ONE PANEL OR TWO.
 4. FTP 25 IS FOR USE IN AREAS WHERE SPACE IS LIMITED.

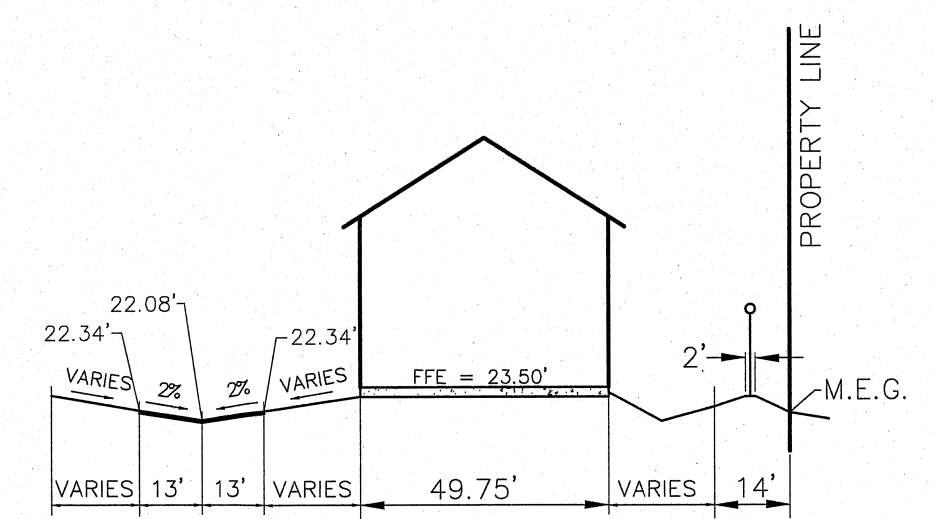


PARKING SPACE DETAILS

STRIPING & SIGNAGE PER FDOT INDEX 17346 AND 17355
 PER 2020-21 FDOT DESIGN STANDARDS



SECTION A-A



SECTION B-B

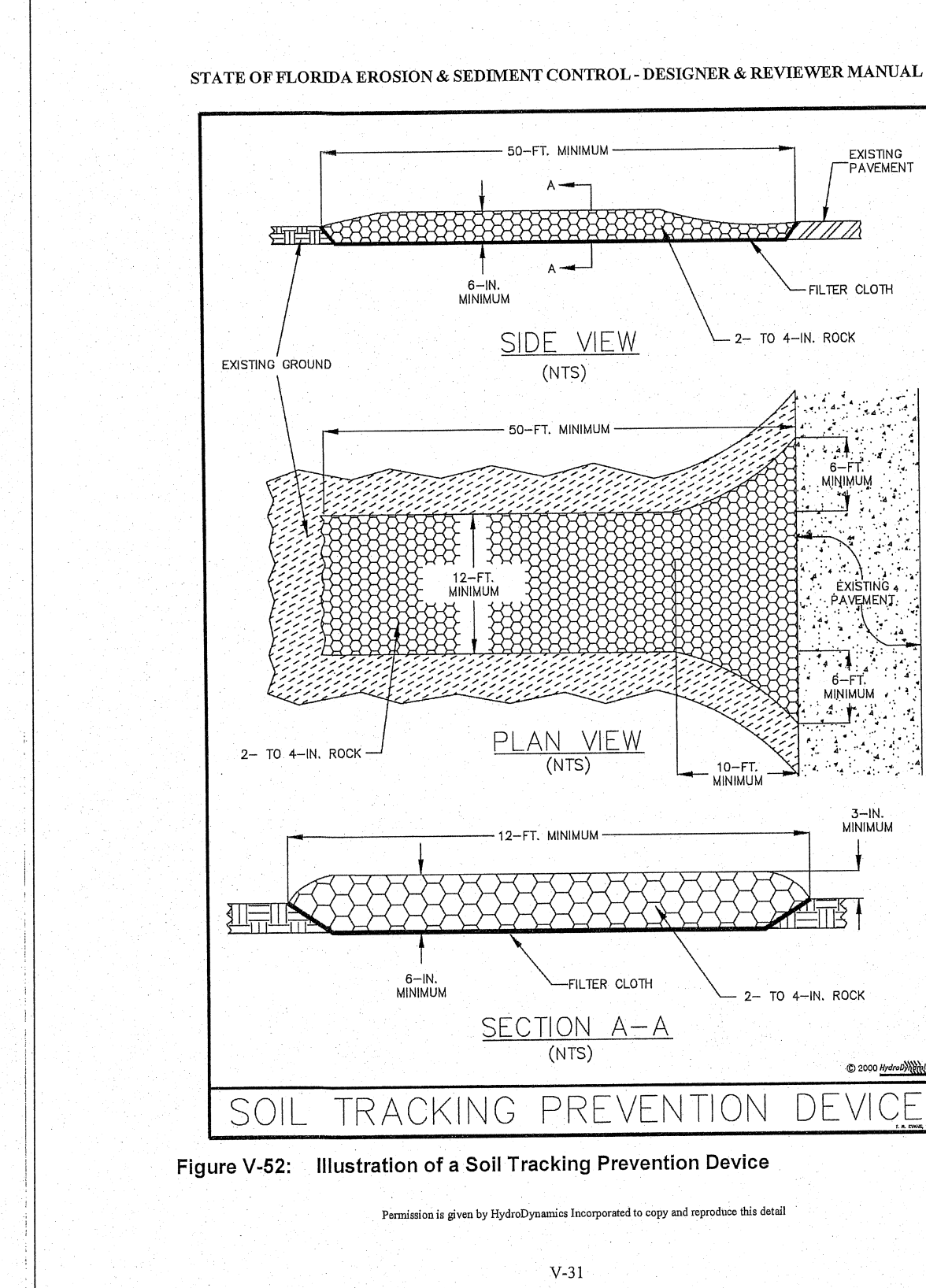
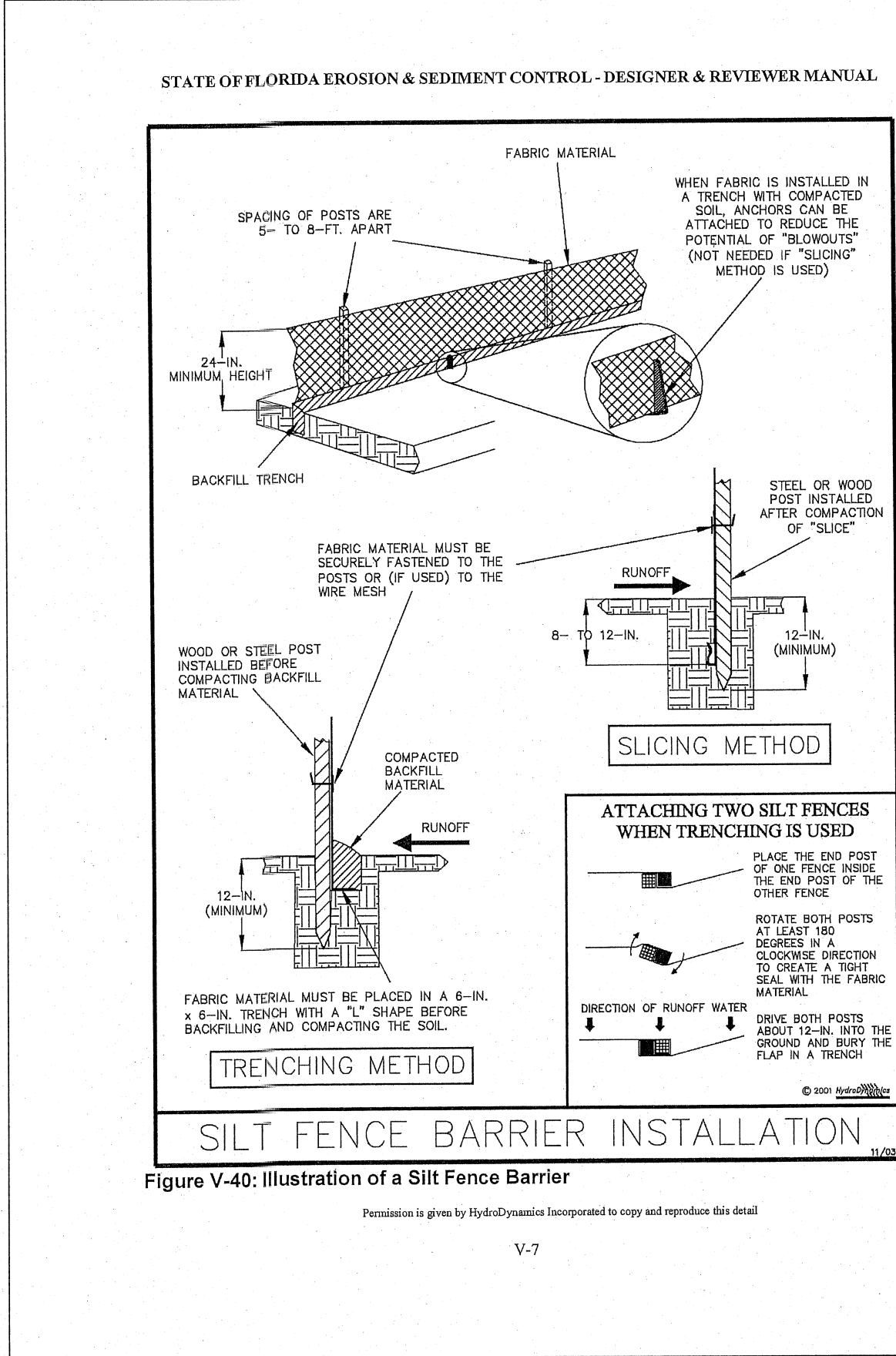
PSLUSD PROJECT # 11-835-02
 CITY OF PSL PROJECT #P21-174

