

CONTRACT NO.  
70-712-7 #3

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PROJECT MANUAL

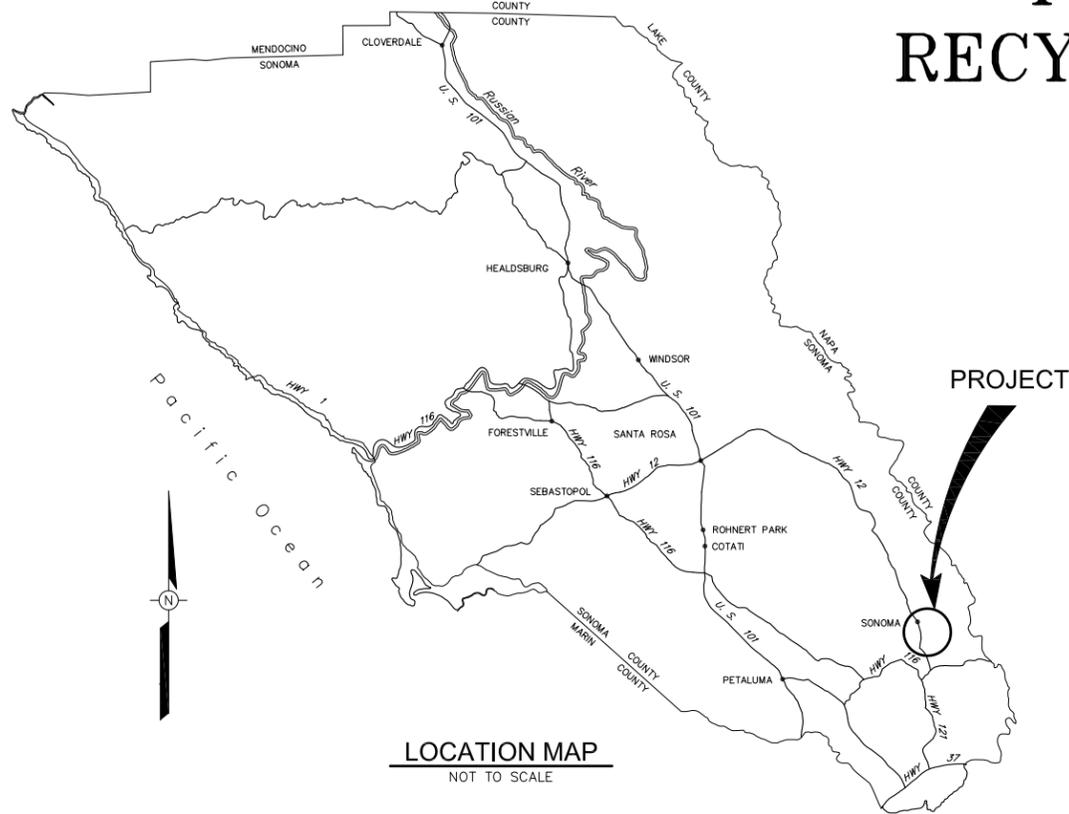
VOLUME 3

FOR

**North Bay Water Reuse Program Sonoma Valley County Sanitation District Fifth Street East  
Recycled Water Pipeline**

**MARCH 2016**

# NORTH BAY WATER REUSE PROGRAM SONOMA VALLEY COUNTY SANITATION DISTRICT FIFTH STREET EAST RECYCLED WATER PIPELINE



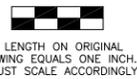
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**VICINITY MAP AND DRAWING KEY**  
SCALE: 1" = 400'

\\SD-DATA\Pro\Sanitation\sonoma\_valley\_csd\Recycled\_water\7655\_5thStEast\_Recycled\7655\_Gen



BAR LENGTH ON ORIGINAL  
DRAWING EQUALS ONE INCH.  
ADJUST SCALE ACCORDINGLY



NO.	DATE	REVISION	BY

**SONOMA VALLEY COUNTY  
SANITATION DISTRICT**

SCALE:	AS SHOWN	DATE:	03/03/2016
DRAWN:	SMP		
REVIEWED:			

FIFTH STREET EAST RECYCLED WATER PIPELINE  
LOCATION MAPS, VICINITY MAPS, AND  
INDEX TO DRAWINGS

FILE NAME: 7655\_Gen.dwg  
CONTRACT NUMBER: 71-712-7#3

DRAWING NUMBER: G-1

SHEET 1 OF 23

**ABBREVIATIONS**

AB	AGGREGATE BASE	JB	JUNCTION BOX
AC	ASPHALTIC CONCRETE	JP	JOINT POLE
ACP	ASBESTOS CONCRETE PIPE	L	LENGTH
AD	AREA DRAIN	LF	LINEAR FEET
APPROX	APPROXIMATE	LT	LEFT
AV	AIR VALVE	MAX	MAXIMUM
BC	BEGINNING OF CURVE	MB	MAILBOX
BFV	BUTTERFLY VALVE	MIN	MINIMUM
BLD	BUILDING	N	NORTH/NORTHING
BO	BLOWOFF	NO	NUMBER
CAV	COMBINATION AIR VALVE	psi	POUNDS PER SQUARE INCH
CIP	CAST-IN-PLACE	PUE	PUBLIC UTILITY EASEMENT
CI	CURB INLET	PV	PLUG VALVE
CDF	CONTROLLED DENSITY FILL	PVC	POLYVINYL CHLORIDE
CMP	CORRUGATED METAL PIPE	PVI	POINT VERTICAL INFLECTION
CONC	CONCRETE	RC	RELATIVE COMPACTION
CP	CONCRETE PIPE	RCB	REINFORCED CONCRETE BOX
CL	CLASS	RCP	REINFORCED CONCRETE PIPE
CONST	CONSTRUCTION	RDWD	REDWOOD
cu ft	CUBIC FOOT	RT	RIGHT
cu yd	CUBIC YARD	RW	RECYCLED WATER PIPELINE
DEFL	DEFLECTION	S	SLOPE/SOUTH
DI	DROP INLET	SCS	SAND CEMENT SLURRY
DIP	DUCTILE IRON PIPE	SD	STORM DRAIN
DIA	DIAMETER	SEC	SECTION
D/W	DRIVEWAY	SS	SANITARY SEWER
DWGS	DRAWINGS	SSMH	SANITARY SEWER MANHOLE
E	EAST/EASTING	STA	STATION
EA	EACH	STD	STANDARD
EA WY	EACH WAY	TEMP	TEMPORARY
EC	END OF CURVE	TS	TRUNK SEWER
EUCS	EUCALYPTUS	TYP	TYPICAL
EX	EXISTING	VIF	VERIFY IN FIELD
E/P	EDGE OF PAVEMENT	W	WEST
FL	FLOWLINE	W/	WITH
GV	GATE VALVE		
HWY	HIGHWAY		
HORIZ	HORIZONTAL		
I&I	INFLOW AND INFILTRATION		
INV	INVERT		

**LEGEND**

EXISTING	NEW		
			SANITARY SEWER MANHOLE
			SANITARY SEWER CLEANOUT
			STORM DRAIN MAHOLE
			WATER VALVE
			WATER METER
			SIGN
			MAIL BOX
			UTILITY POLE
			GUY ANCHOR
			UTILITY VAULT
			AIR VALVE/COMBINATION AIR VALVE
			BLOW OFF
			GATE VALVE
			PLUG VALVE
			ANGLE
			NEW RW PIPELINE
			PROPERTY LINE
			EDGE OF PAVEMENT
			SANITARY SEWER LINE
			INFLOW AND INFILTRATION SEWER LINE
			GAS LINE
			OVERHEAD LINES
			UNDERGROUND LINES
			WIRE FENCE
			CHAIN LINK FENCE
			WOODEN FENCE
			STREET RIGHT-OF-WAY / PROPERTY LINE
			UNDERGROUND TELEPHONE
			UNDERGROUND ELECTRIC
			TREE DRIPLINE
			SURVEY MONUMENT
			SURVEY CONTROL POINT
			STORM DRAIN CULVERT
			STORM DRAIN

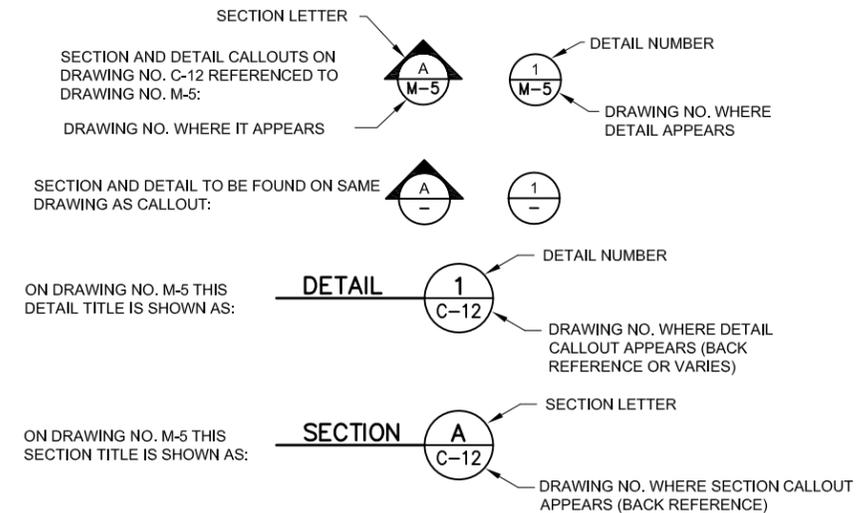
**GENERAL NOTES**

- HORIZONTAL DATUM: CALIFORNIA COORDINATE SYSTEM 1983 (CCS83), ZONE II (1991.35)
- PRIMARY HORIZONTAL CONTROL: NATIONAL GEODETIC SURVEY REFERENCE STATION: HPGN D CA 04 KF (PID JT9616 PUBLISHED CCS83 VALUES (U.S. SURVEY FT.): NORTH: 1,851,473.83 EAST: 6,427,331. PUBLISHED ACCURACY: FIRST ORDER (HORIZONTAL). THIS REFERENCE STATION IS ALSO SHOWN ON RECORD OF SURVEY NO. S-569, FILED FOR RECORD IN BOOK 2001 OF MAPS, AT PAGE 43, OFFICIAL RECORDS OF THE COUNTY OF SONOMA, CALIFORNIA.
- VERTICAL DATUM: BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD29)
- PRIMARY VERTICAL CONTROL: SONOMA COUNTY WATER AGENCY BENCHMARK SV-1: A 1-1/2" BRONZE DISC SET IN THE CONCRETE BASE OF THE FLAG POLE LOCATED AT THE SOUTHEAST CORNER OF THE SONOMA VALLEY TREATMENT PLANT OPERATIONS BUILDING. ELEVATION: 23.43'
- STATIONING: ALL STATIONING REPRESENTS HORIZONTAL MEASUREMENT AT CENTERLINE OF CONSTRUCTION.
- ORIENTATION: RIGHT AND LEFT DIRECTIONS ARE FROM CENTERLINE LOOKING UPSTATION.
- LENGTH: LENGTHS INDICATED ARE MEASURED HORIZONTALLY BETWEEN HORIZONTAL AND VERTICAL POINTS OF INTERSECTION.
- STRIPING: PAVEMENT STRIPING IS NOT SHOWN ON PLANS.

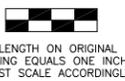
**HORIZONTAL AND VERTICAL CONTROL**

POINT	NORTH	EAST	ELEVATION	DESCRIPTION
500	1858419.521	6431962.098	33.40	5/8" Rebar with Pl. Cap. Stamped "SCWA CONTROL"
501	1858610.904	6430838.597	35.37	Chiseled X on Concrete Manhole Collar
502	1864318.701	6431548.818	61.70	Alloy Spike/Brass Washer Stamped "SCWA Control"
503	1864175.323	6432687.224	61.61	Centerline Monument
505	1859367.100	6432067.420	36.41	5/8" Rebar with Pl. Cap. Stamped "SCWA CONTROL"
506	1860112.754	6432182.237	40.93	5/8" Rebar with Pl. Cap. Stamped "SCWA CONTROL"
507	1860846.764	6432251.327	42.63	Alloy Spike/Brass Washer Stamped "SCWA Control"
508	1861438.652	6432351.241	47.82	5/8" Rebar with Pl. Cap. Stamped "SCWA CONTROL"
509	1862063.138	6432427.813	53.26	Alloy Spike/Brass Washer Stamped "SCWA Control"
510	1863268.061	6432555.881	57.35	Alloy Spike/Brass Washer Stamped "SCWA Control"
530	1858472.196	6431580.792	30.01	Alloy Spike/Brass Washer Stamped "SCWA Control"

**TYPICAL SECTION LETTERING AND DETAIL NUMBERING SYSTEM**



\\SD-DATA\Pro\Automation\sonoma\_valley\_csd\recycled\_water\7655\_5HSEast\_Recycled\7655\_Gen



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



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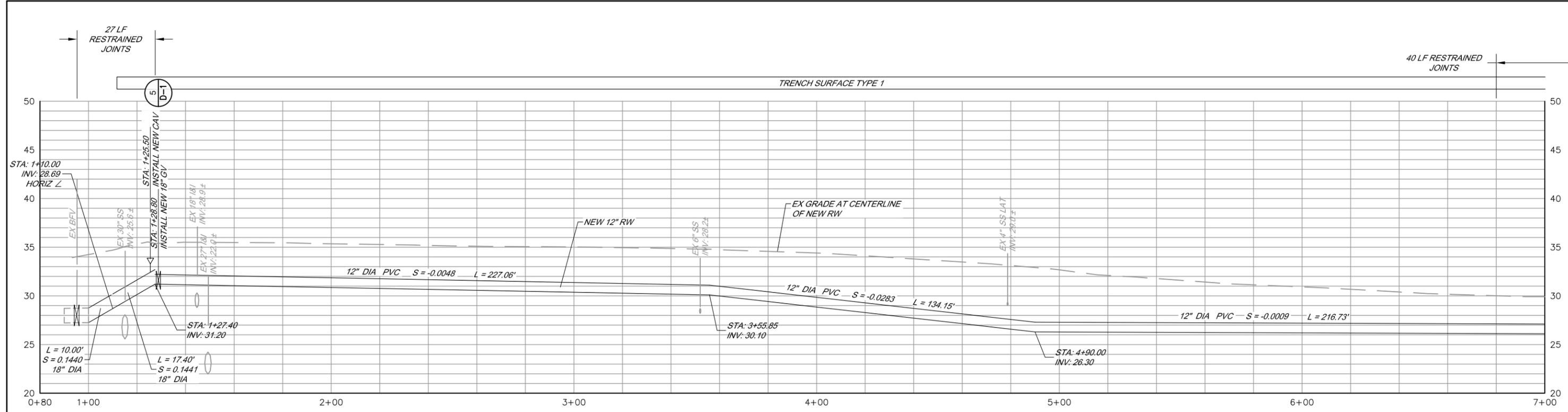
**SONOMA VALLEY COUNTY  
SANITATION DISTRICT**

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE  
ABBREVIATIONS, SYMBOLS, NOTES

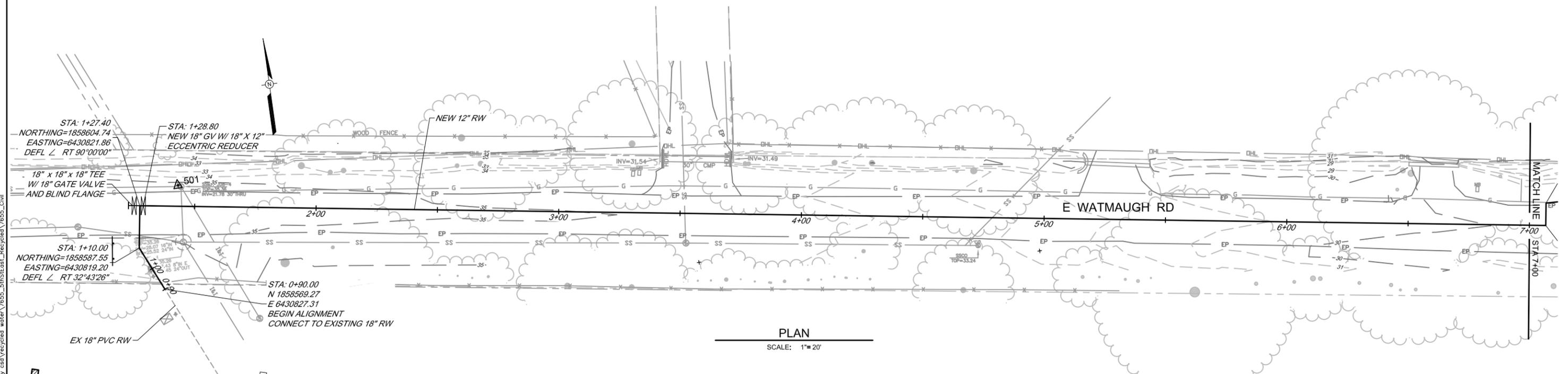
FILE NAME: 7655\_Gen.dwg  
CONTRACT NUMBER: 71-712-783

