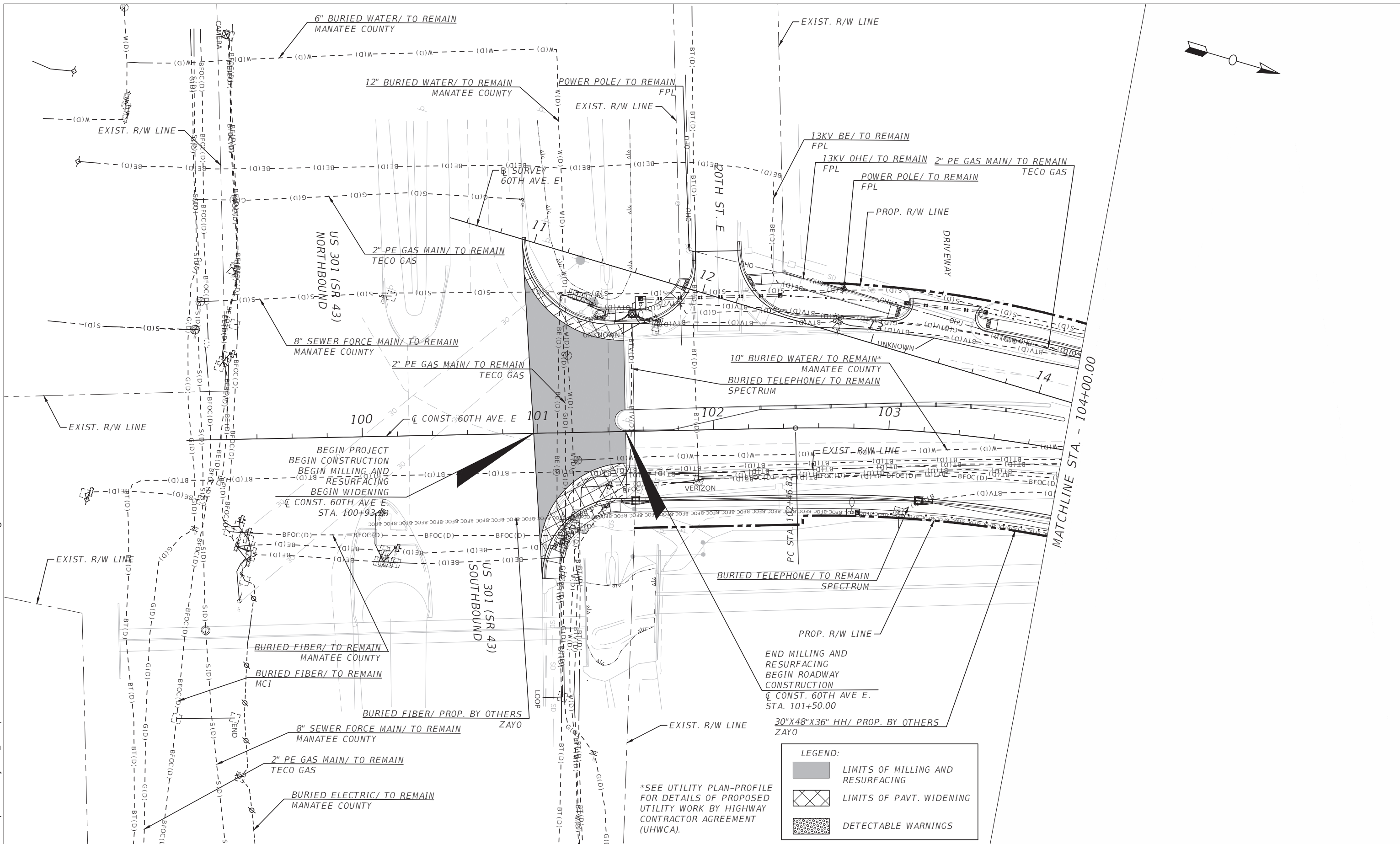


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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602

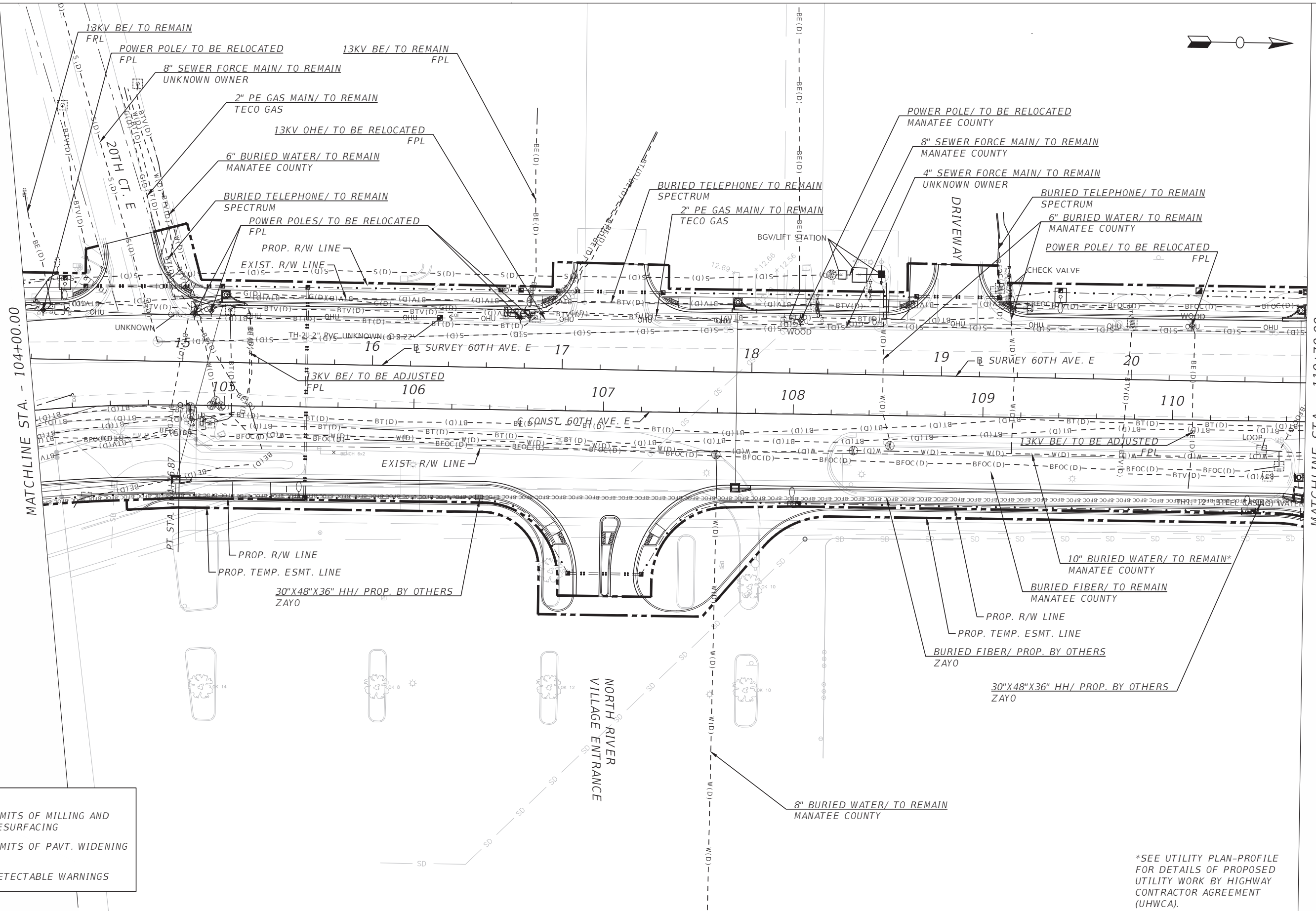


PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO
 MENDOZA RD.
 UTILITY ADJUSTMENTS (1)

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LEGEND:

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

*SEE UTILITY PLAN-PROFILE FOR DETAILS OF PROPOSED UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT (UHWCA).

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
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 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
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 TAMPA, FL 33602



