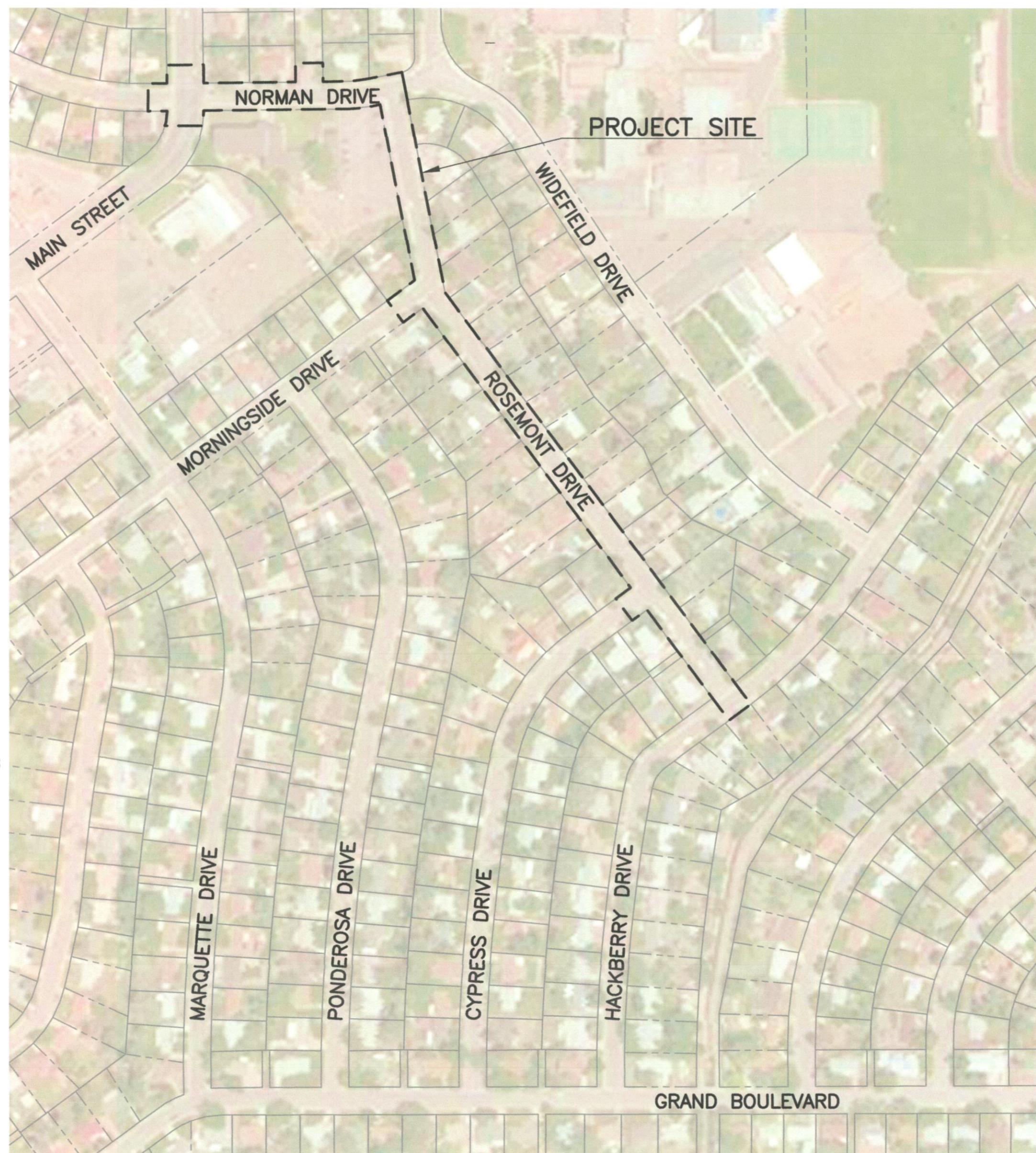
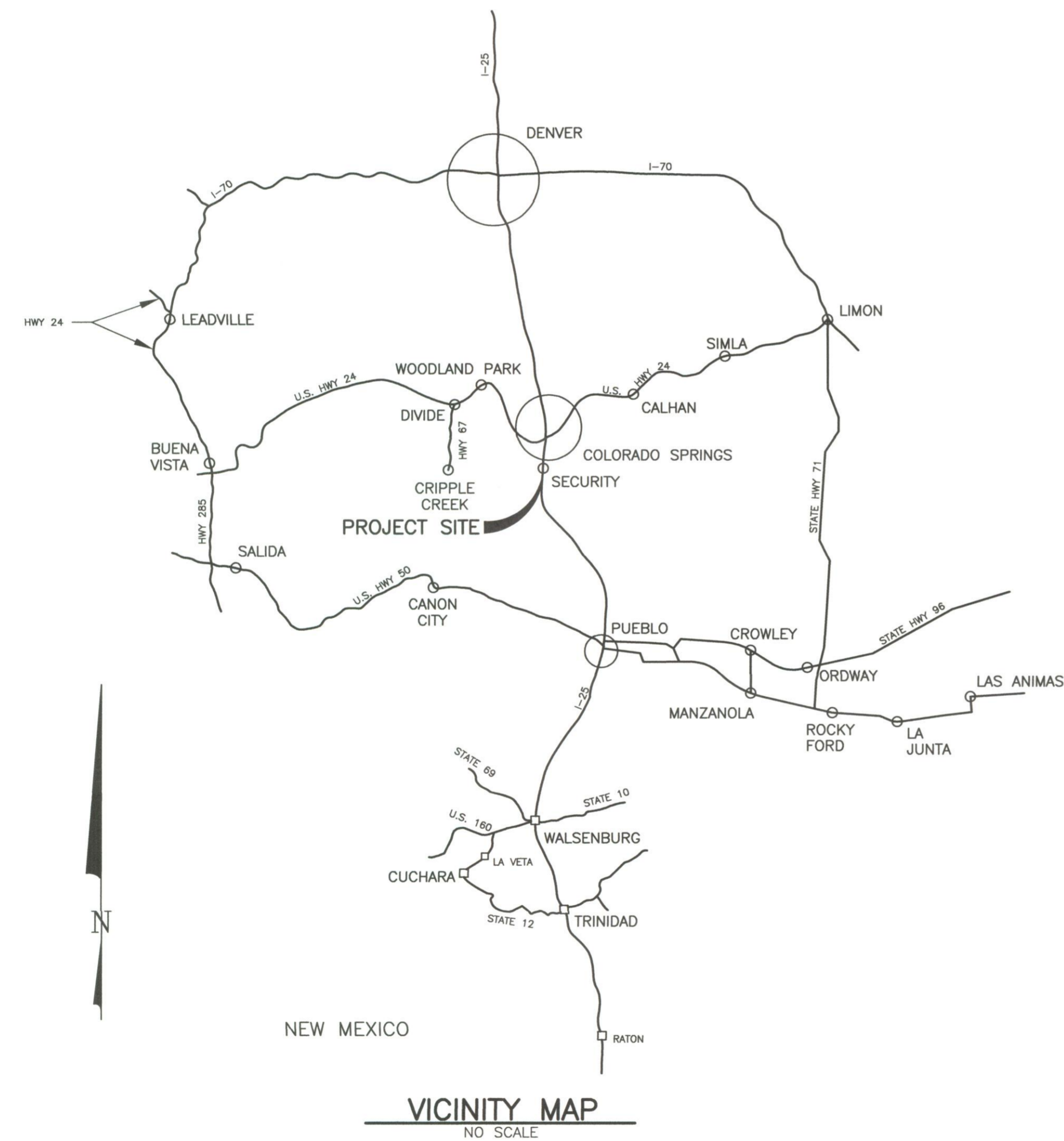


# WATER SYSTEM IMPROVEMENTS 2019

## FOR SECURITY WATER DISTRICT

JUNE 2019



### DRAWING INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET, VICINITY MAPS, DRAWING INDEX AND APPROVAL
2	GENERAL NOTES AND LEGEND
3	SHEET INDEX, CONTROL AND COORDINATE DATA
4	NORMAN DRIVE STA. 0+00 TO STA. 5+34.60, PLAN, PROFILE AND DETAILS
5	MAIN STREET AND ROSEMONT DRIVE - SEGMENT 2 PLAN, PROFILE AND DETAILS
6	ROSEMONT DRIVE - SEGMENT 1, STA. 0+00 TO STA. 5+14, ADDITIVE ALTERNATE NO. 1 STA. 5+14 TO STA. 8+40
7	ROSEMONT DRIVE - SEGMENT 1 ADDITIVE ALTERNATE NO. 1, STA. 8+40 TO STA. 12+73 ADDITIVE ALTERNATE NO. 2 STA. 12+73 TO STA. 15+71
8	MORNINGSIDE DRIVE, CYPRESS DRIVE ADDITIVE ALTERNATE NO. 1 AND DETAILS

### APPROVED FOR BIDDING AND CONSTRUCTION

EL PASO COUNTY, COLORADO  
DEPARTMENT OF TRANSPORTATION

BY: \_\_\_\_\_ DATE: \_\_\_\_\_

JENNIFER IRVINE, P.E.  
MANAGER / COUNTY ENGINEER

THIS PLAN APPROVED. IN THE EVENT OF ROAD IMPROVEMENTS, ANY NECESSARY UTILITY ADJUSTMENTS OF THIS UTILITY WILL BE AT THE OWNER'S EXPENSE.

GMS, INC.  
CONSULTING ENGINEERS

BY: *Neil A. V...* DATE: *7-3-19*

SECURITY WATER DISTRICT  
ROY E. HEALD, DISTRICT MANAGER

BY: *Roy E. Heald* DATE: *7-3-19*

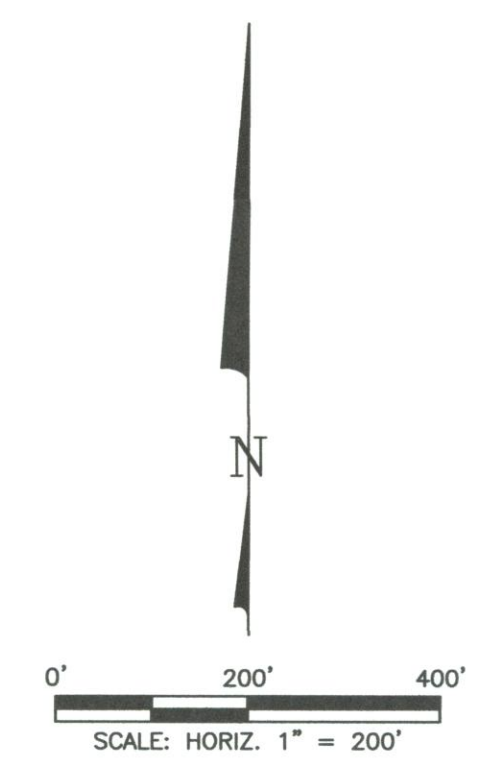
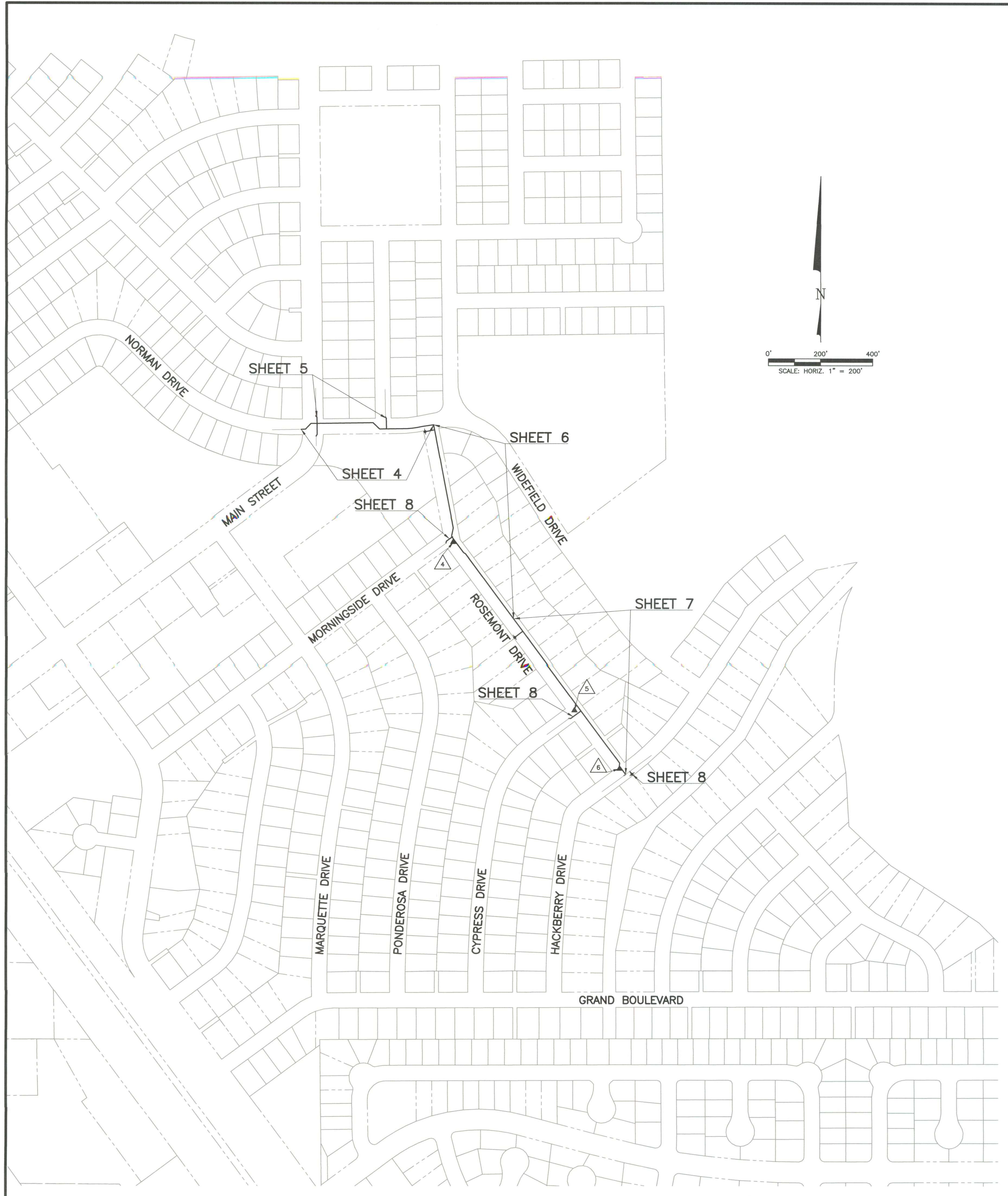
**GMS, INC.**  
611 NORTH WEBER, SUITE 300  
COLORADO SPRINGS, COLORADO 80903