DRAWING NUMBER: G-2 SHEET 2 OF 23



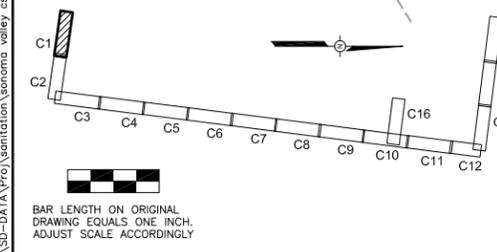
**PROFILE**

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'

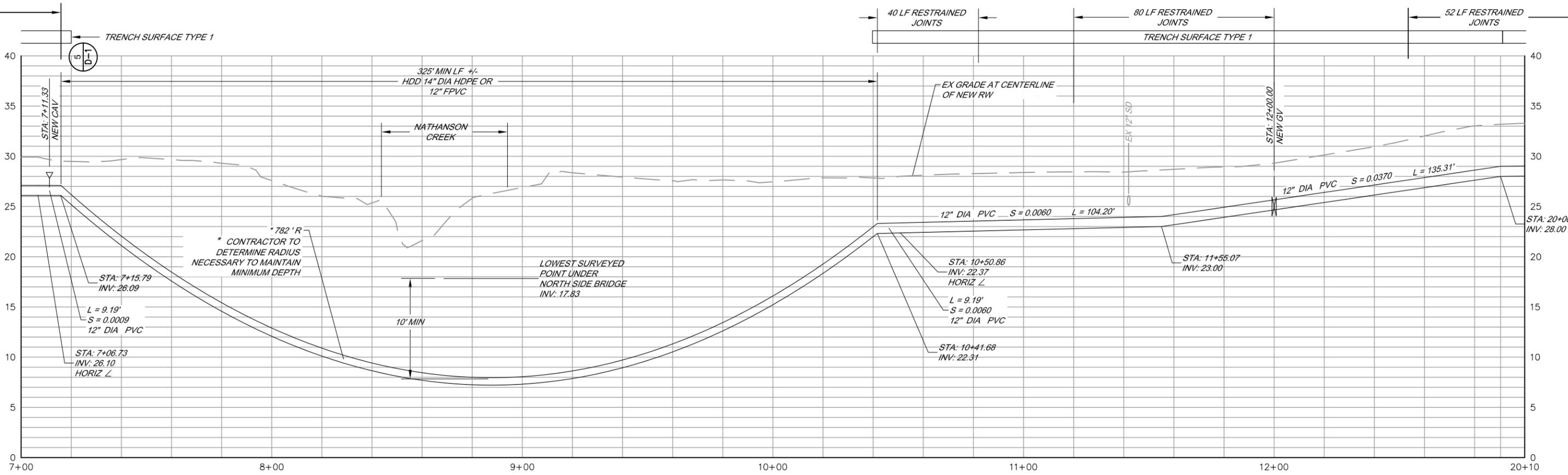


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SONOMA VALLEY COUNTY  
SANITATION DISTRICT

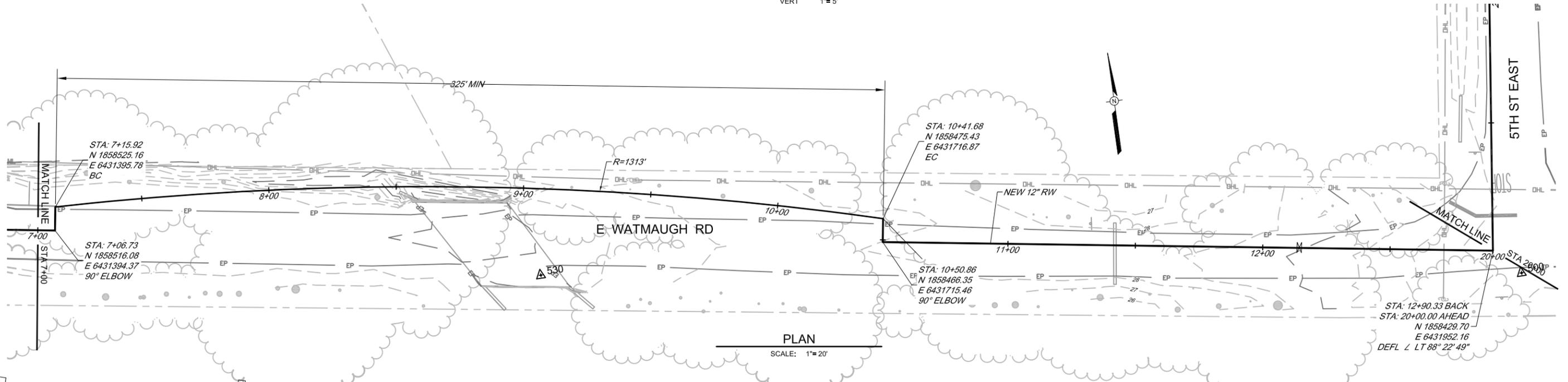
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE	
PLAN AND PROFILE	
STA 1+00 TO STA 7+00	
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-1
CONTRACT NUMBER: 71-712-7#3	SHEET 3 OF 23



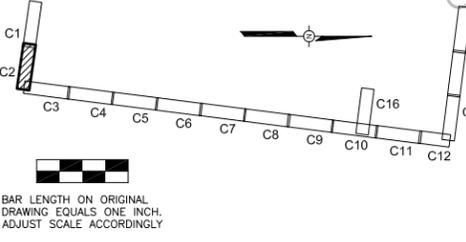
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SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'

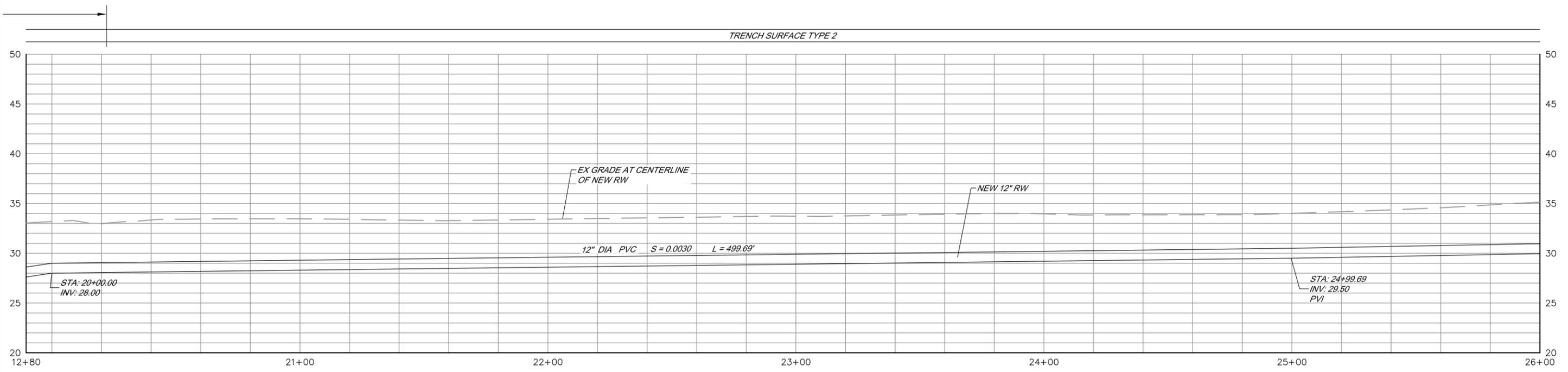


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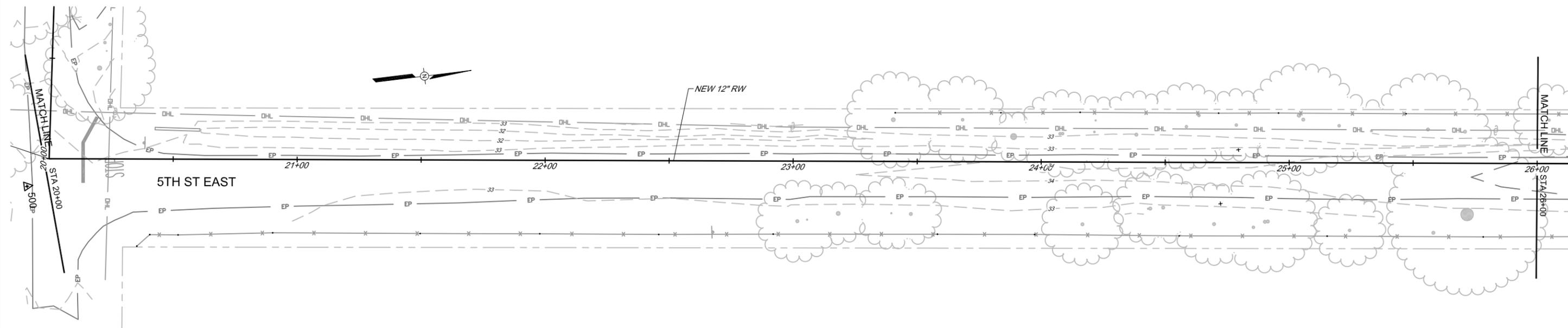
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SANITATION DISTRICT

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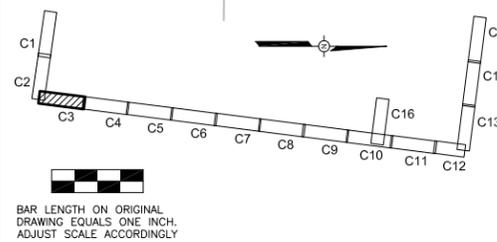
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PLAN AND PROFILE	
STA 7+00 TO STA 12+90.33 BEHIND, STA 20+00 AHEAD	
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-2
CONTRACT NUMBER: 71-712-783	SHEET 4 OF 23



**PROFILE**  
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 VERT 1" = 5'



**PLAN**  
 SCALE: 1" = 20'

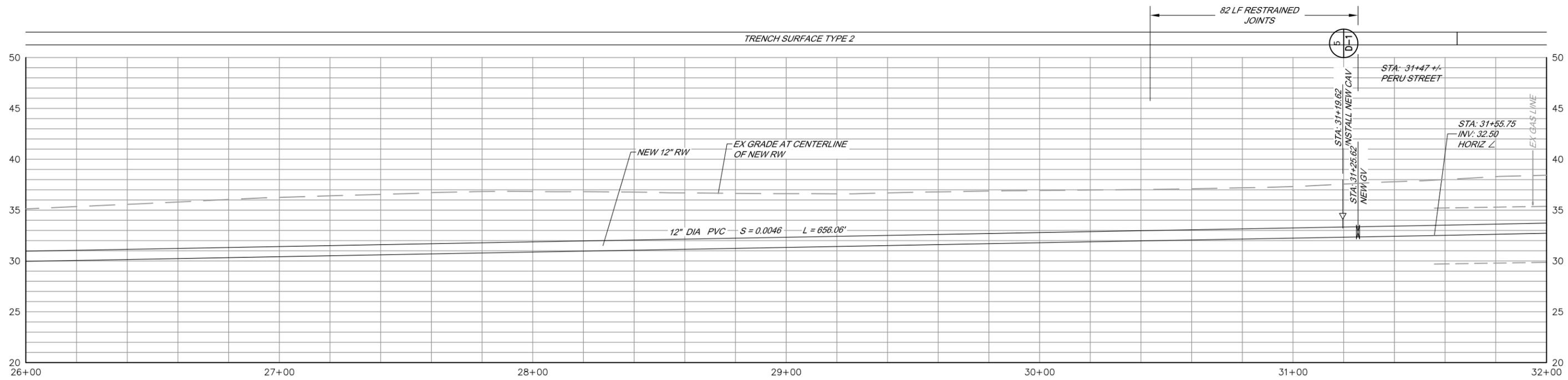


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SONOMA VALLEY COUNTY  
 SANITATION DISTRICT

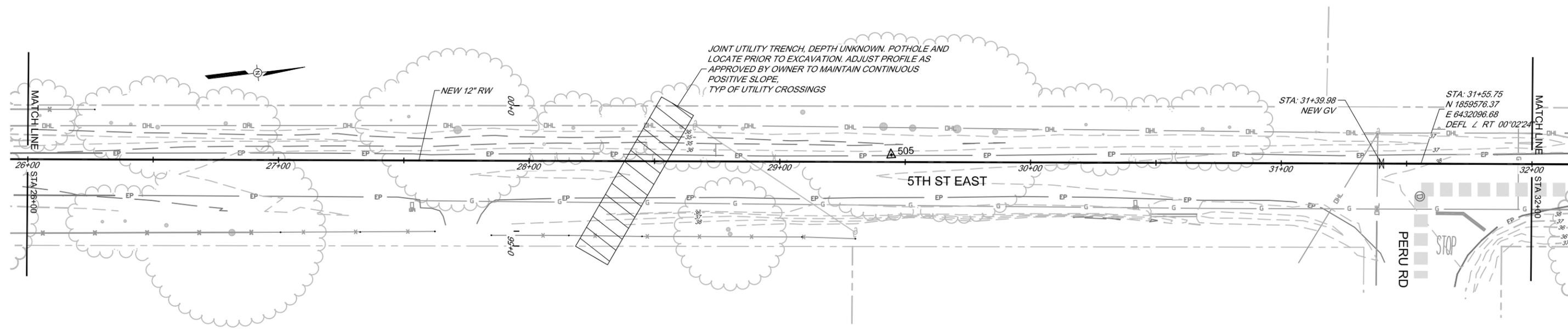
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE		
PLAN AND PROFILE		
STA 20+00 TO STA 26+00		
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CONTRACT NUMBER: 71-712-7#3		



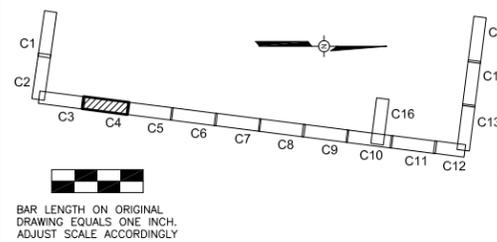
**PROFILE**

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 VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'



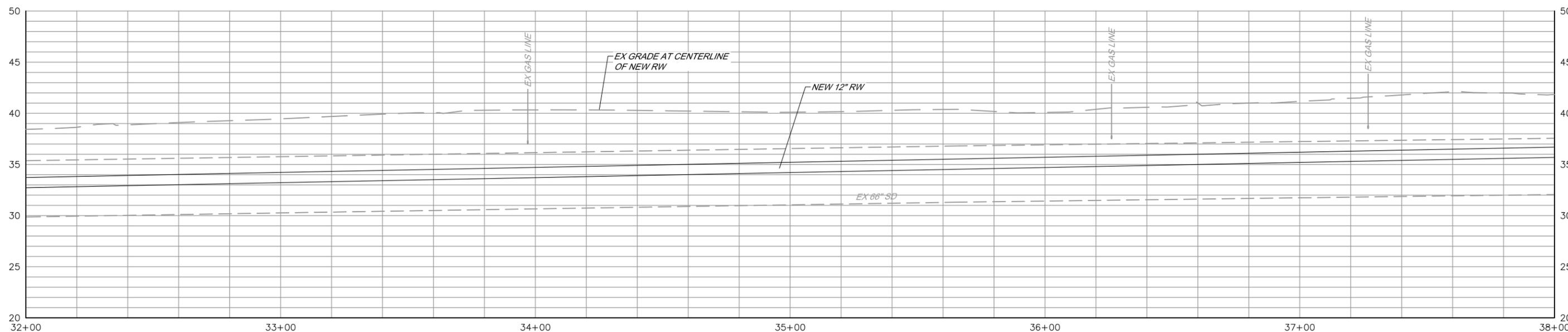
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 SANITATION DISTRICT

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REVIEWED: <i>Kent Gyle</i>	

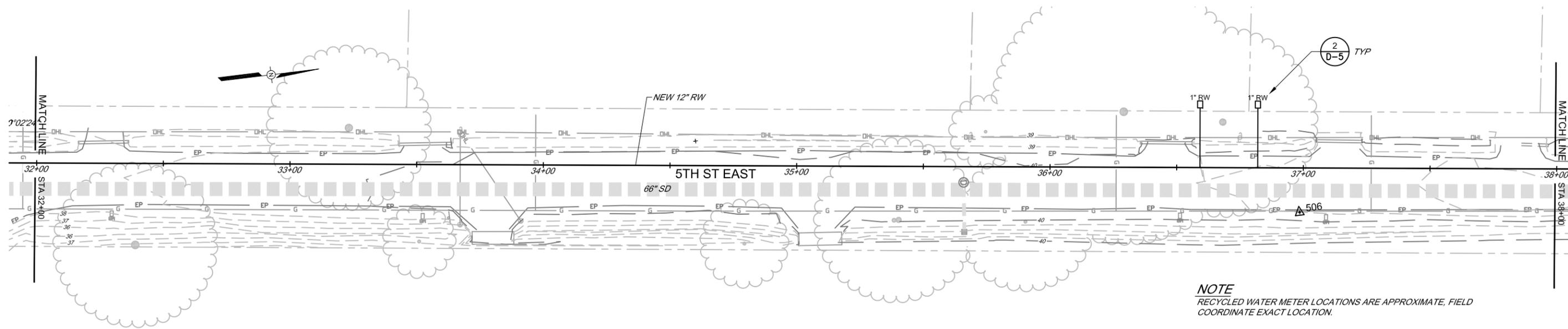
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PLAN AND PROFILE	
STA 26+00 TO STA 32+00	
FILE NAME: 7655_Civ0.dwg	DRAWING NUMBER: C-4
CONTRACT NUMBER: 71-712-783	SHEET 6 OF 23

TRENCH SURFACE TYPE 2



PROFILE

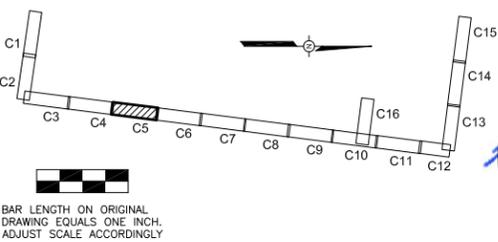
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VERT 1" = 5'



PLAN

SCALE: 1" = 20'

NOTE  
RECYCLED WATER METER LOCATIONS ARE APPROXIMATE, FIELD  
COORDINATE EXACT LOCATION.