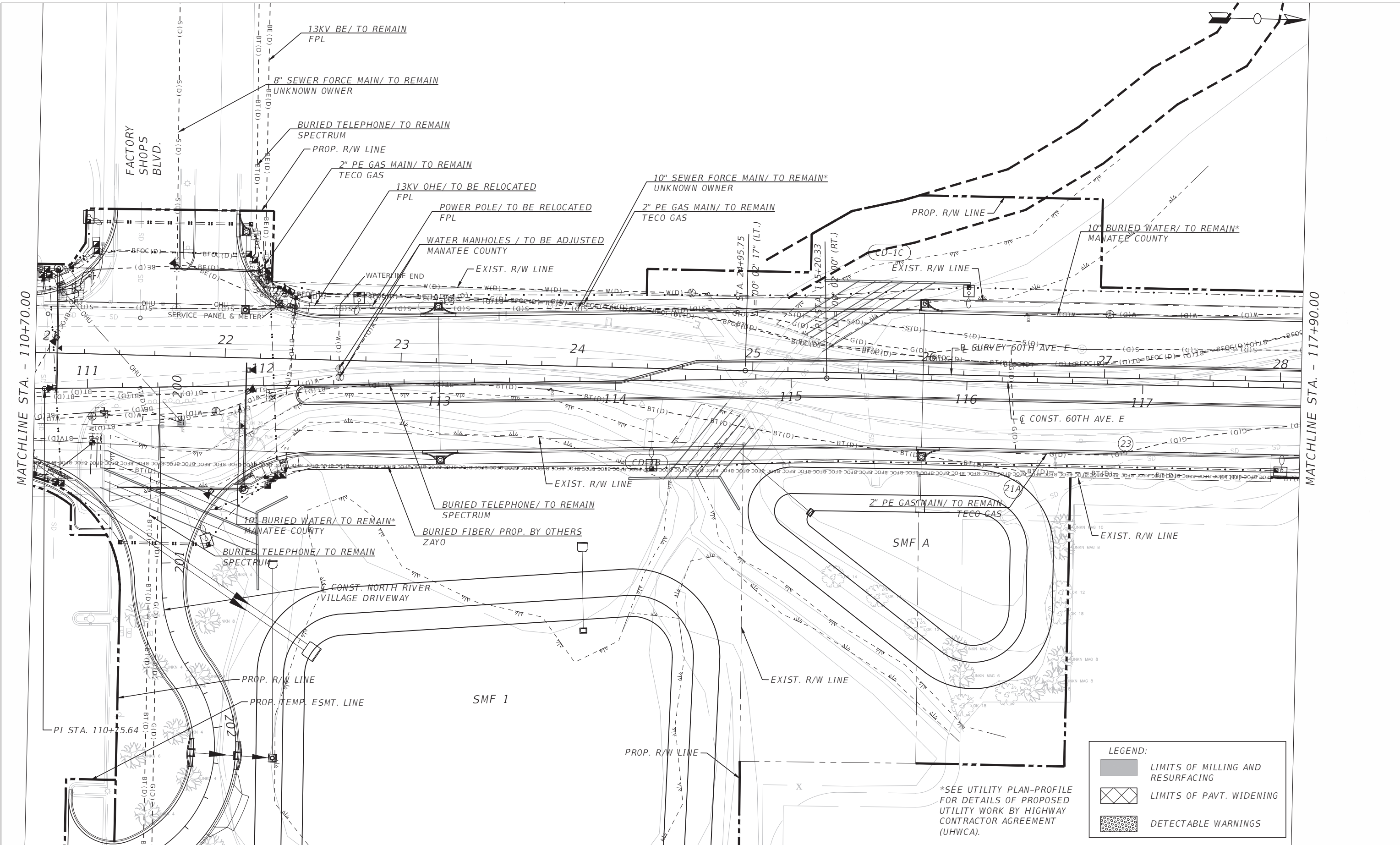
PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.
 UTILITY ADJUSTMENTS (2)

SHEET NO.
 91

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LEGEND:

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	DETECTABLE WARNINGS

*SEE UTILITY PLAN-PROFILE FOR DETAILS OF PROPOSED UTILITY WORK BY HIGHWAY CONTRACTOR AGREEMENT (UHWCA).

NUMBER	DESCRIPTION	DATE	PROJECT #	SURVEYED	HYATT	5/2021
			6083160	DESIGNED	ST	6/7/22
			18-2238	DRAWN	ST	6/7/22
			4-34S-18E	CHECKED	DHC	6/7/22
			1" = 50'			

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602



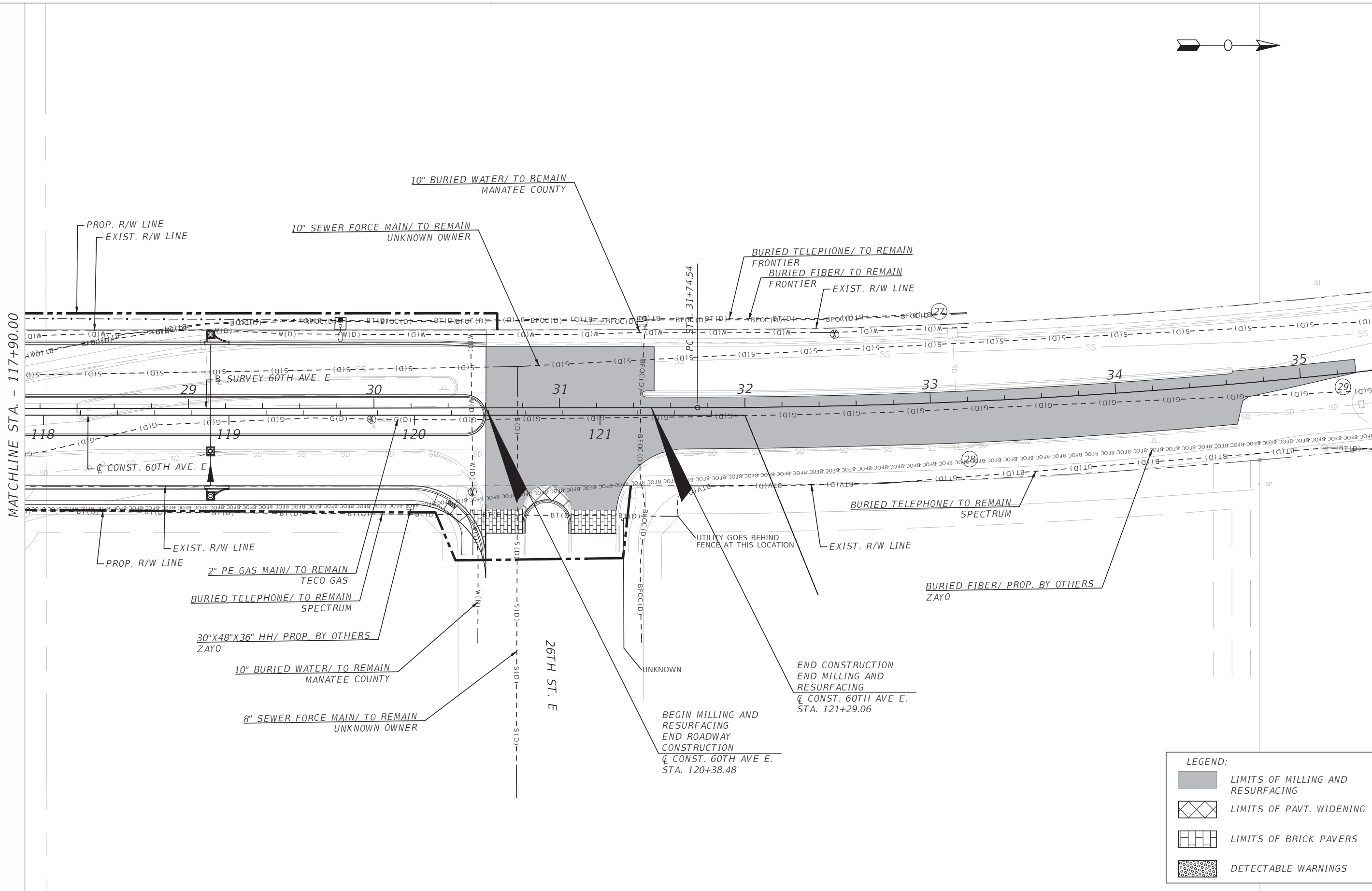
**PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES**
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.
 UTILITY ADJUSTMENTS (3)

SHEET NO.
 92

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LEGEND:

	LIMITS OF MILLING AND RESURFACING
	LIMITS OF PAVT. WIDENING
	LIMITS OF BRICK PAVERS
	DETECTABLE WARNINGS

NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	ST	6/7/22
SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602



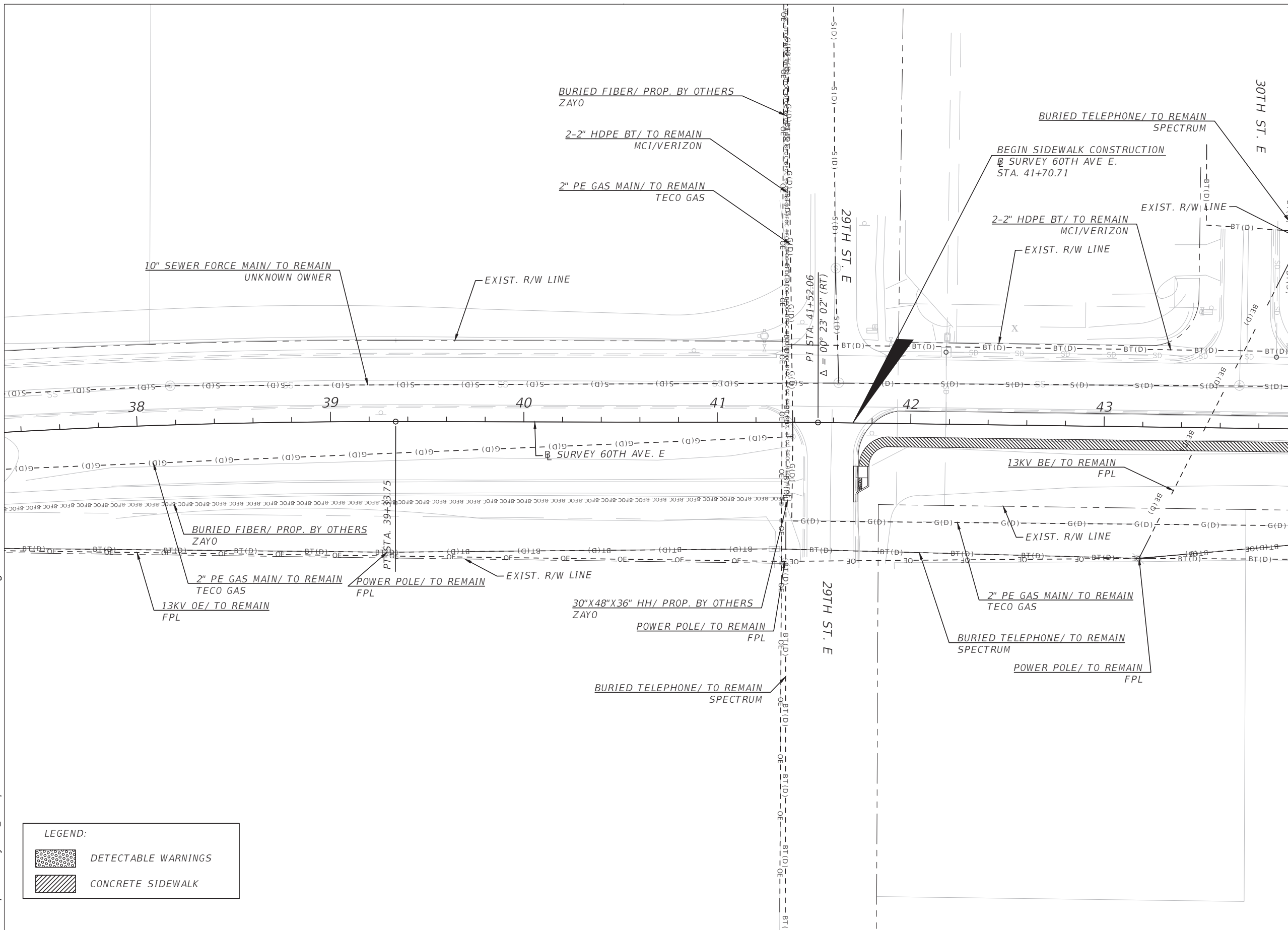
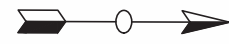
PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.
 UTILITY ADJUSTMENTS (4)