PAVING, GRADING & DRAINAGE DETAILS TORINO LAKES PHASE 4	- REVISIONS - ADD 2020-21 FDOT REFERENCE & PARKING DETAIL; OMIT INLET DETAIL BY: JOE M DATE: 9-30-21		DRAWN: MRL DESIGNED: MRL CHECKED: RCL QA/QC: RML SURVEY REF: 20.2680-8 DRAWING NAME: 2021-0114-2-PSL-Details	BY: MRL DATE: 7-2-21 MRL DATE: 7-2-21 RCL DATE: 7-31-21 RML DATE: 8-4-21	ATLANTIC CIVIL ENGINEERING, INC. CONSULTING ENGINEERS 2552 PETERS ROAD SUITE D FORT PIERCE, FLORIDA 34945 (772) 398-1520 PHONE (772) 398-1521 FAX CERTIFICATE OF AUTHORIZATION #32020	DATE: 8-4-21 HORIZ SCALE: 1"=40' VERT SCALE: N/A	JOB No. 2021.0114-2 SHEET 10 OF 13
	RICHARD M. LADYKO, P.E. #34288		DATE				

Section 1	Project Name and location information:	TORINO LAKES – PHASE 4, CONSISTING OF 34 PROPOSED TOWNHOUSES AND ASSOCIATED INFRASTRUCTURE EAST TORINO PARKWAY
Section 2	Describe the nature of the construction activity:	MULTI-FAMILY RESIDENTIAL
Section 3	Describe the intended sequence of major soil disturbing activities:	0-3 DAYS INSTALL SILT FENCE 3-4 DAYS INSTALL SOIL TRACKING ENTRANCE 5-7 DAYS CLEAR SITE 7-180 DAYS INSTALL PERMITTED IMPROVEMENTS 180-190 DAYS STABILIZE AND TOP OFF SITE
Section 4	Total area of the site:	3.0 ACRES
Section 5	Total area of the site to be disturbed:	3.0 ACRES
Section 6	Existing data describing the soil or quality of any stormwater discharge from the site:	SUBJECT PROPERTY CURRENTLY DRAINS IN ALL DIRECTIONS TOWARD EXISTING SWALES AND CANALS. SEE DRAINAGE PLAN ON SHEET 4 OF 13 FOR PROPOSED STORMWATER MANAGEMENT.
Section 7	Estimate the drainage area size for each discharge point:	3.0 ACRES
Section 8	Latitude and longitude of each discharge point and identify the receiving water or MS4 for each discharge point:	LAT = 27°22'10.731" LONG = -80°23'23.225" DISCHARGES TO CITY OF PSL CANAL (SOUTH)
Section 9	Give a detailed description of all controls, Best Management Practices (BMPs) and measures that will be implemented at the construction site for each activity identified in the intended sequence of major soil disturbing activities section. Provide time frames in which the controls will be implemented. NOTE: All controls shall be consistent with performance standards for erosion and sediment control and stormwater treatment set forth in s. 62-40.432, F.A.C., the applicable Stormwater or Environmental Resource Permitting requirements of the Department or a Water Management District, and the guidelines contained in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual, FDOT, FDEP, and any subsequent amendments.	
		SILT FENCE TO BE INSTALLED AND MAINTAINED FOR THE LIFE OF THE CONSTRUCTION PHASE PURSUANT TO THE GUIDELINES INDICATED HEREON. ALL NPDES PROTOCOL TO BE FOLLOWED FOR THE DURATION OF THE PROJECT.
Section 10	Describe all temporary and permanent stabilization practices. Stabilization practices include temporary seeding, mulching, permanent seeding, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, vegetative preservations, etc.	
		ALL PROPOSED PERVIOUS AREAS TO BE SODDED UPON COMPLETION OF CONSTRUCTION ACTIVITY.
Section 11	Describe all structural controls to be implemented to divert stormwater flow from exposed soils and structural practices to store flows, retain sediment on-site or in any other way limit stormwater runoff. These controls include silt fences, earth dikes, diversions, swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, coagulating agents and temporary or permanent sediment basins.	
		SILT FENCE TO BE INSTALLED AND MAINTAINED FOR THE LIFE OF THE CONSTRUCTION PHASE PURSUANT TO THE GUIDELINES INDICATED HEREON. ALL NPDES PROTOCOL TO BE FOLLOWED FOR THE DURATION OF THE PROJECT. FILTER FABRIC TO BE INSTALLED IN ALL STROM BASINS AND MAINTAINED DURING THE CONSTRUCTION EFFORT.
Section 12	Describe all sediment basins to be implemented for areas that will disturb 10 or more acres at one time. The sediment basins (or an equivalent alternative) should be able to provide 3,600 cubic feet of storage for each acre drained. Temporary sediment basins (or an equivalent alternative) are recommended for drainage areas under 10 acres.	
		N/A
Section 13	Describe all permanent stormwater management controls such as, but not limited to, detention or retention systems or vegetated swales that will be installed during the construction process.	
		STORMWATER BASINS AND PIPES ARE PROPOSED (PLEASE SEE P, G & D PLAN).

Section 14	Waste disposal, this may include construction debris, chemicals, litter, and sanitary wastes:	All construction materials and debris will be placed in a dumpster and hauled off site to a landfill or other proper disposal site. No materials will be buried on site.
Section 15	Offsite vehicle tracking from construction entrances/exits:	Off site vehicle tracking of sediments and dust generation will be minimized via a rock construction entrance, street sweeping and the use of water to keep dust down.
Section 16	The proper application rates of all fertilizers, herbicides and pesticides used at the construction site:	Florida-friendly fertilizers and pesticides will be used at a minimum and in accordance with the manufacturer's suggested application rates.
Section 17	The storage, application, generation and migration of all toxic substances:	All paints and other chemicals will be stored in a locked covered shed.
Section 18	Other:	Port-o-lets will be placed away from storm sewer systems, storm inlet(s), surface waters and wetlands. No vehicle maintenance shall be conducted on-site. A washdown area shall be designated at all times and will not be located in any area that will allow for the discharge of polluted runoff.
Section 19	Provide a detailed description of the maintenance plan for all structural and non-structural controls to assure that they remain in good and effective operating condition.	
	Contractor shall provide routine maintenance of permanent and temporary sediment and erosion control features in accordance with the technical specifications or as follows, whichever is more stringent: • Silt fence shall be inspected at least weekly. Any required repairs shall be made immediately. Sediment deposits shall be removed when they reach approximately one-half the height of the barrier. • Maintenance shall be performed on the rock entrance when any void spaces are full of sediment. • Inlet(s)/outfalls shall be inspected immediately after each rain event and any required repairs to the filter inlets, silt fence, or filter fabric shall be performed immediately. • Bare areas of the site that were previously seeded shall be reseeded per manufacturers' instructions. • Mulch and sod that has been washed out shall be replaced immediately. • Maintain all other areas of the site with proper controls as necessary.	
Section 20	Inspections: Describe the inspection and inspection documentation procedures, as required by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	
	Qualified personnel will inspect all points of discharges, all disturbed areas of construction that have not been stabilized, constructed areas and locations where vehicles enter and exit the site, and all BMPs at least once every 7 calendar days and within 24 hours of the end of a rainfall event that is 0.5 inches or greater. Where sites have been finally stabilized, said inspections shall be conducted at least once every month until the Notice of Termination is filed.	
Section 21	Identify and describe all sources of non-stormwater discharges as allowed by the FDEP NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities.	
	NO NON-STORMWATER DISCHARGES ARE EXPECTED FOR THIS SITE. INSTALLED AND MAINTAINED SILT FENCE WILL ELIMINATE EXPOSURE OF NON-STORMWATER DISCHARGES.	
Section 22	All contractor(s) and subcontractor(s) identified in the SWPPP must sign the following certification:	
	"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."	