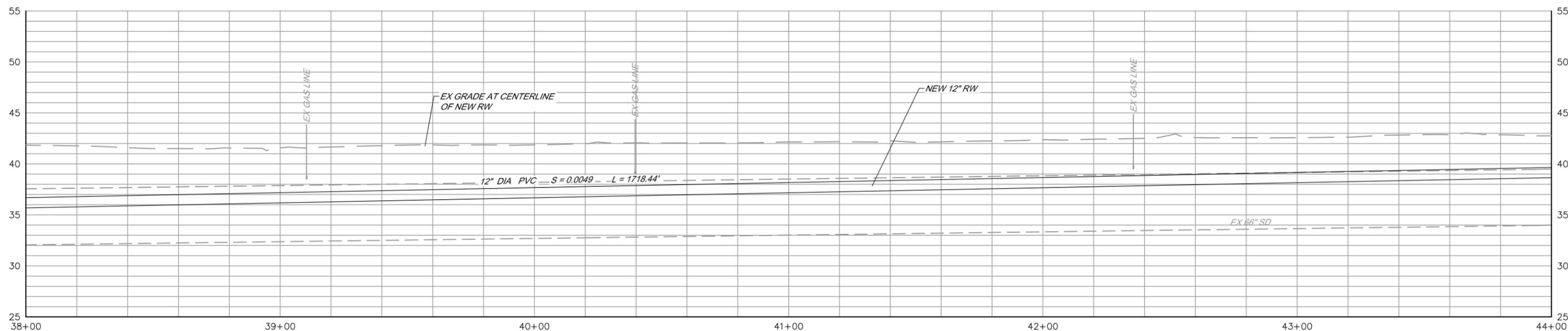
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SANITATION DISTRICT

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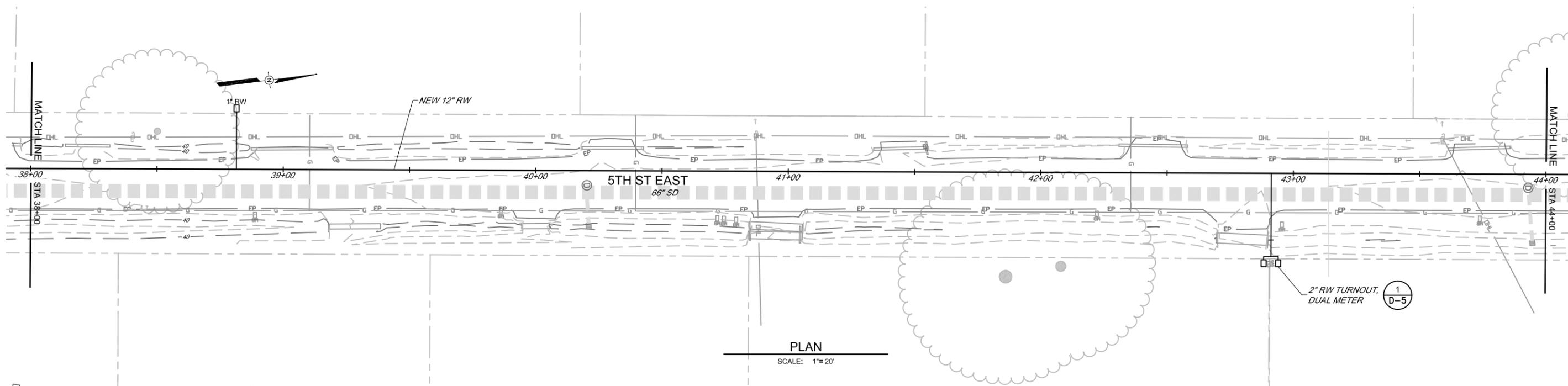
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PLAN AND PROFILE	
STA 32+00 TO STA 38+00	
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CONTRACT NUMBER: 71-712-7#3	SHEET 7 OF 23

TRENCH SURFACE TYPE 2



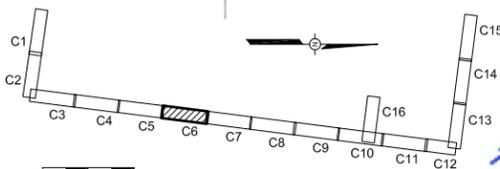
PROFILE

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



PLAN

SCALE: 1" = 20'



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



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SANITATION DISTRICT

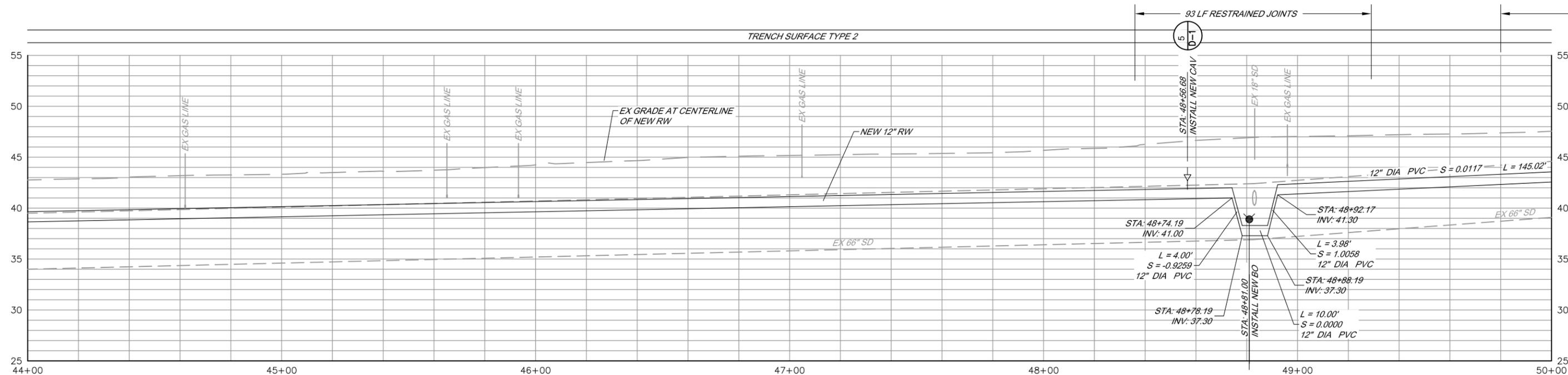
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DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE  
PLAN AND PROFILE  
STA 38+00 TO STA 44+00

FILE NAME: 7655\_Civil.dwg  
CONTRACT NUMBER: 71-712-7#3

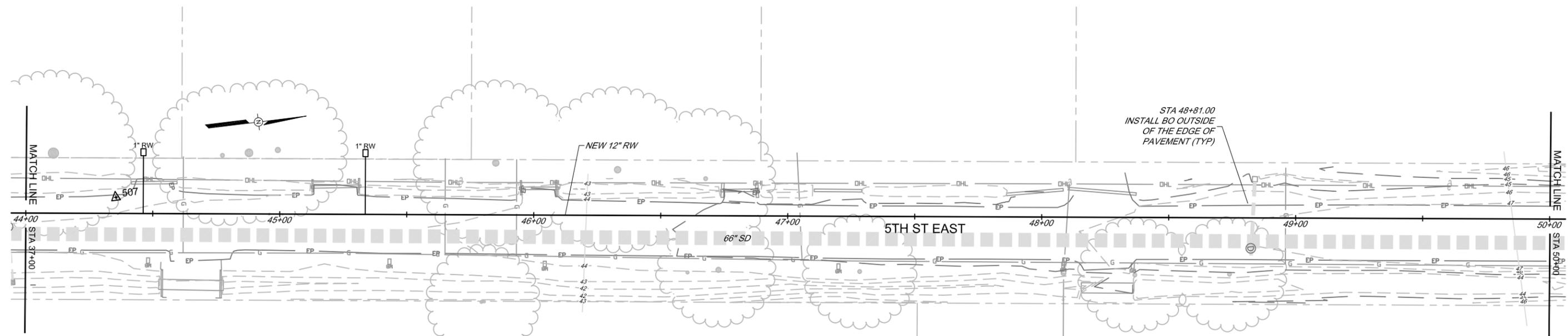
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SHEET 8 OF 23



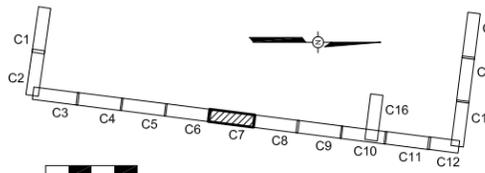
**PROFILE**

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'



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SANITATION DISTRICT

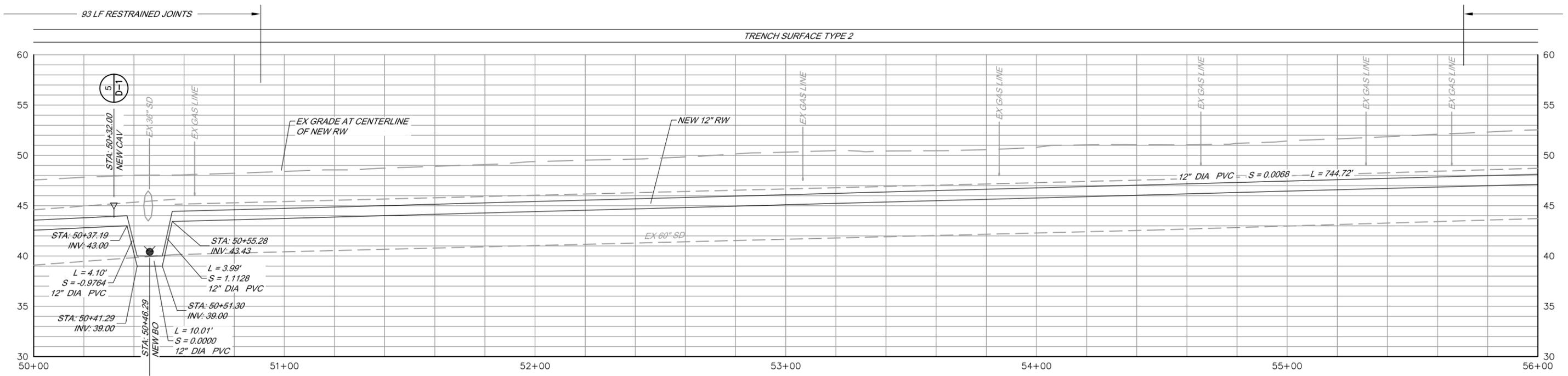
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FIFTH STREET EAST RECYCLED WATER PIPELINE  
**PLAN AND PROFILE**  
STA 44+00 TO STA 50+00

FILE NAME: 7655\_Civil.dwg  
CONTRACT NUMBER: 71-712-783

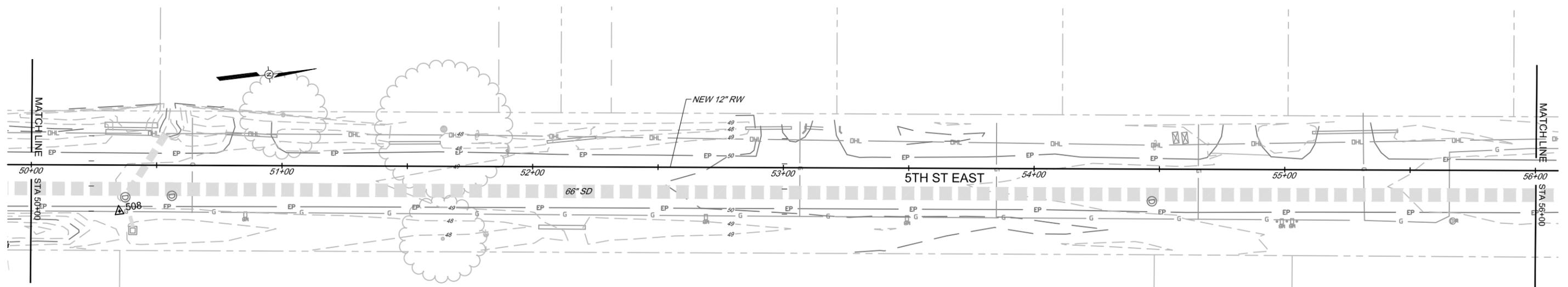
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SHEET 9 OF 23



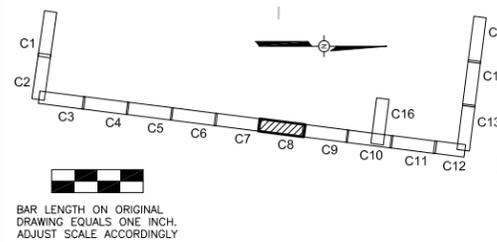
**PROFILE**

SCALE: HORIZ 1" = 20'  
 VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'