SHEET NO.
 93

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MATCHLINE STA. - 44+00.00
 @ SURVEY 60TH AVE. E

LEGEND:

	DETECTABLE WARNINGS
	CONCRETE SIDEWALK

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602

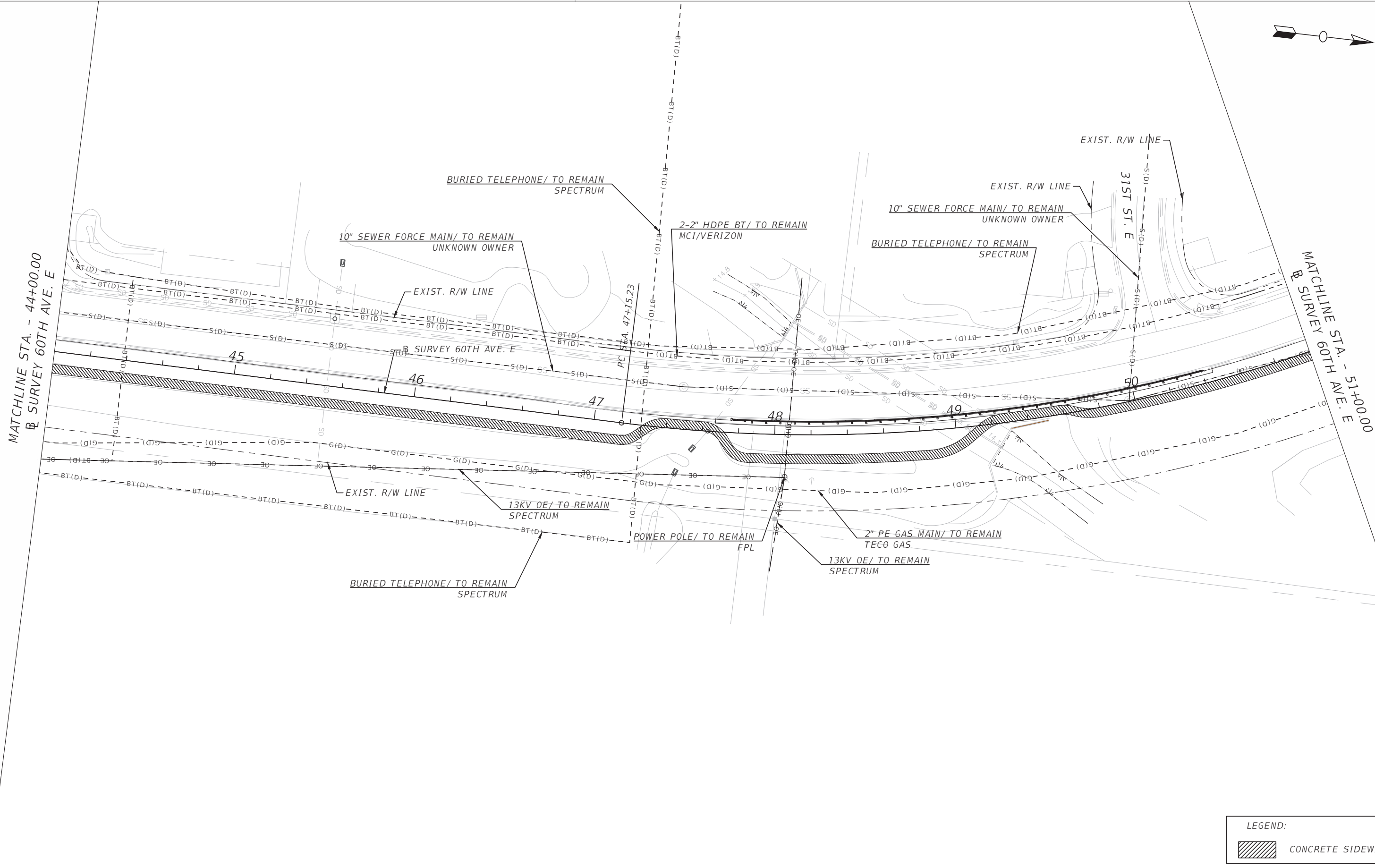


PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO
 MENDOZA RD.
 UTILITY ADJUSTMENTS (5)

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LEGEND:
 CONCRETE SIDEWALK

NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	ST	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
			SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602



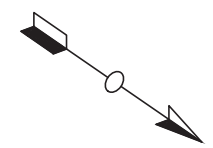
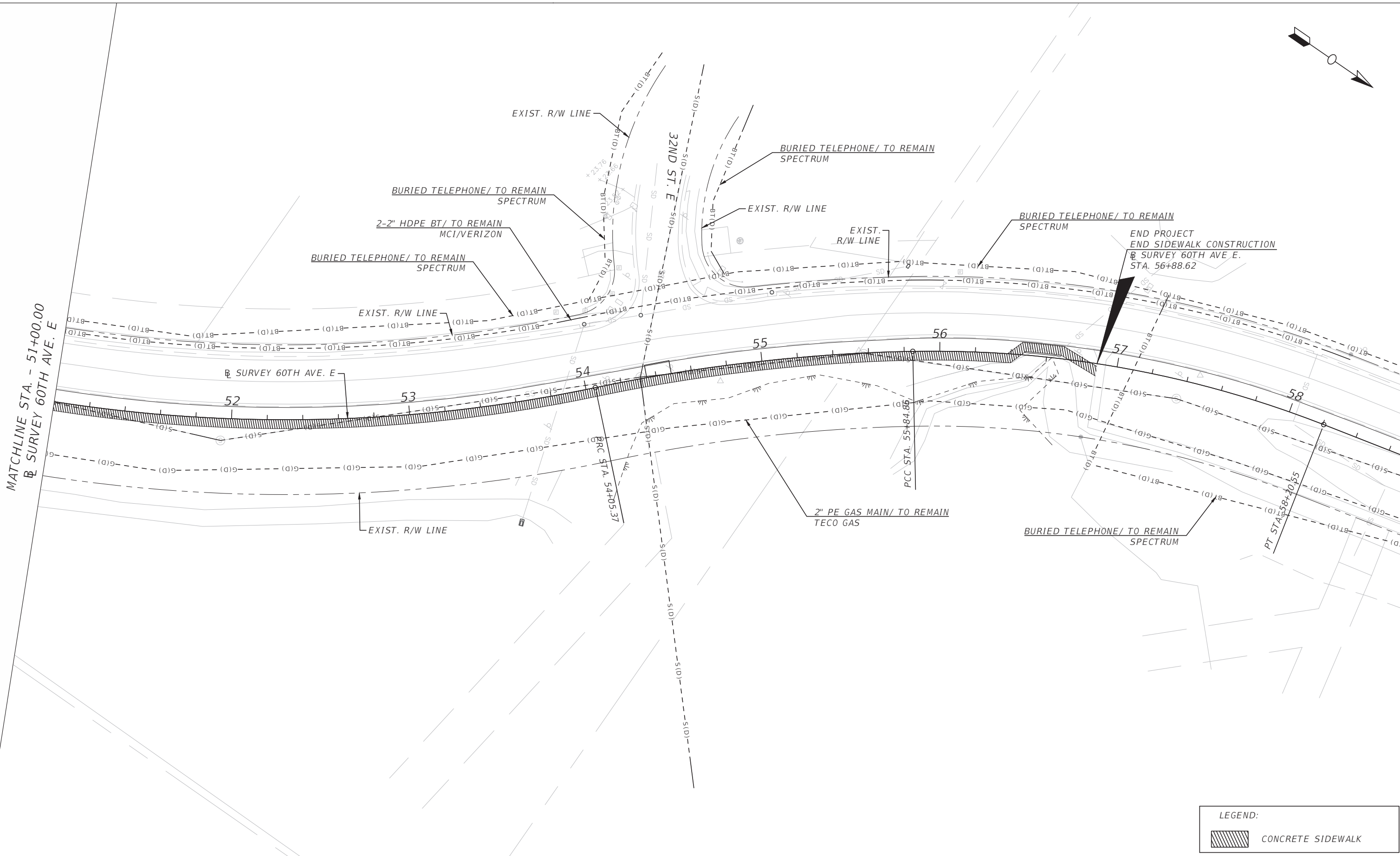
PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO
 MENDOZA RD.
 UTILITY ADJUSTMENTS (6)