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SHEET 1 OF 8  
GMS FILE No. 2902  
PLOT CONFIGURATION: GMS-STANDARD(ISO) SCREEN  
CAD FILENAME: G:\SECURITY\8202\234\002\8202002.dwg





4 - CONTROL COORDINATE LIST				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
4	336453.83	218657.82	5758.16	PK NAIL
5	335813.01	219122.67	5767.62	PK NAIL
6	335588.41	219296.02	5759.44	PK NAIL

100 - COORDINATE LIST			
PT. NO.	NORTHING	EASTING	DESCRIPTION
100	336880.24	218067.40	6" MJ COUPLING
101	336881.31	218090.65	6" MJ 45° HORIZ. BEND
102	336903.05	218111.77	6" MJ 45° HORIZ. BEND
103	336853.00	218131.63	10" MJ COUPLING
104	336856.00	218131.58	10" MJ 45° HORIZ. BEND
105	336860.06	218135.52	10" MJ 45° HORIZ. BEND
106	336927.20	218134.54	10" MJ 45° HORIZ. BEND
107	336931.14	218130.48	10" MJ 45° HORIZ. BEND
108	336934.13	218130.47	10" MJ COUPLING
109	336923.51	218400.47	6" MJ 45° HORIZ. BEND
110	336926.61	218397.26	6" MJ 45° HORIZ. BEND
111	336929.71	218397.23	6" MJ COUPLING
112	336906.53	218349.28	8" 45° HORIZ. BEND
113	336882.21	218374.20	8" 45° HORIZ. BEND
114	336883.48	218479.96	HORIZ. DEFLECTION
115	336885.12	218499.89	HORIZ. DEFLECTION
116	336888.14	218519.66	HORIZ. DEFLECTION
117	336892.19	218539.25	HORIZ. DEFLECTION
118	336898.67	218581.65	8" MJ 90° HORIZ. BEND
119	336508.18	218657.59	8" MJ 22.5° HORIZ. BEND
120	336475.87	218651.01	8" MJ 45° HORIZ. BEND
121	336413.28	218697.47	4" OR 8" MJ 22.5° HORIZ. BEND
122	336409.04	218704.56	8" MJ 22.5° HORIZ. BEND
123	335811.41	219147.72	8" mj tee
124	335610.46	219296.56	8" MJ 45° HORIZ. BEND
125	335600.42	219295.06	8" MJ 45° HORIZ. BEND
126	335567.39	219319.52	8" MJ 90° HORIZ. BEND
127	335562.37	219312.44	6" MJ COUPLER
128	336464.05	218648.58	6" MJ COUPLER
129	335782.18	219108.31	6" MJ 45° HORIZ. BEND
130	335783.00	219102.76	6" MJ 45° HORIZ. BEND
131	335781.22	219100.35	6" MJ COUPLER

SCALE VERIFICATION  
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NO.	DATE	REVISIONS DESCRIPTION
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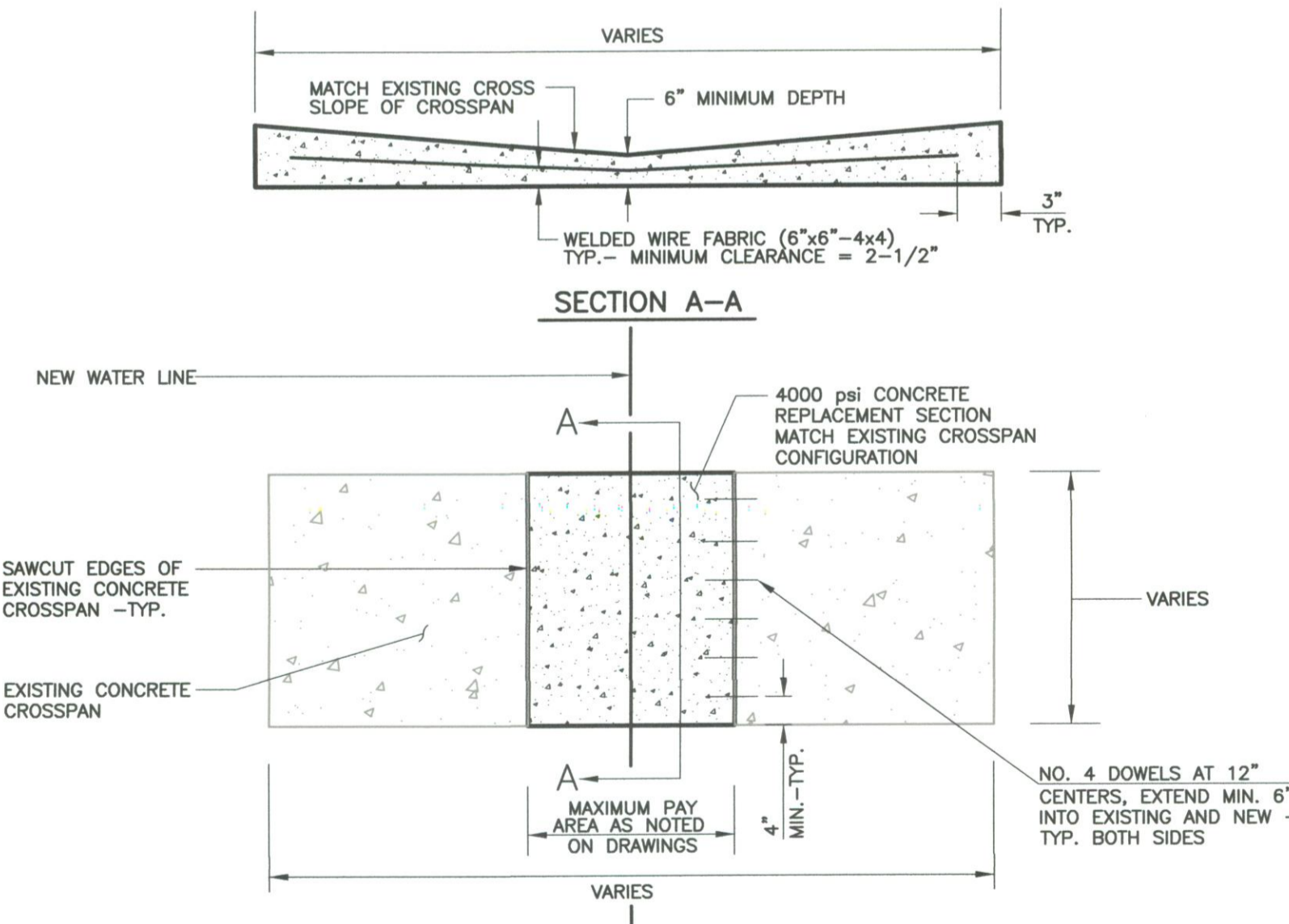
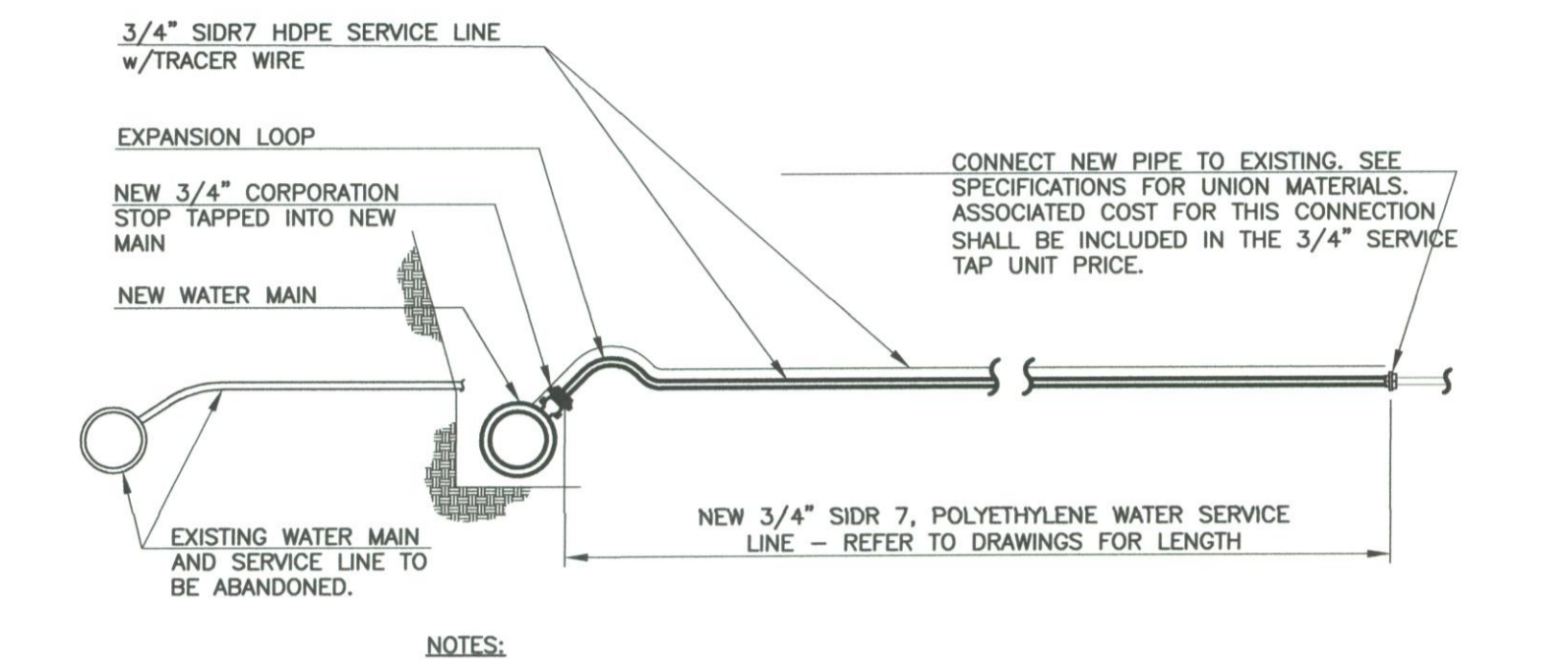
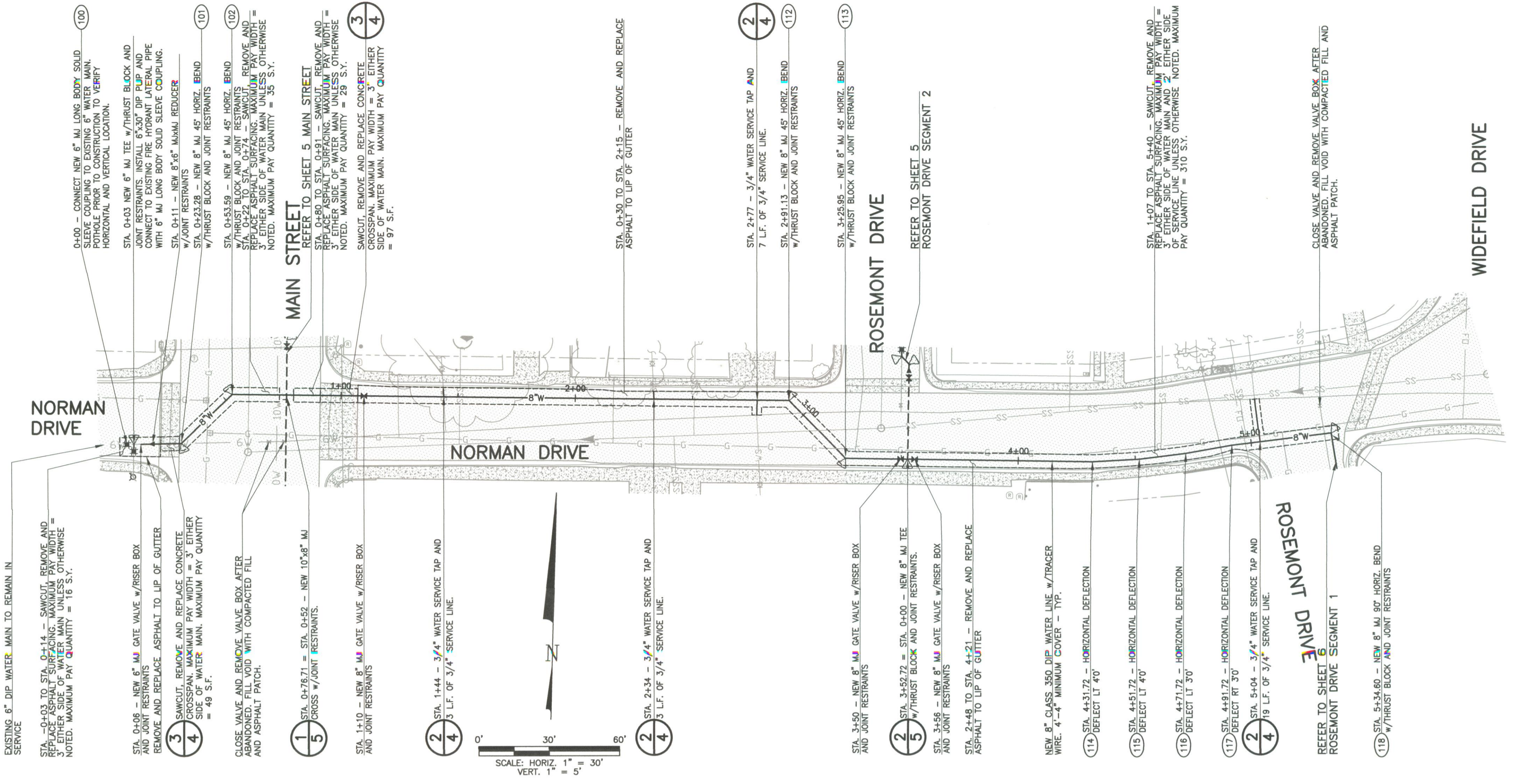
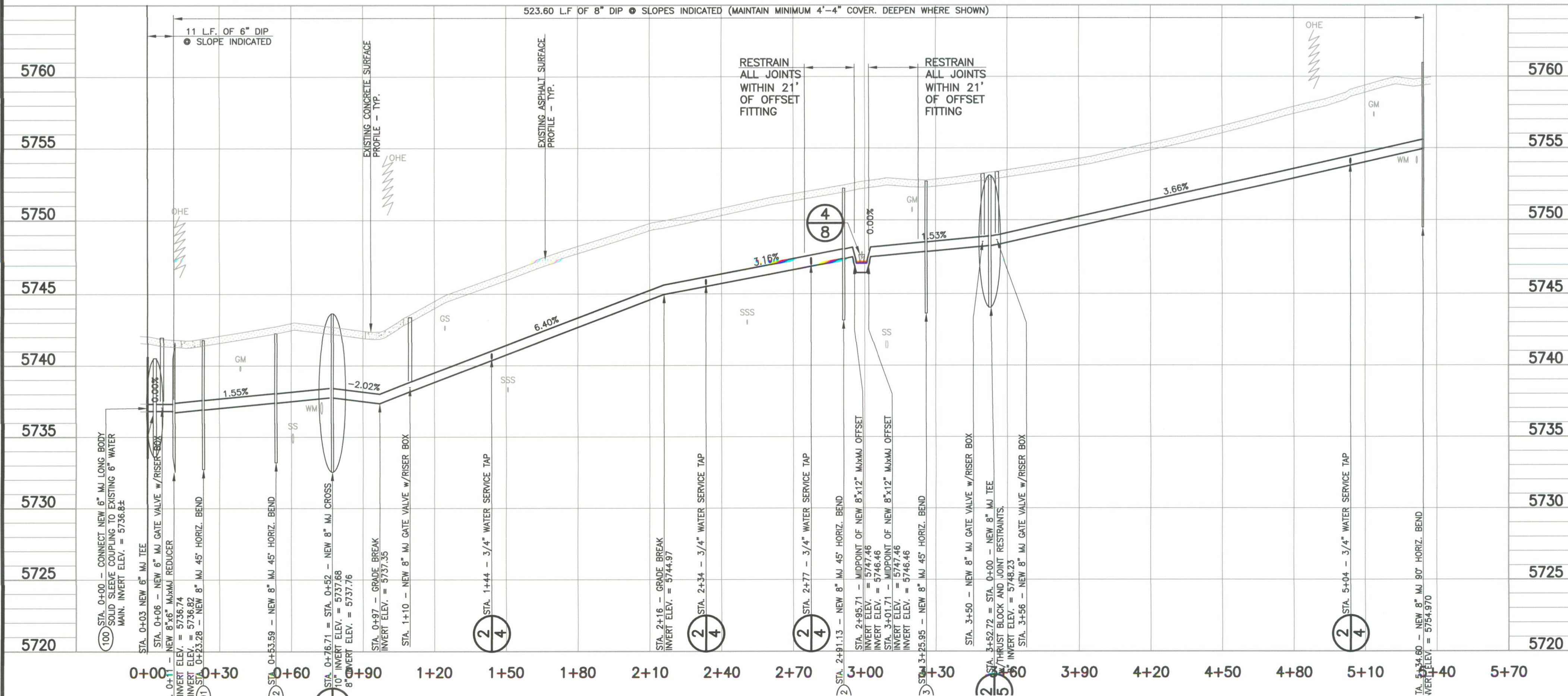