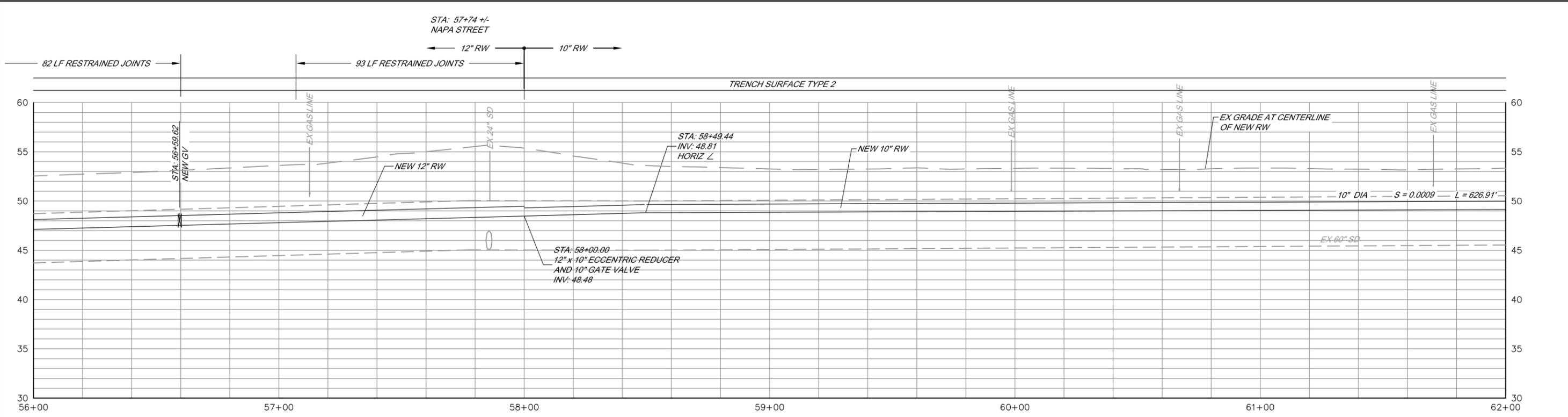


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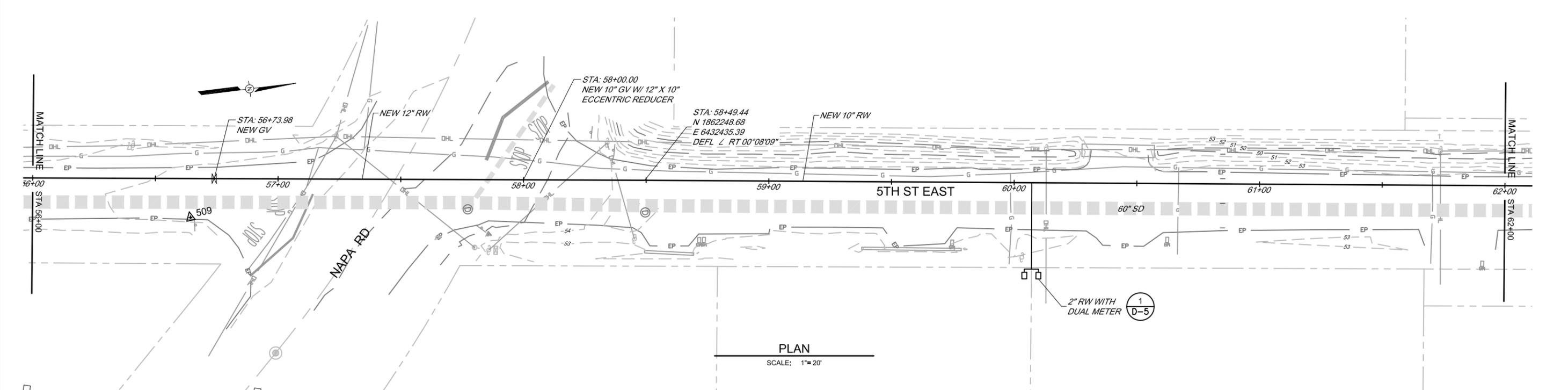
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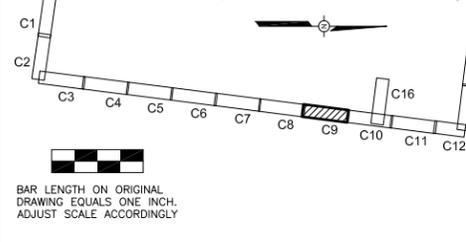
FIFTH STREET EAST RECYCLED WATER PIPELINE	
PLAN AND PROFILE	
STA 50+00 TO STA 56+00	
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-8
CONTRACT NUMBER: 71-712-7#3	SHEET 10 OF 23



**PROFILE**  
 SCALE: HORIZ 1" = 20'  
 VERT 1" = 5'



**PLAN**  
 SCALE: 1" = 20'



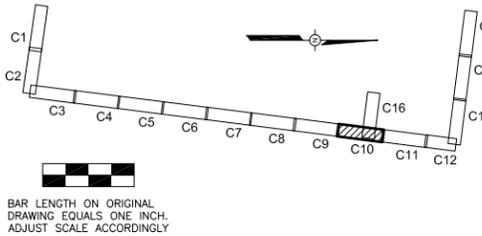
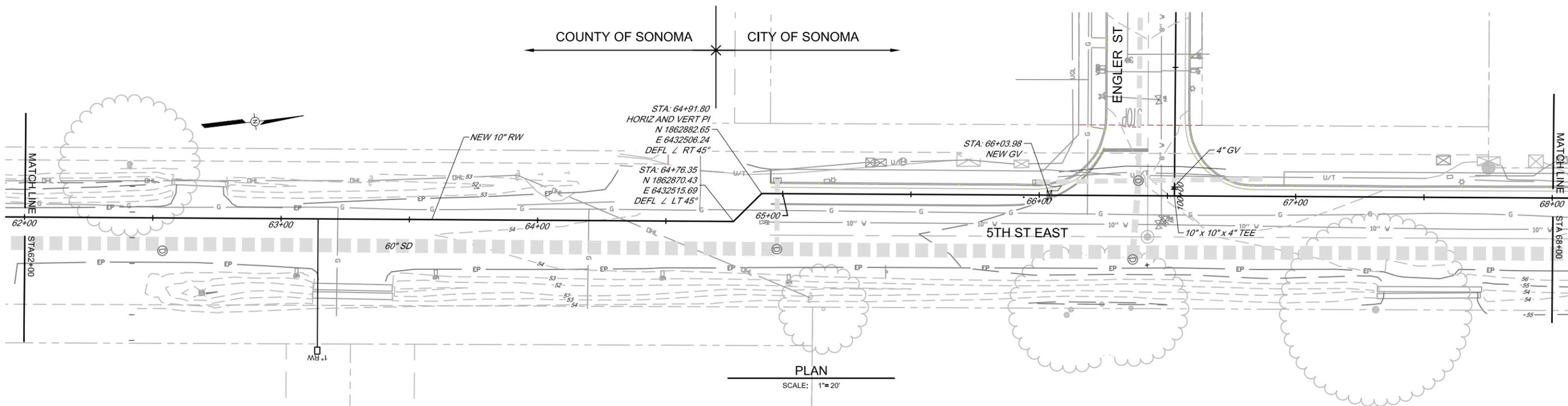
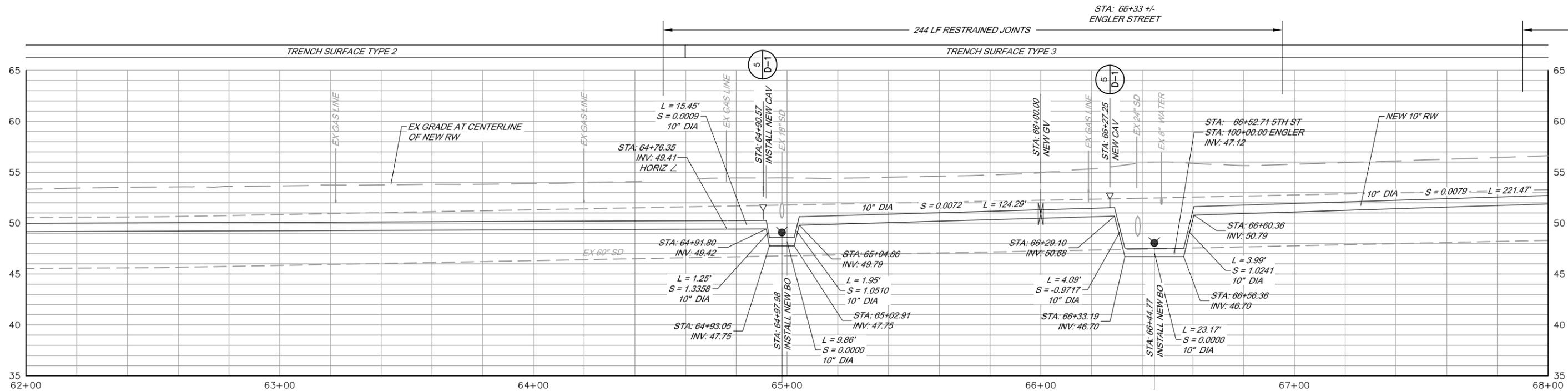
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SONOMA VALLEY COUNTY  
 SANITATION DISTRICT

SCALE: AS SHOWN	DATE: 03/03/2016
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FIFTH STREET EAST RECYCLED WATER PIPELINE  
**PLAN AND PROFILE**  
 STA 56+00 TO STA 62+00

FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-9	SHEET 11 OF 23
CONTRACT NUMBER: 71-712-7#3		



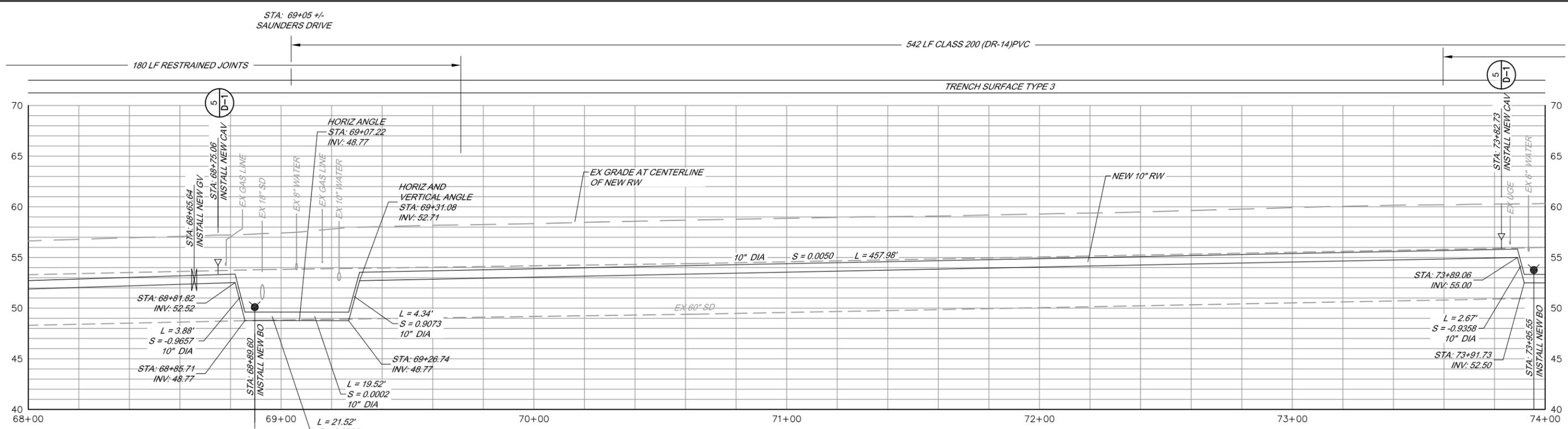
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SONOMA VALLEY COUNTY  
 SANITATION DISTRICT

SCALE: AS SHOWN	DATE: 03/03/2016
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REVIEWED: <i>Kent Gylfe</i>	

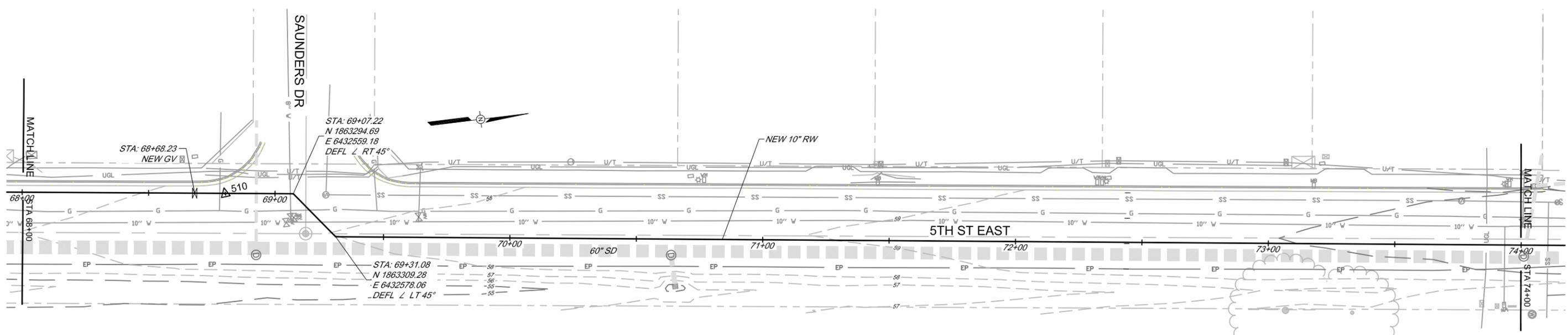
FIFTH STREET EAST RECYCLED WATER PIPELINE  
 PLAN AND PROFILE  
 STA 62+00 TO STA 68+00

FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-10	SHEET 12 OF 23
CONTRACT NUMBER: 71-712-7#3		



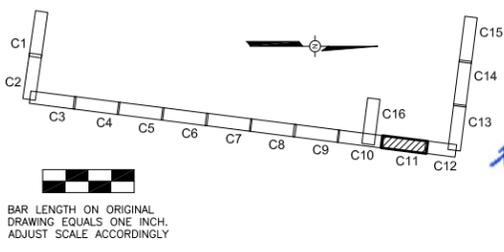
**PROFILE**

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'

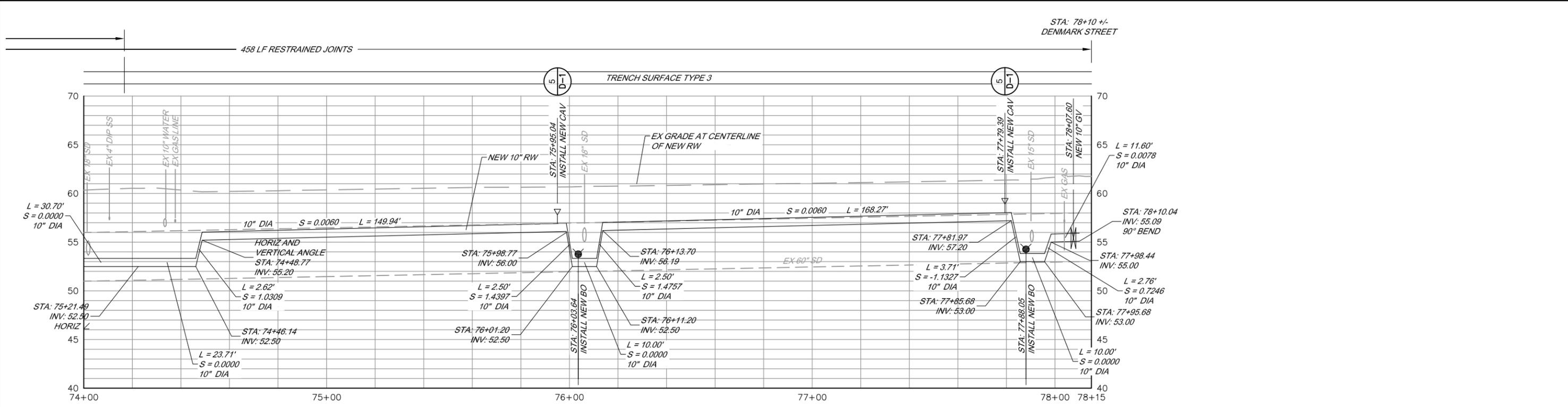


NO.	DATE	REVISION	BY

SONOMA VALLEY COUNTY  
SANITATION DISTRICT

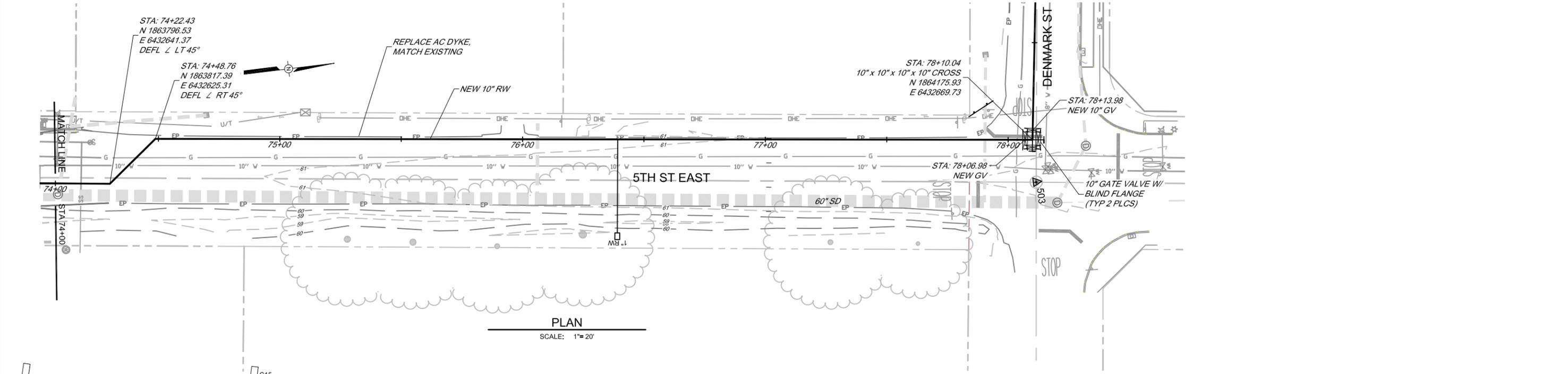
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE	
PLAN AND PROFILE	
STA 68+00 TO STA 74+00	
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-11
CONTRACT NUMBER: 71-712-7#3	SHEET 13 OF 23