SHEET NO.
 95

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LEGEND:	
	CONCRETE SIDEWALK

NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	ST	6/7/22
SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22
SCALE	1" = 50'	CHECKED	DHC	6/7/22

DEBORAH HERNANDEZ-CEDENO, P.E.
 LICENSE NUMBER 74754
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602



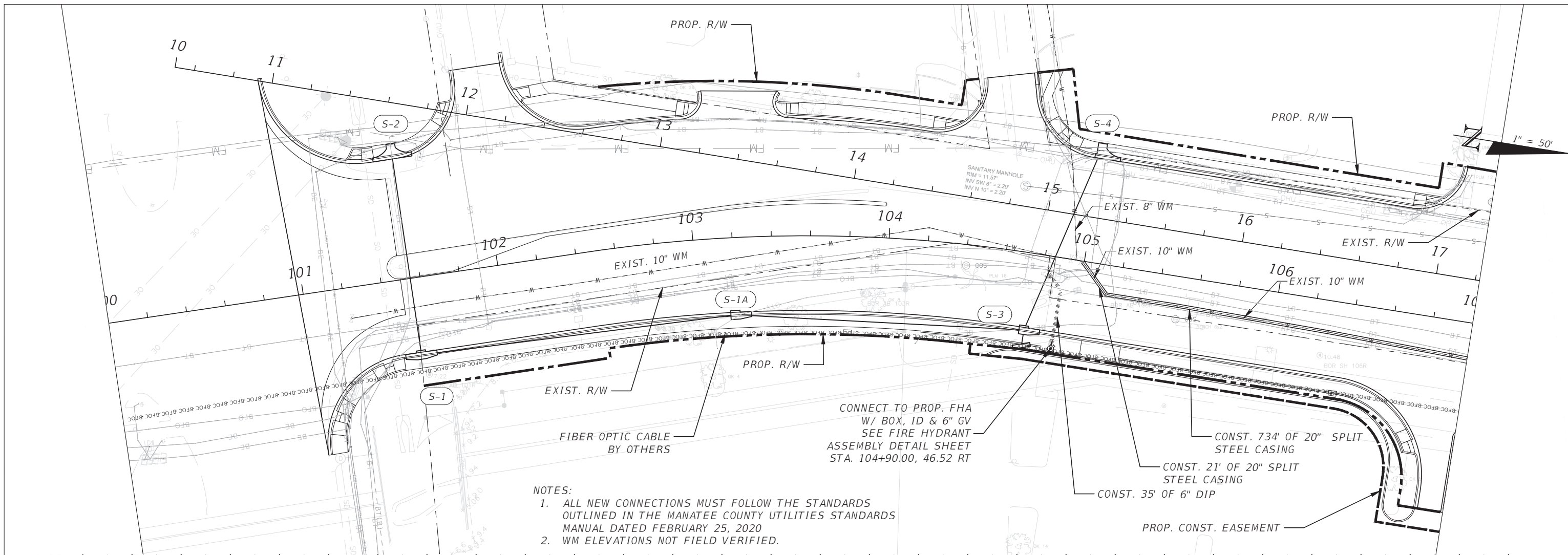
**PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES**
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO
 MENDOZA RD.
 UTILITY ADJUSTMENTS (7)

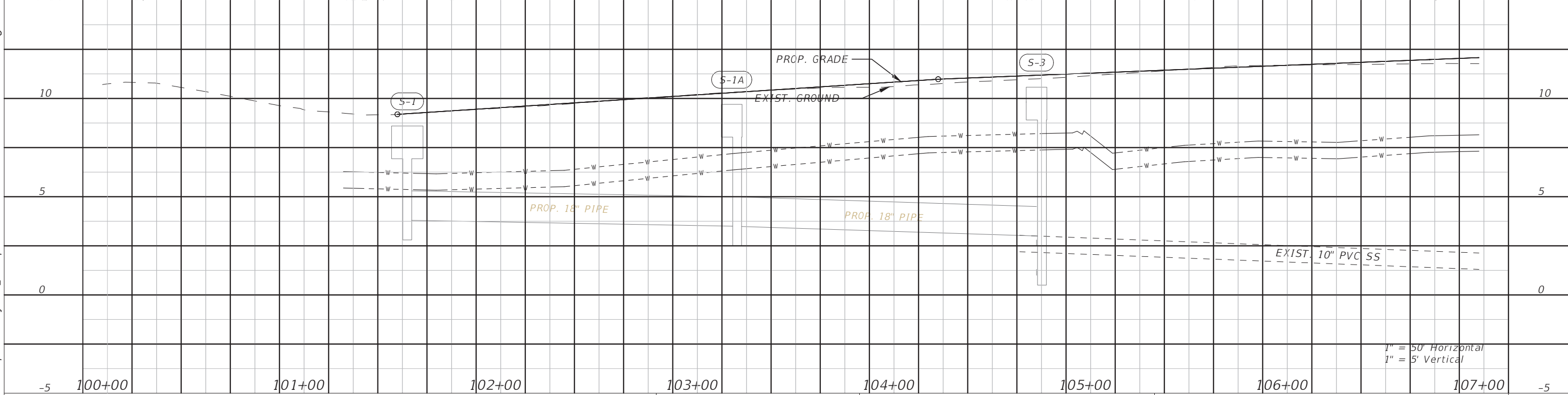
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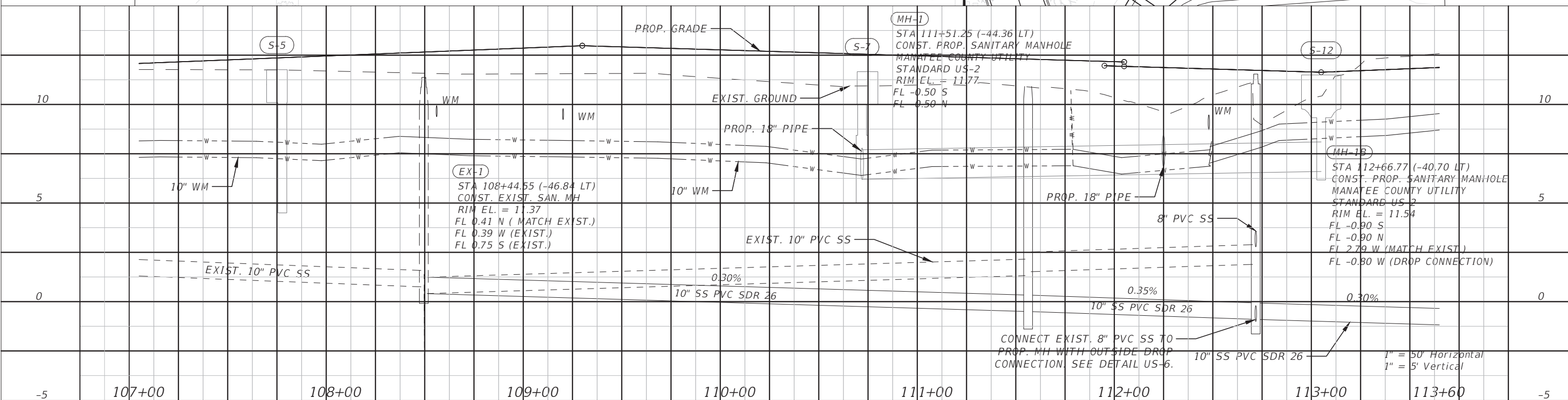
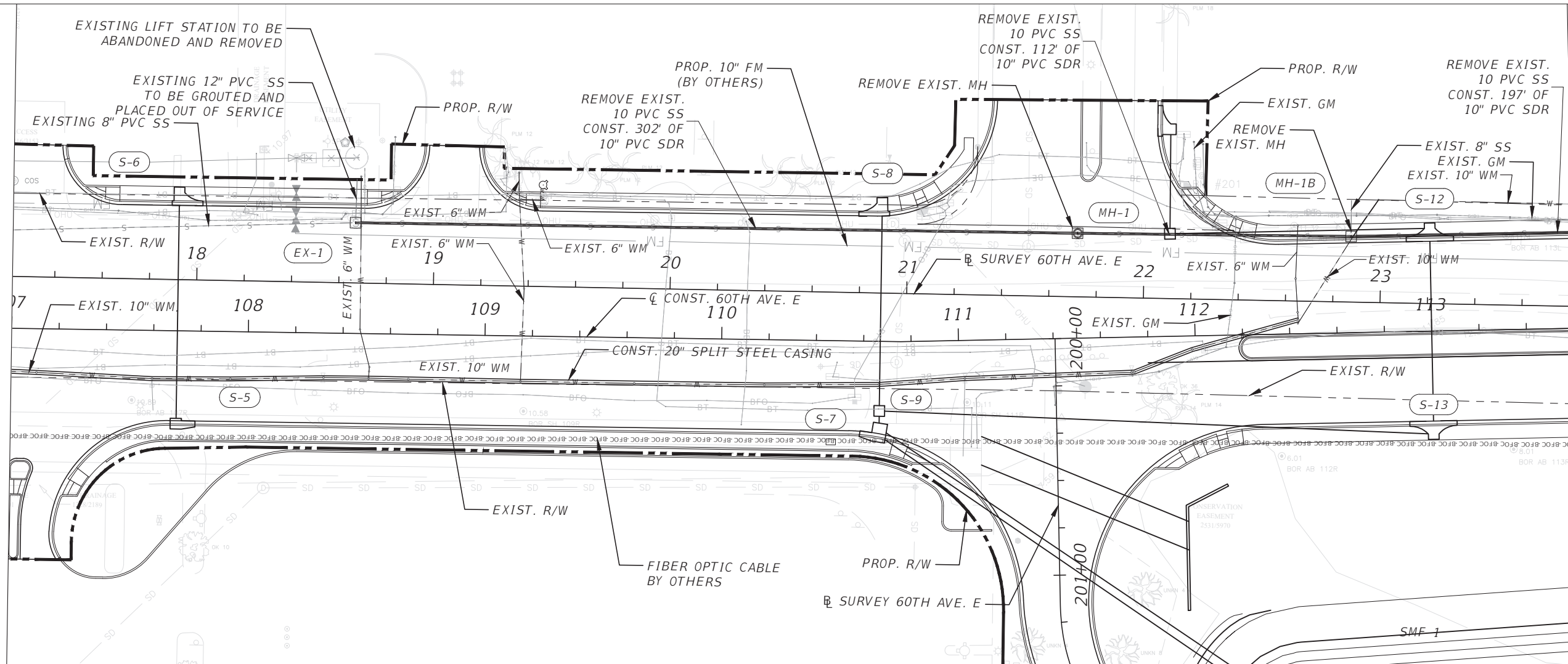
- NOTES:
1. ALL NEW CONNECTIONS MUST FOLLOW THE STANDARDS OUTLINED IN THE MANATEE COUNTY UTILITIES STANDARDS MANUAL DATED FEBRUARY 25, 2020
 2. WM ELEVATIONS NOT FIELD VERIFIED.



NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021	CURTIS SPRUNGER, P.E. LICENSE NUMBER 66524 KISINGER CAMPO & ASSOCIATES CORP. 201 N. FRANKLIN STREET SUITE 400 TAMPA, FL 33602	 PUBLIC WORKS DEPARTMENT ENGINEERING SERVICES 1022 26th Avenue East, Bradenton, FL 34208	60TH AVE. EAST FROM US 301 TO MENDOZA RD.		SHEET NO. 97
			SURVEY #	18-2238	DESIGNED	ST	6/7/22			UTILITY PLAN-PROFILE (1)		
			SEC./TWN./RGE	4-34S-18E	DRAWN	ST	6/7/22					
			SCALE	1"=50'H/1"=10'V	CHECKED	DHC	6/7/22					

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NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	TK	6/7/22
SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22
SCALE	1"=50'H/1"=10'V	CHECKED	JG	6/7/22

CURTIS SPRUNGER,
P.E. LICENSE NUMBER 66524
KISINGER CAMPO & ASSOCIATES CORP.
201 N. FRANKLIN STREET
SUITE 400
TAMPA, FL 33602

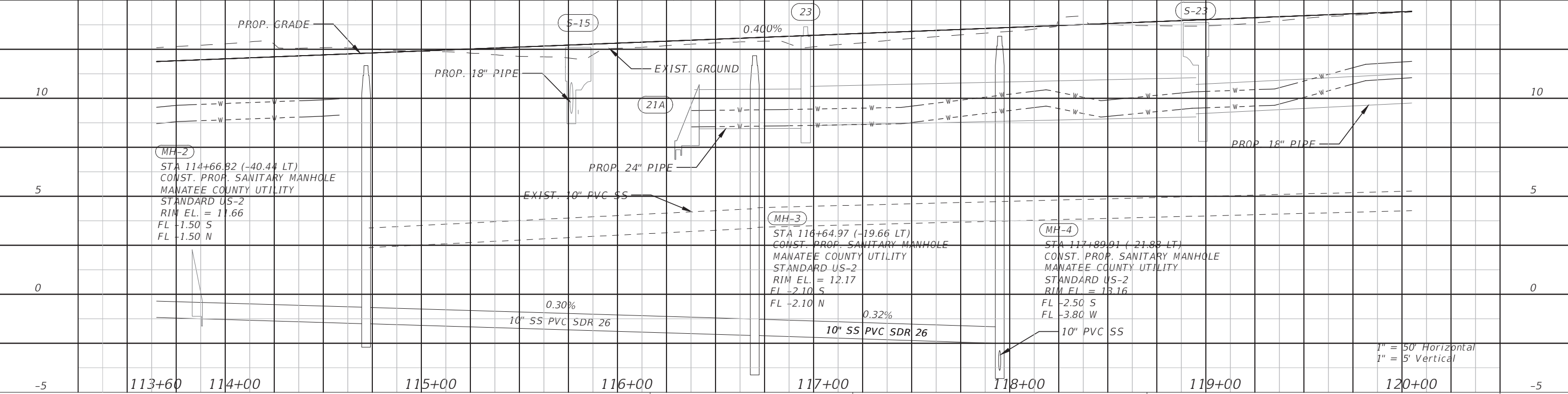
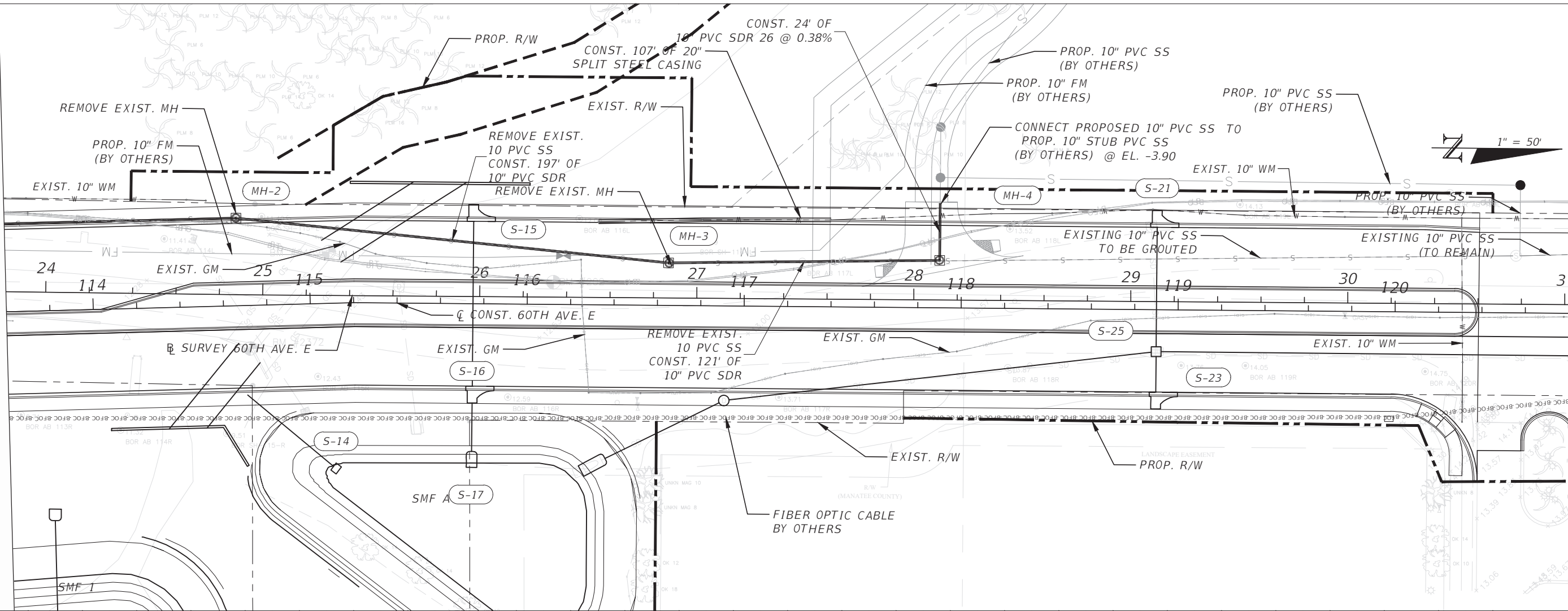


PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES
1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.
UTILITY PLAN-PROFILE (2)

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MH-2
 STA 114+66.82 (-40.44 LT)
 CONST. PROP. SANITARY MANHOLE
 MANATEE COUNTY UTILITY
 STANDARD US-2
 RIM EL. = 11.66
 FL -1.50 S
 FL -1.50 N

MH-3
 STA 116+64.97 (-19.66 LT)
 CONST. PROP. SANITARY MANHOLE
 MANATEE COUNTY UTILITY
 STANDARD US-2
 RIM EL. = 12.17
 FL -2.10 S
 FL -2.10 N

MH-4
 STA 117+89.01 (-21.83 LT)
 CONST. PROP. SANITARY MANHOLE
 MANATEE COUNTY UTILITY
 STANDARD US-2
 RIM EL. = 13.16
 FL -2.50 S
 FL -3.80 W

1" = 50' Horizontal
 1" = 5' Vertical

NUMBER	DESCRIPTION	DATE

PROJECT #	6083160	SURVEYED	HYATT	5/2021
SURVEY #	18-2238	DESIGNED	TK	6/7/22
SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22
SCALE	1"=50'H/1"=10'V	CHECKED	JG	6/7/22

CURTIS SPRUNGER,
 P.E. LICENSE NUMBER 66524
 KISINGER CAMPO & ASSOCIATES CORP.
 201 N. FRANKLIN STREET
 SUITE 400
 TAMPA, FL 33602



