

2018 WATER SYSTEM IMPROVEMENTS

FOR THE DONALA WATER AND SANITATION DISTRICT

MAY 2018

SCHEDULE 1: WATER SYSTEM REPLACEMENT

SCHEDULE 2: GLENEAGLE DRIVE WATER SYSTEM REPLACEMENT

SCHEDULE 3: DESERT INN WAY WATER SERVICE LINE REPLACEMENT

DRAWING INDEX

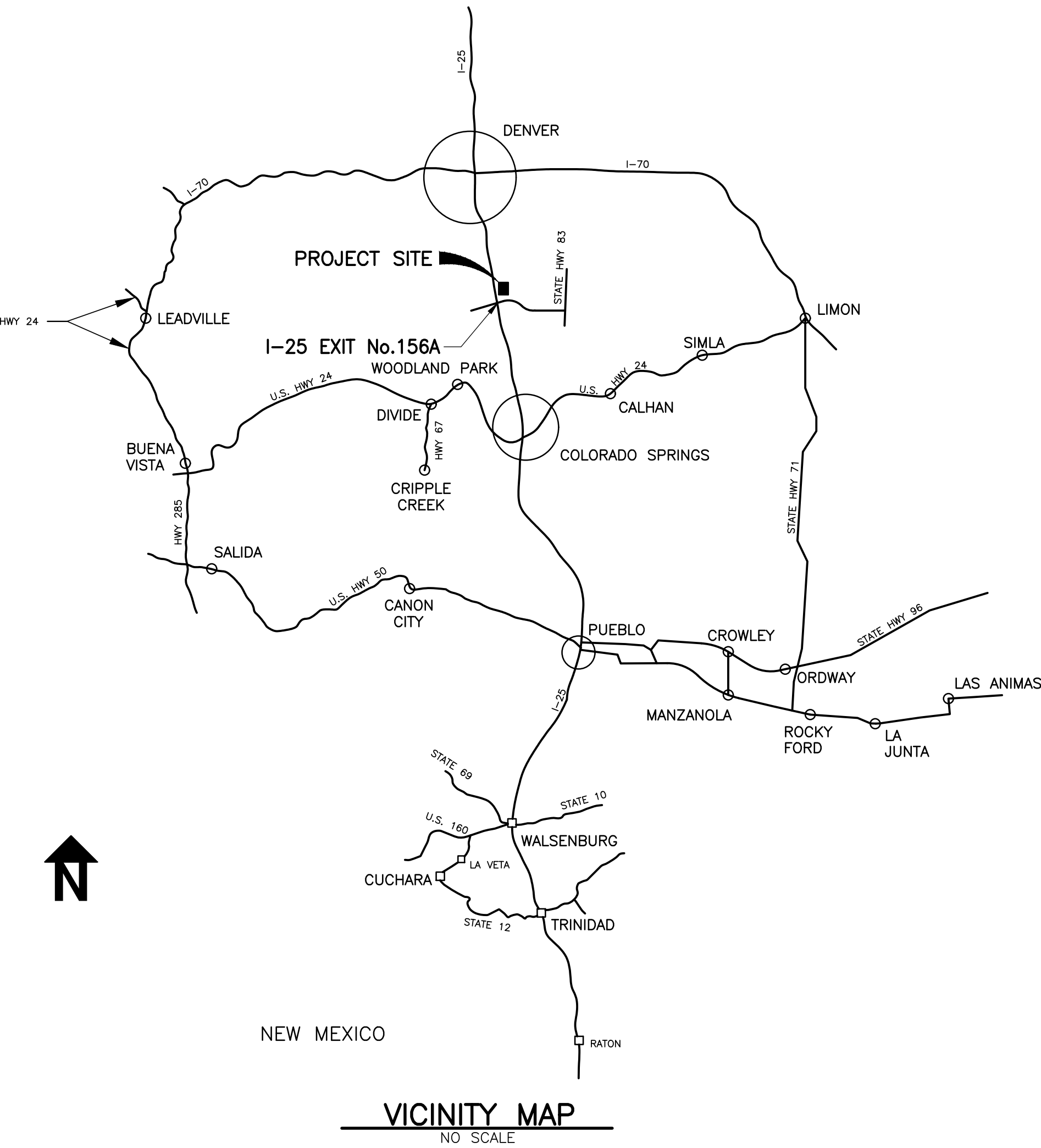
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1.	TITLE SHEET, VICINITY MAPS, DRAWING INDEX AND APPROVAL
2.	GENERAL NOTES AND LEGEND
3.	SHEET INDEX AND CONTROL COORDINATE DATA
4.	SCHEDULE 1 – STA. 0+00 TO STA. 14+00, PLAN AND PROFILE
5.	SCHEDULE 1 – STA. 14+00 TO STA. 26+05.45, PLAN AND PROFILE
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7.	SCHEDULE 2 – STA. 0+00 TO STA. 8+40, PLAN AND PROFILE
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9.	SCHEDULE 2 – STA. 16+80 TO STA. 25+20, PLAN AND PROFILE
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11.	SCHEDULE 2 – STA. 33+60 TO STA. 42+00, PLAN AND PROFILE
12.	SCHEDULE 2 – STA. 42+00 TO STA. 50+40, PLAN AND PROFILE
13.	SCHEDULE 2 – STA. 50+40 TO STA. 58+80, PLAN AND PROFILE
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15.	SCHEDULE 2 – STA. 67+20 TO STA. 74+81, PLAN AND PROFILE
16.	SCHEDULE 3 – SERVICE LINE REPLACEMENT
17.	SCHEDULE 2 – CONNECTIONS NO. 1 THRU NO. 5 AND COORDINATE DATA
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20.	SCHEDULE 2 – CONNECTIONS NO. 14 THRU NO. 17 AND COORDINATE DATA
21.	SCHEDULE 2 – 12" TRANS. LINE CONT., CONNECTION NO. 18 AND DETAILS
22.	SCHEDULE 2 – CONNECTION 19, DETAILS AND SECTIONS

APPROVED FOR BIDDING AND CONSTRUCTION

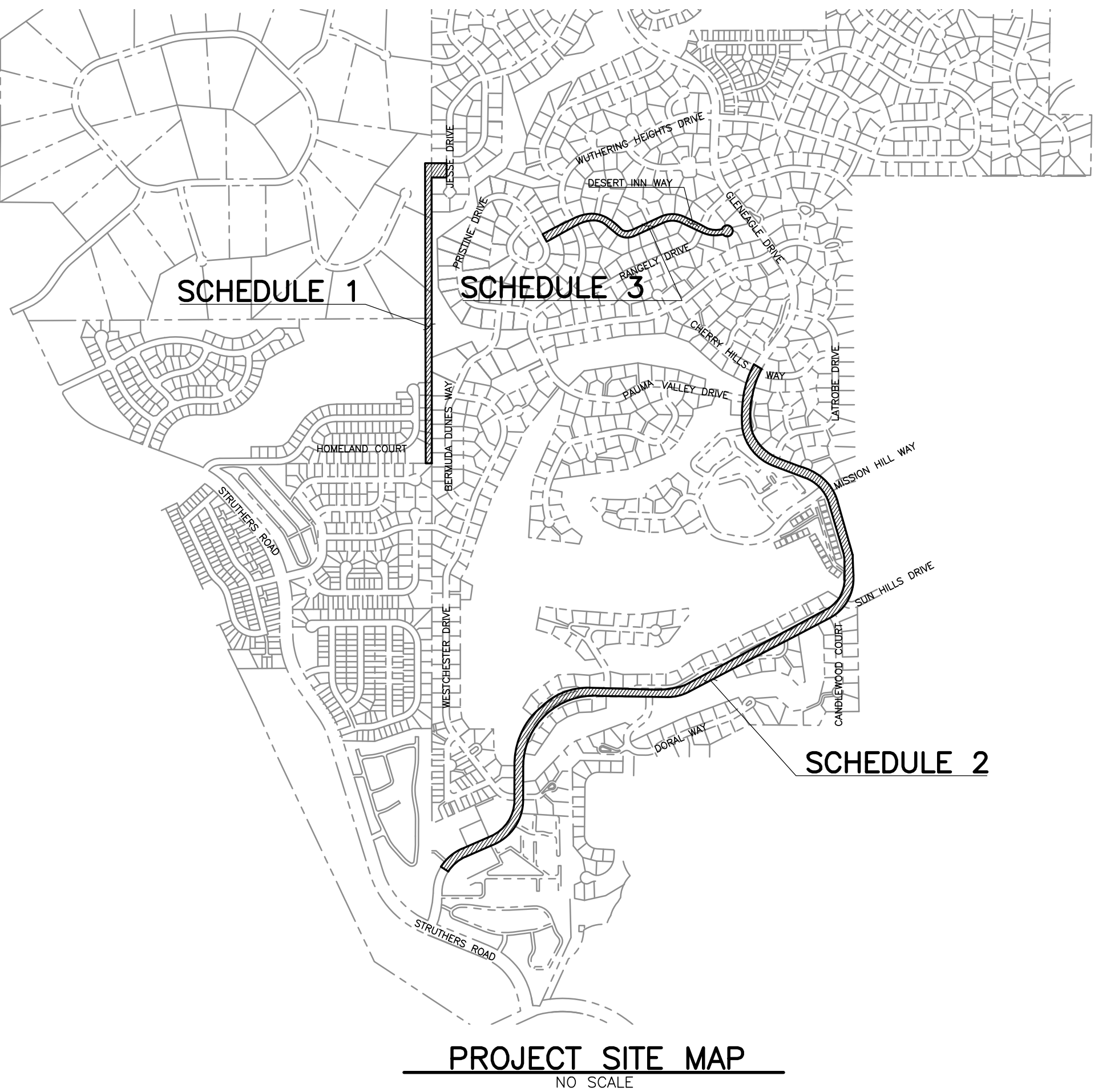
THIS PLAN APPROVED FOR BIDDING AND CONSTRUCTION. IN THE EVENT OF ROAD IMPROVEMENTS, ADJUSTMENTS OF THIS UTILITY WILL BE AT THE OWNER'S EXPENSE. COUNTY PLAN REVIEW IS ONLY PROVIDED FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS, WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

BY: _____	DATE: _____
JENNIFER E. IRVINE, P.E., COUNTY ENGINEER / ECM ADMINISTRATOR	
BY: _____	DATE: _____
KIP PETERSEN, GENERAL MANAGER	
BY: _____	DATE: _____
GMS, INC. CONSULTING ENGINEERS	

SHEET 1 OF 22
GMS FILE No. 2851
PLOT CONFIGURATION: GMS-STANDARD(NO SCREEN)
CAD FILENAME: G:\



VICINITY MAP
NO SCALE



PROJECT SITE MAP
NO SCALE

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

GENERAL NOTES

1. THE LOCATIONS OF UTILITIES SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM UTILITY COMPANY/DEPARTMENT RECORDS AND PERSONNEL. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THE DRAWINGS WHICH EXIST BEYOND THE AREA OF CONSTRUCTION. THE CONTRACTOR AND/OR OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL CONTACT ALL UTILITY AGENCIES PRIOR TO COMMENCING CONSTRUCTION FOR PURPOSES OF LOCATING UTILITIES. THE UTILITY INFORMATION AND LOCATIONS THE FURNEL MAY BE CONTACTED FOR UTILITY INFORMATION AND LOCATIONS. THE UTILITY NOTIFICATION CENTER OF COLORADO MAY BE CONTACTED AT 1-800-922-1987.