Section 22	Name	Title	Company Name, Address and Phone Number	Date



PSLUSD PROJECT # 11-835-02
CITY OF PSL PROJECT #P21-174

RICHARD M. LADYKO, P.E. #34288 DATE

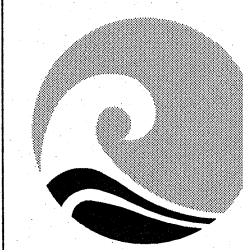
EROSION CONTROL PLAN

PREPARED FOR
TORINO LAKES PHASE 4

- REVISIONS -

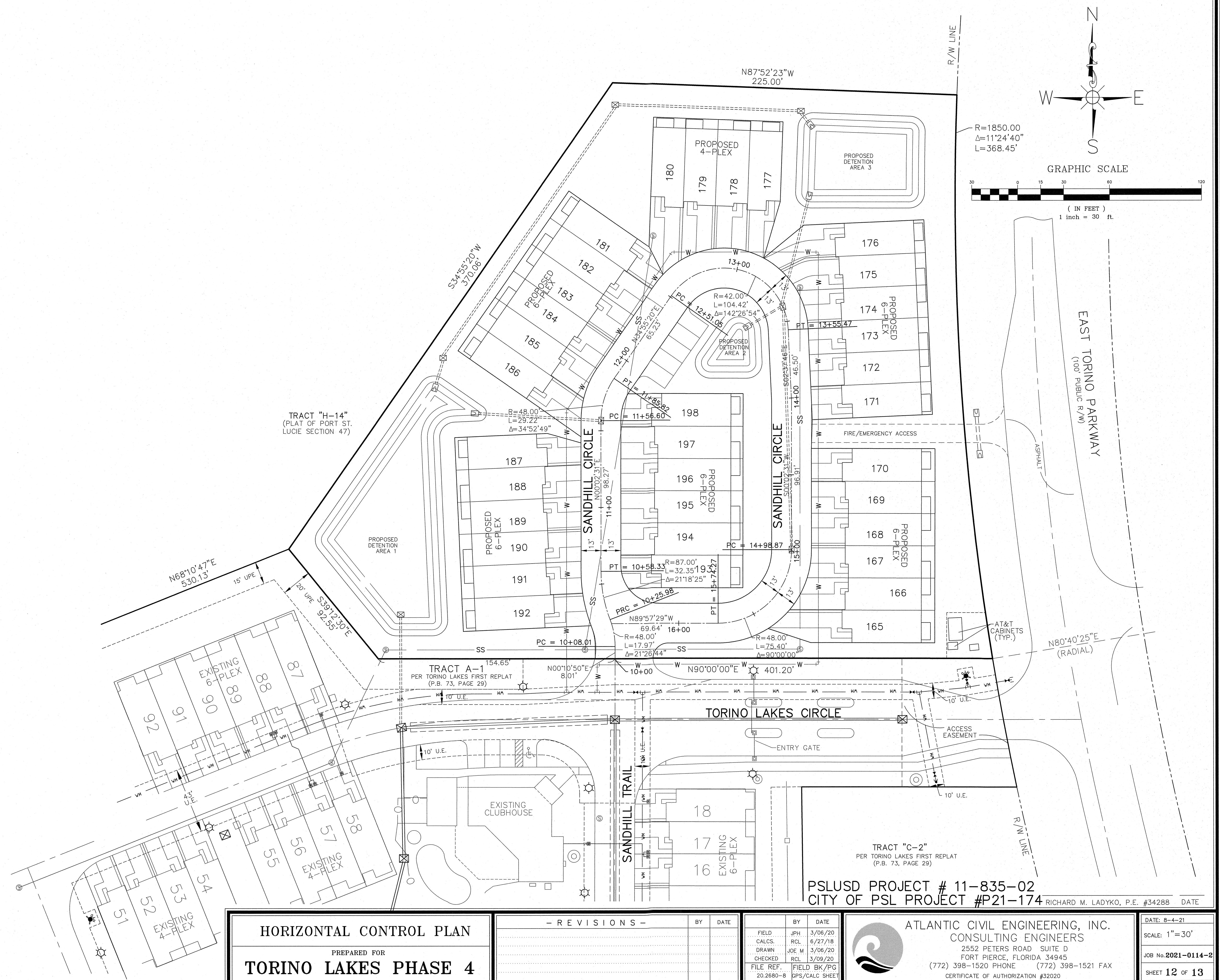
REVISION	BY	DATE
REVISE PAGE TO CITY OF PSL FORMAT	JOE M	9/30/21

FIELD	BY	DATE
CALCS.	JPH	3/06/20
DRAWN	JOE M	3/06/20
CHECKED	RCL	3/09/20
FILE REF.	FIELD BK/PG	20.2680-8



ATLANTIC CIVIL ENGINEERING, INC.
CONSULTING ENGINEERS
2552 PETERS ROAD SUITE D
FORT PIERCE, FLORIDA 34945
(772) 398-1520 PHONE (772) 398-1521 FAX
CERTIFICATE OF AUTHORIZATION #32020

DATE: 8-4-21
SCALE: 1"=30'
JOB No. 21.0114-2
SHEET 11 OF 13



SUPPLEMENTARY CONDITIONS

PERMITS AND LICENSES: CONSTRUCTION PERMITS FOR CERTAIN ELEMENTS OF THE PROJECT WORK MAY BE OBTAINED OR APPLIED FOR BY THE OWNER, MANHOLE DESIGN AND CONSTRUCTION REQUIREMENTS OF THE PROJECT REFLECT CONSTRAINTS AND CONDITIONS IMPOSED BY THESE PERMITS. THE CONTRACTOR SHALL PERFORM HIS WORK AND SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PERMITS AND APPROVALS. COPIES OF WHICH ARE AVAILABLE FOR HIS REVIEW AND USE FROM THE ENGINEER, UPON REQUEST. THE CONTRACTOR SHALL SECURE ALL WORK PERMITS, APPROVALS OR LICENSES REQUIRED TO PERFORM THE WORK, AND HE SHALL PERFORM THE WORK IN STRICT ACCORDANCE WITH THOSE PERMITS, APPROVALS OR LICENSES.

CONTRACT ISSUES

GENERAL CONDITIONS: UNLESS OTHERWISE STATED IN THESE SUPPLEMENTARY CONDITIONS, THE PROVISIONS OF THE "STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT," REFERENCED ABOVE, SHALL BE USED TO GOVERN ALL ISSUES ADDRESSED IN THOSE GENERAL CONDITIONS FOR THIS PROJECT.

OWNER-ENGINEER RELATIONSHIP: ANY AGREEMENT BETWEEN OWNER AND ENGINEER SHALL NOT BE CONSTRUED TO PROVIDE ANY OBLIGATION FROM THE ENGINEER TO ANY THIRD PARTIES INCLUDING, BUT NOT LIMITED TO, ANY CONTRACTORS (GENERAL OR SUB), NOR TO ANY SUCCESSORS IN TITLE TO THE OWNER. THE RIGHTS UNDER ANY AGREEMENT BETWEEN OWNER AND ENGINEER INURE ONLY TO THOSE TWO PARTIES.

PARTIAL PAYMENTS: PARTIAL PAYMENTS SHALL BE CALCULATED FROM QUANTITIES OF WORK IN PLACE. THESE PAYMENTS SHALL BE BASED ON THE AGREEMENT UNIT PRICES AND WILL BE MADE ON OR ABOUT THE 15TH OF EACH MONTH FOR THE PREVIOUS MONTH'S PROGRESS. THE CONTRACTOR SHALL, AFTER THE FIRST OF EACH MONTH, SUBMIT INVOICES FOR MATERIALS USED AND WORK PERFORMED FOR THE PREVIOUS MONTH. THE ENGINEER WILL REVIEW ALL INVOICES ALONG WITH RECORD DRAWINGS AND FIELD NOTES TO DATE BEFORE PRESENTING THEM TO THE OWNER FOR PAYMENT. TEN PERCENT (10%) OF THE AMOUNT DUE AND PAYABLE TO THE CONTRACTOR CAN BE RETAINED FROM EACH PARTIAL PAYMENT. FINAL PAYMENTS WILL BE ACCOMPLISHED AS PRESCRIBED IN THE AGREEMENT.