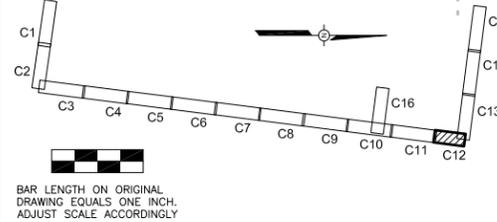
**PROFILE**

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'

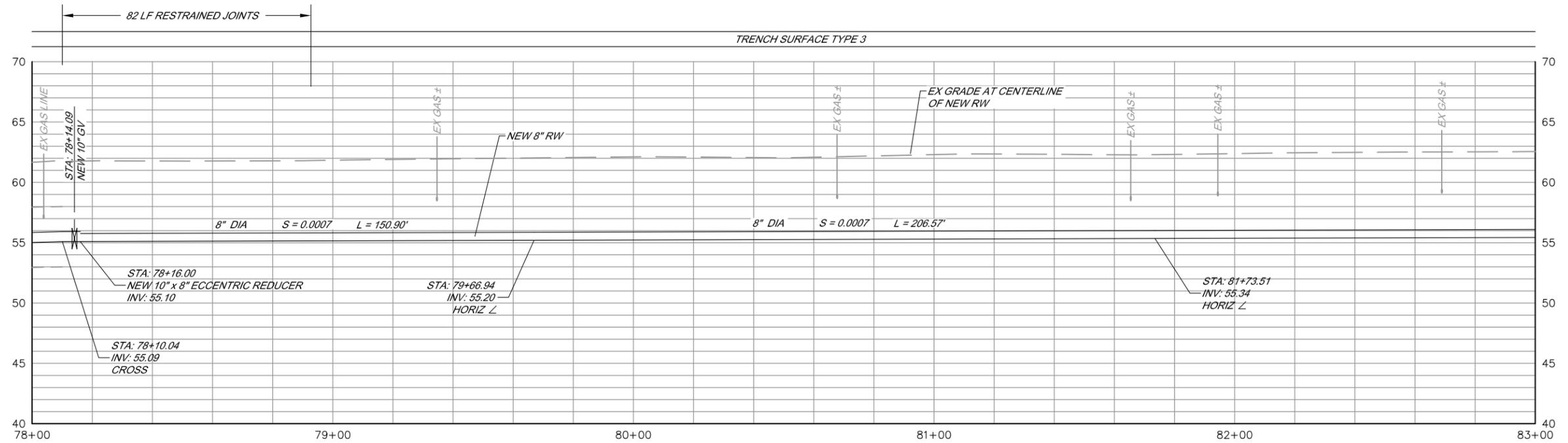


NO.	DATE	REVISION	BY

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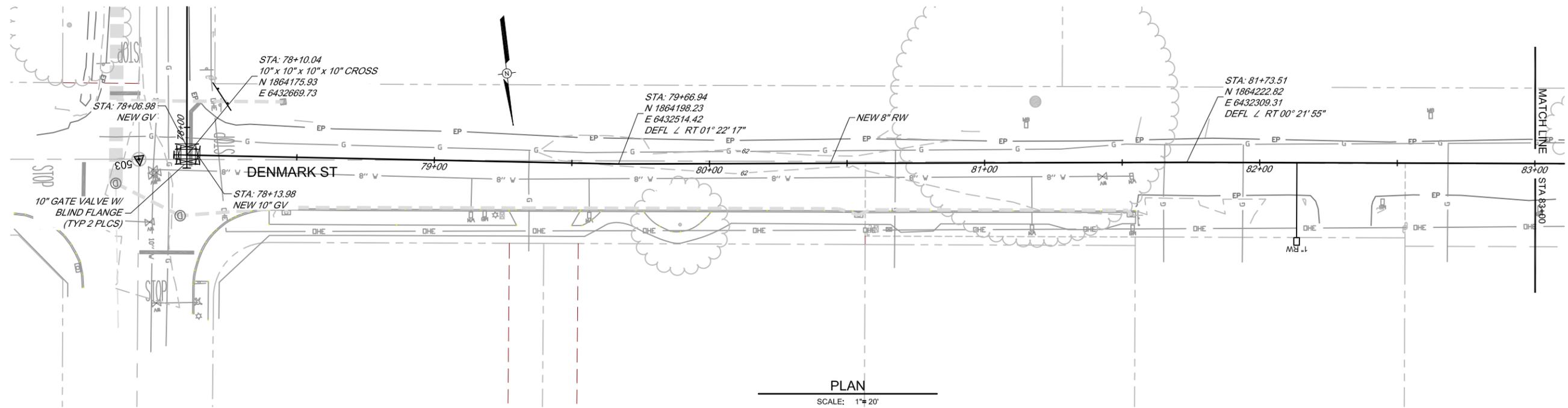
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gynne</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE	
PLAN AND PROFILE	
STA 74+00 TO STA 78+00	
FILE NAME: 7655_CMI.dwg	DRAWING NUMBER: C-12
CONTRACT NUMBER: 71-712-7#3	SHEET 14 OF 23



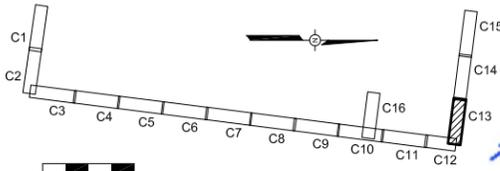
**PROFILE**

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



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SONOMA VALLEY COUNTY  
SANITATION DISTRICT

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

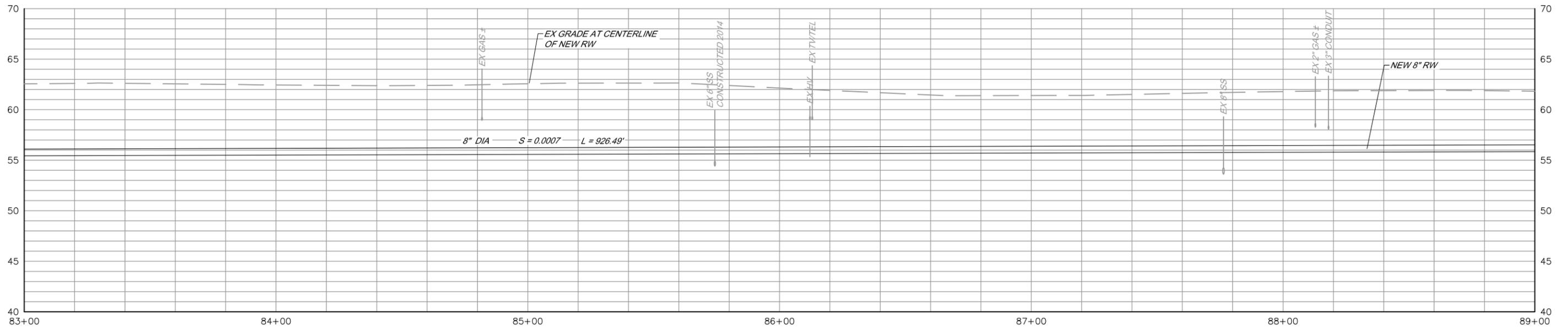
FIFTH STREET EAST RECYCLED WATER PIPELINE  
**PLAN AND PROFILE**  
STA 78+00 TO STA 83+00

FILE NAME: 7655\_Civil.dwg  
CONTRACT NUMBER: 71-712-7#3

DRAWING NUMBER: C-13

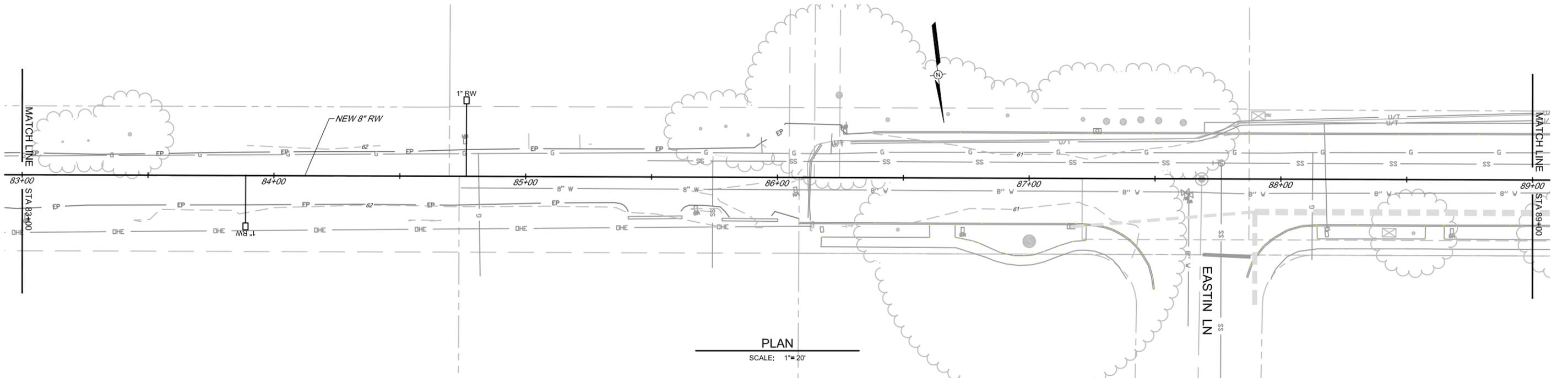
SHEET 15 OF 23

TRENCH SURFACE TYPE 3



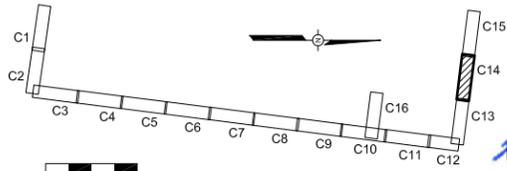
PROFILE

SCALE: HORIZ 1" = 20'  
VERT 1" = 5'



PLAN

SCALE: 1" = 20'



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



NO.	DATE	REVISION	BY

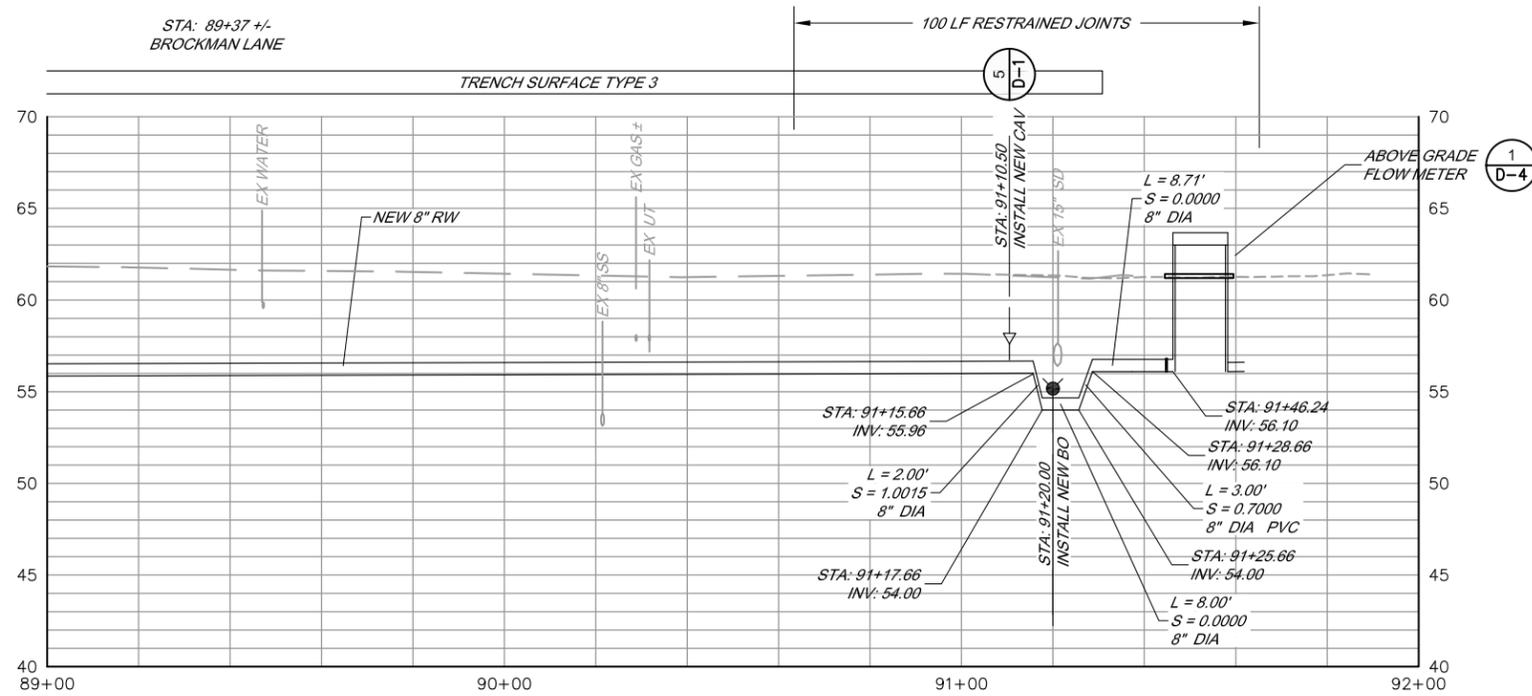
SONOMA VALLEY COUNTY  
SANITATION DISTRICT

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE  
PLAN AND PROFILE  
STA 83+00 TO STA 89+00

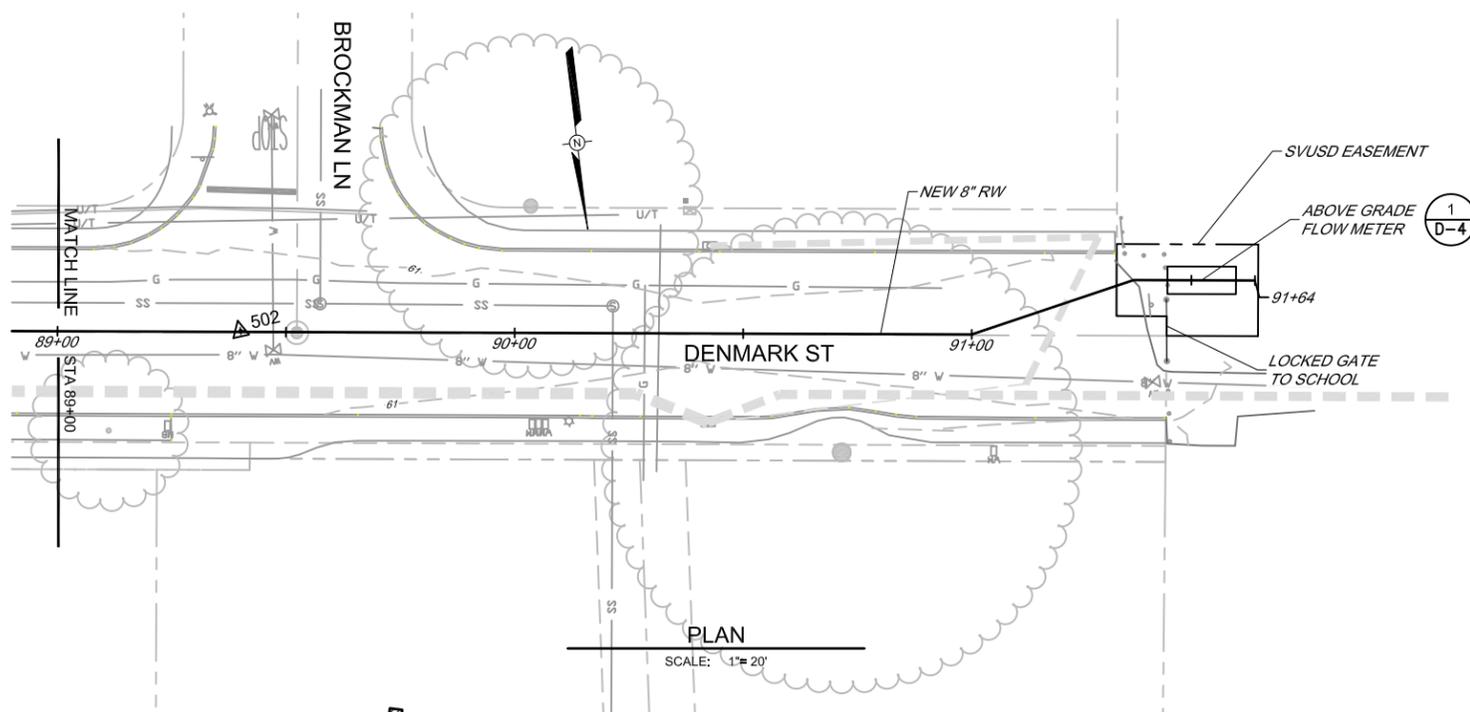
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-14	SHEET 16 OF 23
CONTRACT NUMBER: 71-712-7#3		