**SHEET INDEX, CONTROL AND COORDINATE DATA**  
 WATER SYSTEM IMPROVEMENTS 2019  
 SECURITY WATER DISTRICT

**GMS, INC.**  
 CONSULTING ENGINEERS  
 611 N. WEBER, SUITE 300  
 COLORADO SPRINGS, COLORADO 80903

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DESIGNED	MAL
CHECKED	KLW
DATE	JUNE 2019
PROJECT NO.	82052.234
GMS FILE NO.	2902

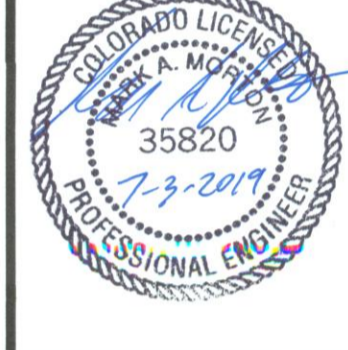
SHEET  
**3**  
 OF  
**8**



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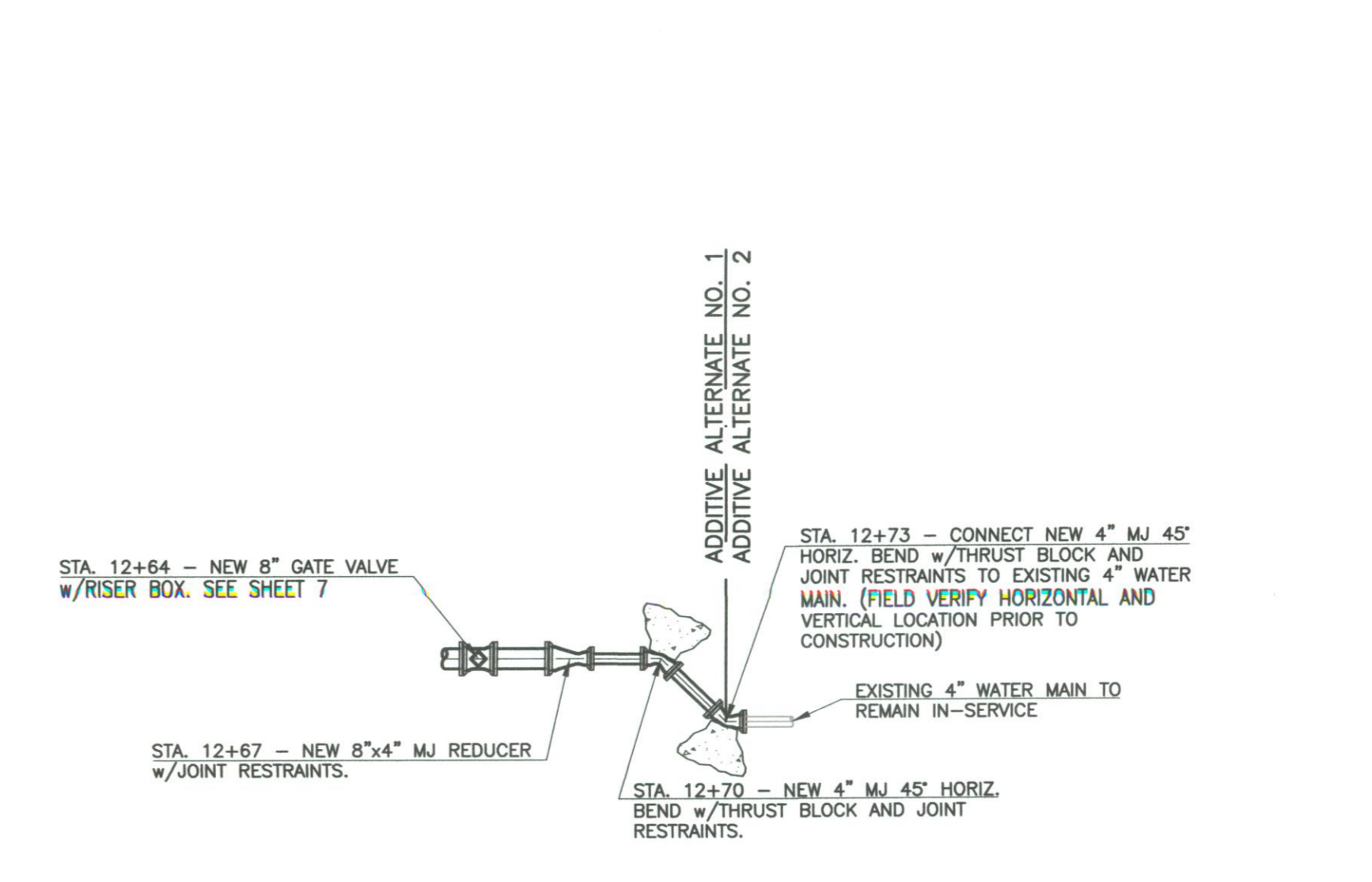
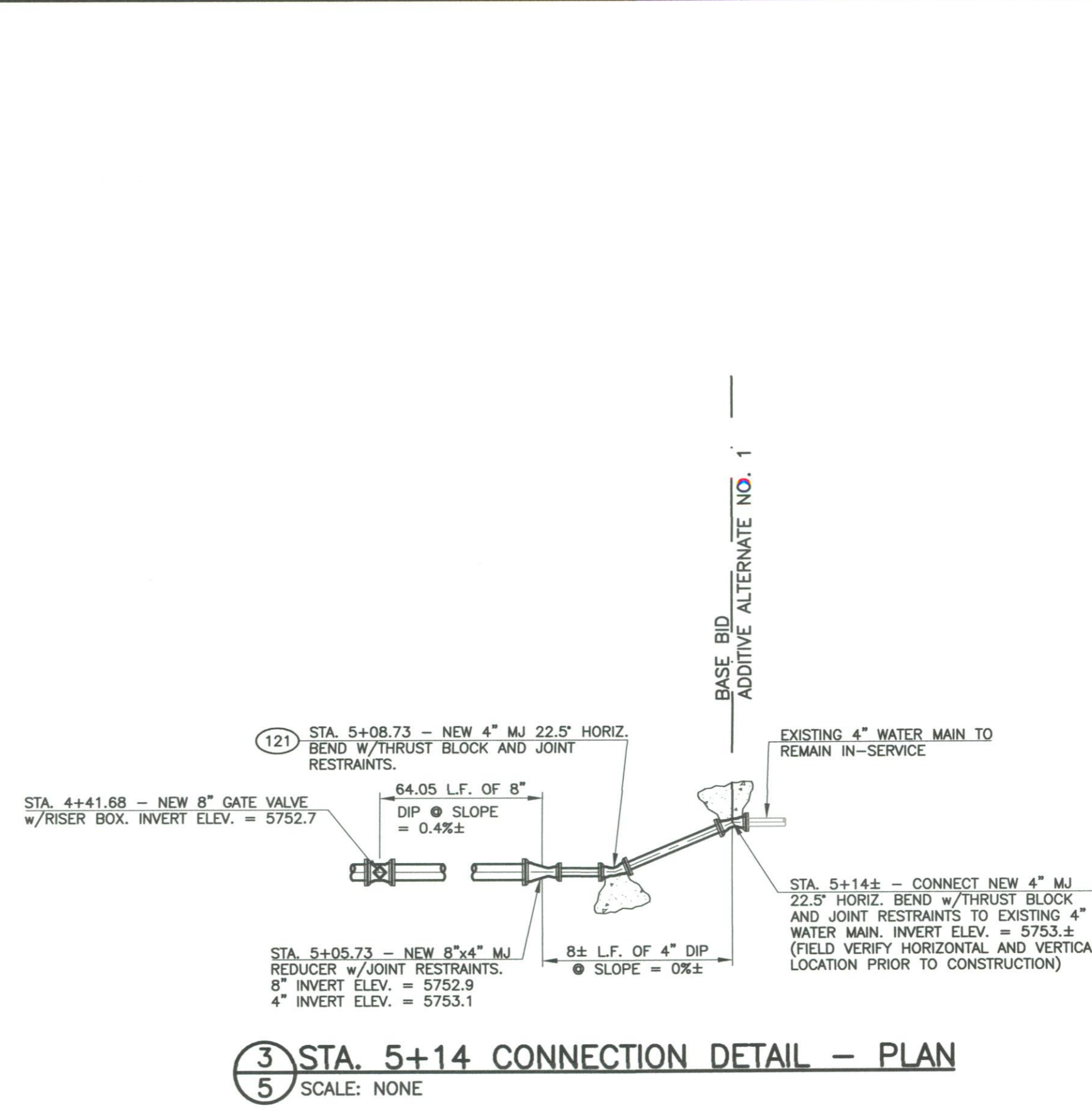
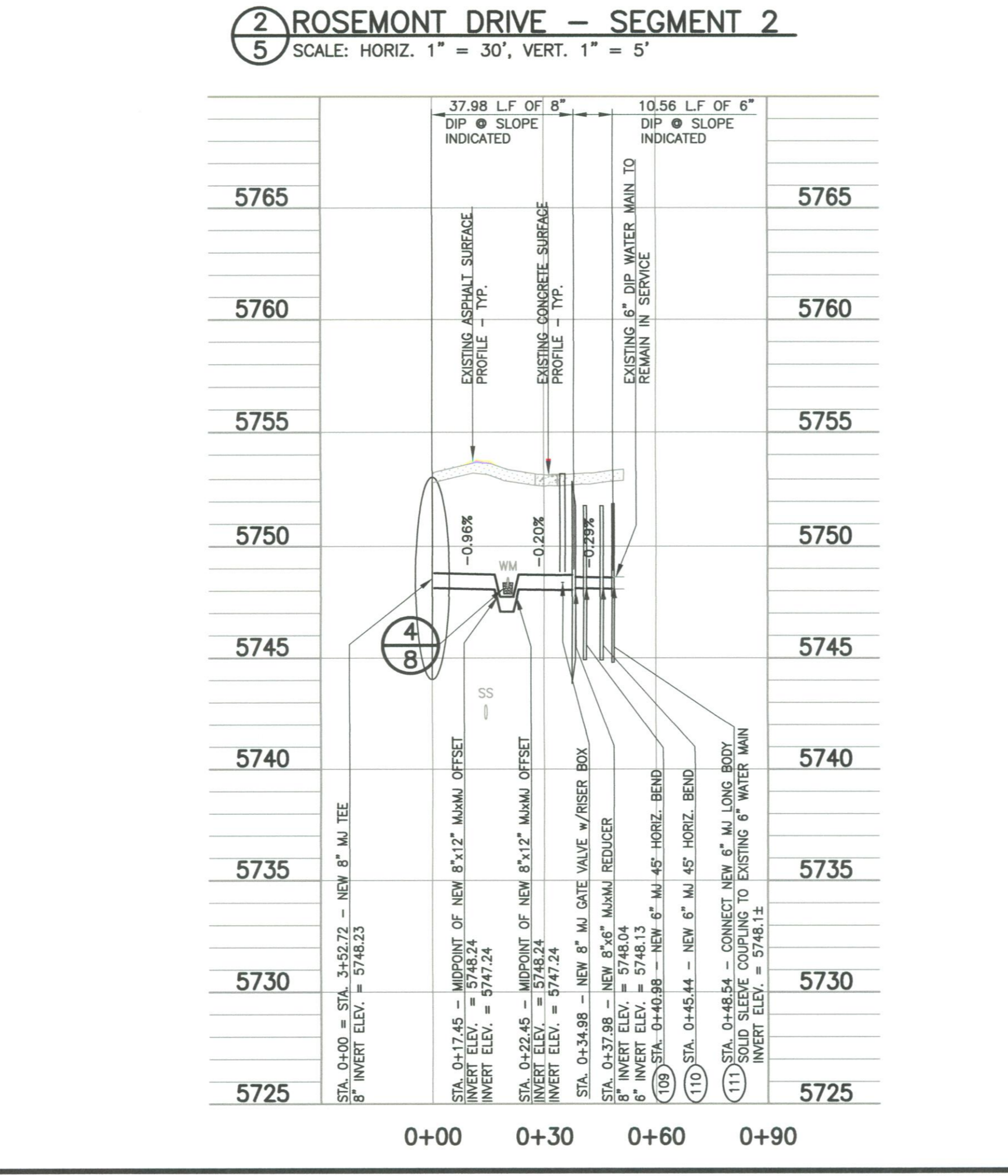
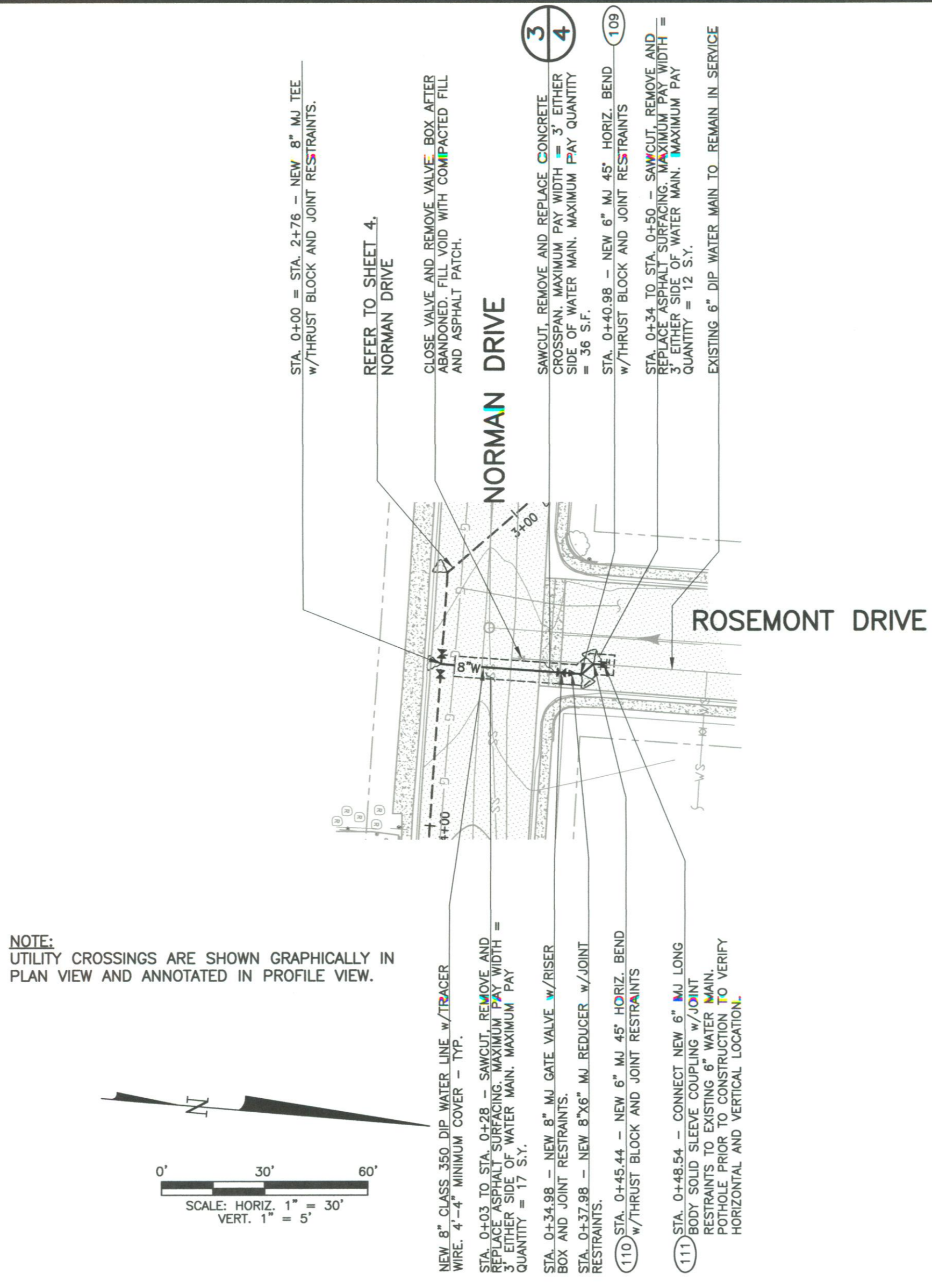
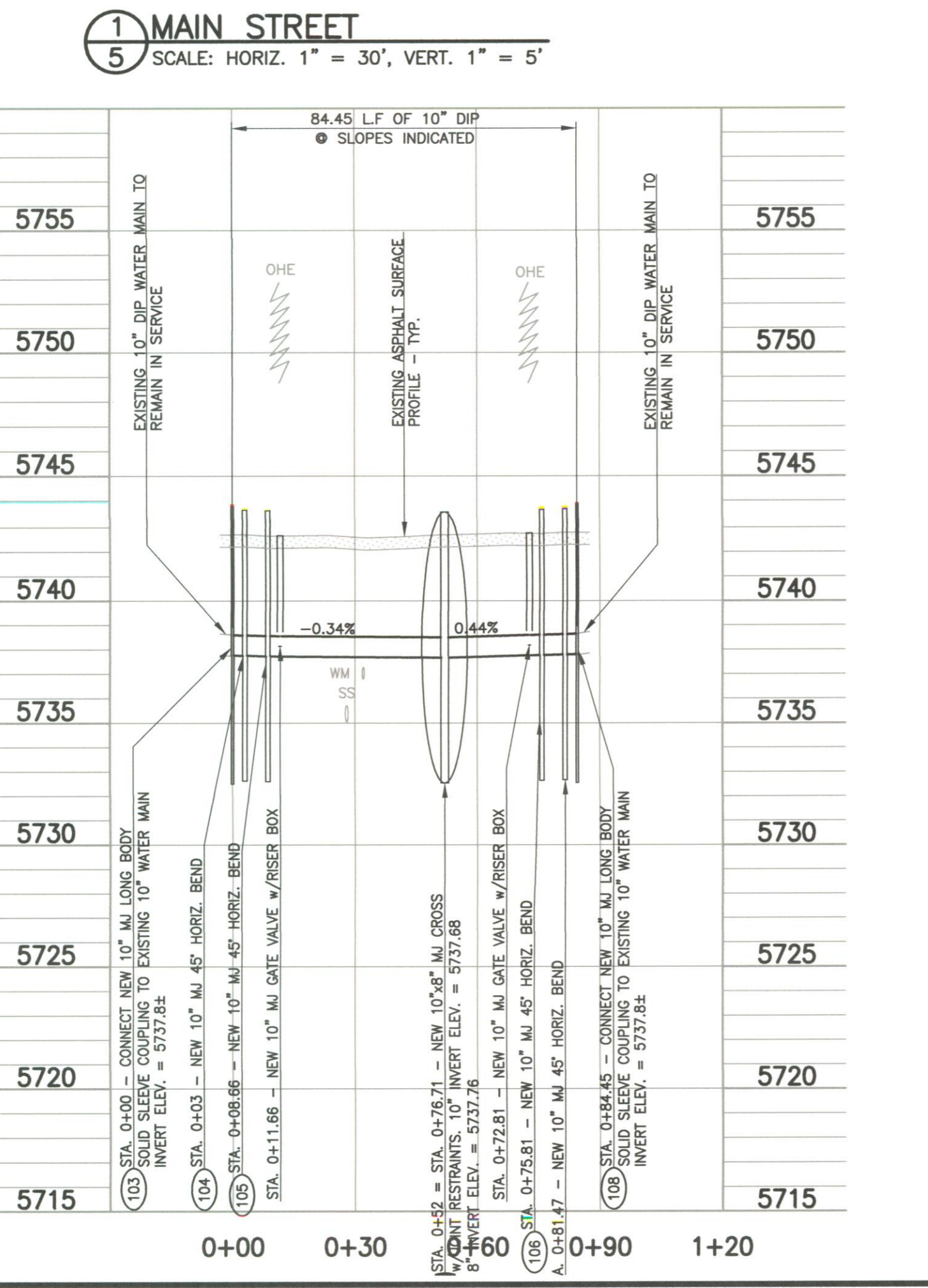
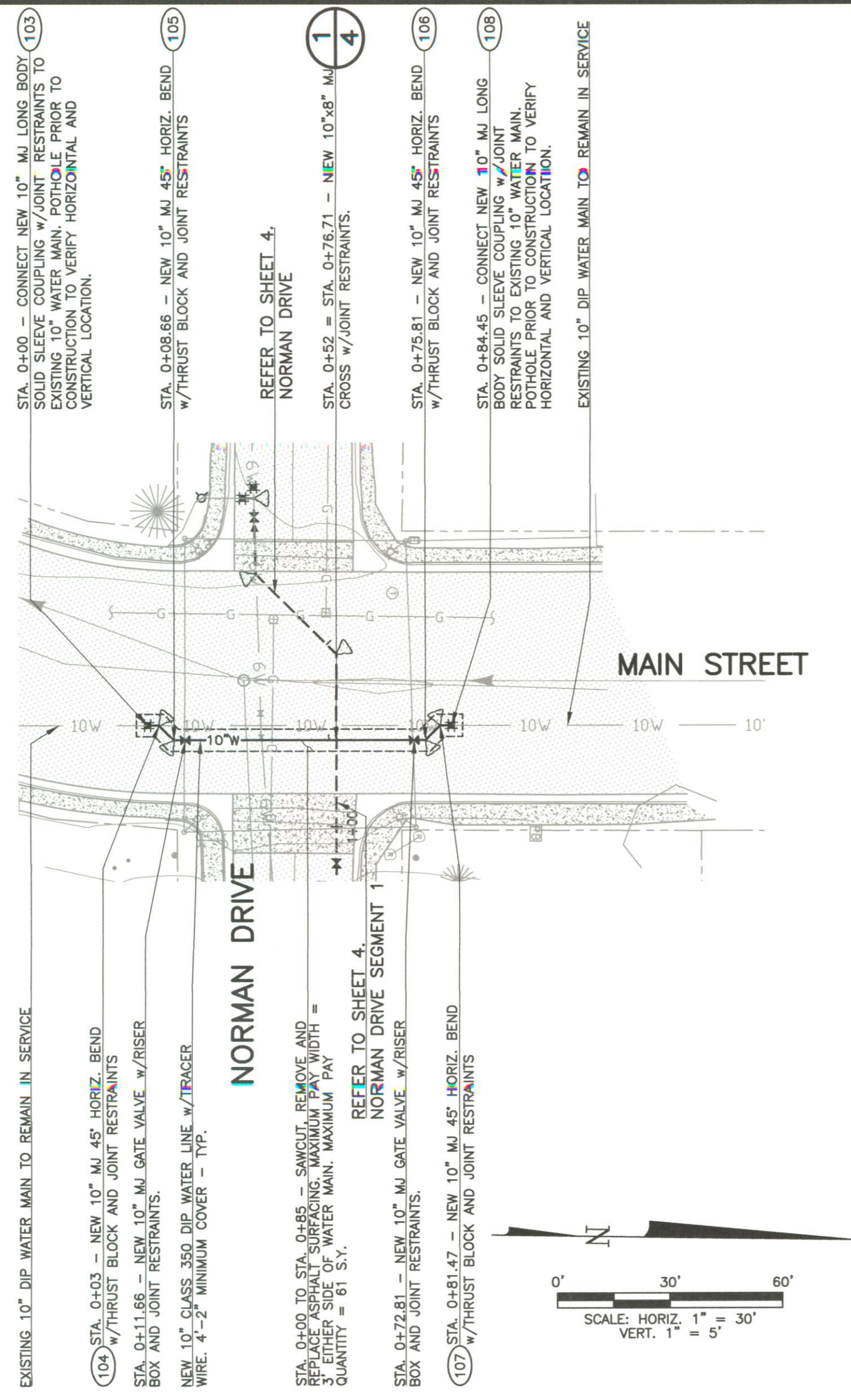