THE DRAWINGS

ERRORS OR OMISSIONS IN THE DRAWINGS OR SPECIFICATIONS: PRIOR TO INITIATION OF THE WORK, THE CONTRACTOR SHALL CHECK DIMENSIONS, GRADES, ELEVATIONS AND THE SUMMARY OF ESTIMATED QUANTITIES SHOWN ON THE DRAWINGS TO ASSURE HIMSELF THAT THEY ARE CORRECT AND THAT THE WORK CAN BE ACCOMPLISHED AS INTENDED. THE CONTRACTOR SHALL TAKE NO ADVANTAGE OF ANY APPARENT ERROR OR OMISSION WHICH HE MIGHT DISCOVER, BUT SHALL IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY, WHO WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS HE DEEMS NECESSARY FOR REFLECTING THE ACTUAL SPIRIT AND INTENT OF THE DRAWINGS AND SPECIFICATIONS.

SOIL AND SUBSOIL CONDITIONS: IT IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR TO:

1. PLACE HIS OWN INTERPRETATION ON ANY AND ALL SOIL AND SUBSOIL DATA PORTRAYED ON THE DRAWINGS OR AVAILABLE INFORMATION.
2. PERFORM HIS OWN SOIL AND SUBSOIL INVESTIGATION TO DETERMINE THE NATURE, CHARACTER, LOCATION AND EXTENT OF ALL SOIL AND SUBSOIL CONDITIONS THAT MAY AFFECT HIS WORK; AND
3. INCLUDE IN HIS CONTRACT PRICE CONSIDERATION FOR ALL WORK NECESSARY TO ASSURE THAT THE SOIL AND SUBSOIL CONDITIONS WILL MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND THE APPLICABLE REGULATIONS OF THE APPLICABLE MUNICIPALITY.

THE WORK

PRE-CONSTRUCTION CONFERENCE: IMMEDIATELY AFTER THE AGREEMENT HAS BEEN AWARDED, THE ENGINEER SHALL CALL A PRE-CONSTRUCTION CONFERENCE TO BE HELD WITHIN TEN (10) CALENDAR DAYS AFTER THE AWARD AND PRIOR TO INITIATION OF THE WORK AT A PLACE DESIGNATED TO HIM, TO REVIEW THE CONSTRUCTION ASPECTS OF THE PROJECT. THE MEETING WILL BE BETWEEN THE ENGINEER, OWNER AND THE CONTRACTOR. THE CONTRACTOR SHALL PRESENT HIS TENTATIVE DETAILED WORKING SCHEDULE FOR THE PROJECT SO THAT IT MAY BE REVIEWED BY THE ENGINEER AND OWNER. ADDITIONALLY, IT WILL AFFORD THE CONTRACTOR AN OPPORTUNITY TO HAVE ANY QUESTIONS HE MAY HAVE ON THE WORK CLARIFIED BY THE ENGINEER. NO WORK UNDER THE AGREEMENT SHALL COMMENCE UNTIL AFTER THE NOTICE TO PROCEED HAS BEEN ISSUED.

COMMENCEMENT AND COMPLETION OF THE WORK: THE CONTRACTOR SHALL COMMENCE WORK UNDER THE AGREEMENT WITHIN TEN (10) CALENDAR DAYS AFTER THE DAY OF RECEIPT BY HIM OF THE NOTICE TO PROCEED AND WORK READY FOR USE NOT LATER THAN THE TIME INDICATED IN THE AGREEMENT. THE TIME STATED FOR COMPLETION SHALL INCLUDE FINAL CLEANUP OF THE PREMISES.

ESTIMATED QUANTITIES: THE QUANTITIES ESTIMATED FOR VARIOUS ITEMS OF WORK ARE ONLY ESTIMATES, AND MAY NOT REFLECT ALL THE ITEMS OF WORK OR THE FINAL QUANTITIES NEEDED TO COMPLETE THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DO ALL WORK AND TO FURNISH AND INSTALL ALL IMPROVEMENTS SHOWN ON THE DRAWINGS, WHETHER OR NOT THEY ARE SHOWN IN THE ESTIMATED QUANTITIES, OR WHETHER THE FINAL QUANTITIES ARE MORE OR LESS THAN THOSE ESTIMATED.

HORIZONTAL AND VERTICAL CONTROL: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS IN THE LOCATIONS SHOWN ON THE DRAWINGS, AND SHALL USE AS HORIZONTAL CONTROL POINTS THE PROPERTY CORNERS AS SHOWN ON THE PLANS. THE HORIZONTAL CONTROL POINTS WERE PROVIDED BY LAVENTURE AND ASSOCIATES, INC., (772-398-6430), AS VERTICAL CONTROL, BENCHMARKS SHALL BE PROVIDED AT THE SITE, FOR USE IN ESTABLISHING THE NECESSARY ELEVATIONS AND GRADES AT THE LOCATIONS SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL CONTROL POINTS AND TO REESTABLISH SAID POINTS AS NECESSARY. THE REMAINING HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED BY THE CONTRACTOR, THE VERTICAL CONTROL POINTS FOR THIS PROJECT WERE PROVIDED BY LAVENTURE AND ASSOCIATES, INC., (772-398-6430).

COORDINATION OF WORK WITH OTHERS: THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OR IMPROVEMENTS OF OTHERS WITH REGARD TO NEW CONSTRUCTION, OR FOR THE NEED OF REMOVAL, RELOCATION OR ALTERATION OF EXISTING FACILITIES. THIS INCLUDES, BUT IS NOT LIMITED TO, THE OWNER, AT&T, FP&L, COUNTY UTILITIES, CENTRAL FLORIDA CELLULAR PHONE COMPANY, THE COUNTY ENGINEERING DEPARTMENT AND THEIR CONTRACTORS, SUBCONTRACTORS OR AGENTS. STANDARDS FOR QUALITY AND WORKMANSHIP: ALL MATERIALS, EQUIPMENT AND SUPPLIES FURNISHED BY THE CONTRACTOR FOR PERMANENT INCORPORATION IN THE WORK SHALL BE NEW AND OF THE QUALITY STANDARDS SPECIFIED. WORKMANSHIP SHALL BE THE BEST FINISHED PRODUCT EQUAL TO THE BEST ACCEPTED STANDARDS OF THE TRADE FOR THE CATEGORY OF WORK PERFORMED.

TEMPORARY UTILITIES: ALL ARRANGEMENTS AND COSTS FOR TEMPORARY POWER, WATER AND WASTEWATER FACILITIES DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

OBSERVING THE WORK: THE PROGRESS AND QUALITY OF THE WORK WILL BE OBSERVED BY THE OWNER'S ENGINEER OR ENGINEER'S APPOINTED EMPLOYEE. NO OBSERVER IS AUTHORIZED TO CHANGE ANY PROVISIONS OF THE SPECIFICATIONS WITHOUT WRITTEN AUTHORIZATION OF THE OWNER'S ENGINEER. NOR SHALL THE PRESENCE AND/OR THE ABSENCE OF AN OBSERVER RELIEVE THE CONTRACTOR FROM ANY REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.

THE CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 24 HOURS NOTICE PRIOR TO REQUIRED INSPECTIONS, AND SHALL SUPPLY ALL EQUIPMENT NECESSARY TO PROPERLY TEST AND INSPECT THE COMPLETED WORK.

IN ADDITION TO THE REQUIREMENTS PREVIOUSLY REFERENCED, THE FOLLOWING MINIMUM CONSTRUCTION CONTROL CHECKPOINTS SHALL BE ADHERED TO, AND THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR OBSERVATION:

1. PRIOR TO ANY DEVIATION FROM THE DRAWINGS;
2. PRIOR TO ANY BACK FILLING TRENCHES CONTAINING HYDRAULIC CONDUITS, SO THE JOINTING MAY BE INSPECTED;
3. PRIOR TO TESTING OF ALL HYDRAULIC CONDUITS;
4. PRIOR TO PLACEMENT OF ROADWAY BASE MATERIAL, CONCRETE OR ASPHALTIC CONCRETE;
5. UPON COMPLETION OF CONSTRUCTION FOR FINAL INSPECTION WITH THE CONTRACTOR OR HIS REPRESENTATIVE.