Donala Water and Sanitation District ...719-488-3603

ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE

3. THE SURFACE FEATURES SHOWN ON THE DRAWINGS WERE OBTAINED THROUGH FIELD SURVEYS CONDUCTED JANUARY 2018 THRU MAY 2018. THE CONTRACTOR SHALL REVIEW AND VERIFY EXISTING GROUND CONFIGURATIONS AND INFORM HIMSELF OF THE CONDITIONS TO BE ENCOUNTERED DURING CONSTRUCTION.

5. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WATER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY FOR ASSISTANCE TO REMOVE OR REPAIR THE POLE AS REQUIRED. IN CASES WHERE THE POLE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.

7. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).

9. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING OF BOTH HORIZONTAL AND VERTICAL LAYOUT. THE DRAWINGS SHOW CONTROL POINTS THAT CAN BE USED IN THE LAYOUT OF THE PROJECT. ALL LAYOUT SHALL BE COORDINATED WITH THE ENGINEER AND IS SUBJECT TO REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. THE ENGINEER WILL ASSIST THE CONTRACTOR IN LOCATING EXISTING SURVEY CONTROL AS NECESSARY.

EARTHWORK

11. IN THOSE AREAS WHERE PIPELINE TRENCHING ACTIVITIES OCCUR OUTSIDE OF EXISTING ASPHALT OR GRAVEL SURFACED STREETS, THE EXISTING TOPSOIL SHALL BE FULLY STRIPPED, STOCKPILED AND REINSTALLED UPON COMPLETION OF THE BACKFILL PROCEDURE. THIS WORK SHALL BE UNDERTAKEN AS AN INCIDENTAL TO THE PIPELINE INSTALLATION.

11. IN THOSE AREAS WHERE PIPELINE TRENCHING ACTIVITIES OCCUR OUTSIDE OF EXISTING ASPHALT OR GRAVEL SURFACED STREETS, THE EXISTING TOPSOIL SHALL BE FULLY STRIPPED, STOCKPILED AND REINSTALLED UPON COMPLETION OF THE BACKFILL PROCEDURE. THIS WORK SHALL BE UNDERTAKEN AS AN INCIDENTAL TO THE PIPELINE INSTALLATION.

13. COMPACTION SHALL BE IN COMPLIANCE WITH THE DONALA WATER AND SANITATION DISTRICT PUBLIC UTILITY DESIGN AND CONSTRUCTION SPECIFICATIONS. IN THOSE AREAS WHERE PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY, COMPLY WITH THE MORE STRINGENT SPECIFICATION.

14. A PORTION OF THE PIPELINE COMPONENTS OF THE PROJECT LIE WITHIN EL PASO COUNTY (EPC) ROAD RIGHTS-OF-WAY. TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. WHERE APPROPRIATE, THE OWNER'S REGULATIONS AND/OR THE EPC DEPARTMENT OF PUBLIC WORKS (DPW) UTILITY PERMIT PROVISIONS SHALL BE TAKEN INTO ACCOUNT WITHIN THE TRAFFIC CONTROL PLANS.

16. THE CONTRACTOR SHALL CONTACT EPC DPW REPRESENTATIVES 48 HOURS PRIOR TO BEGINNING CONSTRUCTION IN COUNTY ROAD RIGHT-OF-WAY.

18. COORDINATION WITH THE EPC DWP IS REQUIRED IN THE EVENT THAT ANY STREETS ARE DESIRED TO BE TEMPORARILY CLOSED. PROVISIONS SHALL BE MADE TO ACCOMMODATE LOCAL ACCESS IN THE EVENT OF A STREET AND/OR ALLEY CLOSURE. NOTIFICATION BY THE CONTRACTOR TO ALL EMERGENCY RESPONSE AGENCIES AND THE ACADEMY SCHOOL DISTRICT SHALL BE ACCOMPLISHED NO LESS THAN 7-CALENDAR DAYS BEFORE WORK IS ACCOMPLISHED IMPACTING ANY PUBLIC STREET OR ROAD.

19. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, CONSTRUCTION DRAWINGS AND THE EPC DPW ENGINEERING CRITERIA MANUAL.
20. THE MAXIMUM PAY AREA FOR PAVEMENT REMOVAL AND REPLACEMENT IS SHOWN ON THE CONSTRUCTION DRAWINGS. PAYMENT WILL BE MADE FOR ACTUAL QUANTITIES REMOVED AND REPLACED, NOT TO EXCEED THE SPECIFIED PAY AREA. EXCESS PAVEMENT REMOVED THAT EXCEEDS THE MAXIMUM PAY AREA SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AS AN INCIDENTAL PART OF PIPELINE CONSTRUCTION.

25. BASED UPON EPC DPW RECORDS, THE ROAD SECTIONS THAT REQUIRE REMOVAL AND REPLACEMENT HAVE THE FOLLOWING ROAD SECTION THAT MUST BE MATCHED.

26. WORK IN THE PUBLIC RIGHT-OF-WAY INCLUDES STRIPPING, STOCKPILING AND REINSTALLATION OF EXISTING AGGREGATE BASE COURSE (ABC) TO FULL DEPTH. IN THE EVENT THE ABC IS CONTAMINATED OR NOT SUFFICIENTLY STRIPPED, THE CONTRACTOR SHALL PROVIDE MAKEUP ABC AS REQUIRED.

GENERAL CONSTRUCTION NOTES

29. DEFLECTIONS AT PIPE JOINTS SHALL BE LIMITED TO THOSE DEFLECTIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS AND RECOMMENDED BY THE PIPE MANUFACTURER, WHICHEVER IS LESS.

31. GATE VALVE INSTALLATIONS ON THE NEW MAIN SHALL BE LAID OUT SUCH THAT THE VALVES ARE TYPICALLY LOCATED THREE (3) FEET FROM ADJACENT TEES OR OTHER FITTINGS UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS.

33. THE CONTRACTOR SHALL EXCAVATE THE EXISTING UTILITY LINES WHERE CROSSINGS ARE SHOWN. AN OWNER'S REPRESENTATIVE WILL VERIFY THE EXISTING PIPELINE LOCATION AND MAKE ANY ADJUSTMENTS TO THE CONSTRUCTION DRAWINGS THAT MAY BE NECESSARY AS A RESULT OF FINAL LOCATION DETERMINATION. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR POTHOLING OR MINOR MODIFICATIONS TO THE ALIGNMENT. THIS EFFORT WILL BE CONSIDERED AN INCIDENTAL PART OF THE WORK.

35. PIPE FITTINGS LOCATED 5 FEET OR LESS APART SHALL BE TIED TOGETHER WITH AT LEAST FOUR (4) 3/4-INCH ANCHOR RODS UNLESS OTHERWISE DETAILED OR NOTED ON THE PLANS. WHEN USED, JOINT RESTRAINTS SHALL BE INSTALLED ON PLAIN END PIPE ONLY. INSTALLATION ON PLAIN END FITTINGS IS NOT ACCEPTABLE.

37. REMOVAL AND DISPOSAL OF EXISTING PIPELINE MATERIALS AND APPURTENANCES REQUIRED TO ACCOMPLISH THE SPECIFIED SCOPE OF WORK SHALL BE INCIDENTAL TO THE NEW PIPELINE CONSTRUCTION BID ITEMS. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK.

39. ANY SIGNS, DELINEATOR POSTS, MAIL BOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION AS AN INCIDENTAL PART OF THE PIPELINE WORK.

41. THE CONTRACTOR SHALL INSTALL NEW WATER MAIN SEGMENTS IN SUCH A MANNER THAT THEY CAN BE FILLED AND PRESSURE TESTED. UPON COMPLETION OF A SATISFACTORY PRESSURE TEST, THE CONTRACTOR SHALL DISINFECT THE NEW MAINS AND EXISTING MAINS, AS DETAILED. ONCE THE LINES HAVE BEEN FLUSHED AND A SATISFACTORY BACTERIOLOGICAL TEST RESULT IS ACCOMPLISHED, THE CONTRACTOR SHALL PLACE THE LINES INTO SERVICE UNDER THE DIRECTION OF THE DWSO.

43. THE CONTRACTOR MAY PROPOSE ALTERNATIVES TO THE FITTING AND PIPING CONFIGURATION SHOWN FOR THE CONNECTION OF NEW FACILITIES TO EXISTING FACILITIES. SUCH MODIFICATIONS ARE SUBJECT TO THE ENGINEER'S REVIEW AND ACCEPTANCE.

45. WITHIN THE COURSE OF CONSTRUCTION, ANY EXISTING WATER SYSTEM COMPONENTS REMOVED BY THE CONTRACTOR THAT ARE DEEMED SALVAGE BY THE ENGINEER/OWNER SHALL BE DELIVERED TO THE DWSO. ALL OTHER ITEMS NOT DEEMED AS SALVAGE SHALL BE EITHER ABANDONED IN PLACE OR DISPOSED OF OFF-SITE BY THE CONTRACTOR AS PART OF THE PIPELINE INSTALLATION SCOPE OF WORK.

48. ANY REVERSE ANCHORS, BLOW-OFF ASSEMBLIES, ETC., REQUIRED TO MAKE CONNECTIONS TO EXISTING LINES AND PROVIDE FOR PRESSURE TESTING AND OTHER CONSTRUCTION ACTIVITIES ARE INCIDENTAL TO THE PIPELINE CONSTRUCTION.

50. THE CONTRACTOR SHALL PROVIDE SEEDING IN AREAS AS DESIGNATED ON THE CONSTRUCTION DRAWINGS AND AS INDICATED BY THE ENGINEER. PAYMENT WILL BE MADE UP TO THE MAXIMUM LIMITATIONS SET FORTH IN THE CONSTRUCTION DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR SEEDING OF DISRUPTED AREAS OUTSIDE THE MAXIMUM PAY WIDTHS AS A RESULT OF HIS CONSTRUCTION ACTIVITIES AS AN INCIDENTAL PART OF THE WORK.

52. NEW MATERIALS SHALL BE USED FOR ALL IMPROVEMENTS UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS.

54. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AROUND THE WORK AREA TO MAINTAIN THE HEALTH AND SAFETY OF THE GENERAL PUBLIC THROUGHOUT CONSTRUCTION. OPEN TRENCHES ARE NOT ALLOWED WHEN THE CONTRACTOR IS NOT WORKING ON SITE OR DURING HOURS OF DARKNESS UNLESS APPROPRIATE BARRICADING HAS BEEN PROVIDED.

56. THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE HOSTED BY THE DONALA WATER AND SANITATION DISTRICT OR HIS DESIGNATED REPRESENTATIVE NO LESS THAN ONE (1) WEEK PRIOR TO THE START OF CONSTRUCTION FOR CONSTRUCTION APPROVAL, TO OUTLINE METHODS OF CONSTRUCTION AND MATERIALS TO BE USED, AND LAYOUT OF THE PROJECT.

58. ALL PIPELINE CONSTRUCTION SHALL BE AS-BUILT SURVEYED AND AS-BUILT DRAWINGS SUBMITTED BY THE CONTRACTOR TO THE DONALA WATER AND SANITATION DISTRICT FOR REVIEW AND ACCEPTANCE AT THE COMPLETION OF THE PROJECT.

60. THE CONTRACTOR MUST COORDINATE WITH THE DWSD AND IMPACTED PROPERTY OWNERS TO SCHEDULE CONNECTION OF THE NEW MAIN TO EXISTING MAIN.