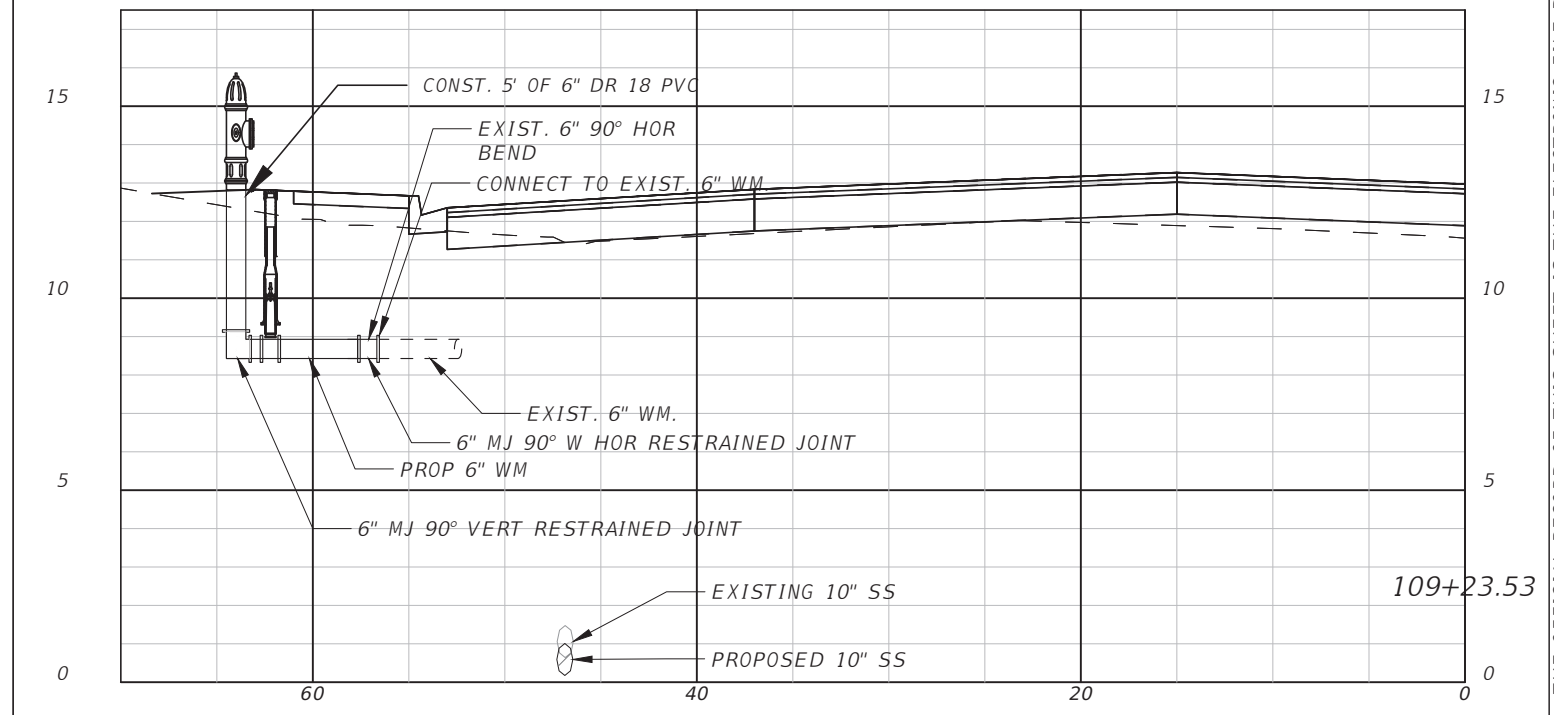
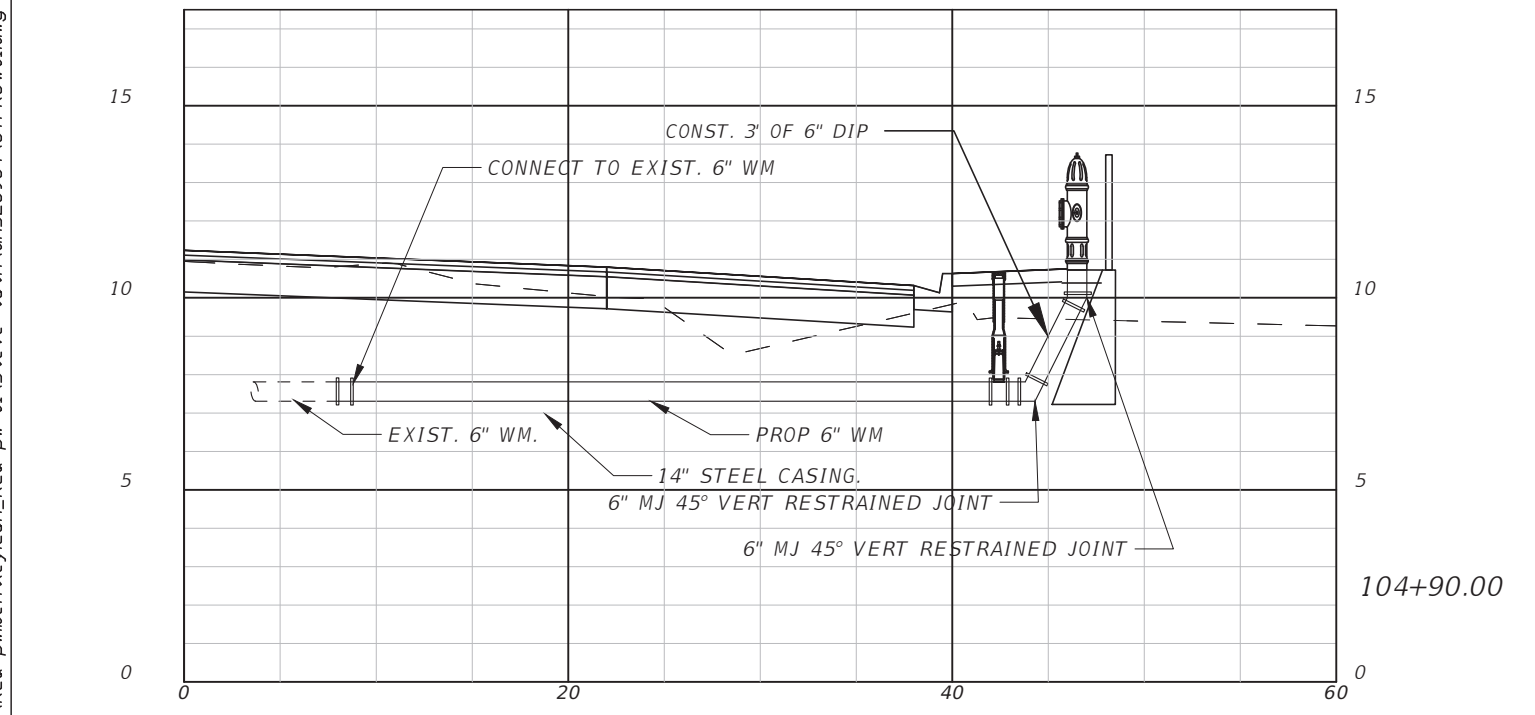
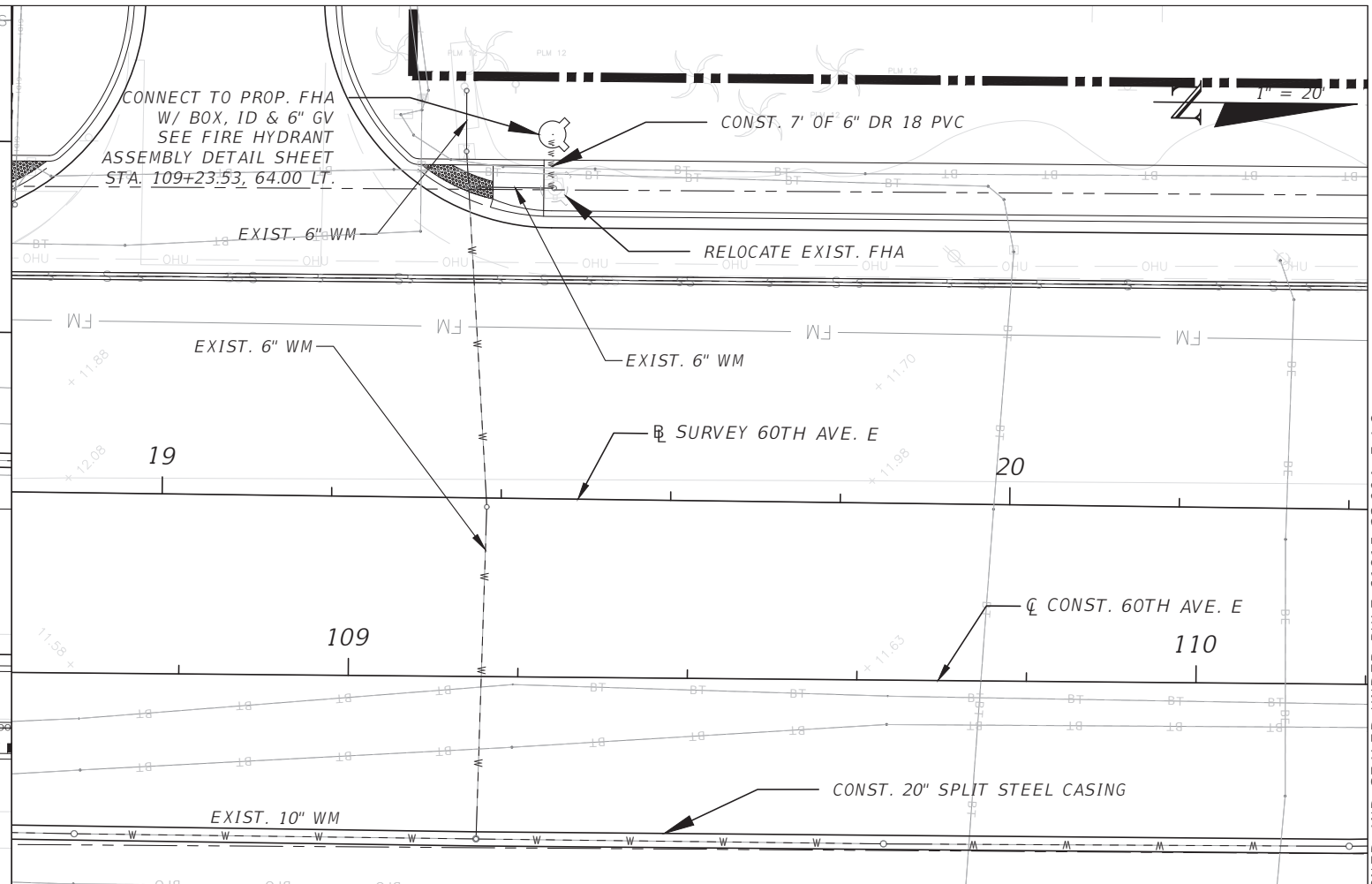
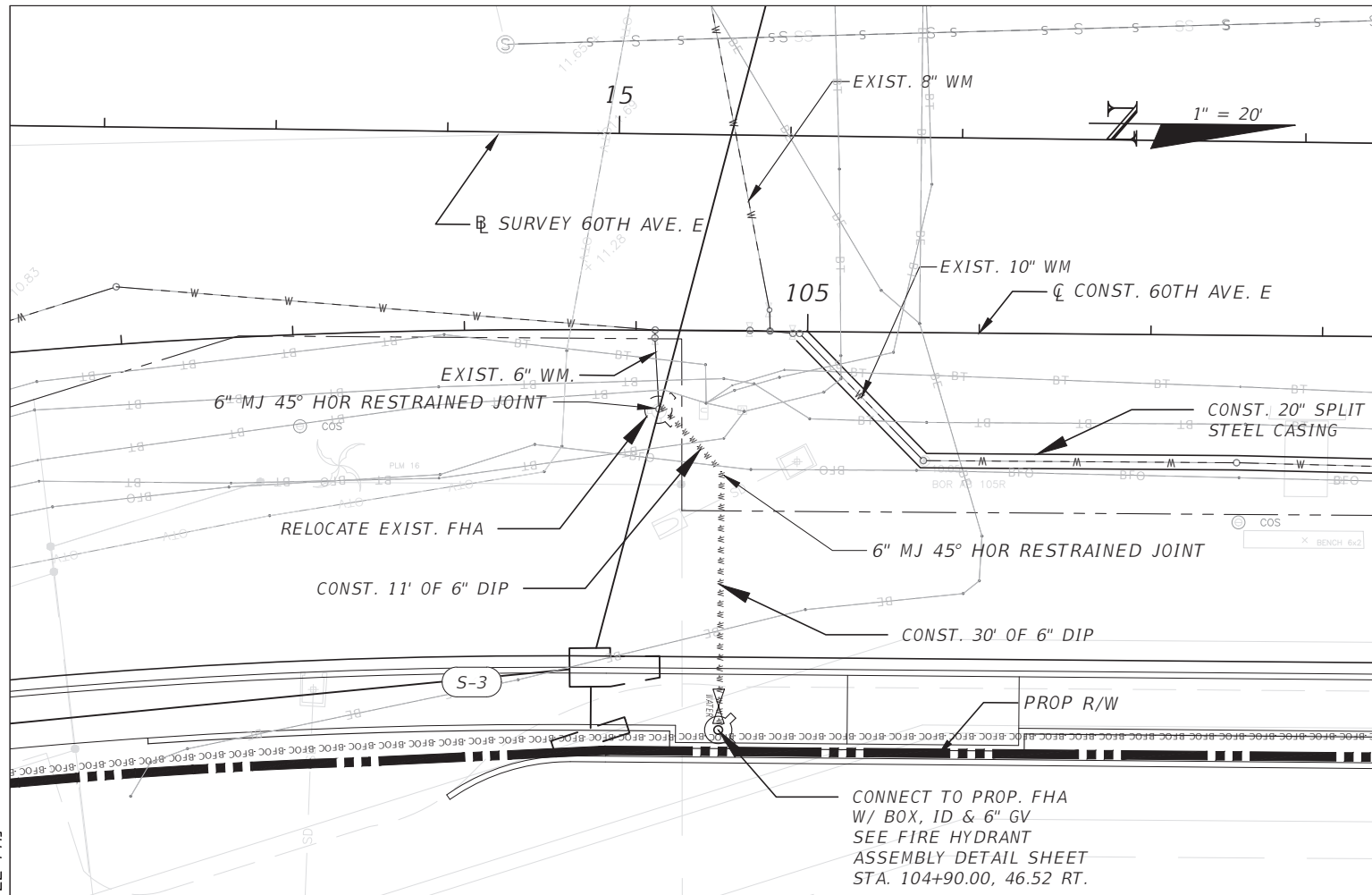
PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO
 MENDOZA RD.
 UTILITY PLAN-PROFILE (3)