TESTING: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY THE TESTING AND RETESTING NECESSARY TO ASSURE THE WORK HAS BEEN PERFORMED TO STRICT COMPLIANCE WITH THE SPECIFICATIONS. THE COST FOR ALL TESTING SHALL BE BORNE BY THE CONTRACTOR. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. THE NAME OF THE TESTING LABORATORY SHALL BE SUPPLIED AT THE PRE CONSTRUCTION MEETING.

EXISTING UTILITIES AND STRUCTURES: EXISTING UTILITIES, STRUCTURES AND FACILITIES SHOWN ON THE DRAWINGS WERE LOCATED AS ACCURATELY AS POSSIBLE FROM THE RECORDS EXAMINED. NO GUARANTEE IS MADE THAT ALL EXISTING FACILITIES ARE SHOWN OR THAT THOSE SHOWN ARE ENTIRELY ACCURATE. THE CONTRACTOR SHALL ASSURE HIMSELF OF THE ACTUAL LOCATION OF THE UTILITIES, STRUCTURES OR FACILITIES PRIOR TO PERFORMANCE OF ANY WORK IN THE VICINITY. THE UTILITY COMPANIES OR UTILITY AGENCIES WILL COOPERATE WITH THE CONTRACTOR IN LOCATING UNDERGROUND UTILITIES THAT MAY BE SUBJECT TO DAMAGE OR INTERRUPTION OF SERVICES DURING THE CONTRACTOR'S OPERATIONS. PRIOR TO START OF THE WORK THE CONTRACTOR SHALL REQUEST THAT EACH UTILITY AGENCY ADVISE HIM OF THE LOCATION OF THEIR FACILITIES IN THE VICINITY. THE OWNER WILL ASSUME NO LIABILITY FOR DAMAGES SUSTAINED OR COSTS INCURRED BECAUSE OF THE CONTRACTOR'S OPERATION IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, OR TO THE TEMPORARY BRACING AND SHORING OF SAME, IN THE EVENT THAT IT IS NECESSARY TO SHORE, BRACE, OR SWING A UTILITY. THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHOULD BE CONTACTED AND THEIR PERMISSION SECURED AS TO THE METHOD USED FOR ANY SUCH WORK.

RESTORATION OF DAMAGED STRUCTURES OR UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, REBUILD OR RESTORE TO ITS FORMER CONDITION, ANY AND ALL PORTIONS OF EXISTING UTILITIES, STRUCTURES, EQUIPMENT, APPURTENANCES OR FACILITIES, OTHER THAN THOSE TO BE PAID FOR UNDER THIS CONTRACT, WHICH MAY BE DISTURBED OR DAMAGED DUE TO THIS CONSTRUCTION OPERATION, AT NO COST TO THE OWNER.

FINAL CLEANUP: UPON COMPLETION OF THE WORK BUT BEFORE FINAL PAYMENT WILL BE MADE, THE CONTRACTOR SHALL CLEAR AND REMOVE FROM THE PROJECT AREA, ALL FALSE WORK, EQUIPMENT, SURPLUS AND DISCARD MATERIALS, RUBBISH AND TEMPORARY STRUCTURES WHICH RESULT FROM THE WORK UNDER THIS AGREEMENT, AND SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY WHICH HAS BEEN DAMAGED DURING THE PROSECUTION OF THE WORK.

RECORD DRAWINGS: AFTER COMPLETION OF THE CONTRACT WORK, BUT PRIOR TO SUBMITTAL OF THE REQUEST FOR FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE, ALL INFORMATION AND LABOR NEEDED FOR PREPARATION OF FINAL RECORD DRAWINGS FOR SUBMITTAL TO THE OWNER OF THE COMPLETED IMPROVEMENTS. THE INFORMATION SHALL INCLUDE FINAL LOCATION, BY REFERENCE TO COMPLETED IMPROVEMENTS, OR OTHER ACCEPTABLE MEANS, OF ALL UNDERGROUND OR SUBMERGED IMPROVEMENTS, THE ELEVATIONS OF PERTINENT POINTS IN THE DRAINAGE, WATER AND WASTEWATER SYSTEMS, ACTUAL CONSTRUCTED PIPE LENGTHS, SLOPES AND INVERTS, CUTOFF WALL DIMENSIONS AND ELEVATIONS, ALL REVISIONS TO THE ORIGINAL PLANS, AND ALL INFORMATION NECESSARY TO LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS AGREEMENT. PAYMENT FOR OBTAINING AND PROVIDING THE RECORD DRAWING INFORMATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR THE VARIOUS ITEMS OF WORK TO WHICH IT IS INCIDENTAL.

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION, SO THAT THE ENGINEER'S REPRESENTATIVE IS PRESENT AND CAN CONFIRM THE RECORD INFORMATION AS FOLLOWS:

THE FINAL LOCATION, BY REFERENCE TO AT LEAST TWO COMPLETED VISIBLE IMPROVEMENTS OR OTHER PERMANENT POINTS, OF ALL PAVING, DRAINAGE, WATER DISTRIBUTION SYSTEM AND WASTEWATER COLLECTION SYSTEM ELEMENTS, AND SHALL INCLUDE ELEVATIONS OF PERTINENT POINTS IN THE PAVEMENT AND DRAINAGE IMPROVEMENTS, ALL REVISIONS TO THE ORIGINAL PLANS, VERIFICATION OF ALL DESIGN DIMENSIONS, ELEVATIONS, PIPE SLOPES, PIPE LENGTHS AND ALL OTHER INFORMATION NECESSARY TO HORIZONTALLY AND VERTICALLY LOCATE AND OPERATE THE IMPROVEMENTS CONSTRUCTED UNDER THIS CONTRACT. INFORMATION TO BE SHOWN FOR THE WATER DISTRIBUTION SYSTEM INCLUDES THE LOCATION SYSTEM TERMINALS, FOR THE WASTEWATER COLLECTION SYSTEM INCLUDES THE LOCATION OF ALL SERVICE TERMINALS, AND THE LOCATION OF ALL ELECTRICAL AND COMMUNICATION CONDUIT.

DRAWINGS SHALL INCLUDE:

- A. ANY CHANGES OR VERIFICATIONS GET MARKED
- B. MARK OUT ALL "PROPOSED" OR "CONSTRUCTS"
- C. CHANGES TO LOCATIONS OF PIPE, VALVES, FITTINGS OR MANHOLES, ETC.
- D. DRAW IN A DETAIL BOX OF ANY SUBSTANTIAL CHANGES
- E. MARK LOCATIONS AND FOOTAGE OF ALL LATERALS FROM THE DOWNSTREAM MANHOLE
- F. MARK ALL BSPS ON PLANS

GUARANTEE: ALL MATERIALS AND THE INSTALLATION THEREOF WHICH ARE FURNISHED AND INSTALLED UNDER THE TERM OF THE AGREEMENT, SHALL BE GUARANTEED BY THE CONTRACTOR AGAINST DEFECTIVE WORKMANSHIP, MECHANICAL AND PHYSICAL DEFECTS, LEAKAGE, BREAKAGE, AND OTHER DAMAGES AND FAILURE UNDER NORMAL OPERATION FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL PAYMENT, SAID DATE TO CONSTITUTE THE COMMENCEMENT OF THE ONE (1) YEAR WARRANTY PERIOD.

ALL MATERIALS AND INSTALLATIONS PROVING TO BE DEFECTIVE WITHIN THE SPECIFIED PERIOD OF THE GUARANTEE, SHALL BE REPAIRED, WITH OR WITHOUT THE OWNER, BY THE CONTRACTOR. THE PERIOD OF GUARANTEE OF EACH SUCH REPLACEMENT SHALL BE FROM AND AFTER THE DATE OF INSTALLATION THEREOF.

MATERIALS, CONSTRUCTION METHODS, TESTING AND TOLERANCES FOR ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS, IN THE EVENT OF A CONFLICT, THE MORE STRINGENT PROVISION SHALL APPLY.

1. MOBILIZATION: THE WORK SPECIFIED IN THIS SECTION CONSISTS OF THE PREPARATORY WORK AND OPERATIONS IN MOBILIZING FOR BEGINNING WORK ON THE PROJECT, INCLUDING, BUT NOT LIMITED TO, THOSE OPERATIONS NECESSARY FOR THE MOVEMENT OF PERSONNEL, EQUIPMENT, SUPPLIES AND INCIDENTALS TO THE PROJECT SITE, AND FOR THE ESTABLISHMENT OF TEMPORARY OFFICES, BUILDINGS, SAFETY EQUIPMENT AND FIRST AID SUPPLIES, SANITARY AND OTHER FACILITIES, AS REQUIRED BY THESE SPECIFICATIONS, THE SPECIAL PROVISIONS, AND STATE AND LOCAL LAWS AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ANY OTHER PREEXISTING EROSION NECESSARY FOR THE START OF THE WORK, AS WELL AS THE COST OF THE REMOVAL OF THE ABOVE ITEMS, SHALL ALSO BE INCLUDED IN THIS SECTION.