62. UPON COMPLETION OF CONSTRUCTION, REMOVE THE TOP SECTION OF THE ABANDONED VALVE RISER BOXES AND DISPOSE OF OFF-SITE. FILL RISER BOX VOID WITH FLOWABLE FILL. IF LOCATED IN PAVED SURFACE, PAVE PER ROAD REPLACEMENT REQUIREMENTS.

64. NEW WATER SERVICE LINES ARE TO BE INSTALLED USING DIRECTIONAL DRILLING METHODS OR PIPE PULLING (PIPE BURSTING) METHODS. EXISTING SERVICE LINE MATERIALS CONSIST OF 3/4" OR 1" COPPER PIPE. NEW SERVICE LINE MATERIAL WILL BE 1" DIAMETER SDR 7 HDPE PIPE, UNLESS OTHERWISE NOTED. ALL SERVICE LINE MUST BE INSTALLED WITH A 45mil STAINLESS STEEL TRACER WIRE WITH BLUE INSULATED JACKET.

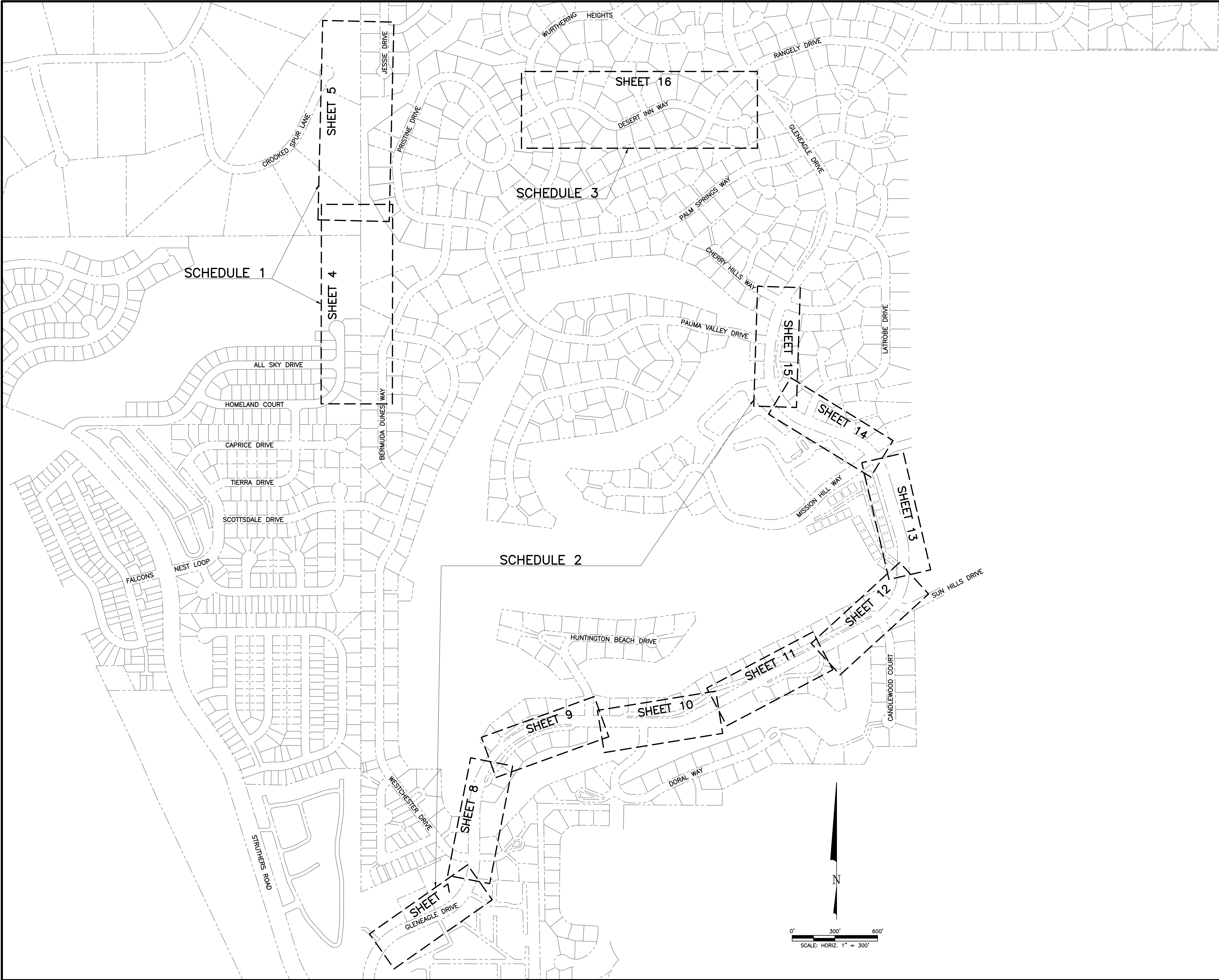
66. THE CONTRACTOR IS RESPONSIBLE TO FIELD CONFIRM SIZE, LOCATION AND MATERIAL ASSOCIATED WITH THE EXISTING WATER SYSTEMS PIPING WHERE CONNECTIONS ARE REQUIRED. APPROPRIATE FITTINGS AND TRANSITION GASK SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.

68. ALL HORIZONTAL AND VERTICAL BENDS SHALL BE INSTALLED WITH MECHANICAL JOINT RESTRAINTS AND THRUST BLOCKS.

70. ALL NEW WATER SERVICE LINES MUST BE ONE CONTINUOUS SEGMENT OF HDPE PIPE WITH NO JOINTS OR SPLICES FROM THE CORPORATION STOP TO THE CURB STOP.

IRON FENCE		FIRE HYDRANT
ENCE		WATER VALVE
ENCE		WATER METER PIT
INK FENCE		WATER WELL
RAIL FENCE		TELEVISION PEDESTAL
D CABLE OR CHAIN		ELECTRIC BOX
SH FENCE		UTILITY POLE
WIRE FENCE		WOOD LIGHT/UTILITY POLE
PE TIMBER AS CURB OR WALL		GUY WIRE ANCHOR
D ELECTRIC LINE		YARD LIGHT
ROUND ELECTRIC LINE		TELEPHONE PEDESTAL
ROUND TELEPHONE LINE		SOIL BORING
SEWER LINE		STREET SIGN
SEWER SERVICE LINE		SEPTIC TANK
LINE		
SERVICE LINE		
F-WAY LINE		ASPHALT MILLINGS
POINT		GRAVEL
Y CORNER		CONCRETE FLATWORK
SEWER MANHOLE		DECIDUOUS TREE
SEWER CLEAN-OUT		CONIFEROUS TREE
		DECIDUOUS BUSH
		CONIFEROUS BUSH

MAIN
WATER SERVICE LINE
HYDRANT ASSEMBLY
CROSS STOP
WATER VALVE
PRESSURE REDUCING VALVE MANHOLE
VENTILATION AIR/VACUUM VALVE MANHOLE



SCALE VERIFICATION

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

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REVISIONS	
NO.	DESCRIPTION
1	

INDEX SHEET

2018 WATER SYSTEM IMPROVEMENTS

DONALA WATER AND SANITATION DISTRICT

GMS, INC.

CONSULTING ENGINEERS

611 N. WEBER, SUITE 300

COLORADO SPRINGS, COLORADO 80903

DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
			MAY 2018	17072,400	2851

SHEET

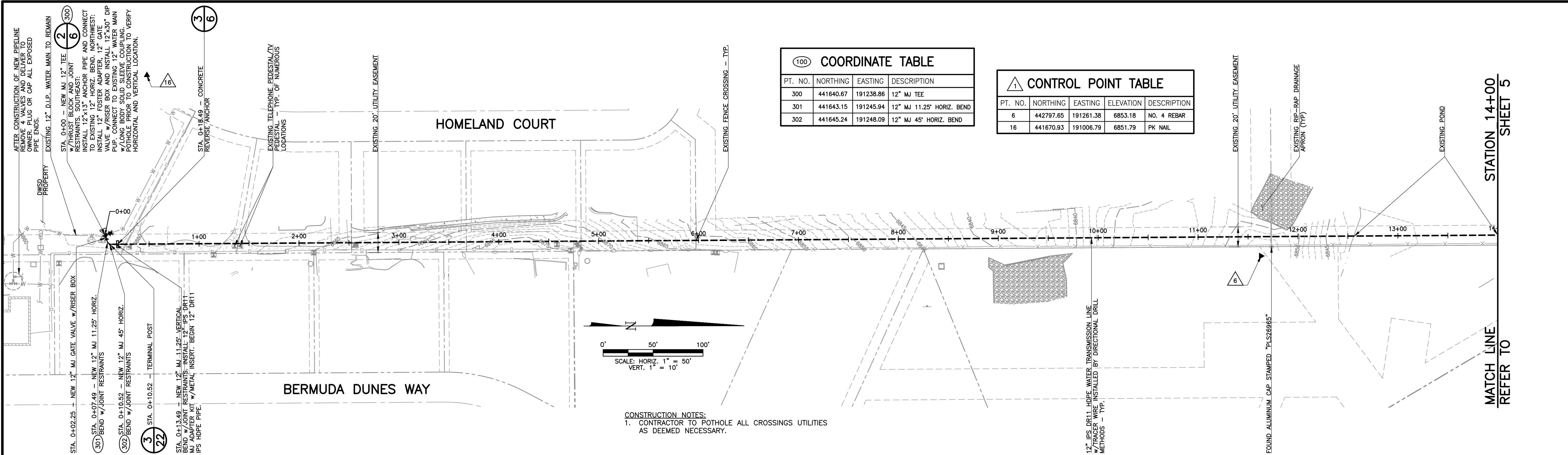
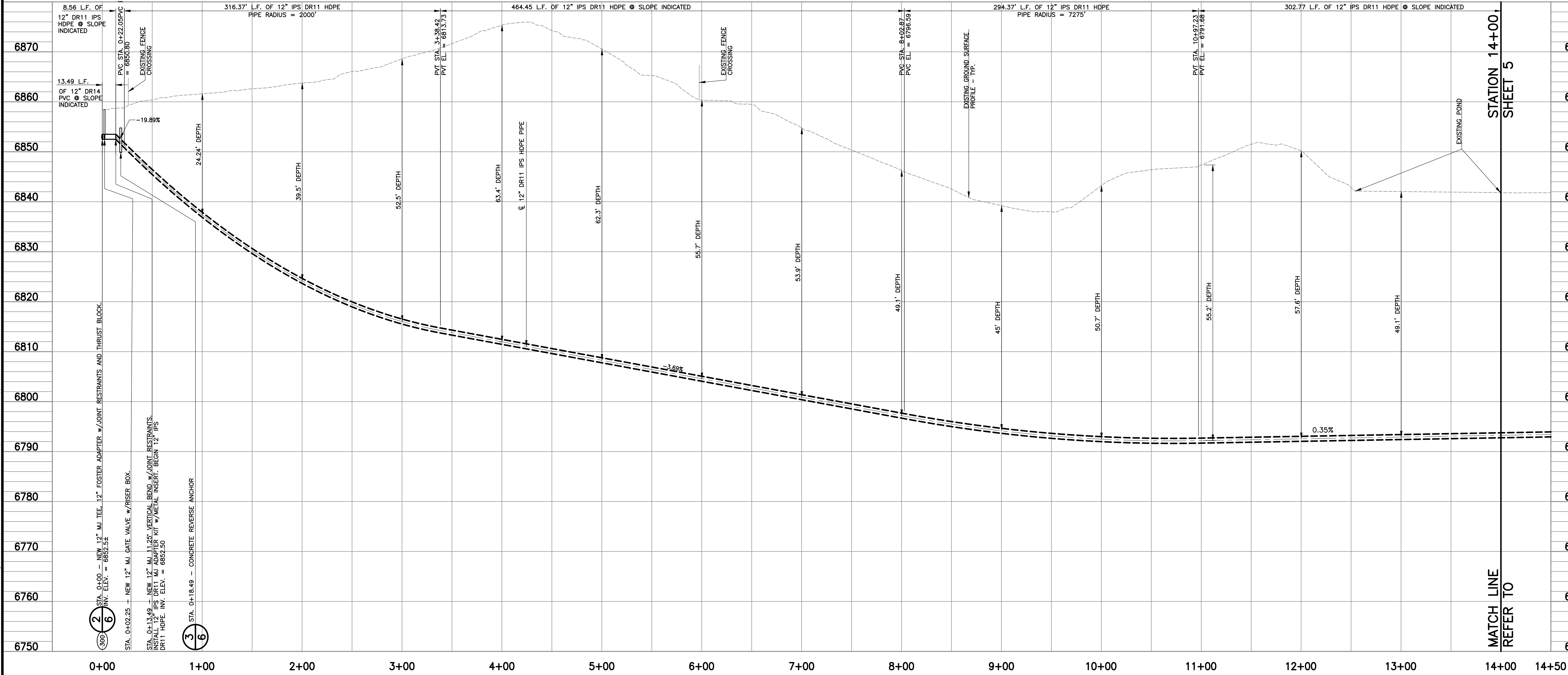
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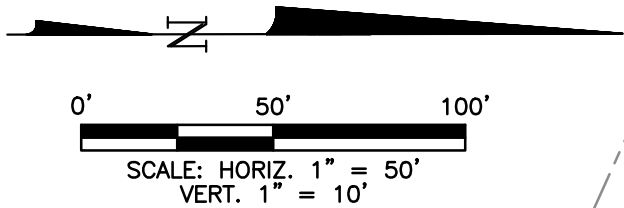
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PT. NO.	NORTHING	EASTING	DESCRIPTION
300	441640.67	191238.86	12" MJ TEE
301	441643.15	191245.94	12" MJ 11.25' HORIZ. BEND
302	441645.24	191248.09	12" MJ 45' HORIZ. BEND

PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
6	442797.65	191261.38	6853.18	NO. 4 REBAR
16	441670.93	191006.79	6851.79	PK NAIL



CONSTRUCTION NOTES:
1. CONTRACTOR TO POTHOLE ALL CROSSINGS UTILITIES AS DEEMED NECESSARY.

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REVISIONS
NO. DATE DESCRIPTION

SCHEDULE 1 – STA. 0+00 TO STA. 14+00
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

GMS, INC.
CONSULTING ENGINEERS
6110 N. WEBER, SUITE 300
COLORADO SPRINGS, COLORADO 80903

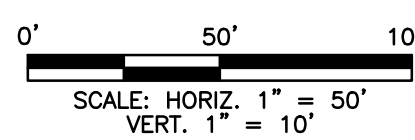
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DESIGNED MAL
CHECKED DRF
DATE MAY 2018
PROJECT NO. 17072.400
GMS FILE NO. 2851

SHEET 4 OF 22



COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
303	444205.03	191234.68	12" MJ 45° HORIZ. BEND
304	444207.16	191236.79	12" MJ 45° HORIZ. BEND
305	444207.07	191244.38	12" MJ 11.25° HORIZ. BEND
306	444210.59	191268.67	6" WIDE RANGE COUPLING

STATION 14+00
SHEET 4



CONSTRUCTION NOTES:
1. CONTRACTOR TO POTHOLE ALL CROSSING UTILITIES
AS DEEMED NECESSARY.

JESSIE DRIVE

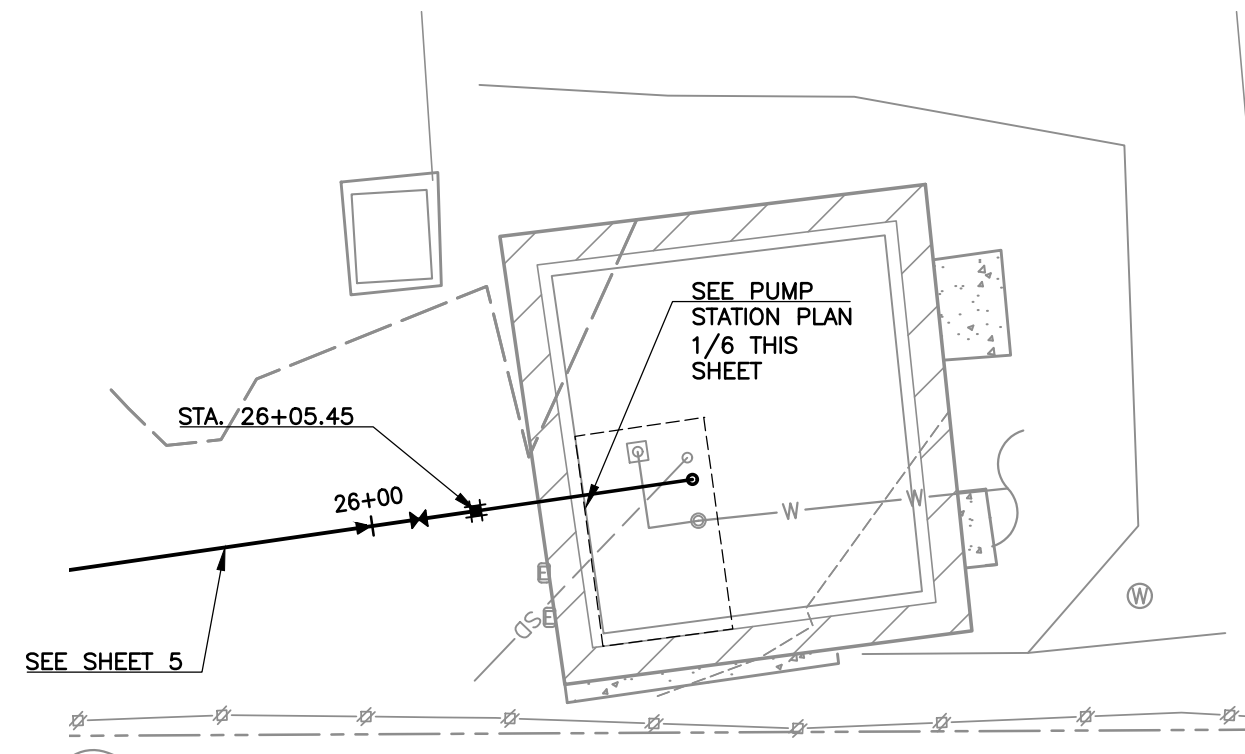
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PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

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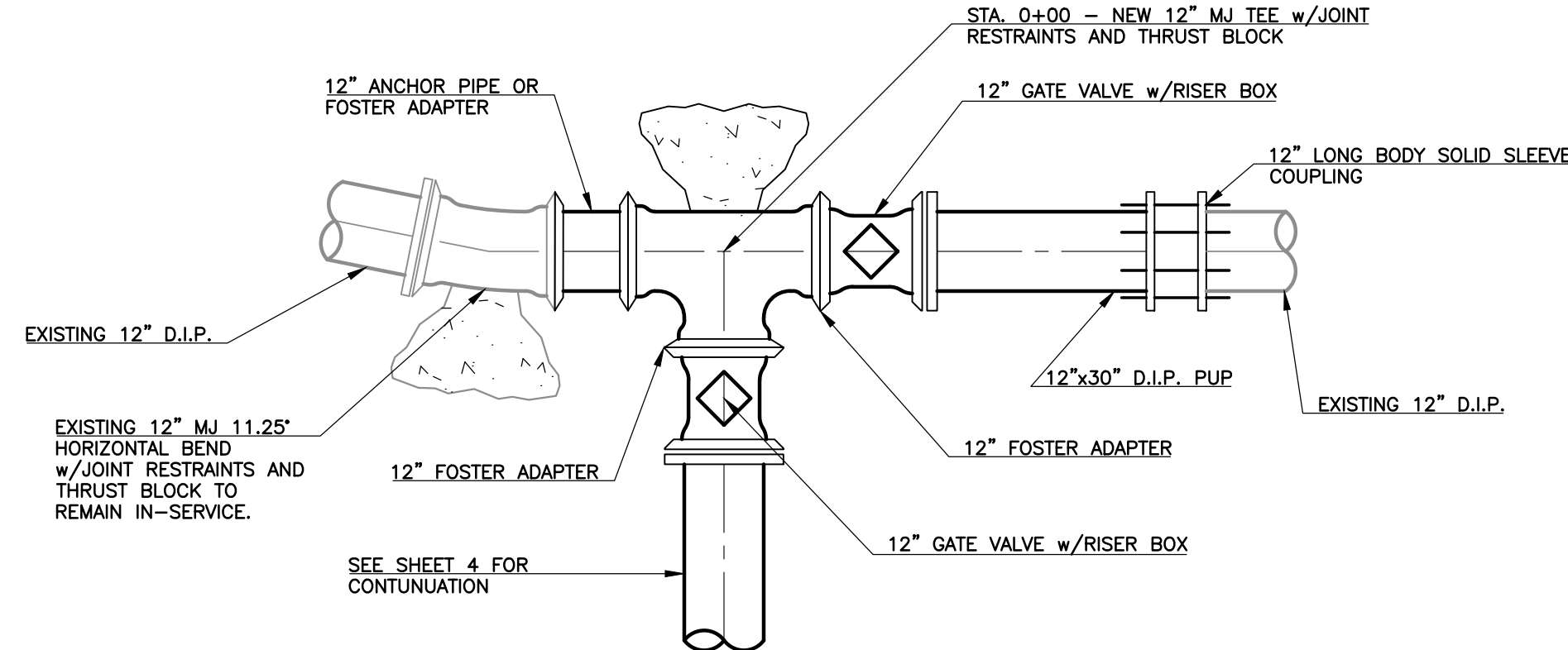
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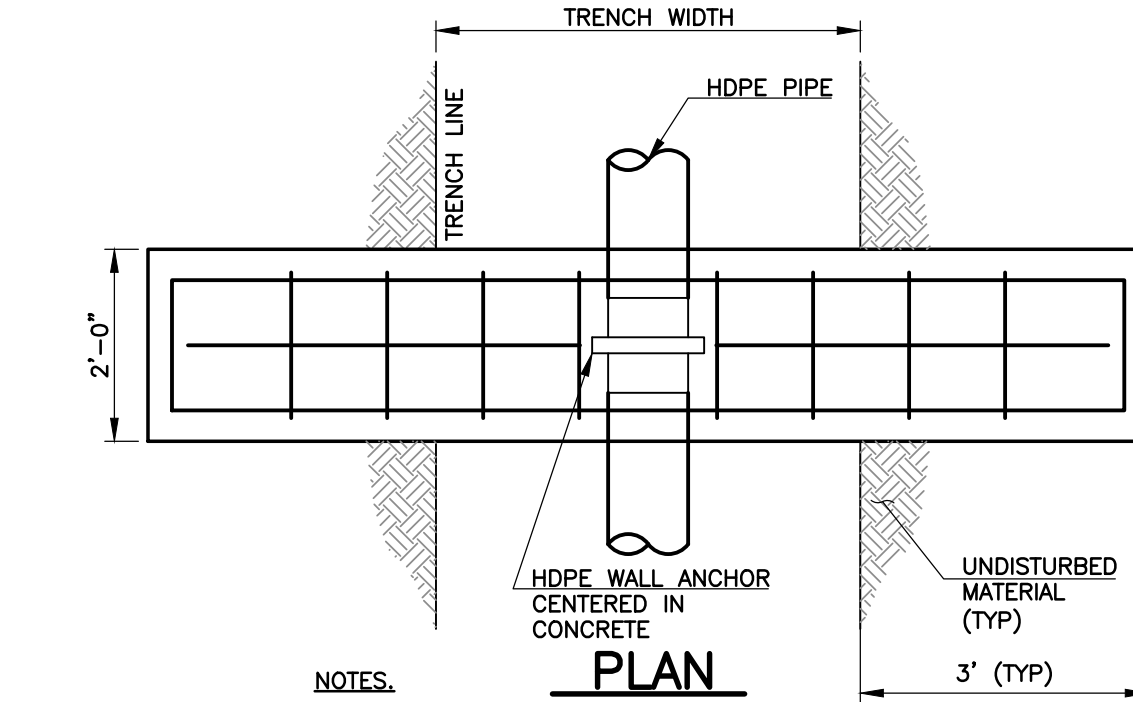
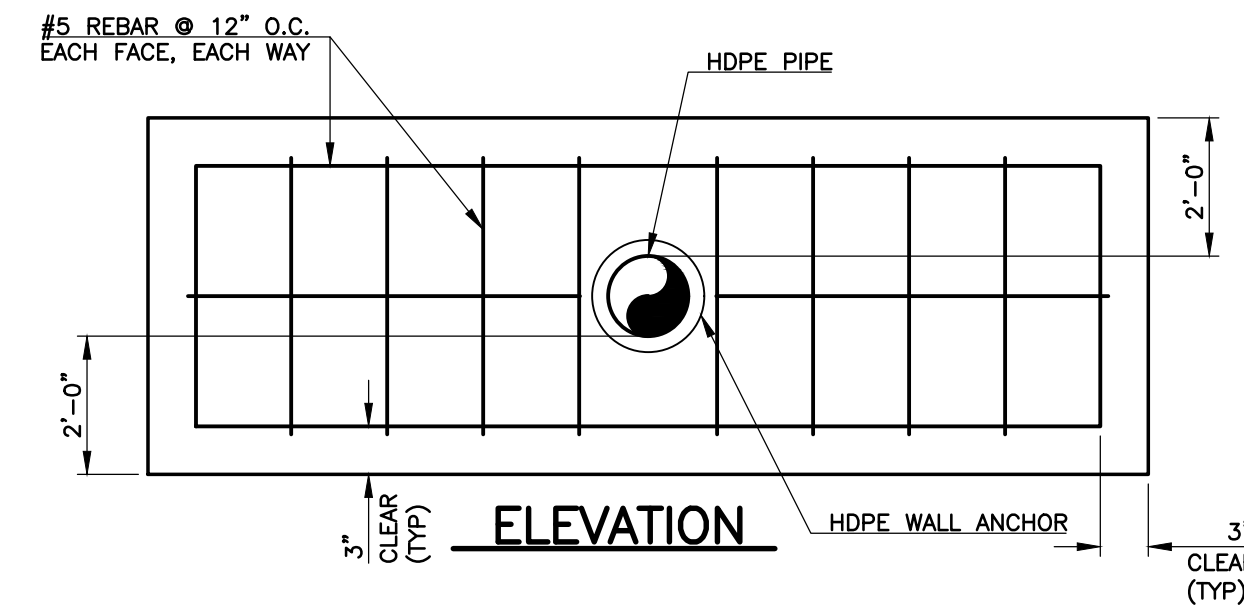
BOOSTER PUMP STATION NO. 3