**NORMAN DRIVE**  
STA. 0+00 TO STA. 5+34.60  
PLAN, PROFILE AND DETAILS  
WATER SYSTEM IMPROVEMENTS 2019  
SECURITY WATER DISTRICT

**GMS, INC.**  
CONSULTING ENGINEERS  
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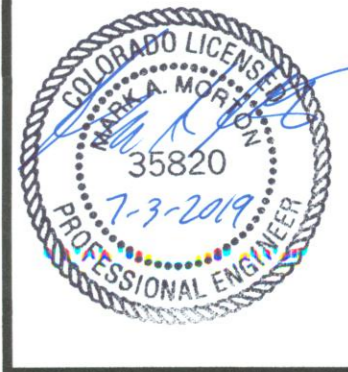
SHEET 4 OF 8



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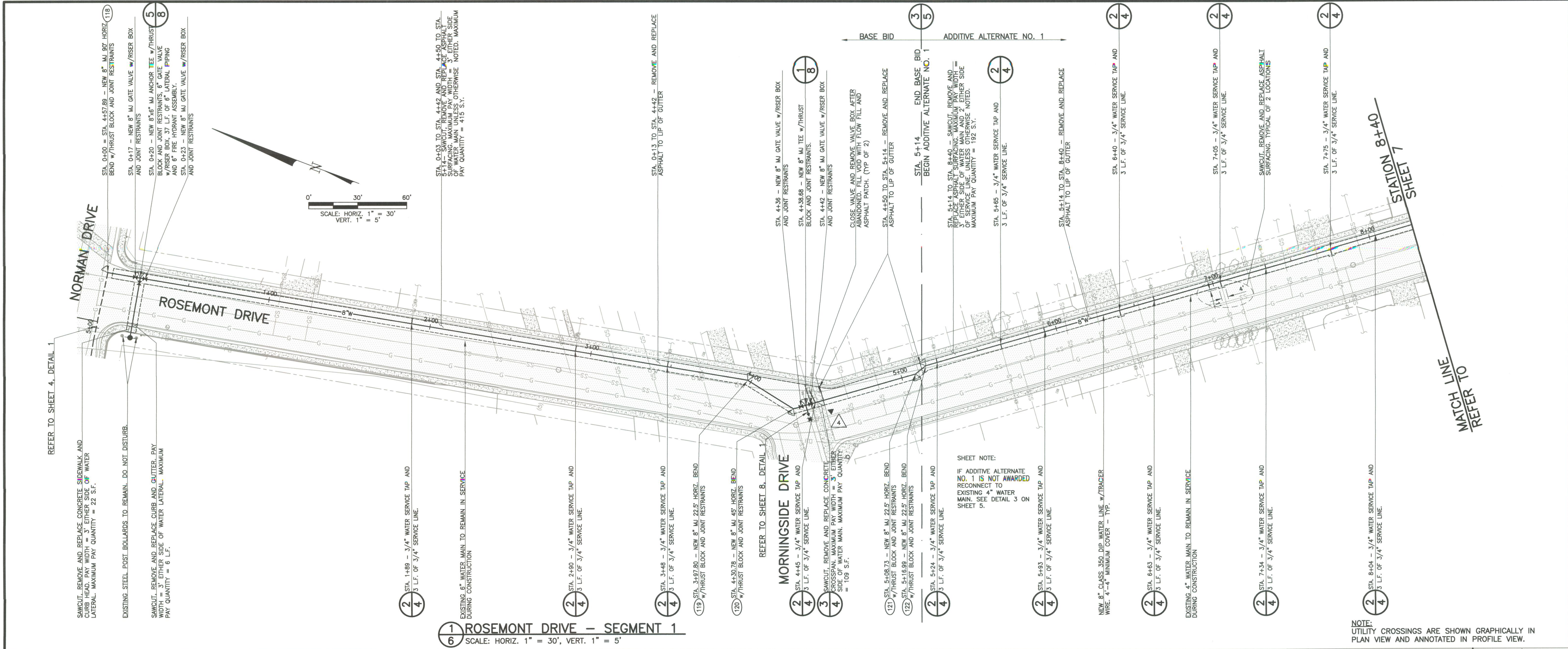
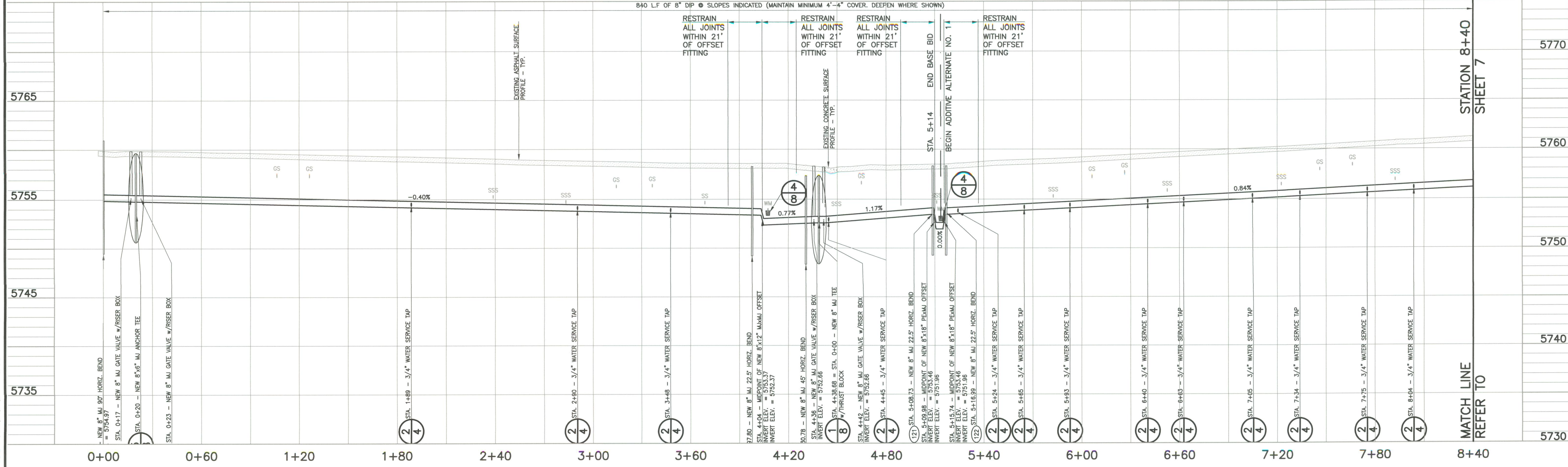
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**MAIN STREET AND ROSEMONT DRIVE - SEGMENT 2**  
PLAN, PROFILE AND DETAILS  
WATER SYSTEM IMPROVEMENTS 2019  
SECURITY WATER DISTRICT

**GMS, INC.**  
CONSULTING ENGINEERS  
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COLORADO SPRINGS, COLORADO 80903

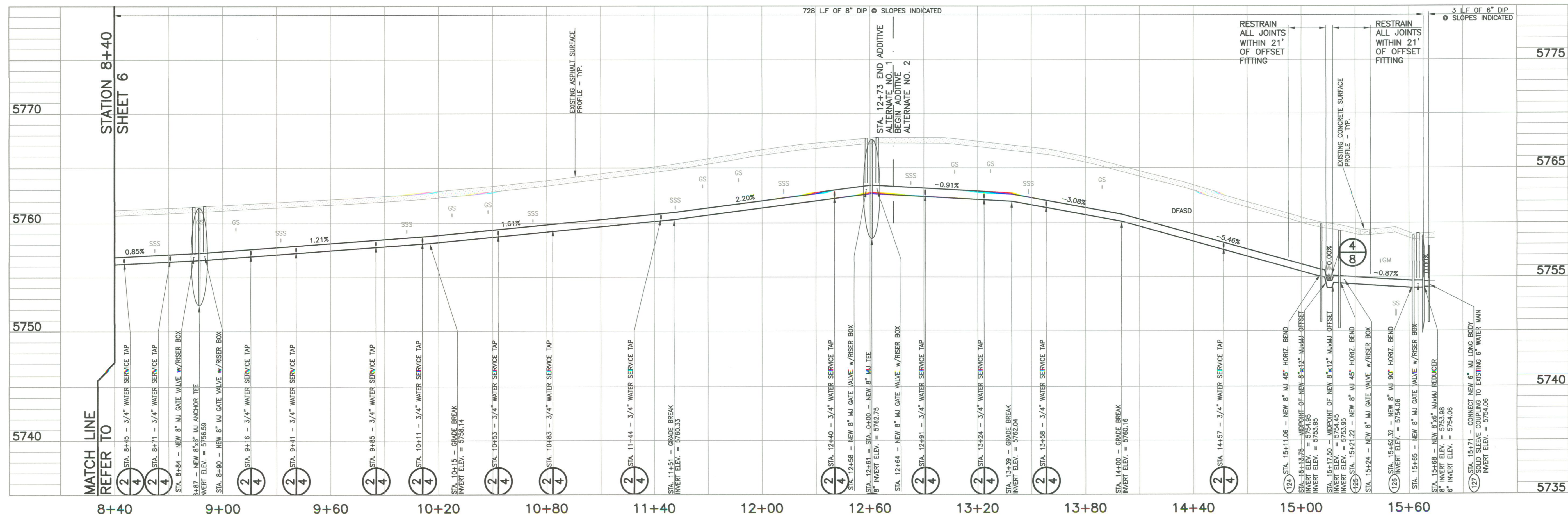
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PROJECT NO.	82052.234
GMS FILE NO.	2902