2. CONSTRUCTION SURVEYING: THE CONTRACTOR SHALL CONSTRUCT THE REQUIRED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLANS, AS OUTLINED IN THE SUPPLEMENTARY CONDITIONS. THE OWNER SHALL PROVIDE THE NECESSARY POINTS FOR HORIZONTAL CONTROL AND BENCHMARKS IN THE VICINITY OF WORK. ALL OTHER CONSTRUCTION STAKING FOR BOTH HORIZONTAL AND VERTICAL CONTROL NEEDED BY THE CONTRACTOR FOR CONTROL OF HIS WORK SHALL BE PERFORMED BY THE CONTRACTOR.

3. CLEARING AND GRUBBING: CLEARING AND GRUBBING SHALL BE PERFORMED WITHIN THE LIMITS OF THE AREAS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO, THE AREAS OF NEW SIDEWALKS, SWALES, POND, ROADWAY AND PARKING PAVEMENT, AND BUILDING AREA IN ACCORDANCE WITH SECTION 110, FOOT SPECIFICATION, AND SHALL CONSIST OF THE COMPLETE REMOVAL AND DISPOSAL OF ALL TREES, BRUSH, STUMPS, ROOTS, GRASS, WEEDS, RUBBISH AND ALL OTHER OBSTRUCTIONS TO A DEPTH OF 18 INCHES BELOW NATURAL GROUND OR DESIGN GRADE, WHICHEVER IS LOWER.

ALL MATERIAL SHALL BE REMOVED FROM THE SITE OF THE PROJECT, AND SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, REGIONAL, STATE, AND FEDERAL LAWS, REGULATIONS, AND ORDINANCES.

4. EARTHWORK AND GRADING: SHALL BE PERFORMED AS REQUIRED TO ATTAIN THE FINAL GRADES, TYPICAL SECTIONS AND ELEVATIONS, AND TO ACCOMPLISH THE OBJECTIVES SHOWN ON THE PLANS FOR THE AREAS TO BE PAVED, SODDED, OR LANDSCAPED. MATERIALS AND CONSTRUCTION METHODS SHALL MEET THE REQUIREMENTS OF SECTION 120 FOOT SPECIFICATIONS.

ANY PLASTIC OR ORGANIC MATERIAL WITHIN 36" OF THE FINISHED GRADE OF THE AREA TO BE PAVED SHALL BE REMOVED AND REPLACED WITH A-3 MATERIAL. EMBANKMENT WORK SHALL BE PERFORMED IN ACCORDANCE WITH FOOT SPECIFICATIONS.

ALL CLEAN EXCESS MATERIAL SUITABLE FOR FILL RESULTING FROM THE EXCAVATION SHALL BE INCORPORATED INTO THE PROPOSED WORK, OR SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED ON THE OWNERS PROPERTY AT THE ONSITE LOCATION DESIGNATED BY THE OWNER. ALL UNSUITABLE MATERIAL AND DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. THE WORK SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING: FINAL GRADING OF THE POND, SWALES, SIDEWALKS, ROADWAY, PARKING LOT, AND FILLING OF EXISTING DITCHES.

5. DRAINAGE IMPROVEMENTS: THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NECESSARY TO COMPLETE THE PROJECT WORK FOR THE DRAINAGE IMPROVEMENTS, SIZE AND TYPE SHOWN ON THE PLANS FOR THE FOLLOWING ITEMS. INCLUDED IN THE UNIT COSTS FOR EACH ITEM SHALL BE THE COSTS ASSOCIATED WITH THE DESIGN AND CONSTRUCTION, BY THE CONTRACTOR, TO COMPLY WITH THE TRENCH SAFETY ACT, LAWS OF FLORIDA, CHAPTER 90-98.

BACKFILL AND COMPACTION OF TRENCHING FOR CULVERT INSTALLATION UNDER THIS SECTION SHALL BE IN ACCORDANCE WITH SECTION 125-8.3, FOOT SPECIFICATIONS. DENSITY TESTS SHALL BE PROVIDED AT THE FOLLOWING VERTICAL LOCATIONS:

TWO TESTS* AT SPRINGLINE (ONE EACH SIDE OF PIPE)
ONE TEST* AT ONE FOOT ABOVE PIPE; AND
ONE TEST* AT ONE FOOT BELOW SUBGRADE OR FINISH GRADE.
* = DENSITY OF AT LEAST 98 % OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180

THE MINIMUM NUMBER OF HORIZONTAL TEST LOCATIONS IS TWO PER CULVERT INSTALLATION, ONE PER 100 LINEAR FEET OF PIPE AND/OR ONE PER 20 FEET OF PAVEMENT CROSSING WHICHEVER IS GREATER. ADDITIONAL TESTS MAY BE REQUIRED AT MORE FREQUENT INTERVALS IF DEEMED NECESSARY.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE INDEPENDANT TESTING LABORATORY AND THE TESTING AND RETESTING NECESSARY TO ASSURE THAT THE WORK HAS BEEN PERFORMED IN STRICT COMPLIANCE WITH THESE ACTIONS. COST FOR ALL TESTING SHALL BE BORNE BY THE CONTRACTOR. ANY RETEST REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS ABOVE SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR.

A. STORM SEWER PIPE: CONSTRUCTION METHODS FOR DRAINAGE CULVERTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 125 AND 430, FOOT SPECIFICATIONS.

REINFORCED CONCRETE PIPE (RCP): MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 941, FOOT SPECIFICATIONS FOR STANDARD CONCRETE PIPE AND SECTION 942, FOOT SPECIFICATIONS FOR GASPIPS.

B. STORM INLETS: THE MATERIALS AND CONSTRUCTION METHODS FOR STORM INLETS AND GRATES SHALL CONFORM TO SECTION 425, FOOT SPECIFICATIONS.

TYPE "C" AND "E" INLETS SHALL BE PER FOOT INDEX NO. 232. INLETS AND PAVED AREAS SHALL HAVE STEEL GRATES SUITABLE FOR HEAVY TRAFFIC AND BICYCLES. CAST IRON TRAFFIC GRATES IN ALL OTHER AREAS.

C. CONCRETE CURBING: THE CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS TO CONSTRUCT THE CURBING IN THE LOCATIONS SHOWN ON THE PLANS. ALL CURBING SHALL BE CONSTRUCTED PER FOOT INDEX NO. 300. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO SECTION 520, FOOT SPECIFICATIONS. SUBGRADE UNDER ALL CURB AND GUTTER SHALL HAVE A MINIMUM LBR OF 40.

6. PAVEMENT IMPROVEMENTS: THE CONTRACTOR SHALL FURNISH ALL LABOR AND MATERIALS NECESSARY TO COMPLETE THE ITEMS OF WORK FOR PAVING IMPROVEMENTS UNDER THIS SECTION AT THE LOCATIONS AND TO THE EXTENT SHOWN ON THE PLANS. PAVEMENT RESTORATION SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS, AND IN ACCORDANCE WITH THESE SPECIFICATIONS, FOOT, AND COUNTY SPECIFICATIONS.

A. STABILIZED SUBGRADE SHALL HAVE A MINIMUM LBR RATIO OF 40, AND MINIMUM DENSITIES SHALL BE 98% OF MAXIMUM AS DETERMINED BY THE AASHTO T-180 METHOD C. MATERIALS AND CONSTRUCTION METHODS SHALL BE FURNISHED BY THE CONTRACTOR, AND CONFORM TO SECTION 160, FOOT SPECIFICATIONS FOR TYPE C. STABILIZATION AND FILL FOR ADEQUACY OF THE WORK UNDER THIS SECTION. THE STABILIZED SUBGRADE WITHIN THE LIMITS SHOWN FOR THE PROPOSED PAVEMENT SHALL BE 12 INCHES IN THICKNESS. STABILIZED SUBGRADE SHALL EXTEND 6 INCHES BEYOND THE EDGE OF THE BASE COURSE.