SCALE: 1" = 10'



SCHEDULE 1 - STA. 0+00 CONNECTION

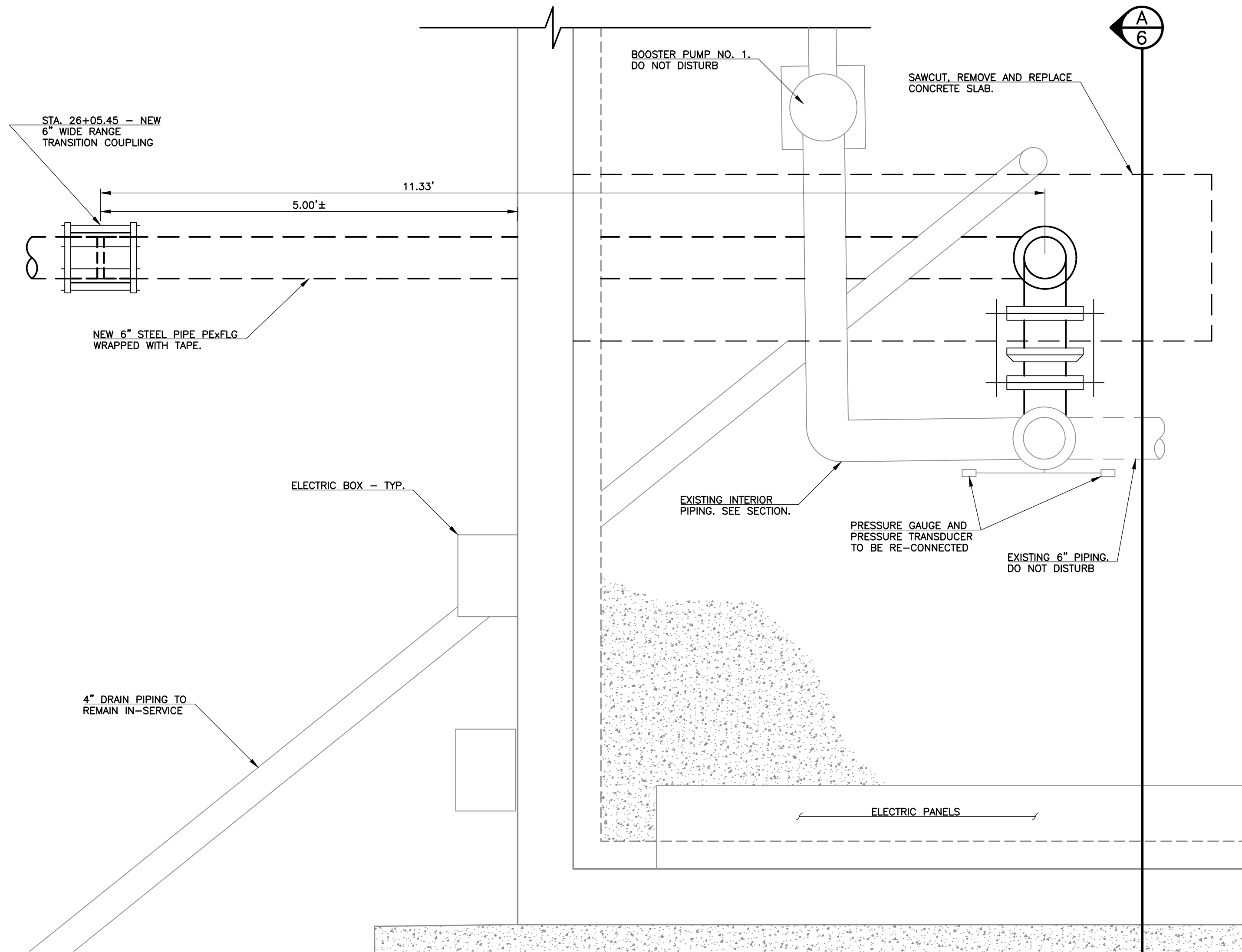
SCALE: NONE



- NOTES.
1. FORM REVERSE ANCHOR WITH WOOD OR STEEL FORMS OR USE FACE OF EXCAVATION IF MATERIAL IS FIRM, STABLE AND TRUE TO PLANE.
 2. PLACE REINFORCING STEEL WITH 3" CLEAR DISTANCE TO OUTSIDE DIAMETER OF PIPE. BEGIN STEEL PLACEMENT AROUND PIPE AND CONTINUE OUTWARD AT SPACING INDICATED.

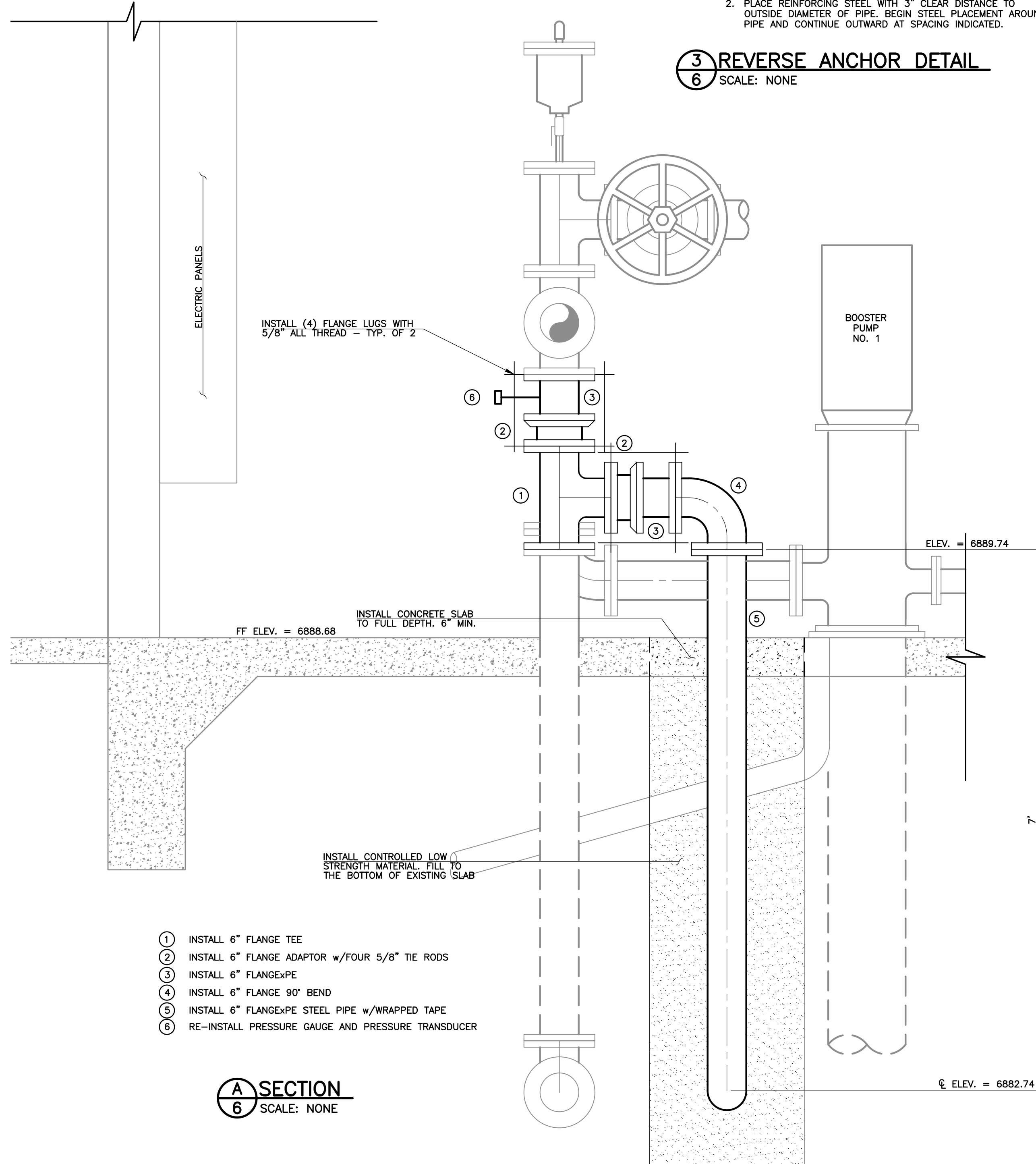
REVERSE ANCHOR DETAIL

SCALE: NONE



PUMP STATION PLAN

SCALE: NONE



1. INSTALL 6" FLANGE TEE
2. INSTALL 6" FLANGE ADAPTOR W/FOUR 5/8" TIE RODS
3. INSTALL 6" FLANGExPE
4. INSTALL 6" FLANGE 90° BEND
5. INSTALL 6" FLANGExPE STEEL PIPE W/WRAPPED TAPE
6. RE-INSTALL PRESSURE GAUGE AND PRESSURE TRANSDUCER