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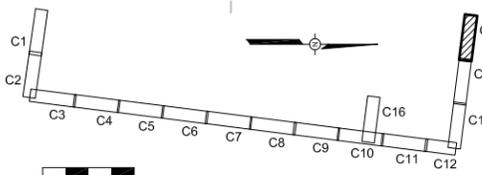
**PROFILE**

SCALE: HORIZ 1" = 20'  
 VERT 1" = 5'



**PLAN**

SCALE: 1" = 20'



BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



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 SANITATION DISTRICT

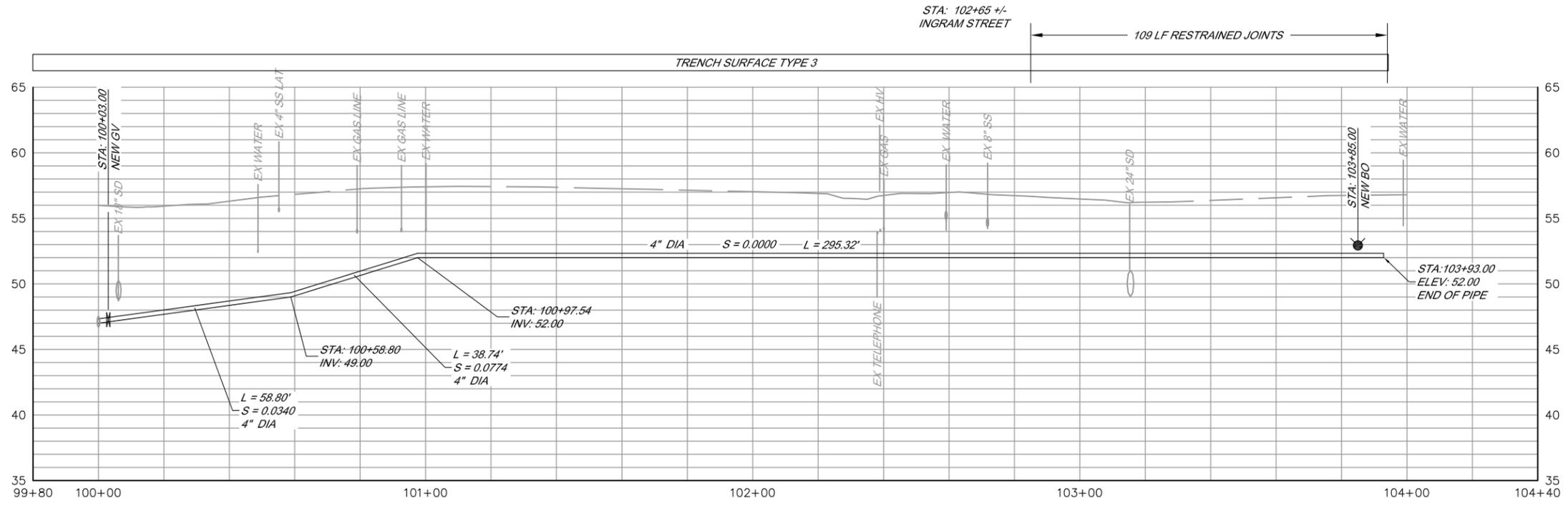
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE  
 PLAN AND PROFILE  
 STA 89+00 TO STA 91+65

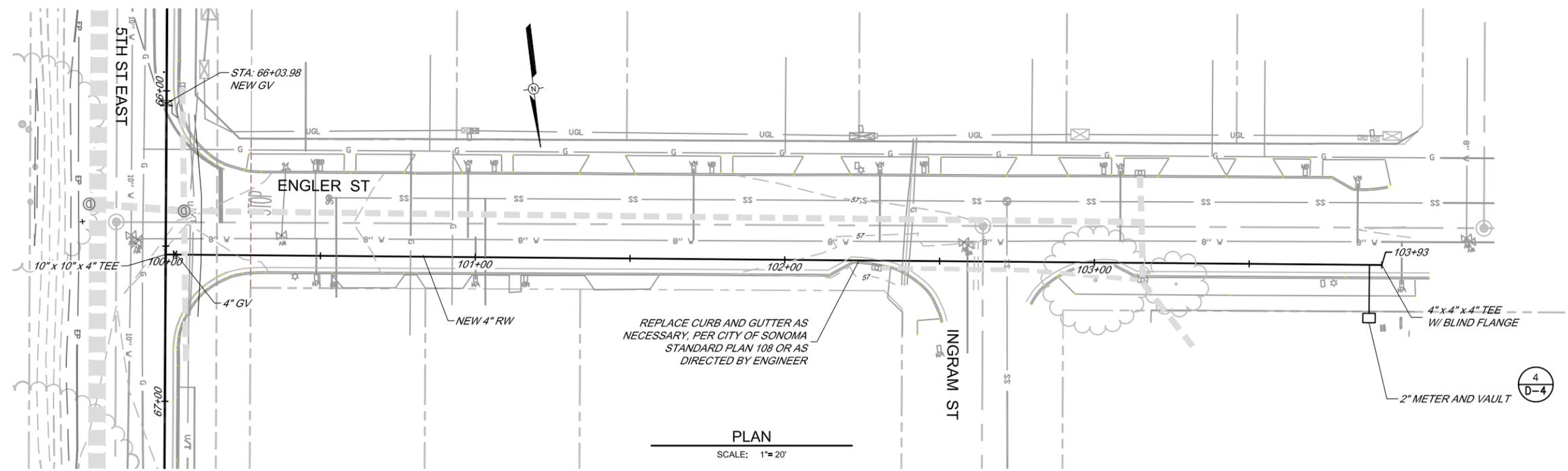
FILE NAME: 7655\_Civil.dwg  
 CONTRACT NUMBER: 71-712-783

DRAWING NUMBER: C-15

SHEET 17 OF 23

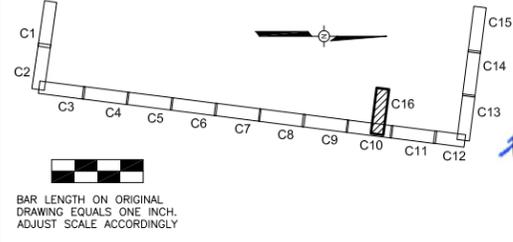


**PROFILE**  
 SCALE: HORIZ 1" = 20'  
 VERT 1" = 5'



**PLAN**  
 SCALE: 1" = 20'

\\SD-DATA\Pro\Sanitation\sonoma\_valley\_csd\recycled\_water\7655\_5thStEast\_Recycled\7655\_Civil



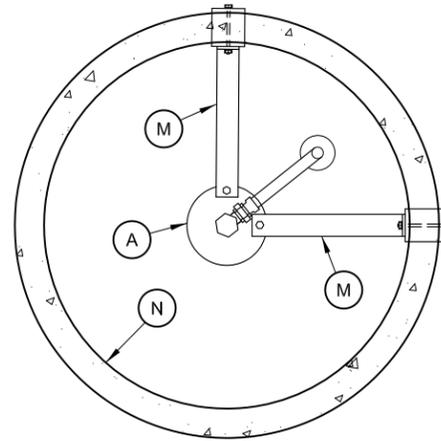
NO.	DATE	REVISION	BY

SONOMA VALLEY COUNTY  
 SANITATION DISTRICT

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

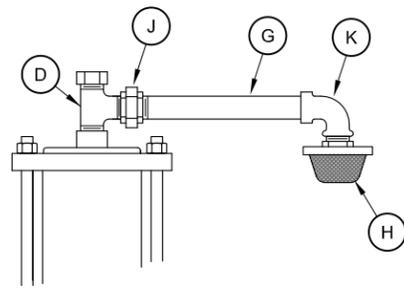
FIFTH STREET EAST RECYCLED WATER PIPELINE	
PLAN AND PROFILE	
STA 100+00 TO STA 104+00	
FILE NAME: 7655_Civil.dwg	DRAWING NUMBER: C-16
CONTRACT NUMBER: 71-712-7#3	SHEET 18 OF 23

LIST OF MATERIALS AIR VALVE ASSEMBLY	
A	2" AIR VALVE
B	2" BRASS NIPPLE OR THREADED BRASS PIPE
C	2" BRONZE BALL VALVE
D	2" 90° BRASS TEE W/CAP (MPT x MPT x MPT)
E	2" BRONZE CORPORATION STOP (MPT x FPT)
F	BLIND FLANGE WITH 2 1/2" NPT TAP
G	2" PVC PIPE
H	20 MESH STAINLESS STEEL SCREEN
J	2" PVC UNION (FPT x FPT)
K	2" PVC 90° ELBOW (SLIP x FPT)
L	1/4" BALL VALVE (FPT X MPT)
M	ZINC GALVANIZED L BRACKET (2 PER AIR VALVE)
N	36" I.D. MANHOLE WITH 36" LID (SEE NOTE 3)



TOP VIEW W/O COVER

LIST OF MATERIALS BLOWOFF ASSEMBLY	
A	DRAIN ROCK
B	6" BLIND FLANGE DRILLED AND THREADED 2" NPT
C	2" CORPORATION STOP (MALE x FEMALE) NPT
D	BANDED SADDLE WITH 2" OUTLET, SST BANDS
E	2" DIA PIPE, LENGTH AS NEEDED
F	SOLID CONC BEARING BLOCK, 4" x 8" x 16"
G	2" STEEL 90 DEG ELBOW
H	2" BALL VALVE
J	2" DIA x 6" LONG THREADED NIPPLE
K	2" DIA COUPLING
L	2" MALE CAMLOCK WITH DUST COVER
M	CONCRETE METER BOX, WITH BOLT DOWN TRAFFIC COVER
N	CONCRETE SUPPORT BLOCK
O	CONCRETE COLLAR



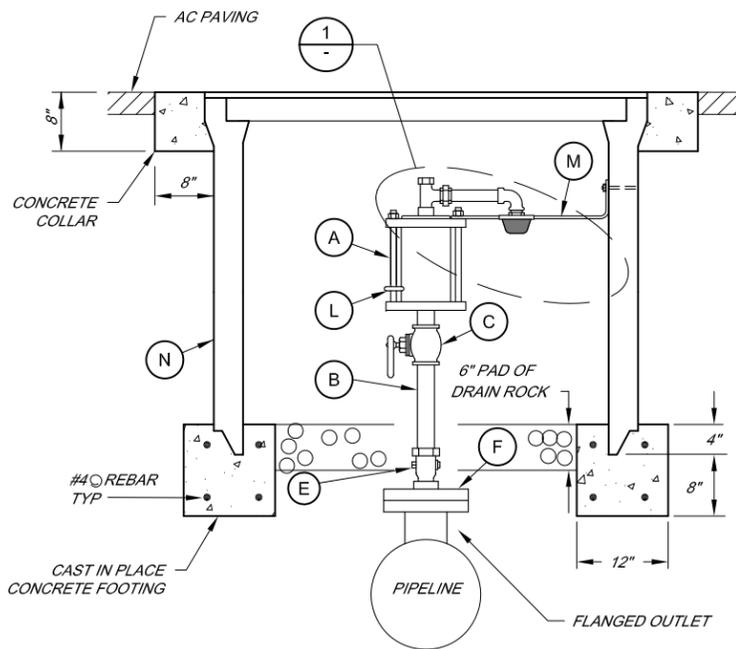
AIR VALVE OUTLET

(AIR VALVE IN TRAFFIC AREAS)  
NOT TO SCALE



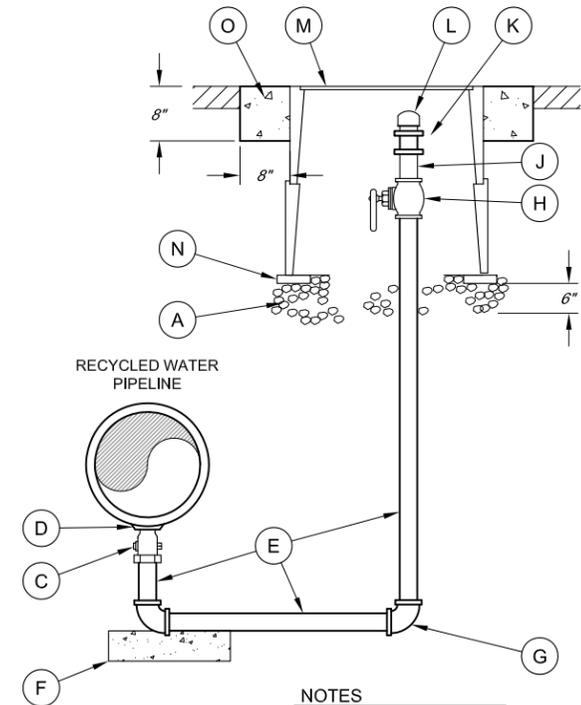
NOTES

- PRESSURE RATINGS OF EQUIPMENT SHOWN SHALL BE NO LESS THAN 150 psi.
- ALL 2" PIPING & FITTINGS SHALL BE BRASS OR BRONZE, UNLESS OTHERWISE NOTED.
- MANHOLE AND BOLT DOWN LID SHALL BE H-20 TRAFFIC RATED. WELD 2" HIGH "SVCSD AIR VALVE" ON METAL COVER/LID. AIR VALVE LID SHALL HAVE 4-1" DIAMETER HOLES, OR APPROVED ALTERNATIVE TO ALLOW AIR FLOW INTO THE MANHOLE.



2" AIR VALVE ASSEMBLY

NOT TO SCALE



NOTES

- INSTALL BLOWOFF BOX OUTSIDE THE EDGE OF PAVEMENT.
- PROVIDE BOLT DOWN, H-20 TRAFFIC RATED COVER AND BOX.

2" BLOWOFF ASSEMBLY

NOT TO SCALE



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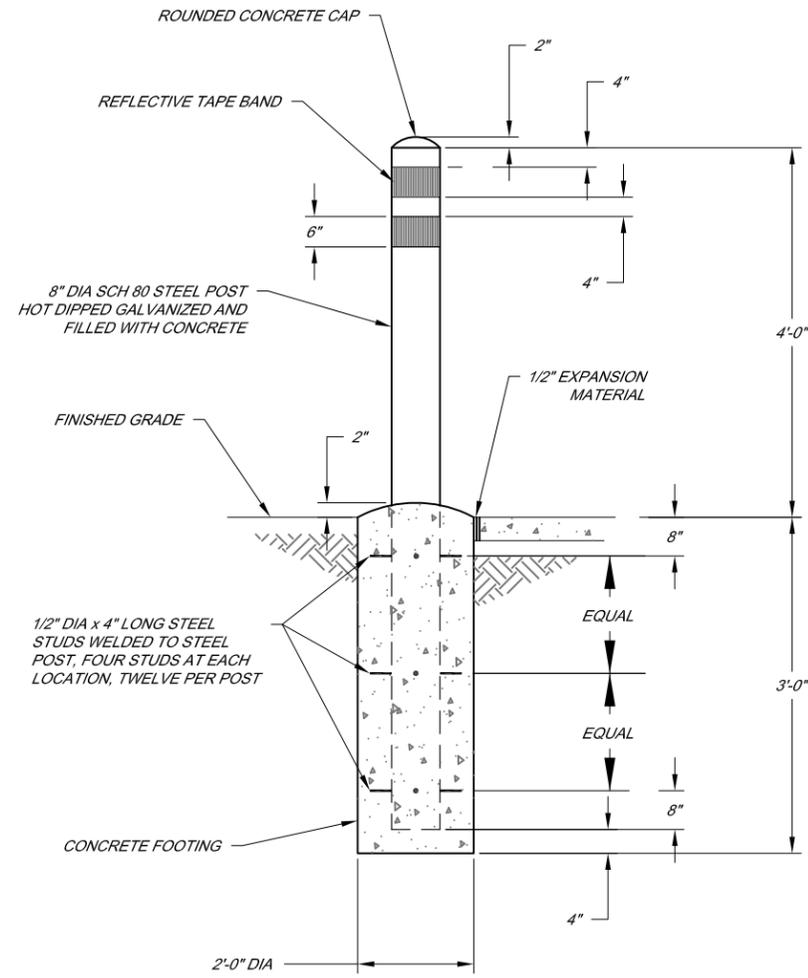
SCALE:	AS SHOWN	DATE:	03/03/2016
DRAWN:	SMP	REVIEWED:	Kent Gyffe

FIFTH STREET EAST RECYCLED WATER PIPELINE  
AIR VALVE ASSEMBLY, VALVE DETAILS, AND  
BLOWOFF DETAIL

FILE NAME: 7655_Details.dwg	DRAWING NUMBER: D-1	SHEET 19 OF 23
CONTRACT NUMBER: 71-712-7#3		

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BAR LENGTH ON ORIGINAL  
DRAWING EQUALS ONE INCH.  
ADJUST SCALE ACCORDINGLY