**1 ROSEMONT DRIVE - SEGMENT 1**  
SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

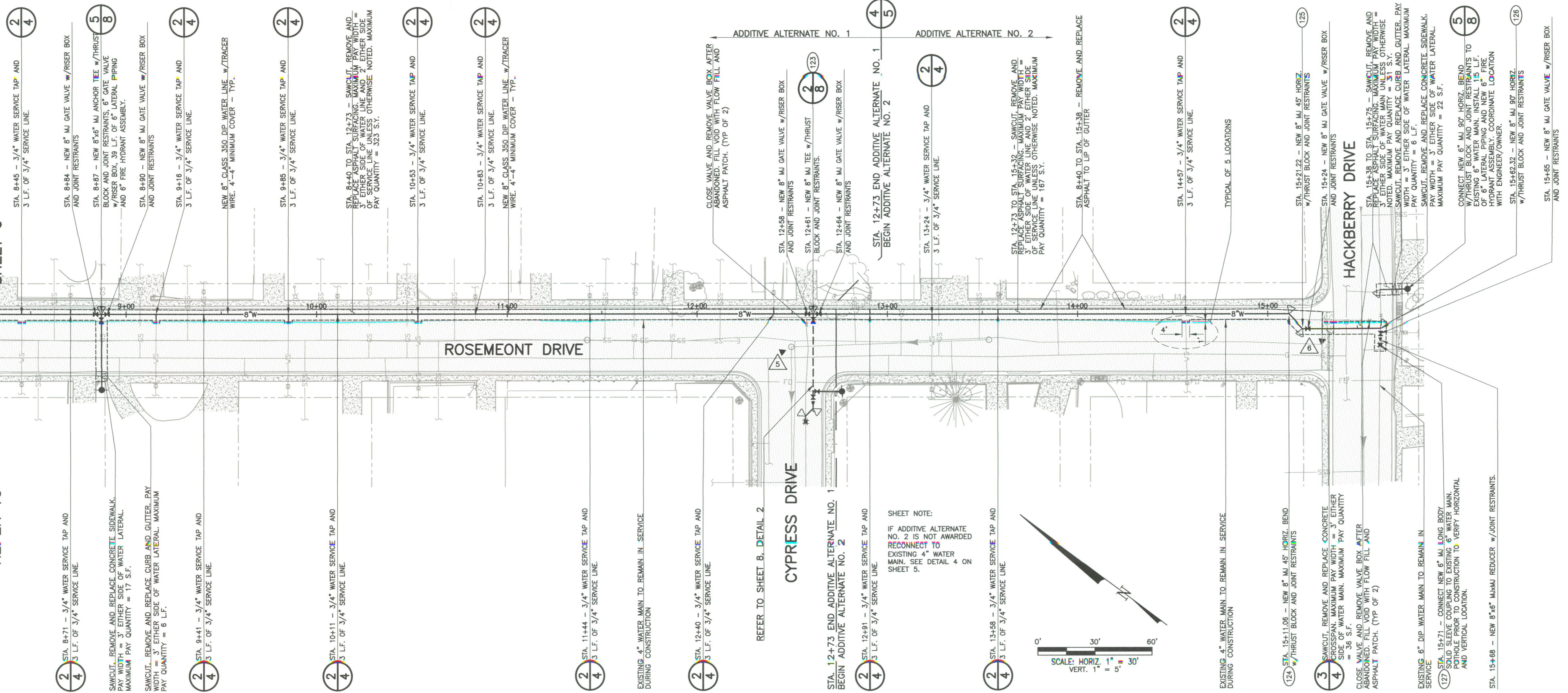
NOTE:  
UTILITY CROSSINGS ARE SHOWN GRAPHICALLY IN PLAN VIEW AND ANNOTATED IN PROFILE VIEW.

<p><b>SCALE VERIFICATION</b> IF NOT ONE INCH ON THE SHEET ADJUST SCALES ACCORDINGLY.</p> <p>THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE REPRODUCED, COPIED, OR EXTENDED WITHOUT THE WRITTEN AGREEMENT WITH THIS COMPANY. © 2019 GMS, INC.</p>													
<p><b>REVISIONS</b></p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	DESCRIPTION				<p><b>PROFESSIONAL ENGINEER</b> 35820 7-3-2019</p>						
NO.	DATE	DESCRIPTION											
<p><b>ROSEMONT DRIVE - SEGMENT 1</b> STA. 0+00 TO STA. 5+14 ADDITIVE ALTERNATE NO. 1 STA. 5+14 TO STA. 8+40 WATER SYSTEM IMPROVEMENTS 2019 SECURITY WATER DISTRICT</p>													
<p><b>GMS, INC.</b> CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903</p>	<table border="1"> <tr> <td>DRAWN</td> <td>MAL</td> </tr> <tr> <td>DESIGNED</td> <td>MAL</td> </tr> <tr> <td>CHECKED</td> <td>KLW</td> </tr> <tr> <td>DATE</td> <td>JUNE 2019</td> </tr> <tr> <td>PROJECT NO.</td> <td>82052.234</td> </tr> <tr> <td>GMS FILE NO.</td> <td>2902</td> </tr> </table>	DRAWN	MAL	DESIGNED	MAL	CHECKED	KLW	DATE	JUNE 2019	PROJECT NO.	82052.234	GMS FILE NO.	2902
DRAWN	MAL												
DESIGNED	MAL												
CHECKED	KLW												
DATE	JUNE 2019												
PROJECT NO.	82052.234												
GMS FILE NO.	2902												
<p>SHEET <b>6</b> OF <b>8</b></p>													



**STATION 8+40 SHEET 6**

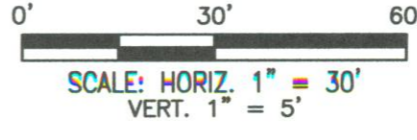
MATCH LINE REFER TO



**1 ROSEMONT DRIVE - SEGMENT 1**  
SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

**SHEET NOTE:**  
IF ADDITIVE ALTERNATE NO. 2 IS NOT AWARDED RECONNECT TO EXISTING 4" WATER MAIN. SEE DETAIL 4 ON SHEET 5.  
STA. 12+73 END ADDITIVE ALTERNATE NO. 1 BEGIN ADDITIVE ALTERNATE NO. 2  
STA. 12+91 - 3/4" WATER SERVICE TAP AND 3 L.F. OF 3/4" SERVICE LINE.  
STA. 13+58 - 3/4" WATER SERVICE TAP AND 3 L.F. OF 3/4" SERVICE LINE.

**NOTE:**  
UTILITY CROSSINGS ARE SHOWN GRAPHICALLY IN PLAN VIEW AND ANNOTATED IN PROFILE VIEW.



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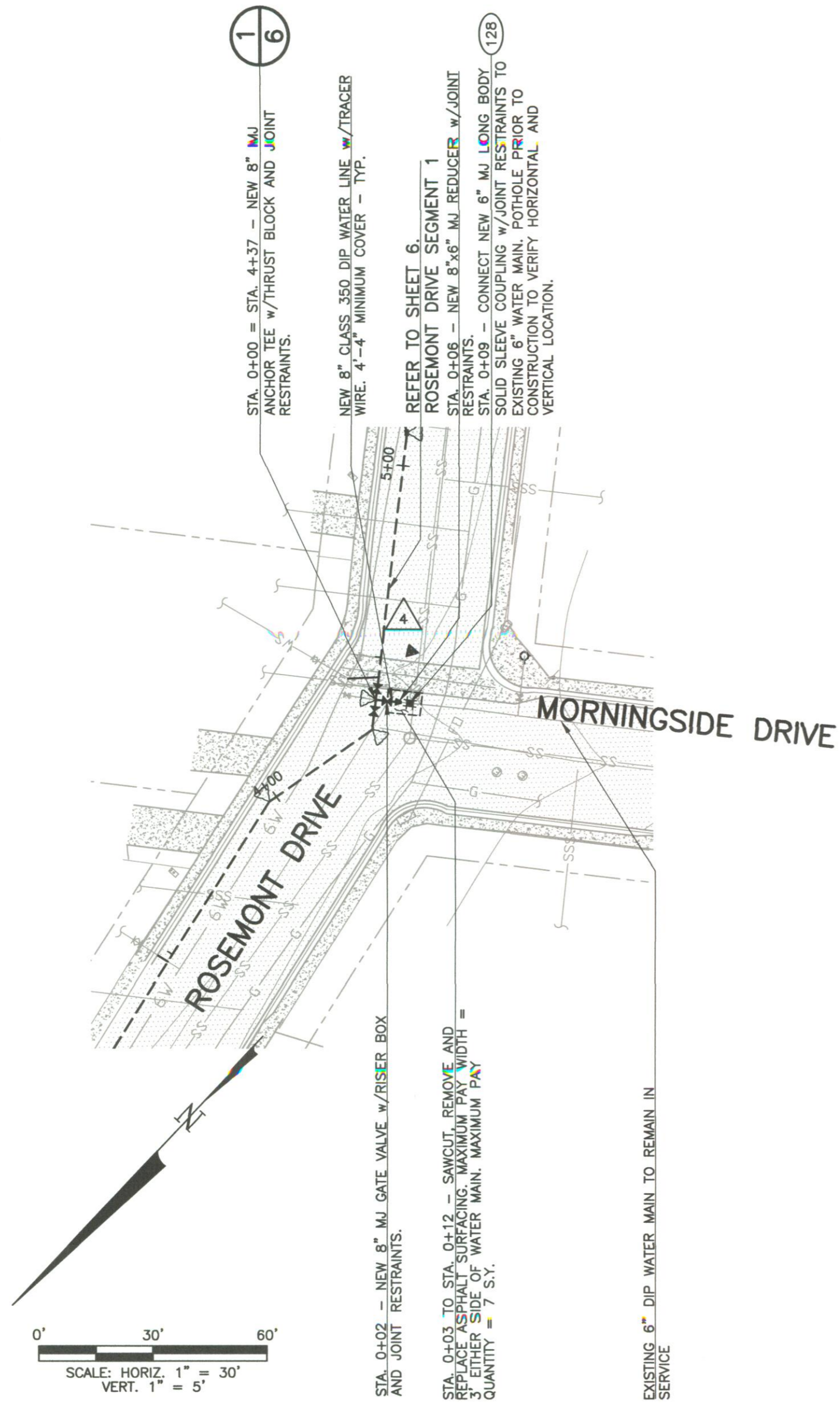
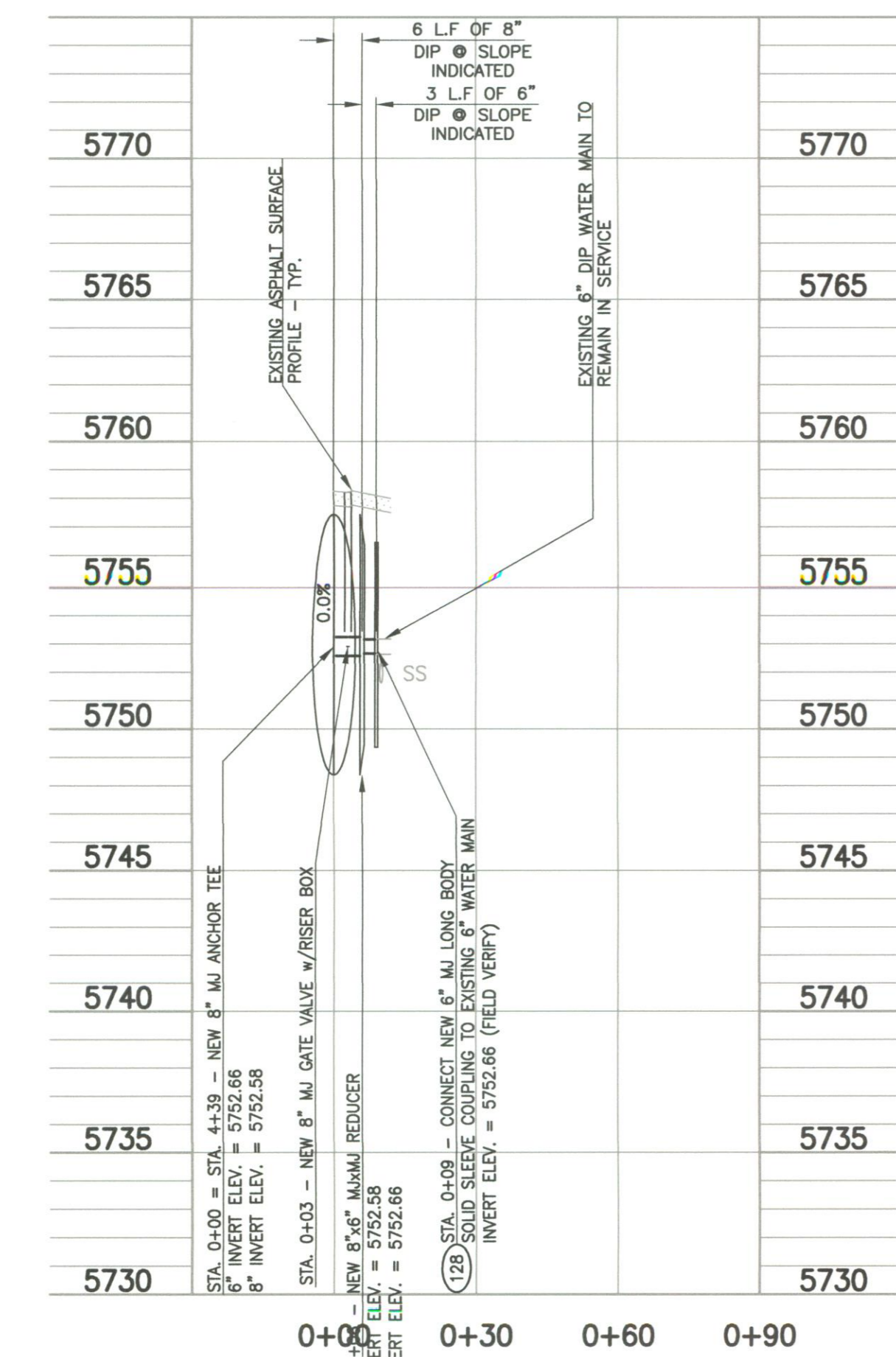