SECTION A-A

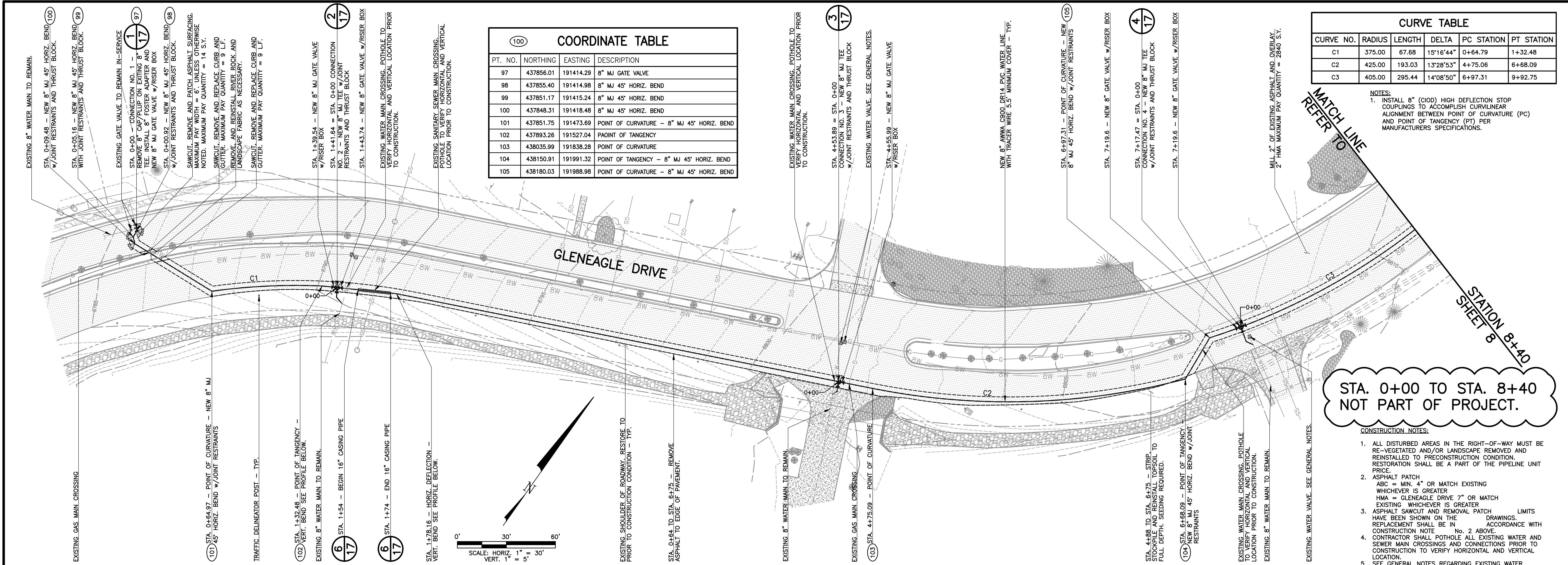
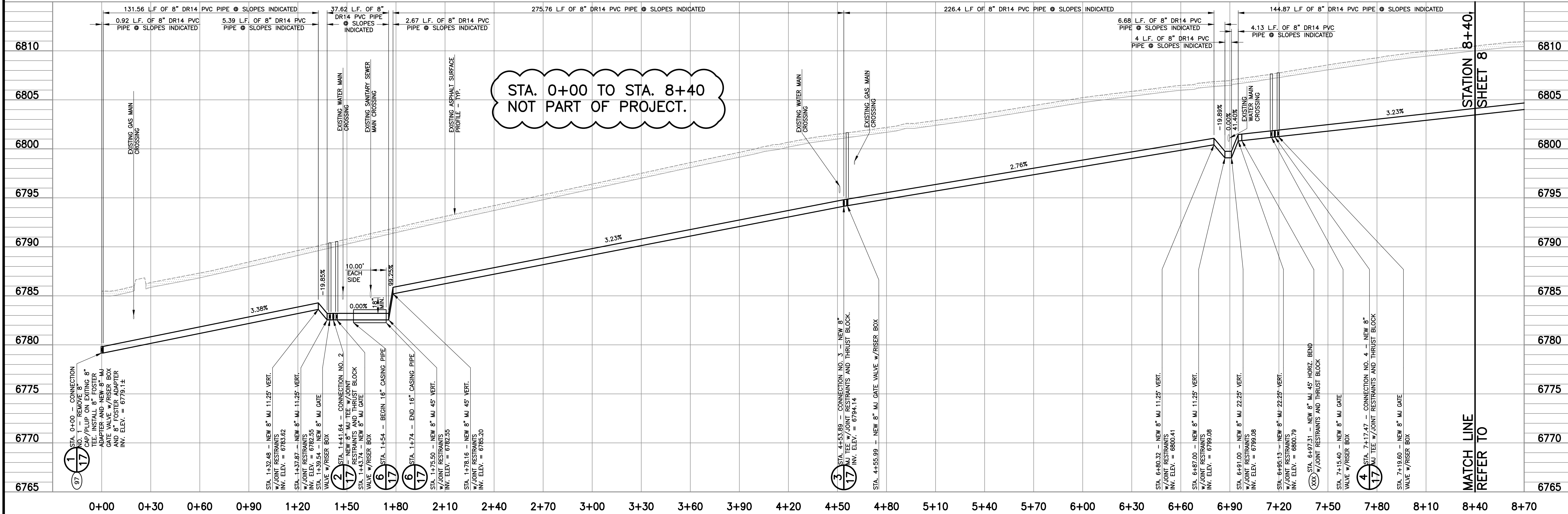
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REVISIONS	DESCRIPTION
DATE	
NO. 1	

SCHEDULE 1
DETAILS AND SECTIONS
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

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

DRAWN	MAL
DESIGNED	MAL
CHECKED	DRF
DATE	MAY 2018
PROJECT NO.	17072.400
GMS FILE NO.	2851



COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
97	437856.01	191414.29	8" MJ GATE VALVE
98	437855.40	191414.98	8" MJ 45° HORIZ. BEND
99	437851.17	191415.24	8" MJ 45° HORIZ. BEND
100	437848.31	191418.48	8" MJ 45° HORIZ. BEND
101	437851.75	191473.69	POINT OF CURVATURE - 8" MJ 45° HORIZ. BEND
102	437893.26	191527.04	POINT OF TANGENCY
103	438035.99	191838.28	POINT OF CURVATURE
104	438150.91	191991.32	POINT OF TANGENCY - 8" MJ 45° HORIZ. BEND
105	438180.03	191988.98	POINT OF CURVATURE - 8" MJ 45° HORIZ. BEND

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C1	375.00	67.68	15°16'44"	0+64.79	1+32.48
C2	425.00	193.03	13°28'53"	4+75.06	6+68.09
C3	405.00	295.44	14°08'50"	6+97.31	9+92.75

NOTES:
1. INSTALL 8" (C10D) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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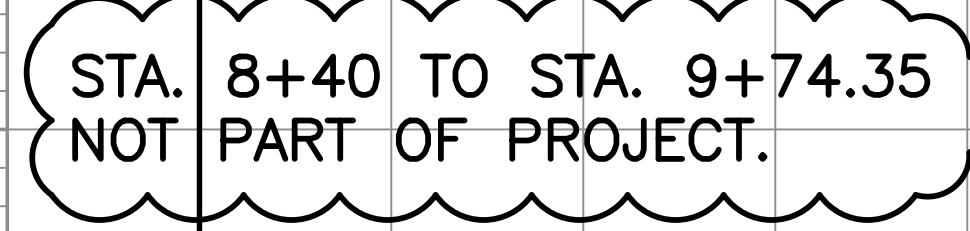
SCHEDULE 2 - STA. 0+00 TO STA. 8+40
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

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

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PROJECT NO.
GMS FILE NO.

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MAY 2018
17072.400
2851

SHEET
7
OF
22



NOTES:
1. INSTALL 8" OR 12" (CID) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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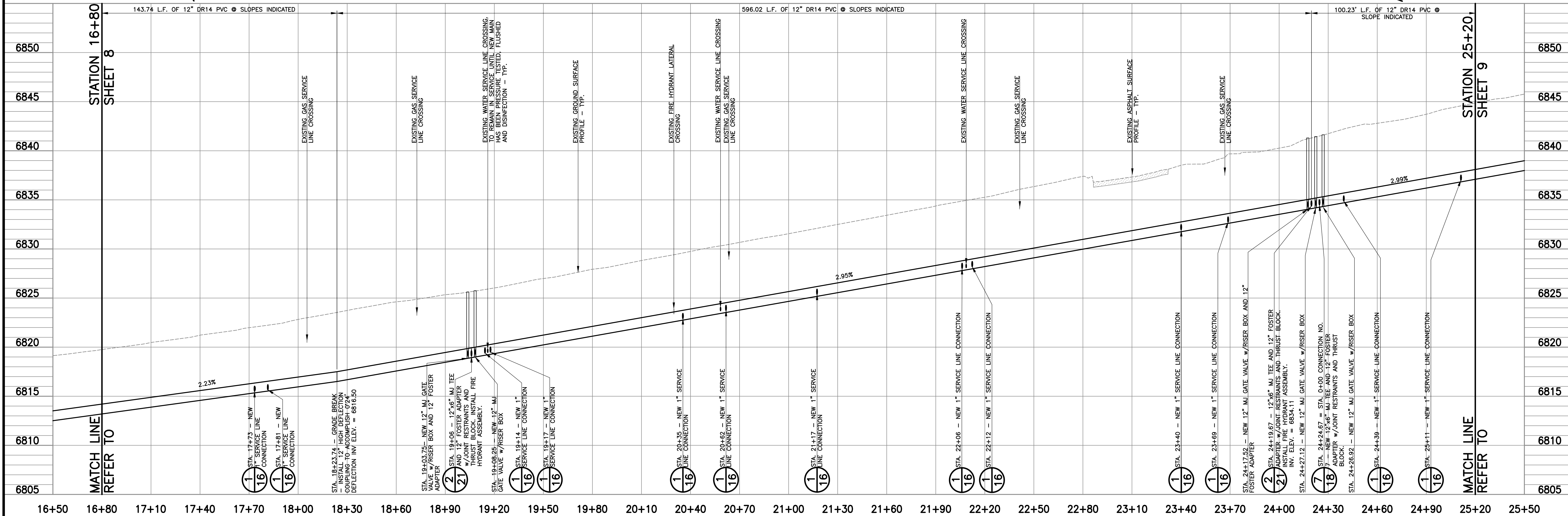
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SCHEDULE 2 – STA. 8+40 TO STA. 16+80
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