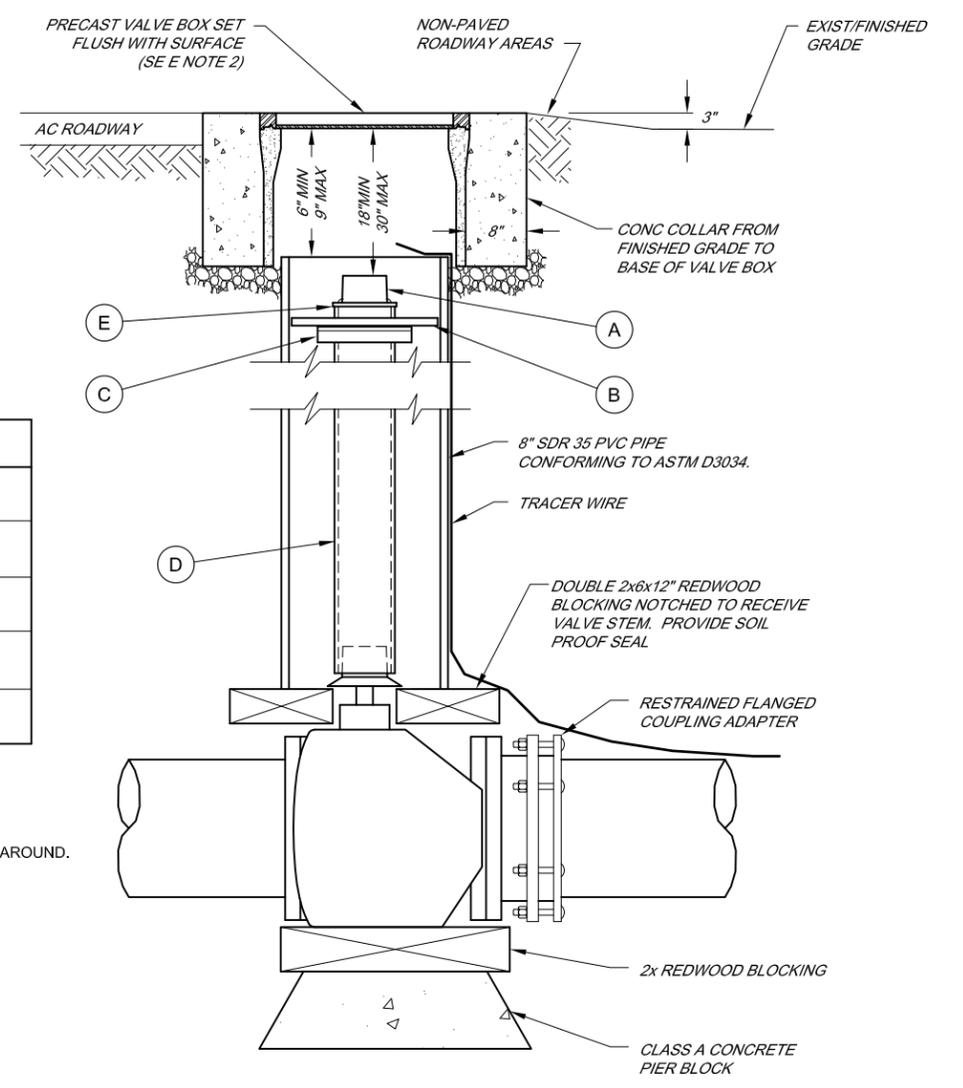


**BOLLARD**  
NOT TO SCALE

LIST OF MATERIALS VALVE STEM EXTENSION	
A	VALVE OPERATING NUT OR 1 7/8" X 1 7/8" X 2" HIGH SOLID STEEL WELDED TO TOP PLATE
B	3/16" THICK X 7 1/2" DIA FREE SPINNING GUIDE PLATE, WITH 3 5/8" DIA HOLE IN CENTER
C	TWO 3/16" X 1 1/2" X 1 1/2" X 5" STEEL ANGLE WELD TO TWO SIDES OF EXTENSION SHAFT
D	2 1/2" X 3/16" SQUARE STEEL TUBING LENGTH AS REQUIRED. EDGE WELD TO TOP PLATE
E	3" X 3" X 1/4" STEEL TOP PLATE. WELD TO EXTENSION SHAFT AFTER GUIDE PLATE IS IN PLACE

**STEM EXTENSION FABRICATION NOTES**

1. ALL WELDS TO EXTENSION SHAFT SHALL BE FILLET WELD ALL AROUND.
2. PRECAST VALVE BOX, CHRISTY 65, OR APPROVED EQUAL.



**NOTES (VALVE INSTALLATION)**

1. IF VALVE IS INSTALLED SO THAT THE TOP OF THE OPERATING NUT IS LESS THAN 30" BELOW FINISHED GRADE, THE VALVE STEM EXTENSION IS NOT REQUIRED.
2. LIDS & COVERS SHALL BE LETTERED "SVCSDBV" FOR BUTTERFLY VALVES AND "SVCSDBV" FOR PLUG VALVES. 2" HIGH LETTERS WELDED OR CAST INTO COVER.

**TYPICAL VALVE INSTALLATION, VALVE STEM EXTENSION AND TRAFFIC VALVE BOX RISER**  
NOT TO SCALE

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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY

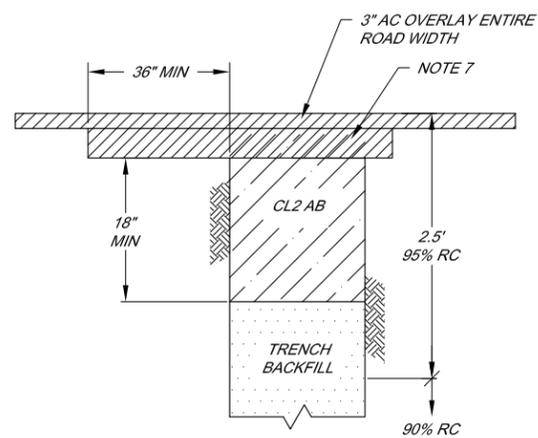


NO.	DATE	REVISION	BY

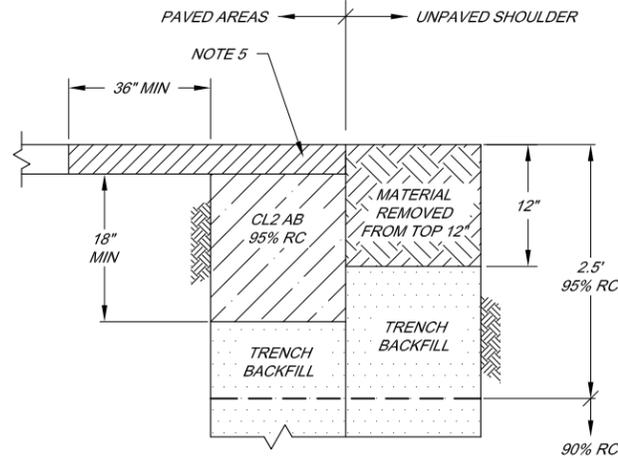
**SONOMA VALLEY COUNTY  
SANITATION DISTRICT**

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

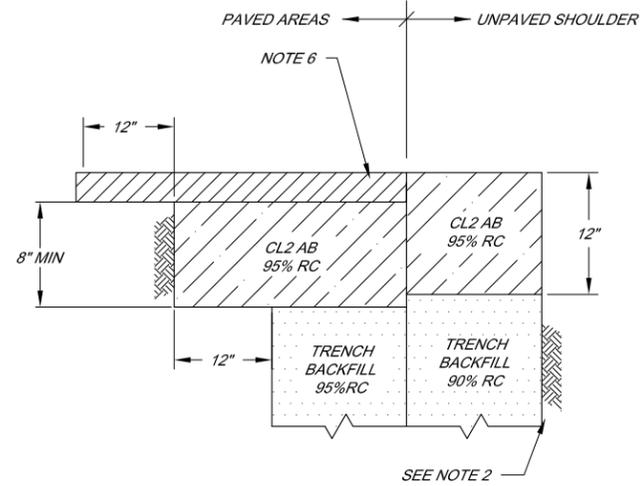
FIFTH STREET EAST RECYCLED WATER PIPELINE TYPICAL VALVE INSTALLATION	
FILE NAME: 7655_Details.dwg	DRAWING NUMBER: D-2
CONTRACT NUMBER: 71-712-7#3	SHEET 20 OF 23



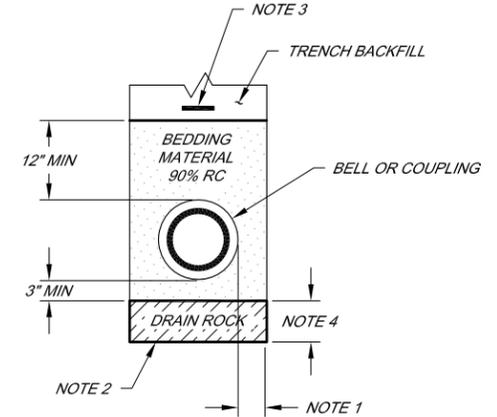
TRENCH SURFACE TYPE 1  
(WATMAUGH RD)



TRENCH SURFACE TYPE 2  
(COUNTY ROADWAY)



TRENCH SURFACE TYPE 3  
(CITY ROADWAY)  
PER CITY OF SONOMA STANDARD PLAN 501



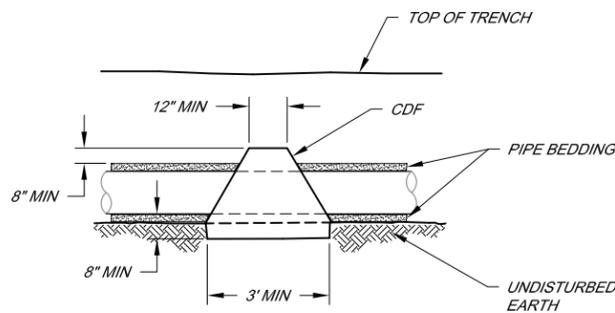
PIPE BEDDING

TRENCH DETAILS

NOT TO SCALE

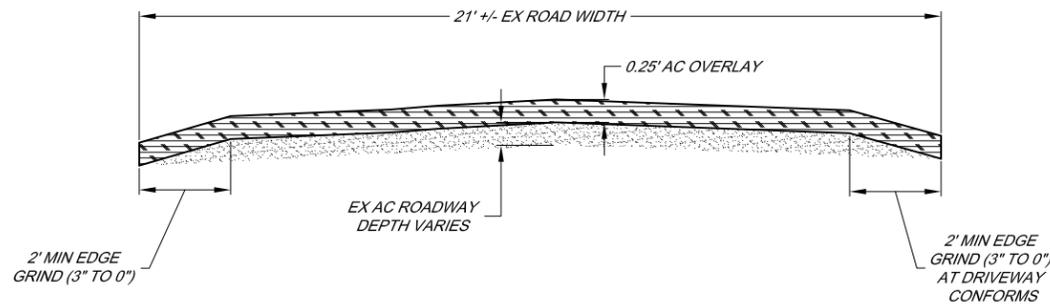
PIPE BEDDING

NOT TO SCALE



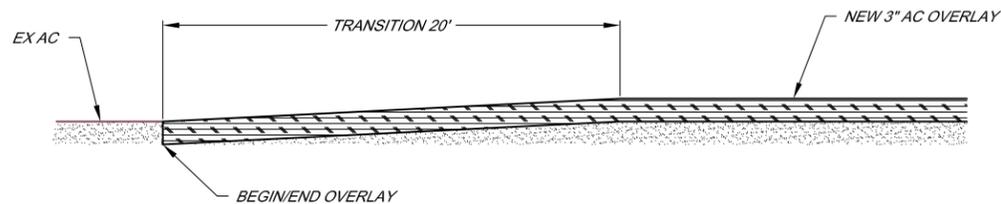
TRENCH DAM DETAIL

NOT TO SCALE



TYPICAL SECTION ROAD

NOT TO SCALE



AC OVERLAY TRANSITION

NOT TO SCALE

NOTES

- SMALL PIPE DIAMETER (18" OR LESS): 6" MIN., 9" MAX. PLUS ALLOWANCE FOR TRENCH SHORING.
  - AS DIRECTED BY OWNER, WRAP DRAIN ROCK WITH GEOTEXTILE FABRIC. PROVIDE 1" MINIMUM OVERLAP AT ENDS OF FABRIC. CONTRACTOR HAS THE OPTION OF USING CONTROLLED DENSITY FILL FOR BEDDING AND STRUCTURAL BACKFILL.
  - INSTALL MAGNETIC DETECTABLE CONDUCTOR WARNING TAPE, BRIGHTLY COLORED PLASTIC COVERING, IMPRINTED WITH "CAUTION BURIED RECLAIMED WATER LINE BELOW" AS APPLICABLE IN LARGE LETTERS AFTER A DEPTH OF 12" BACKFILL HAS BEEN PLACED OVER.
  - IF SOFT MATERIALS ARE PRESENT IN TRENCH BOTTOM, PROVIDE DRAIN ROCK AS DIRECTED BY OWNER.
  - REMOVE AND REPLACE THE EXISTING ASPHALT CONCRETE PAVEMENT TO THE NEAREST LANE LINE. WHERE EVER THE 3-FOOT "T" CUT CROSSES THE CENTERLINE STRIPE, FULL-WIDTH PAVING IS REQUIRED. REFER TO SONOMA COUNTY DRAWING 219 FOR ADDITIONAL DETAILS.
- FIFTH ST EAST = 0.35'  
NAPA ROAD CROSSING = 0.45'
- SAWCUT EXISTING PAVEMENT 24" MIN. BEYOND EACH SIDE OF TRENCH. PROVIDE 0.25' MIN AC OR MATCH EXISTING AC (WHICHEVER IS GREATER).
  - AC TRENCH SURFACE SHALL BE 3" IN THICKNESS OR MATCH EXISTING ROAD THICKNESS WHICHEVER IS GREATER.

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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



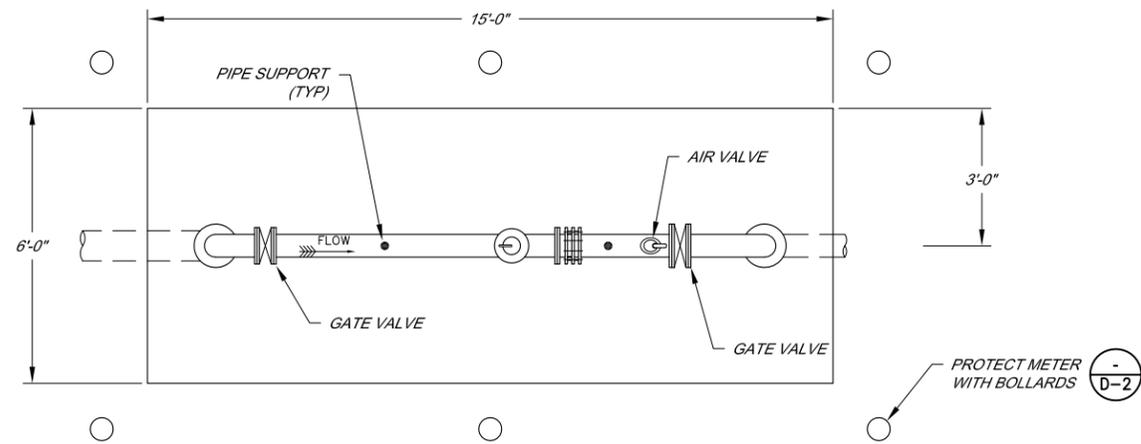
NO.	DATE	REVISION	BY

SONOMA VALLEY COUNTY  
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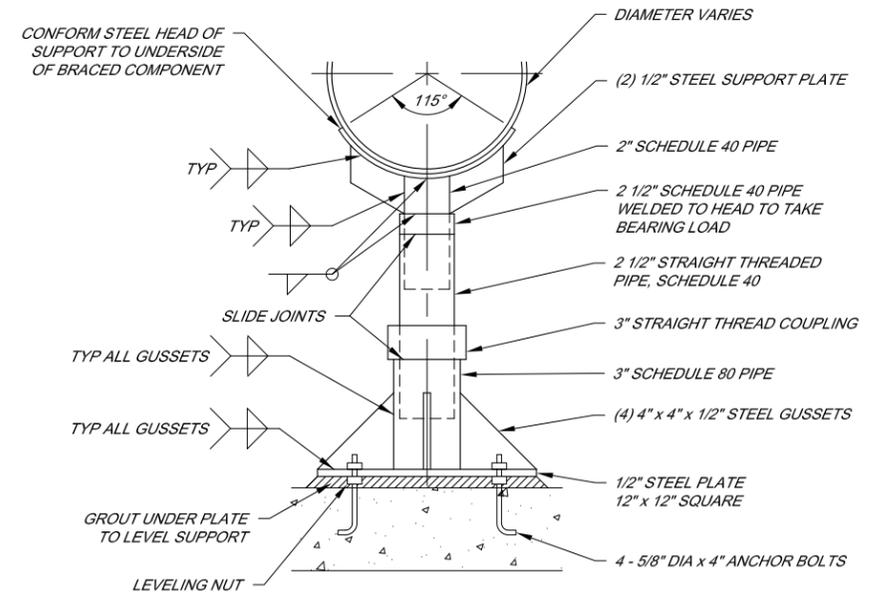
SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