**ROSEMONT DRIVE - SEGMENT 1 ADDITIVE ALTERNATE NO. 1 STA. 8+40 TO STA. 12+73**  
**ADDITIVE ALTERNATE NO. 2 STA. 12+73 TO STA. 15+71**  
WATER SYSTEM IMPROVEMENTS 2019  
SECURITY WATER DISTRICT

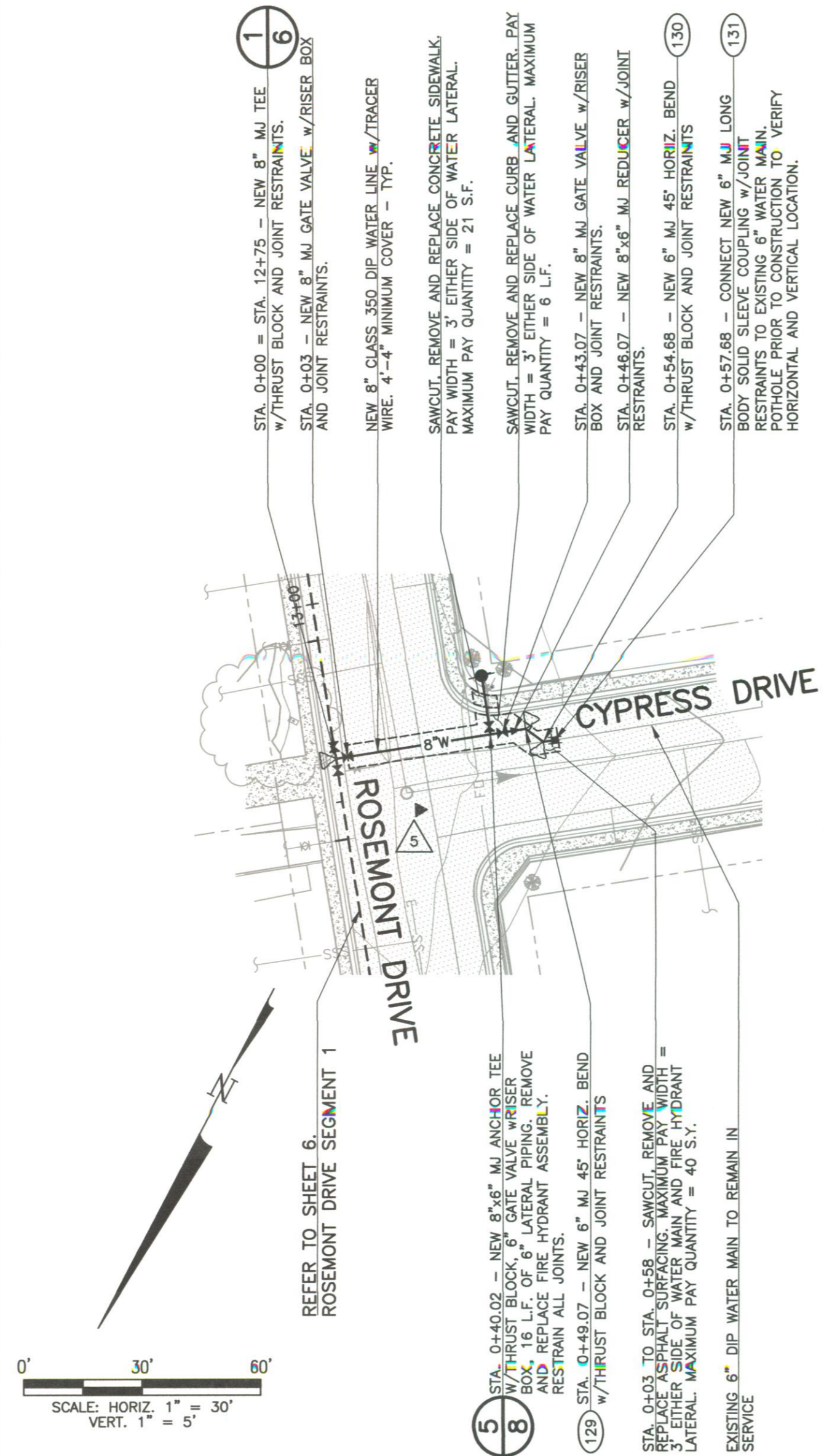
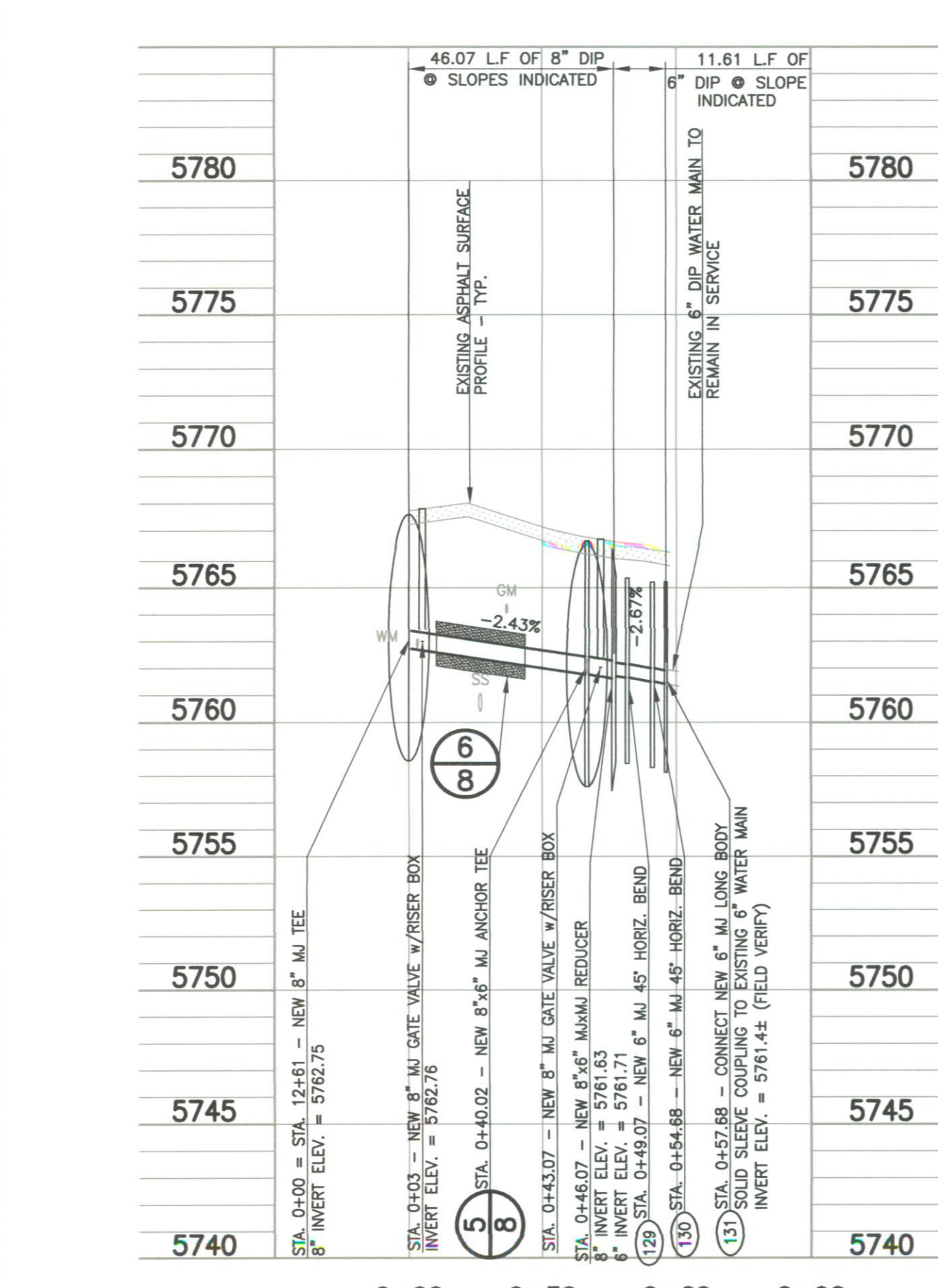
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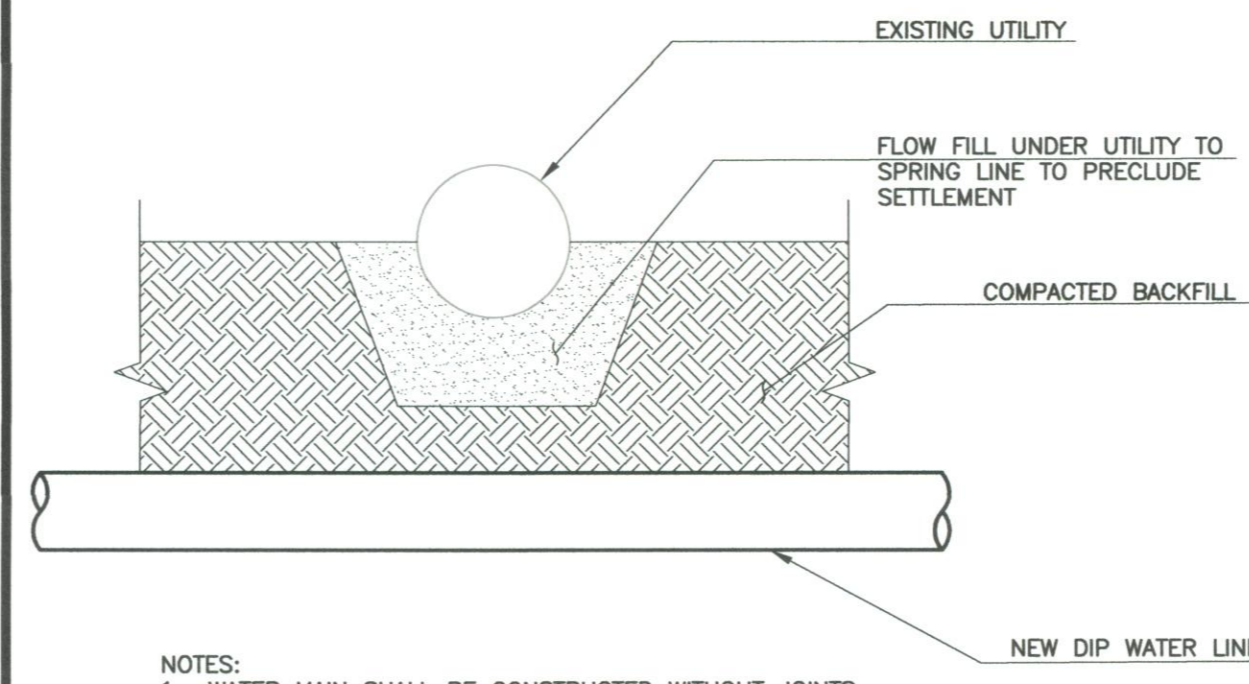
**1** MORNINGSIDE DRIVE  
**8** SCALE: HORIZ. 1" = 30', VERT. 1" = 5'