22 OF 83 SHEET
GMS, INC.
 CONSULTING ENGINEERS
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1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REPLANTED TO MEET THE EXISTING CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
2. ASPHALT PATCH:
 - a. ABC OR "D" MATCH EXISTING WHICHEVER IS GREATER
 - b. HMA = GLENAGLE DRIVE "7" OR MATCH EXISTING WHICHEVER IS GREATER
3. ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE.
4. CONSTRUCTION SHALL PATCH ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 2px 5px; margin-right: 5px;">100</div> <div>COORDINATE TABLE</div> </div>			
PT. NO.	NORTHING	EASTING	DESCRIPTION
115	439380.29	192728.07	POINT OF TANGENCY

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C7	626.00	741.09	9°09'10"	15+47.07	22+88.16

NOTES:

1. INSTALL 12" (CID) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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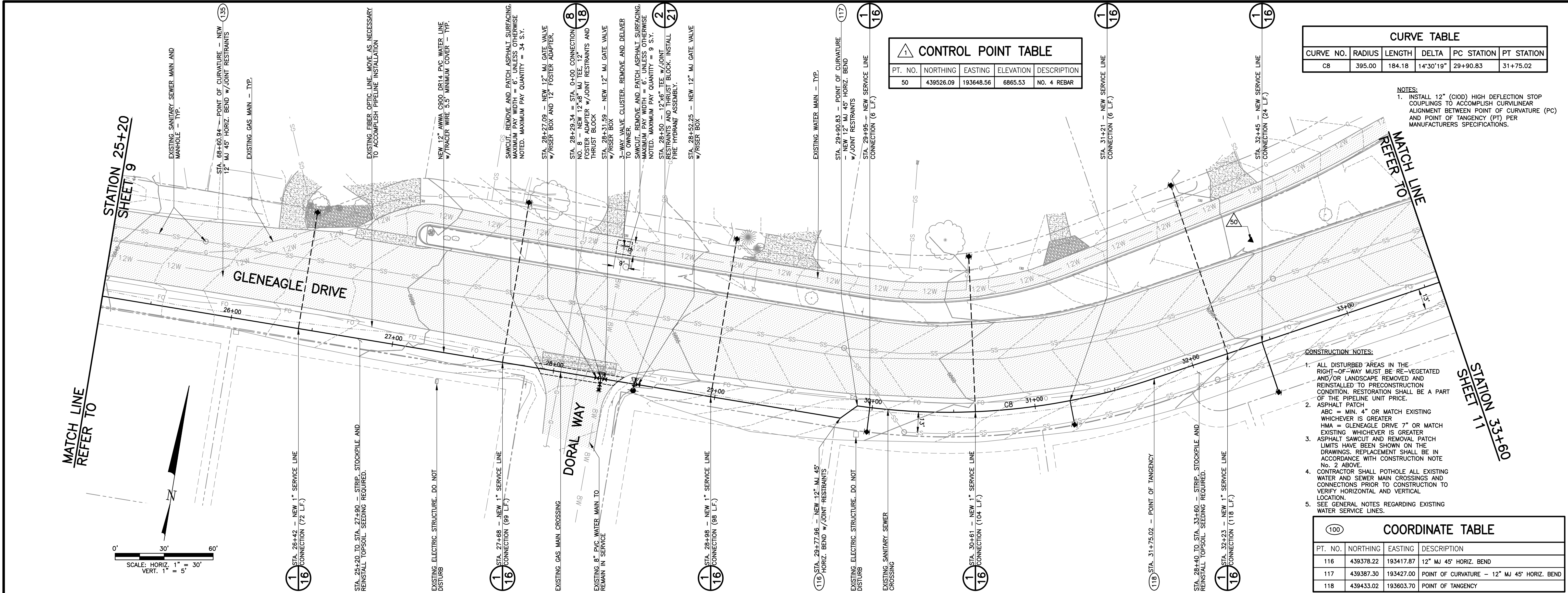
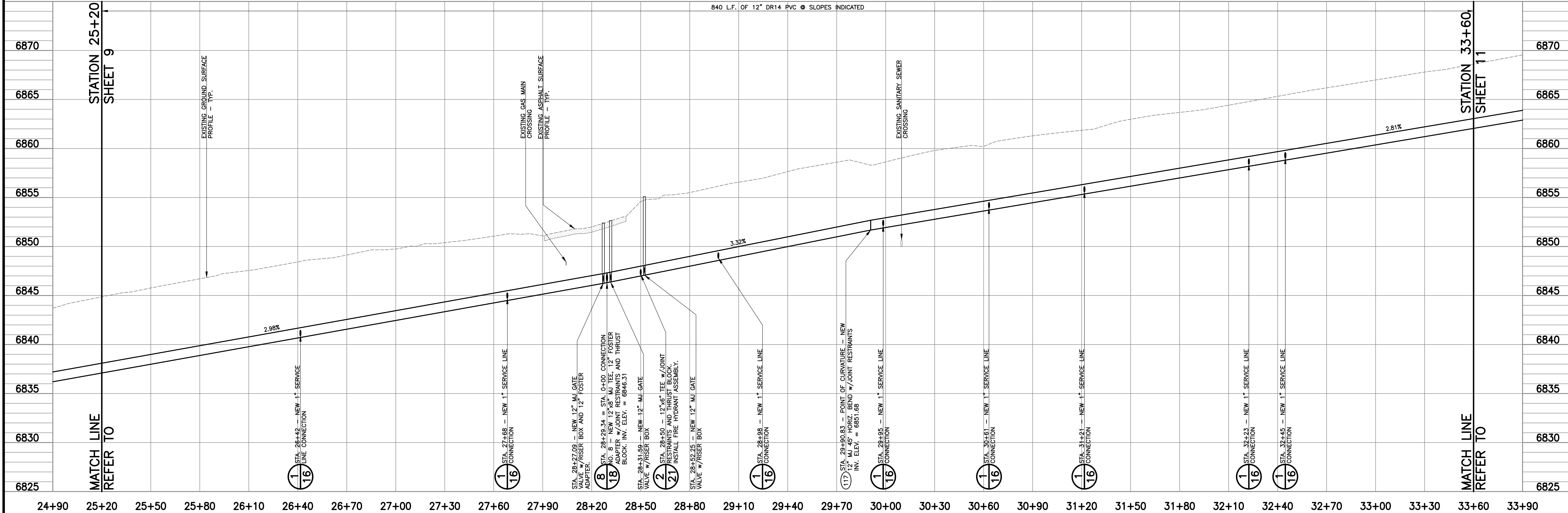
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SCHEDULE 2 – STA. 16+80 TO STA. 25+20
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

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

SHEET 9 OF 22	
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CONTROL POINT TABLE				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
50	439526.09	193648.56	6865.53	NO. 4 REBAR

CURVE TABLE				
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION
C8	395.00	184.18	14°30'19"	29+90.83
				PT STATION
				31+75.02

NOTES:
1. INSTALL 12" (C10D) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

CONSTRUCTION NOTES:

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
2. ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
3. ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE No. 2 ABOVE.
4. CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
116	439378.22	193417.87	12" MJ 45° HORIZ. BEND
117	439387.30	193427.00	POINT OF CURVATURE - 12" MJ 45° HORIZ. BEND
118	439433.02	193603.70	POINT OF TANGENCY

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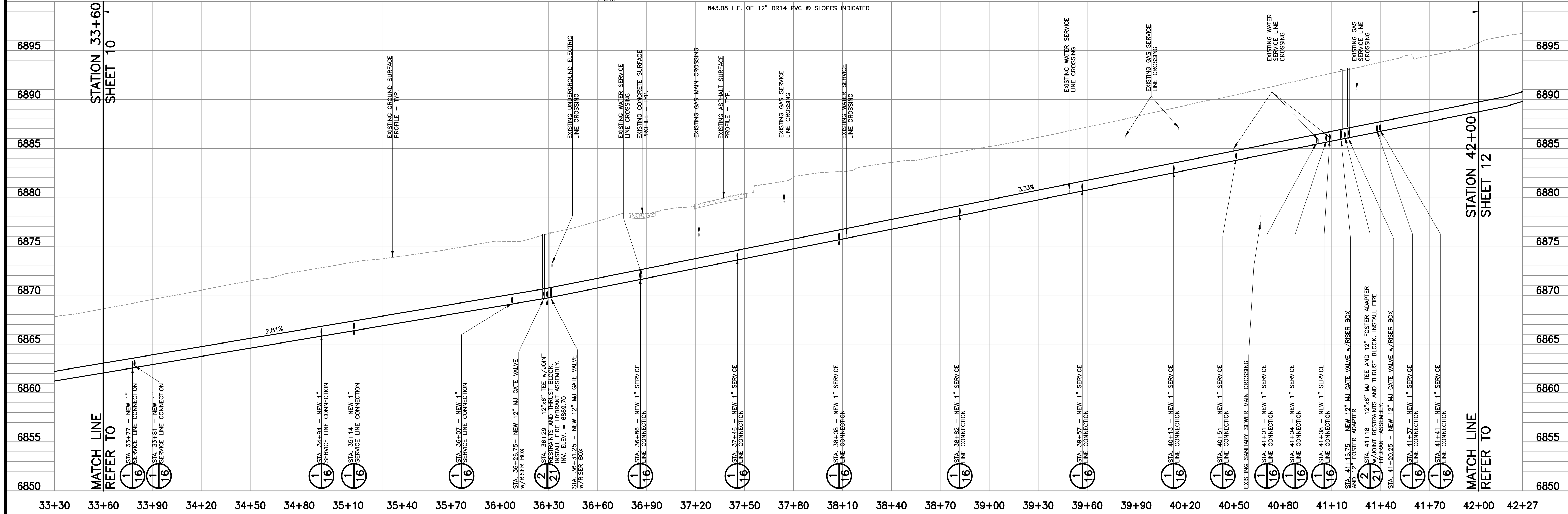
SCHEDULE 2 - STA. 25+20 TO STA. 33+60
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

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

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10
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22



MATCH LINE
STATION 33+60

REFER TO
SHEET 10

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND RESTORED TO PRE-CONSTRUCTION CONDITION, RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
2. ASPHALT PATCH
APC = 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = GLENAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
3. ASPHALT SAWCUT AND REMOVAL PATCH
LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE.
4. CONSTRUCTION SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

1 STA 33+77 - NEW 1" SERVICE LINE
16 CONNECTION (133 L.F.)

1 STA 34+94 - NEW 1" SERVICE LINE
16 CONNECTION (122 L.F.)

1 STA. 36+07 - NEW 1" SERVICE LINE
12 CONNECTION (99 I F)

EXISTING UNDERGROUND ELECTRIC LINE CROSSING. CONFIRM LOCATION PRIOR TO PLACING FIRE HYDRANT.