7. CONCRETE NOTES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE INDEPENDENT TESTING LABORATORY DESIGNATED BY THE OWNER, THE TESTING AND RETESTING NECESSARY TO ASSURE THE WORK HAS BEEN PERFORMED TO STRICT COMPLIANCE WITH THE SPECIFICATIONS. COST FOR THE INITIAL TESTING SHALL BE BORNE BY THE CONTRACTOR. ANY RETESTS REQUIRED DUE TO FAILURE TO MEET THE MINIMUM REQUIREMENTS SHALL BE PERFORMED AT THE EXPENSE OF THE CONTRACTOR. MINIMUM TESTING DETERMINATION FOR ALL ITEMS OF WORK UNDER CONCRETE AREA SHALL BE AS FOLLOWS:

SUBGRADE CONCRETE	FLORIDA SOIL		
	BEARING VALUE	DENSITY	THICKNESS
	500*	500*	100*
	---	---	200*

*=MAXIMUM SPACING SHOWN IN FEET. ALL TESTING SHALL BE TAKEN IN A STAGGERED SAMPLING PATTERN FROM A POINT 12 INCHES INSIDE THE FIRST EDGE, TO THE CENTER, TO A POINT 12 INCHES INSIDE THE RIGHT EDGE OF THE ITEM TESTED.

ADDITIONAL TESTS MAY BE REQUIRED FOR THE DRIVEWAY CONSTRUCTION OR AT MORE FREQUENT INTERVALS AS DEEMED NECESSARY BY THE ENGINEER.

8. PAVEMENT MARKINGS: THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS AND LABOR REQUIRED TO COMPLETE THE PROJECT WORK IN THIS SECTION. MATERIALS AND CONSTRUCTION METHODS FOR APPLYING PAINTED TRAFFIC STRIPES AND MARKINGS, COMPLETE WITH REFLECTIVE GLASS SPHERES, SHALL CONFORM TO THE REQUIREMENTS OF SECTION 710, FOOT SPECIFICATIONS. TRAFFIC PAINT SHALL BE APPLIED IN ALL LOCATIONS SHOWN ON THE PLANS.

9. SIGNAGE: THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR NEEDED, INCLUDING ALL SUPPORTING ELEMENTS, TO INSTALL SIGNS AT THE LOCATIONS SHOWN ON THE PLANS. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO SECTION 700, FOOT SPECIFICATIONS. STOP SIGNS ARE TO BE HIGH INTENSITY REFERENCE PER FOOT STANDARDS, COUNTY SPECIFICATIONS AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

10. EROSION CONTROL: THE CONTRACTOR SHALL TAKE SUFFICIENT PRECAUTIONS TO PREVENT WATER POLLUTION WITH AQUATIC WEEDS, FUELS, OILS, BITUMINOUS, CALCIUM CHLORIDE OR OTHER HARMFUL MATERIALS. ALSO, HE SHALL CONDUCT AND SCHEDULE HIS OPERATIONS SO AS TO AVOID POLLUTION OR SILTATION OF WATER BODIES OR TO INTERFERE WITH INDIGENOUS WILDLIFE. THE INSTALLATION OF TEMPORARY EROSION AND POLLUTION CONTROL FEATURES SHALL BE COORDINATED WITH THE CONSTRUCTION OF THE PERMANENT EROSION CONTROL FEATURES TO THE EXTENT NECESSARY TO ASSURE ECONOMIC, EFFECTIVE AND CONTINUOUS CONTROL OF EROSION AND WATER POLLUTION THROUGHOUT THE LIFE OF THE CONTRACT. ANY EROSION OR SHOALING SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSES.

DUE TO UNANTICIPATED CONDITIONS, THE ENGINEER MAY DIRECT THE USE OF CONTROL FEATURES OR METHODS OTHER THAN THOSE SPECIFIED IN THE ORIGINAL CONTRACT. IN SUCH EVENT THIS ADDITIONAL WORK WILL BE PAID FOR AS UNFORESEEABLE WORK.

ARGENTINE BAHIA SOD SHALL BE PROVIDED AS SHOWN ON THE PLANS, INCLUDING BUT NOT LIMITED TO, ALL DISTURBED AREAS. MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO THE REQUIREMENTS FOUND IN LANDSCAPE ARCHITECT'S SPECIFICATIONS.

11. POLLUTION CONTROL: WATER POLLUTION AND TURBIDITY CONTROL SHALL BE REQUIRED BY THE CONTRACTOR IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL REGULATION STANDARDS, LOCAL REGULATIONS AND SECTION 104, FOOT REQUIREMENTS INCLUDING BUT NOT LIMITED TO ONE OR MORE OF THE FOLLOWING OPTIONS: SHEETPILE OR EARTH COFFERDAM, HAY BALES, SEDIMENT BASINS, SODS, AND OTHER OBSTRUCTIONS TO A DEPTH OF 18 INCHES BELOW NATURAL GROUND OR DESIGN GRADE, WHICHEVER IS LOWER.

WATER DISTRIBUTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE LOCAL UTILITIES AUTHORITY.

2. WATER MAIN WHERE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL CONFORM TO AWWA C-900 OR C-905, PRESSURE CLASS 150, DR (18). WATER MAIN WHERE SPECIFIED AS POLYETHYLENE (PE) SHALL CONFORM AWWA C-901 OR C-906, STANDARD CODE DESIGNATION PE3408, PIPE CLASS 200, DIMENSION RATIO (DR) 9.

3. WATER MAIN, WHERE SPECIFIED AS DUCTILE IRON PIPE - SHALL CONFORM TO ANSI A-21.51 OR AWWA C-151, AND SHALL BE PRESSURE CLASS 250 (MINIMUM).

4. POLYVINYL CHLORIDE WATER MAIN SHALL BE BLUE IN COLOR OR WHITE IN COLOR. THE USE OF IDENTIFICATION TAPE ATTACHED TO THE TOP OF THE PIPE MAY BE USED IN LIEU OF MARKING ON THE PIPE, ALSO DIP PIPE SHALL REQUIRE THE USE OF IDENTIFICATION TAPE AND THIN WIRE.

5. FITTINGS SHALL BE CAST OR DUCTILE IRON, CONFORMING TO AWWA C-110 AND ANSI A21.11, CLASS 250 MINIMUM, CEMENT LINED, AND SEAL COATED.

6. GATE VALVES SHALL BE MUELLER RESILIENT SEAT, KENNEDY KEN-SEAL, AMERICAN, CLOW, OR APPROVED EQUAL. VALVES SHALL CONFORM TO AWWA C-509.

7. WATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH LOCAL UTILITY DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY UTILITY ENGINEERING AND THE CITY, COUNTY, FOOT, IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.

8. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE UTILITY ENGINEER AND CITY/COUNTY/FOOT ENGINEER.

9. THE CONTRACTOR SHALL NOTIFY UTILITY ENGINEERING AND CITY/COUNTY/FOOT ENGINEERING 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

10. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, UTILITY AND CITY/ COUNTY/FOOT ENGINEER SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.

11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS AND APPROVED BY THE COUNTY ENGINEER.

12. MINIMUM COVER SHALL BE 36 INCHES EXCEPT AS APPROVED BY THE UTILITIES ENGINEER AND CITY/ COUNTY/FOOT ENGINEER. PIPES WITH COVER LESS THAN 30 INCHES SHALL BE CONSTRUCTED OF DUCTILE IRON OR IN PVC CASING.

13. DISTURBED AREAS SHALL BE RESTORED IN CONFORMANCE WITH THE APPLICABLE GOVERNING AGENCY REQUIREMENTS.

14. EXISTING UTILITIES AND DRAINAGE SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION AND PROTECTED BY THE CONTRACTOR.

15. WATER MAINS SHALL BE TESTED AND DISINFECTED IN ACCORDANCE WITH THE APPLICABLE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AWWA C-651 FOR DISINFECTION.

WATER DISTRIBUTION NOTES CONTINUED

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING UTILITIES AND DRAINAGE.

17. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER INCLUDING LOCATIONS OF VALVES, FITTINGS, SERVICE CONNECTIONS, BLOWOFFS, AIR RELEASE VALVES, AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT, AS REQUIRED BY THE UTILITIES ENGINEER.

18. THE CONTRACTOR SHALL TAP EXISTING LINES UNDER THE SUPERVISION OF THE UTILITIES PROVIDER ONLY AFTER TESTING AND DISINFECTION HAS BEEN COMPLETED AND APPROVED ON THE TAPPING VALVE AND SLEEVE.

19. WATER MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN MULTI STRANDED WIRE (BLUE IN COLOR) AND IDENTIFICATION TAPE WITH "WATER" MARKED ON TAPE, PERMANENTLY ATTACHED TO THE TOP OF THE WATER MAIN IN ACCORDANCE WITH THE LOCAL UTILITIES SPECIFICATIONS.