**2** CYPRESS DRIVE  
**8** SCALE: HORIZ. 1" = 30', VERT. 1" = 5'

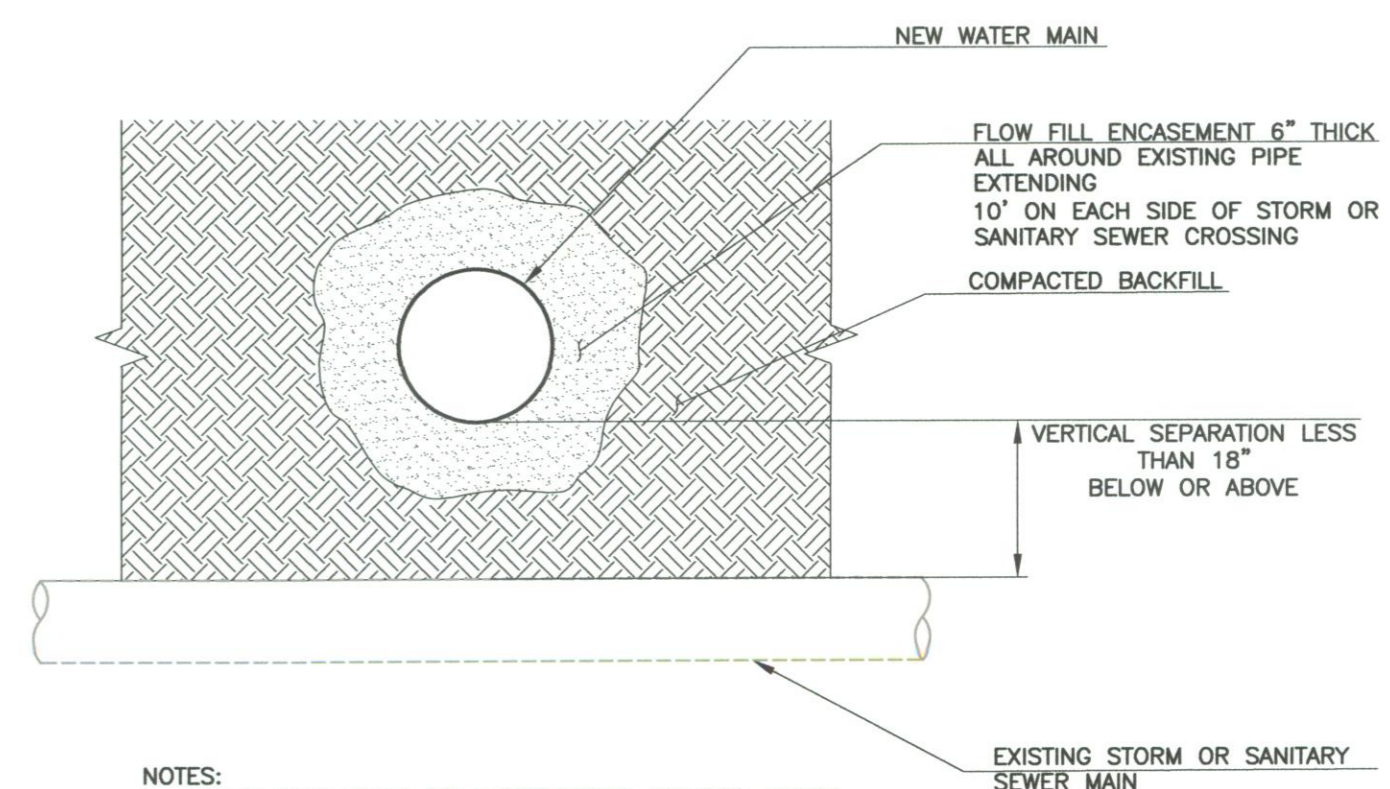


**4** UTILITY CROSSING SECTION  
**8** SCALE: NONE



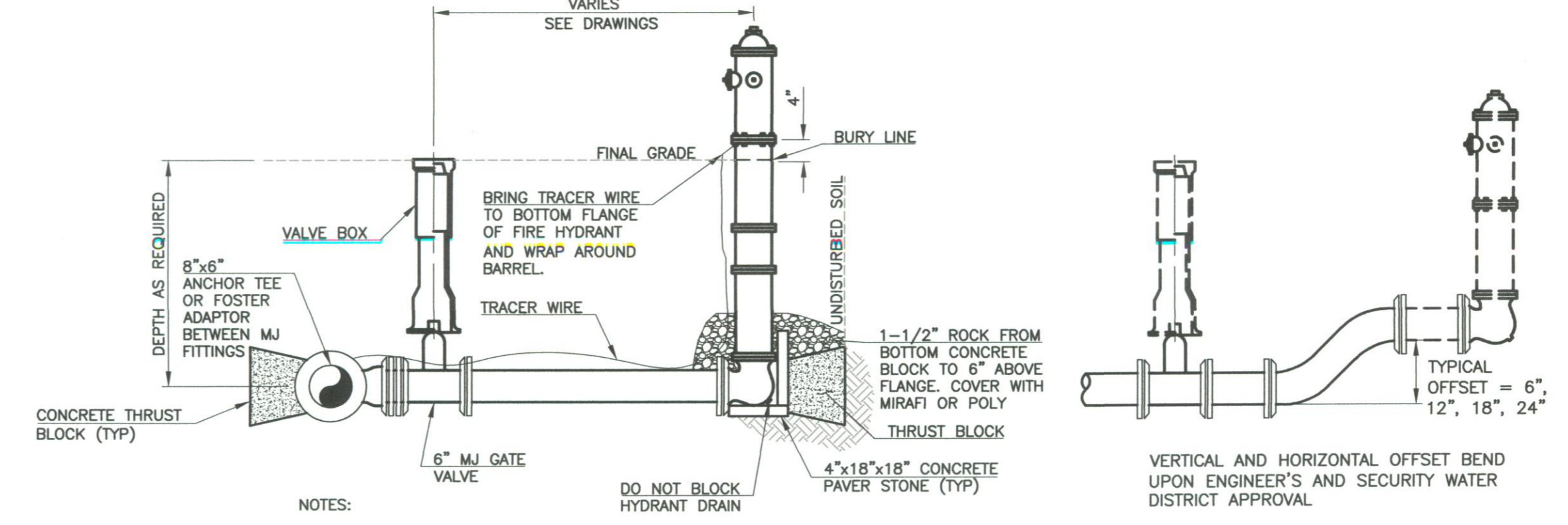
- NOTES:
1. WATER MAIN SHALL BE CONSTRUCTED WITHOUT JOINTS FOR 9 FEET ON EITHER SIDE OF THE CROSSING.
  2. THIS WORK SHALL BE PAID FOR AS A UNIT PRICE FOR EACH UTILITY CROSSING.
  3. COMPLIANCE WITH THIS DETAIL IS REQUIRED TO OBTAIN SATISFACTORY COMPACTION.
  4. IF THE VERTICAL SEPARATION BETWEEN THE EXISTING STORM OR SANITARY SEWER AND NEW WATER MAIN IS LESS THAN 18", REFER TO DETAIL A/8 FOR REQUIREMENTS.

**A** SANITARY SEWER LINE CROSSING SECTION  
**8** SCALE: NONE



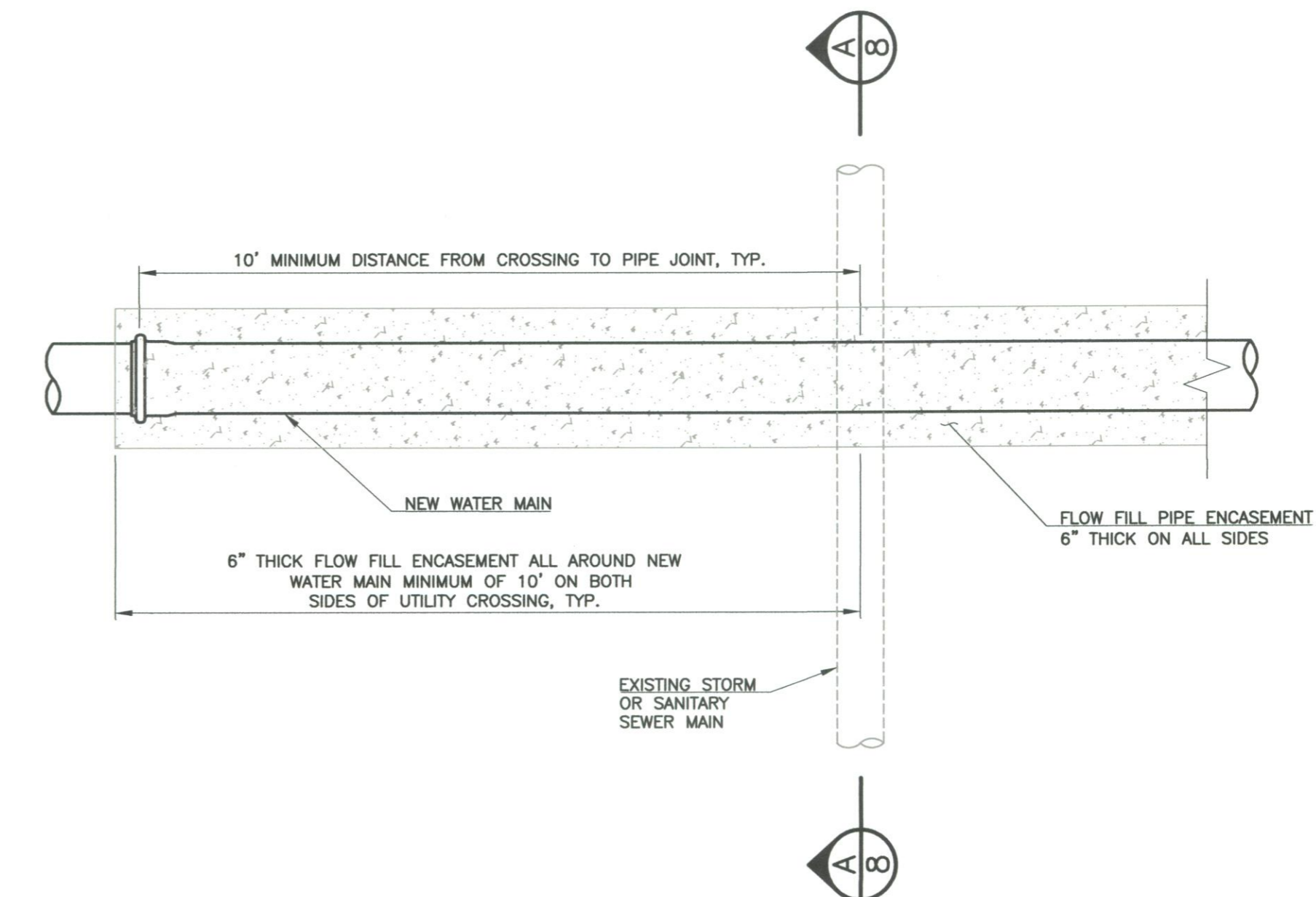
- NOTES:
1. WATER MAIN SHALL BE CONSTRUCTED WITHOUT JOINTS FOR 9 FEET ON EITHER SIDE OF THE CROSSING.
  2. THIS WORK SHALL BE PAID FOR AS A UNIT PRICE FOR EACH STORM OR SANITARY SEWER CROSSING.

**5** FIRE HYDRANT ASSEMBLY DETAIL  
**8** SCALE: NONE



- NOTES:
1. FINAL LOCATION OF GATE VALVE AND HYDRANT TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER/OWNER.
  2. INSTALL JOINT RESTRAINTS ON ALL MECHANICAL JOINTS.

**6** SANITARY SEWER LINE CROSSING PLAN  
**8** SCALE: 1/2" = 1'-0"



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NO.	DATE	DESCRIPTION



MORNINGSIDE DRIVE, CYPRESS DRIVE  
ADDITIVE ALTERNATE NO. 1  
AND DETAILS  
WATER SYSTEM IMPROVEMENTS 2019  
SECURITY WATER DISTRICT

GMS, INC.  
CONSULTING ENGINEERS  
611 N. WEBER, SUITE 300  
COLORADO SPRINGS, COLORADO 80903

DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
MAL	MAL	KLW	JUNE 2019	82052.234	2902