SHEET NO.
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NUMBER	DESCRIPTION	DATE	PROJECT #	6083160	SURVEYED	HYATT	5/2021
			SURVEY #	18-2238	DESIGNED	TK	6/7/22
			SEC./TWN./RGE	4-34S-18E	DRAWN	TK	6/7/22
			SCALE	1"=20'H/1"=10'V	CHECKED	JG	6/7/22

CURTIS SPRUNGER,
P.E. LICENSE NUMBER 66524
KISINGER CAMPO & ASSOCIATES CORP.
201 N. FRANKLIN STREET
SUITE 400
TAMPA, FL 33602



**PUBLIC WORKS DEPARTMENT
ENGINEERING SERVICES**
1022 26th Avenue East, Bradenton, FL 34208

**60TH AVE. EAST FROM US 301 TO
MENDOZA RD.
UTILITY DETAILS (1)**

SHEET NO.
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Diagram showing casing crossing with carrier pipe and restrained joints. It includes details for double spacers at both ends, end seals with thru casing, and a cross-section of the carrier pipe with #10 copper clad steel wire.

REQUIREMENTS:
 CARRIER PIPE TO BE DUCTILE IRON CLASS 350 OR AWWA C-900 PVC CLASS 235 (DR-18) AS REQUIRED.
 STEEL CASING PIPE JOINTS SHALL BE MADE BY USING A FULL CIRCUMFERENCE COMPLETE PENETRATION GROOVE WELD. STEEL MATERIAL SHALL MEET OR EXCEED ASTM A139 GRADE B. PIPE SHALL BE STRAIGHT SEAM PIPE OR SEAMLESS PIPE.
 CARRIER PIPE SPACERS: 304 STAINLESS STEEL BAND CASING INSULATORS OR PLASTIC (HDPE) SPACERS.

CARRIER	4"	6"	8"	10"	12"	16"	18"	20"
CASING	12"	14"	16"	20"	24"	30"	36"	36"
CASING / WALL THICKNESS	0.188	0.188	0.250	0.250	0.344	0.406	0.406	0.406

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 CASING CROSSING UG-3
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR DIP (POLY-WRAPPED)

MAIN PIPE SIZE	HORIZ. BENDS	22.5'	TEES													REDUCERS					PLUGS & VALVES
			SIZE	LENGTH			SIZE	LENGTH			SIZE	LENGTH			SIZE	LENGTH					
36	142	59	28	x36	x30	x24	x18	x12	x10	x8	x6	x4	x3	x2	137	24	x36	x30	x24	308	453
30	124	51	25	x30	x24	x18	x12	x10	x8	x6	x4	x3	x2	124	21	x30	x24	x18	276	391	
24	106	44	21	x24	x18	x12	x10	x8	x6	x4	x3	x2	106	11	x24	x18	x12	241	327		
20	92	38	18	x20	x16	x12	x10	x8	x6	x4	x3	x2	92	8	x20	x16	x12	227	280		
16	77	32	15	x16	x12	x10	x8	x6	x4	x3	x2	77	6	x16	x12	x10	169	231			
12	61	25	12	x12	x10	x8	x6	x4	x3	x2	61	4	x12	x10	x8	151	181				
10	52	22	10	x10	x8	x6	x4	x3	x2	52	3	x10	x8	x6	125	153					
8	44	18	9	x8	x6	x4	x3	x2	44	2	x8	x6	x4	92	128						
6	34	14	7	x6	x4	x3	x2	34	1	x6	x4	50	98								
4	24	10	5	x4	x3	x2	24	5	19	69											

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 RESTRAINED LENGTHS FOR DIP UG-9
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

Diagram of a valve, box, cover and tag assembly. It shows a tracer wire test station box, a valve box, and a cover with a tag. Annotations include 'SIZE OF VALVE (TYP.)', 'SERVICE TYPE-S (SEWER) - (PLANT VALVE ID)', and 'COVER SHALL BE MARKED SEWER AND PAINTED GREEN'.