FIFTH STREET EAST RECYCLED WATER PIPELINE  
TRENCH DETAILS

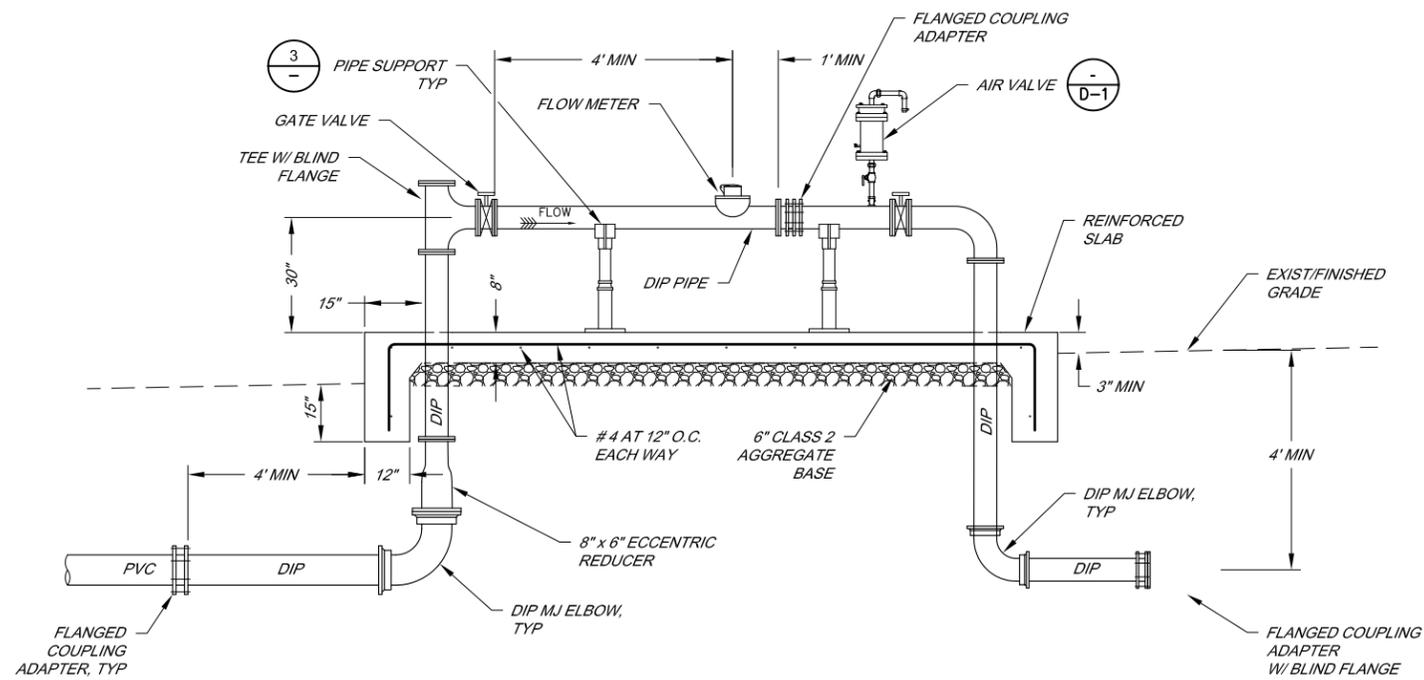
FILE NAME: 7655_Details.dwg	DRAWING NUMBER: D-3	SHEET 21 OF 23
CONTRACT NUMBER: 71-712-7#3		



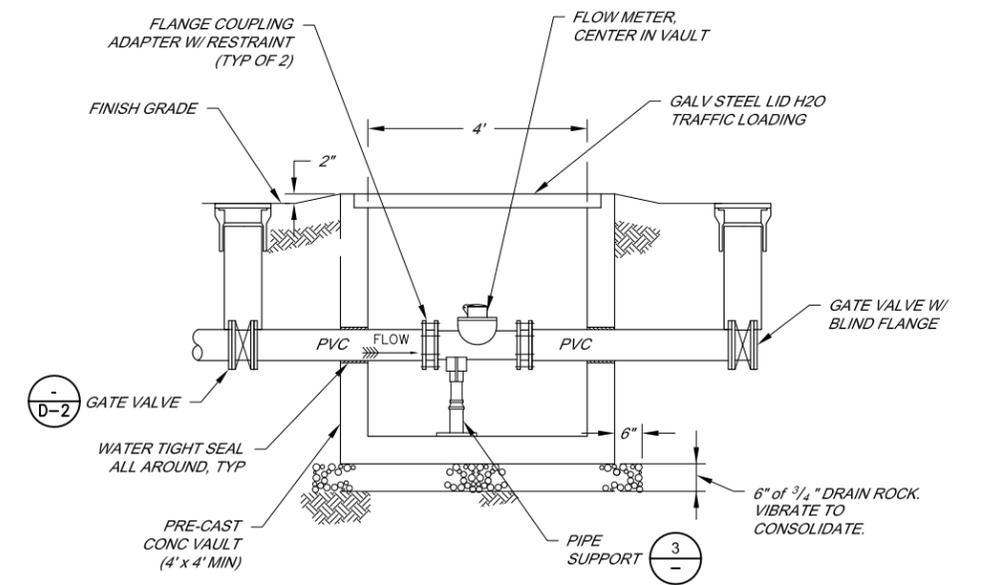
**PLAN - 6" FLOW METER INSTALLATION** 2  
NOT TO SCALE C-15



**PIPE SUPPORT DETAIL** 3  
NOT TO SCALE



**PROFILE - 6" FLOW METER INSTALLATION** 1  
NOT TO SCALE C-15



**4" RECYCLED WATER METER VAULT** 4  
NOT TO SCALE C-16



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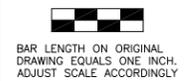
**SONOMA VALLEY COUNTY  
SANITATION DISTRICT**

SCALE: AS SHOWN	DATE: 03/03/2016
DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

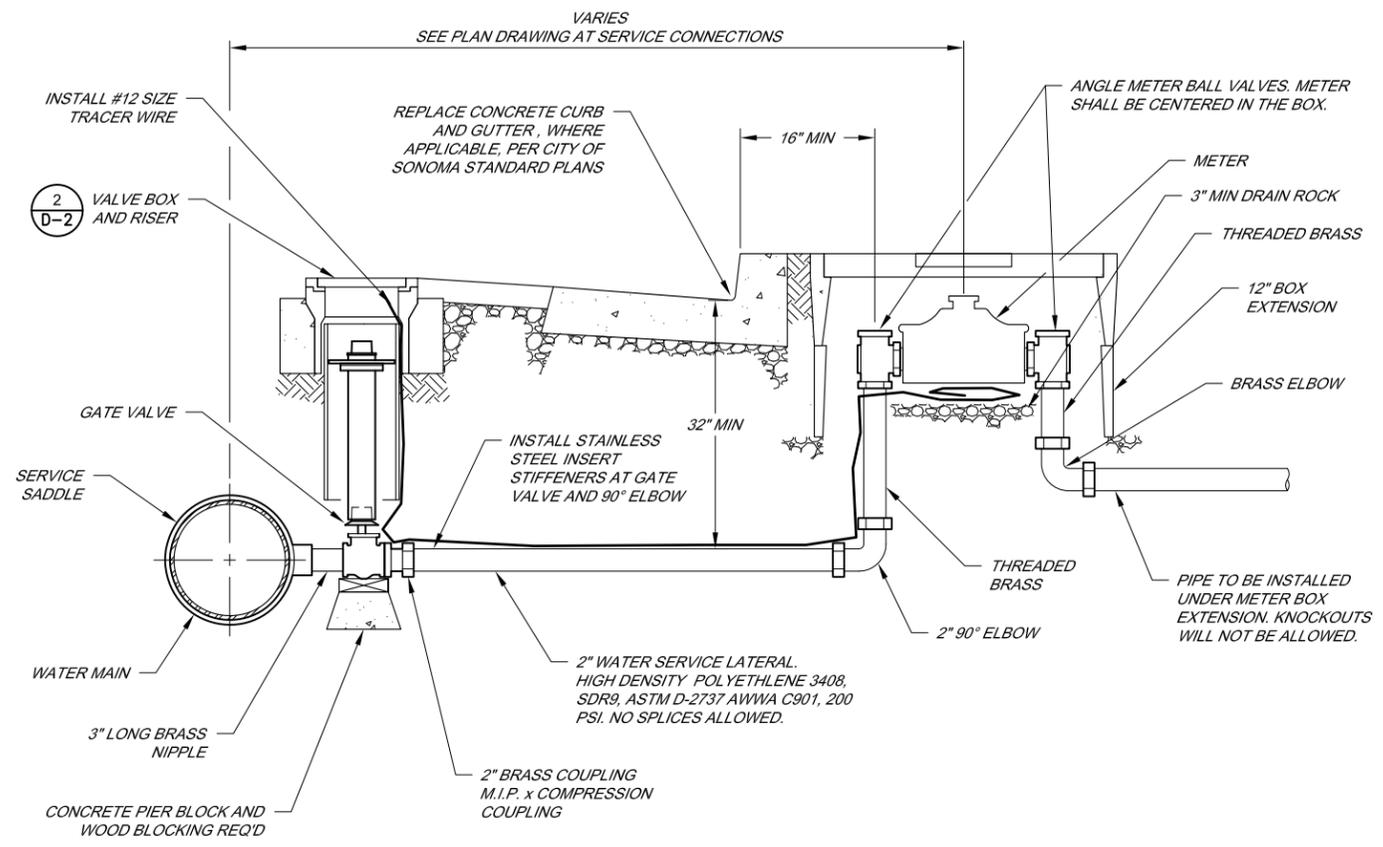
**FIFTH STREET EAST RECYCLED WATER PIPELINE  
FLOW METER**

FILE NAME: 7655_Details.dwg	DRAWING NUMBER: D-4	SHEET 22 OF 23
CONTRACT NUMBER: 71-712-7#3		

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BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH. ADJUST SCALE ACCORDINGLY



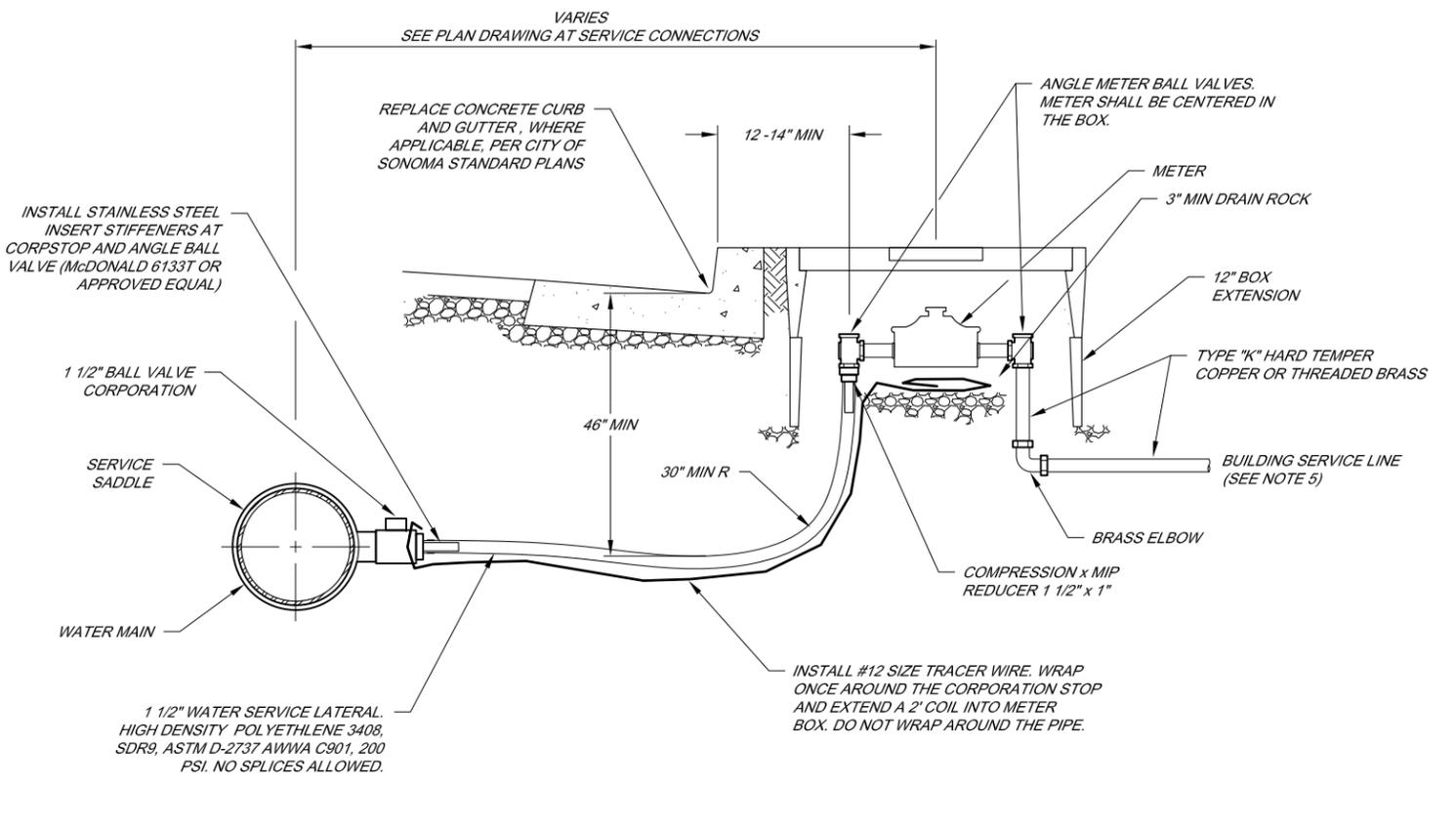
**2" RECYCLED WATER SERVICE LATERAL FOR DUAL RW METER**

1  
-

NOT TO SCALE

**NOTES**

- METER BOX MUST BE SET SO THAT COVER IS FLUSH WITH TOP OF CURB OR SIDEWALK IF APPLICABLE.
- IF MORE THAN ONE LENGTH OF TUBING IS REQUIRED, COMPRESSION COUPLING SHALL BE USED. NO COMPRESSION FITTINGS ALLOWED UNDER CURB AND GUTTER.
- AT A MINIMUM, EXTEND SERVICE LINE TO 12" BEYOND BACK OF METER BOX AND CAP. WHERE SIDEWALK IS BEING INSTALLED. EXTEND BUILDING SERVICE LINE TO 12" BEYOND BACK OF SIDEWALK AND CAP.
- TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL LOCATIONS.



**1 1/2" RECYCLED WATER SERVICE LATERAL FOR 1" RW METER**

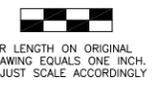
2  
-

NOT TO SCALE

**NOTES**

- UNLESS OTHERWISE SPECIFIED ON THE PLANS, PROVIDE 1" METER INSTALLATION.
- METER BOX MUST BE SET FLUSH WITH GRADE TOP OF CURB OR SIDEWALK, IF APPLICABLE.
- TRAFFIC LOADING BOX AND LID TO BE INSTALLED IN ALL LOCATIONS.
- AT A MINIMUM, EXTEND SERVICE LINE TO 12" BEYOND BACK OF METER BOX AND CAP. WHERE SIDEWALK IS BEING INSTALLED EXTEND BUILDING LINE TO 12" BEYOND BACK OF SIDEWALK AND CAP.

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SANITATION DISTRICT**

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DRAWN: SMP	
REVIEWED: <i>Kent Gyle</i>	

<b>FIFTH STREET EAST RECYCLED WATER PIPELINE RECYCLED WATER SERVICE</b>	
FILE NAME: 7655_Details.dwg	DRAWING NUMBER: D-5
CONTRACT NUMBER: 71-712-7#3	SHEET 23 OF 23