20. SERVICE TAPS SHALL BE PLACED APPROXIMATELY TEN FEET AWAY FROM GATE VALVES, AS SHOWN. FOR TESTING, FOLLOWING TESTING AND STERILIZATION OF WATER LINE, CONTRACTOR SHALL PLACE A BRASS PLUG IN CORPORATION STOPS AND CORP STOPS SHALL BE REMOVED FROM TESTING LOCATIONS.

21. MECHANICAL RESTRAINTS TO BE USED ON ALL FITTINGS AND PLACED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL UTILITY REQUIREMENTS.

22. ALL MAINS SHALL BE TESTED AT A MINIMUM OF 150 PSI. TESTING METHODS SHALL CONFORM TO AWWA C-600. — 2 HR MINIMUM TEST

L= SD(P) 1/2
= 133.200
L= LEAKAGE IN GPH
S= LENGTH OF PIPE IN FEET
D= PIPE DIAMETER IN INCHES
P= TESTING PRESSURE IN PSI

23. PRIOR TO ANY TESTING, ALL MAINS 6" IN DIA. AND LARGER SHALL HAVE A LINE SIZE SWAB PASSED THRU THE ENTIRE LENGTH OF THE LINE, NOTE: SWAB SHOULD BE PLACED IN 1st JOINT OF NEW LINE. END OF MAIN SHOULD BE "TURNED UP" AT 45% AND EXTENDED SO THAT SWABBING AND A FULL BORE FLUSH CAN BE ACCOMPLISHED. BLOW-OFF ASSY CAN THEN BE PLACED, WHERE LINES BRANCH, SWABS WILL BE PLACED IN BRANCH LINES AND SEQUENTIALLY SWABBED AND FLUSHED.

24. A MINIMUM SIX FEET AND PREFERABLY TEN FEET HORIZONTAL SEPERATION SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES 12 INCHES MINIMUM VERTICAL SEPERATION IF WATER MAIN IS OVER WASTEWATER AND 18 INCHES IF WATER MAIN IS UNDER SHALL BE MAINTAINED BETWEEN THE WATER MAIN AND ANY WASTEWATER LINES. THE DISTANCE SHALL BE MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE OR STRUCTURE, WHERE THIS MINIMUM SEPERATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPERATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.

25. WHERE A WATER MAIN IS TO BE INSTALLED BELOW A STORM DRAIN PIPE, A MINIMUM OF 6 INCHES OF VERTICAL CLEARANCE BETWEEN PIPES SHALL BE CONSTRUCTED OF DIP AT THE CROSSING, AND SHALL BE MECHANICALLY RESTRAINED WITHIN 20 FEET OF THE CROSSING.

26. CONTRACTOR SHALL COMPLY WITH FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

WASTEWATER CONSTRUCTION NOTES

1. ALL CONSTRUCTION MATERIAL, INSTALLATION AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE LOCAL UTILITIES AUTHORITY.
2. GRAVITY SEWER MAIN SHALL BE POLYVINYL CHLORIDE SDR-35, GREEN OR WHITE IN COLOR. GRAVITY SEWER MAIN SHALL HAVE LOCATOR TAPE WITH "SEWER" MARKED ON TAPE AND SHALL CONFORM TO ASTM D-3034.
3. THE MANHOLE BASE SHALL BE SET ON A FIRM, DRY AND STABLE OR COMPACTED BASE. THE CONTRACTOR SHALL UTILIZE ROCK TO PROVIDE A FIRM AND SUITABLE MANHOLE BASE FOUNDATION.
4. WASTEWATER LINES SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH LOCAL UTILITY DESIGN AND CONSTRUCTION STANDARDS. THE CONTRACTOR SHALL SUBMIT CERTIFIED DENSITY TESTS AS REQUIRED BY UTILITY ENGINEERING AND THE COUNTY ENGINEER. IN CASES WHERE PAVED AREAS FALL WITHIN THE JURISDICTION OF LOCAL OR STATE AGENCIES, THE COMPACTION REQUIREMENTS SHALL NOT BE LESS THAN THE MINIMUM REQUIRED BY THE APPROPRIATE RESPONSIBLE AGENCY.
5. A 1% MINIMUM SLOPE SHALL BE MAINTAINED ON ALL SANITARY SERVICE LATERALS.
6. THE CONTRACTOR SHALL FURNISH RECORD DRAWING INFORMATION TO THE ENGINEER CONSISTING OF PIPE SIZES, LOCATION OF SERVICE TEE, WYES, DIAMETER OF SERVICES, LOCATION OF ANY FITTINGS, FINAL RIM AND INVERT ELEVATION OF ALL MANHOLES AND ANY OTHER PERTINENT INFORMATION NECESSARY TO LOCATE ITEMS CONSTRUCTED UNDER THIS PROJECT.
7. MAINTAIN SIX FEET AND PREFERABLY 10 FEET HORIZONTAL DISTANCE BETWEEN WATER MAINS AND SEWER MAINS AS A MINIMUM.
8. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE LINES, AND STORM SEWERS SHOULD CROSS UNDER WATER MAINS WHENEVER POSSIBLE. A MINIMUM VERTICAL DISTANCE OF 12 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE SHALL BE PROVIDED WHENEVER POSSIBLE, WHERE THIS MINIMUM SEPERATION CANNOT BE MAINTAINED, THE CROSSING SHALL BE ARRANGED SO THAT THE WASTEWATER PIPE JOINTS AND THE WATER PIPE JOINTS ARE EQUIDISTANT FROM THE POINT OF CROSSING, AND THE WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (DIP) AT THE CROSSING. SUFFICIENT LENGTHS OF DIP MUST BE USED TO PROVIDE A MINIMUM SEPERATION OF 10 FEET BETWEEN ANY TWO JOINTS. ALL JOINTS ON THE WATER MAIN WITHIN 20 FEET OF THE CROSSING MUST BE MECHANICALLY RESTRAINED. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED AT ALL CROSSINGS.
9. A PRE-CONSTRUCTION CONFERENCE BETWEEN THE ENGINEER, THE CONTRACTOR, UTILITY AND COUNTY/FOOT SHALL BE MANDATORY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
10. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN SHALL BE MADE WITHOUT PRIOR APPROVAL FROM UTILITY/CITY/COUNTY/FOOT ENGINEER.
11. TRAFFIC CONTROL, BARRICADES, ETC. SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS.
12. CONTRACTOR SHALL NOTIFY THE LOCAL UTILITIES AUTHORITY 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
13. WASTEWATER FORCE MAIN SHALL BE POLYVINYL CHLORIDE CONFORMING TO AWWA C-900, AND SHALL BE CLASS 150, DR-18.
14. WASTEWATER FORCE MAIN SHALL BE GREEN IN COLOR OR WHITE IN COLOR. WASTEWATER FORCE MAIN SHALL HAVE THHN WIRE & LOCATOR TAPE WITH "SEWER" MARKED ON TAPE. OF THE PIPE.
15. FITTINGS SHALL BE CAST OR DUCTILE IRON, CONFORMING TO AWWA C-110 AND ANSI A21.11, CLASS 250 MINIMUM, INTERIOR POLYURETHANE, AND SEAL COATED.
16. WASTEWATER FORCE MAIN SHALL BE MARKED BY THE USE OF CONTINUOUS 10 GAUGE THHN WIRE (GREEN IN COLOR) PERMANENTLY ATTACHED TO THE TOP OF THE FORCE MAIN WITH LOCATOR TAPE MARKED "SEWER" ON TAPE IN ACCORDANCE WITH FPUA SPECIFICATIONS.
17. MINIMUM COVER SHALL BE 36 INCHES, PIPES WITH COVER LESS THAN 30 INCHES SHALL REQUIRE PRIOR APPROVAL OF THE UTILITIES ENGINEER AND SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE.
18. EACH SERVICE LATERAL WILL BE MARKED WITH A LOCATOR BALL AS MANUFACTURED BY 3M CORPORATION, OR APPROVED EQUAL AS REQUIRED BY UTILITY ENGINEER.
19. ALL MANHOLES SHALL HAVE SEWER RAIN GUARDS INSTALLED AS REQUIRED BY UTILITY ENGINEER.
20. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA TRENCH SAFETY ACT REQUIREMENTS.

CONFLICTING SPECIFICATIONS

IN THE EVENT OF CONFLICTING SPECIFICATIONS WITH THESE NOTES AND THE PSLUSD STANDARDS MANUAL, THE MORE STRINGENT REQUIREMENT APPLIES.

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