NOTES:
 1. "SV" TO BE IMPRESSED INTO THE NEWLY-POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A GREEN DISC WITH "SV" AND A 1/8" x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
 2. ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
 3. VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMP, CURBS OR GUTTERS.
 4. PRECAST CONCRETE PADS AND THRUST BLOCKS SHALL NOT BE USED.
 5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 6. USE NON-TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC USE TRAFFIC RATED BOXES. WHERE POSSIBLE, LOCATE TRACER WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
 7. TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY ON THOROUGHFARES, LOCAL ARTERIAL AND STATE ROADWAYS.
 8. THE BRASS TAG SHALL HAVE A "PLANT VALVE ID" WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.
 9. REFER TO SECTION 1.11 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 VALVE, BOX, COVER AND TAG US-11
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

REQUIRED LENGTH OF RESTRAINED JOINT PIPE FOR C900-16 PVC PIPE (DR-18)

MAIN PIPE SIZE	HORIZ. BENDS	22.5'	TEES													PLUGS & VALVES
			SIZE	LENGTH			SIZE	LENGTH			SIZE	LENGTH				
24	90	38	18	x24	x18	x12	x10	x8	x6	x4	x3	x2	120	159	214	
20	78	32	16	x20	x16	x12	x10	x8	x6	x4	x3	x2	104	149	184	
16	66	27	13	x16	x12	x10	x8	x6	x4	x3	x2	66	111	151		
12	52	22	10	x12	x10	x8	x6	x4	x3	x2	52	86	118			
10	44	18	9	x10	x8	x6	x4	x3	x2	44	81	100				
8	37	15	7	x8	x6	x4	x3	x2	37	80	83					
6	29	12	6	x6	x4	x3	x2	29	63	63						
4	21	8	4	x4	x3	x2	21	45								

NOTES:
 1. RESTRAIN 11.25' BENDS 50% OF LENGTH FOR 22.5' BENDS.
 2. ALL VALVES AND FITTINGS SHALL BE RESTRAINED TO THE CONNECTING SECTIONS OF PIPE.
 3. ALL ISOLATION VALVES MUST BE PROPERLY ANCHORED OR RESTRAINED TO RESIST A 180 PSI TEST PRESSURE IN EITHER DIRECTION.
 4. PIPE SIZES ARE GIVEN IN INCHES.
 5. RESTRAINED PIPE LENGTHS ARE GIVEN IN FEET.
 6. LENGTHS SHOWN ARE FOR A TEST PRESSURE OF 180 PSI.
 7. THE RESTRAINED LENGTHS SHOWN IN THESE TABLES ARE BASED ON SOIL CLASSIFICATION SP WITH AWWA TYPE 3 TRENCH CONDITIONS, 180 PSI TEST PRESSURE, 3 FEET OF COVER AND 1.5 FACTOR OF SAFETY. ACTUAL BURY CONDITIONS MUST BE DETERMINED BY THE ENGINEER OF RECORD AND THE RESTRAINED LENGTHS MODIFIED ACCORDINGLY.
 8. RESTRAINED LENGTHS TO BE APPLIED TO PIPELINES PER DETAIL UG-10 RESTRAINED LENGTHS FOR PIPE.
 9. ALL RESTRAINED JOINT HARDWARE SHALL CONFORM TO 1.11.17 OF THE PUBLIC WORKS UTILITY STANDARDS MANUAL.
 10. ALL THREE "LEGS" OF TEES SHALL BE RESTRAINED PER THE STATED LENGTH IN THE TABLE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 RESTRAINED LENGTHS FOR PVC PIPE UG-8
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

Diagram showing various pipe joint configurations and restrained lengths: Tee, Reducer, Cap or Plug, and Isolation Valve.

NOTE:
 1. SEE DETAIL UG-8 RESTRAINED LENGTHS FOR PVC PIPE FOR NOTES 1 THROUGH 9 THAT ARE ALSO APPLICABLE TO RESTRAINED LENGTHS FOR PIPE.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 RESTRAINED LENGTHS FOR PIPE UG-10
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

Diagram of a standard pre-cast sanitary sewer manhole for undisturbed flow. It shows a pre-cast concrete manhole with a cover and a ring. Annotations include 'RIM ELEVATION INDICATED ON PLAN', 'FINISH GRADE', and 'CONCRETE THRUST BLOCK'.

NOTES:
 1. PRECAST CONCRETE PADS AND THRUST BLOCKS SHALL NOT BE USED.
 2. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 3. VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMP, CURBS OR GUTTERS.
 4. USE NON-TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC USE TRAFFIC RATED BOXES. WHERE POSSIBLE, LOCATE TRACER WIRE TESTING STATION OUTSIDE OF TRAVEL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
 5. TRACER WIRE BOX SHALL BE LOCATED OUTSIDE THE ROADWAY ON THOROUGHFARES, LOCAL ARTERIAL AND STATE ROADWAYS.
 6. THE BRASS TAG SHALL HAVE A "PLANT VALVE ID" WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.
 7. REFER TO SECTION 1.11 IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 STANDARD PRE-CAST SANITARY SEWER MANHOLE FOR UNDISTURBED FLOW US-2
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

Diagram of an outside drop connection to an existing manhole. It shows a precast concrete outside drop pipe with a manhole. Annotations include 'MANHOLE WALLS SHALL BE CONSTRUCTED IN ACCORDANCE TO ASTM C-478, TYPE II CONCRETE, 4,000 P.S.I., 28 DAY COMPRESSIVE STRENGTH' and 'PVC PIPE SHALL BE ASTM D-2241, SDR 26'.

NOTES:
 1. THIS IS A TURBULENT FLOW MANHOLE AND SHALL BE LINED WITH AN APPROVED LINER. IN NEW CONSTRUCTION, THIS MANHOLE SHALL BE MADE OF POLYMER CONCRETE, SEE US-3.
 2. DROP MANHOLES ARE REQUIRED WHEN THE VERTICAL DISTANCE BETWEEN THE LOWEST EXISTING MANHOLE INVERT AND THE HIGHEST PIPE INVERT IS 2'-0" OR GREATER.
 3. MANHOLE SHALL BE AASHTO H-20 RATED, WHEN LOCATED WITHIN THE RIGHT OF WAY.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 OUTSIDE DROP CONNECTION TO EX. PORTLAND CEMENT MANHOLE US-6
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

Diagram of a fire hydrant assembly. It shows a fire hydrant with a valve and a cap. Annotations include '5-1/4" FIRE HYDRANT', 'BREAKAWAY SAFETY FLANGE', and 'CONCRETE THRUST BLOCK'.

NOTES:
 1. WEEDHOLES SHALL BE EXCLUDED FROM THE FIRE HYDRANT.
 2. FIRE HYDRANTS SHALL BE A MINIMUM OF 6' OFF EDGE OF PAVEMENT AND 10' MAX. FROM BACK OF CURB. WHERE POSSIBLE AND WHERE SIDEWALK IS TO BE INSTALLED, FIRE HYDRANT SHALL BE LOCATED BETWEEN SIDEWALK AND RIGHT-OF-WAY LINE.
 3. HYDRANT SHALL BE DUCTILE IRON CONSTRUCTION. HYDRANTS SHALL BE FUSION BONDED EPOXY COATED SAFETY YELLOW FOR WATER, PURPLE (PANTONE 522C) FOR RECLAIMED WATER, AND RED FOR PRIVATE.
 4. FIRE HYDRANTS SHALL BE PLACED SO THAT STORM WATER FLOWS AWAY FROM THE HYDRANT.
 5. FIRE HYDRANTS SHALL BE CONSTRUCTED WITH "GRADelok" SET TO FINISHED GRADES AS ESTABLISHED IN THE FIELD. NORMAL BURY IS 3 FEET OF COVER FOR ALL WATER LINES.
 6. FIRE HYDRANTS MAY BE CONSTRUCTED WITH "GRADelok" OFFSET FITTING.
 7. RAISED REFLECTIVE PAVEMENT MARKER(S) (RUB) FOR POTABLE WATER (PURPLE) FOR RECLAIMED WATER SHALL BE INSTALLED ON THE PAVEMENT DIRECTLY ACROSS FROM THE HYDRANT IN ACCORDANCE WITH THE FOOT TRAFFIC ENGINEERING MANUAL, CHAPTER 4, SECTION 4.3 OR MOST CURRENT ADDITION.
 8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
 9. FIRE HYDRANT VALVE SHALL BE FASTENED DIRECTLY TO TEE.
 10. IN-LINE VALVES SHOULD BE LOCATED AT HYDRANT TEES.
 11. HYDRANTS SHALL BE LOCATED ON SAME SIDE OF ROAD AS WATER OR RECLAIMED MAIN.
 12. THERE MUST BE A CLEARANCE OF 7 1/2 FEET FROM FRONT AND BOTH SIDES, AND FOUR FEET TO THE REAR OF THE HYDRANT. TO ABOVE GRADE OBSTRUCTIONS INCLUDING POSTS, FENCES, TREES, ETC. PER THE FLORIDA FIRE PREVENTION CODE.
 13. SEE STANDARD DETAIL UW-2 GATE VALVE, BOX, LID AND TAG.
 14. SHOULD THE FIRE HYDRANT CONCRETE PAD OVERLAP A SIDEWALK, THE TRACER WIRE TESTING STATION BOX SHALL NOT BE LOCATED WITHIN THE SIDEWALK.
 15. IF A HYDRANT IS LOCATED ON THE SLOPE OF A DITCH OR SLEAVE, THE CONCRETE PAD SHALL CONFORM TO THE FINISH GRADE/SLOPE. THE CONCRETE PAD SHALL BE LEVEL 2-INCHES BEHIND & IN FRONT OF THE HYDRANT.
 16. AT THE DISCRETION OF THE COUNTY AN ADDITIONAL ISOLATION GATE VALVE SHALL BE ADDED, WHEN A PHYSICAL BARRIER IS PRESENT, (I.E. ROADWAY, FENCE, WALL, BERM, ETC) BETWEEN THE BRANCH GATE VALVE AND THE HYDRANT.
 17. SEE SECTION 1.11 HYDRANTS IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 FIRE HYDRANT ASSEMBLY UW-5
 REV. BY DATE: February 25, 2020
 DATE OF APPROVAL

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

CURTIS SPRUNGER,
 P.E. LICENSE NUMBER 66524
 KISINGER CAMPO & ASSOCIATES CORP.
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Manatee County
 PUBLIC WORKS DEPARTMENT
 ENGINEERING SERVICES
 1022 26th Avenue East, Bradenton, FL 34208

60TH AVE. EAST FROM US 301 TO MENDOZA RD.
 UTILITY DETAILS (2)
 SHEET NO. 101