2 SAWCUT, REMOVE AND REPLACE ENTIRE CONCRETE

7" SERVICE LINE TO EXISTING 1" SERVICE LINE. REPLACE ENTIRE LINE. PLACE CURBSTOP AT PROPERTY LINE

REMOVE AND REINSTALL MAIL BOX

SAW-CUT, REMOVE AND PATCH ASPHALT SURFACING.
MAXIMUM PAY WIDTH = 6'. UNLESS OTHERWISE
NOTED, MAXIMUM PAY¹¹ QUANTITY = 19 S.Y.

)

EXISTING WATER SERVICE LINE CROSSING

VALVE. DELIVER TO OWNER.

16 CONNECTION (112 L.F.)

EXISTING WATER SERVICE LINE CROSSING

16 CONNECTION (107 L.F.)

1 STA. 40+51 - NEW 1" SERVICE LINE

EXISTING SANITARY SEWER MAIN CROSSING

EXISTING WATER SERVICE LINE CROSSING

EXISTING GAS SERVICE LINE CROSSING

1 STA. 41+37 - NEW 1" SERVICE LINE
16 CONNECTION (101 L.F.)

MAXIMUM PAY WIDTH = 6, UNLESS OTHERWISE NOTED. MAXIMUM PAY QUANTITY = 14 S.Y.

MAINTAIN LINE
REFER TO

$\frac{1}{5} = 30$

STA. 42+00

MEMBERSHIP DISTRICT

1000

SCHEDULE 2 – STA. 33+60 TO STA. 42+00
PLAN , PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

GMS, INC.
CONSULTING ENGINEERS
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11
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22

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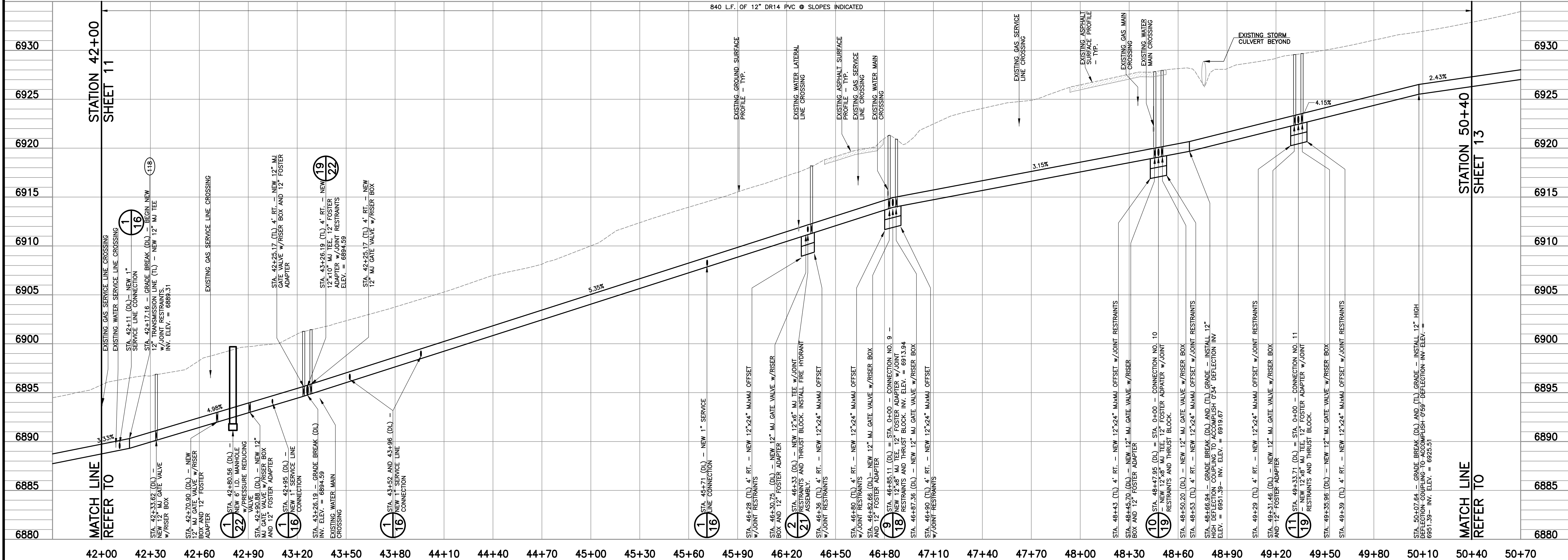
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SCHEDULE 2 - STA. 42+00 TO STA. 50+40
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2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

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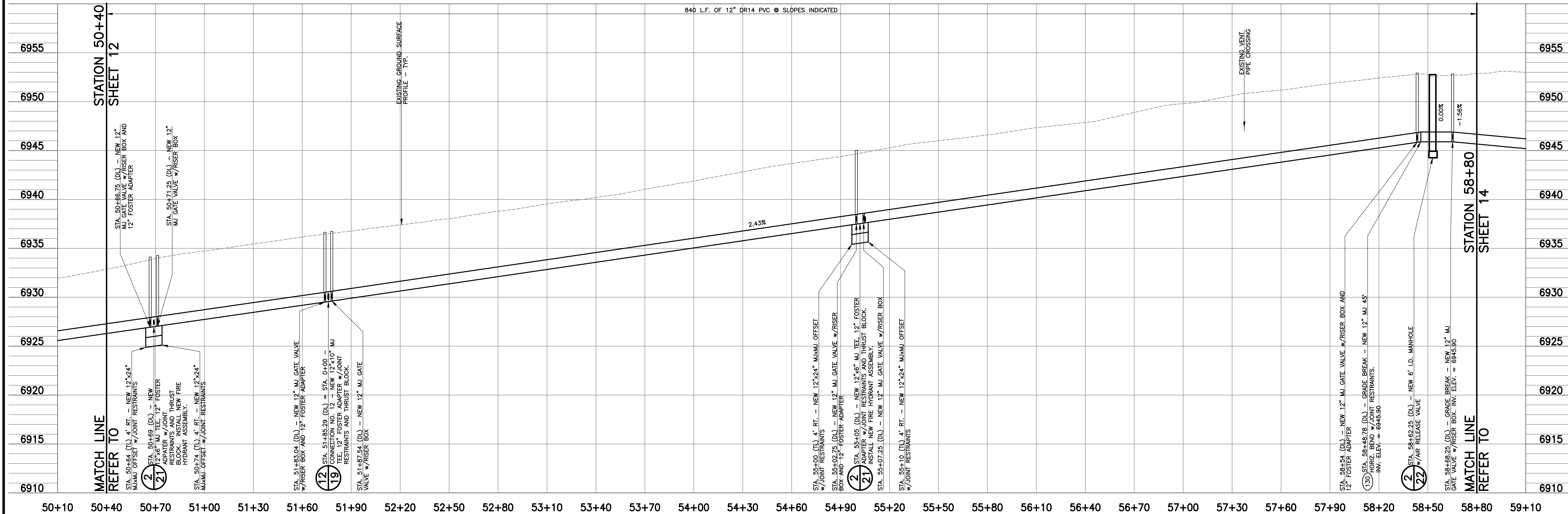
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<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;">1</div> <div>CONTROL POINT TABLE</div> </div>				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
54	440921.79	195055.74	6949.15	BRIDGE SPIKE

100		COORDINATE TABLE	
PT. NO.	NORTHING	EASTING	DESCRIPTION
126	440488.79	195101.16	POINT OF TANGENCY
127	440621.07	195097.88	POINT OF CURVATURE
128	440732.48	195080.33	POINT OF TANGENCY
129	441162.97	194952.92	POINT OF CURVATURE
130	441223.74	194929.69	POINT OF TANGENCY - 12° MJ 45' HORIZ. BEND
131	441226.09	194922.59	POINT OF TANGENCY - 12° MJ 45' HORIZ. BEND

CONSTRUCTION NOTES:

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
2. ASPHALT PATCH
 $ABC = MIN. 4" \text{ OR MATCH EXISTING WHICHEVER IS GREATER}$
 $HMA = GLENEAGLE DRIVE 7" \text{ OR MATCH EXISTING WHICHEVER IS GREATER}$
3. ASPHALT PATCH AND HMA PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 10.
4. CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C9	430.00	476.93	13°19'29"	46+12.35	50+89.28
C10	430.00	113.11	13°19'28"	52+21.60	53+34.71
C11	421.00	65.13	13°36'34"	57+83.65	58+48.78
C12	425.00	332.66	13°28'53"	58+56.25	61+88.91

NOTES:
1. INSTALL 12" (CIOD) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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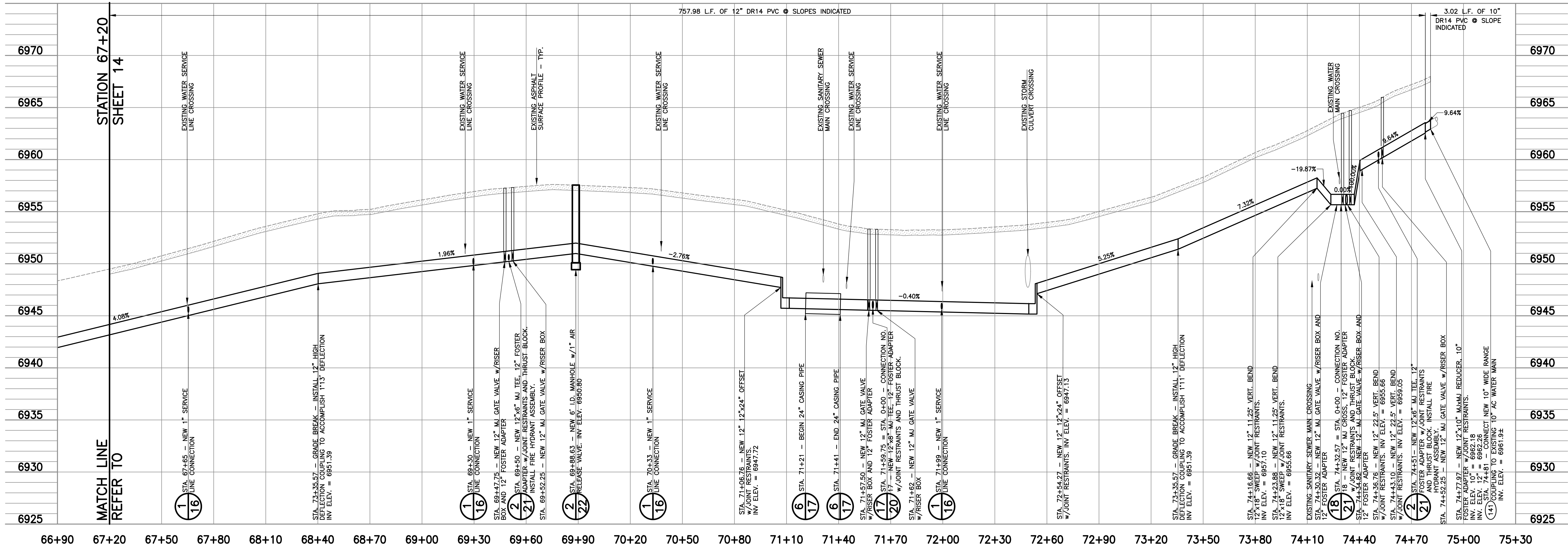
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SCHEDULE 2 STA. 50+40 TO STA. 58+80
PLAN, PROFILE AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALA WATER AND SANITATION DISTRICT

GMS, INC.
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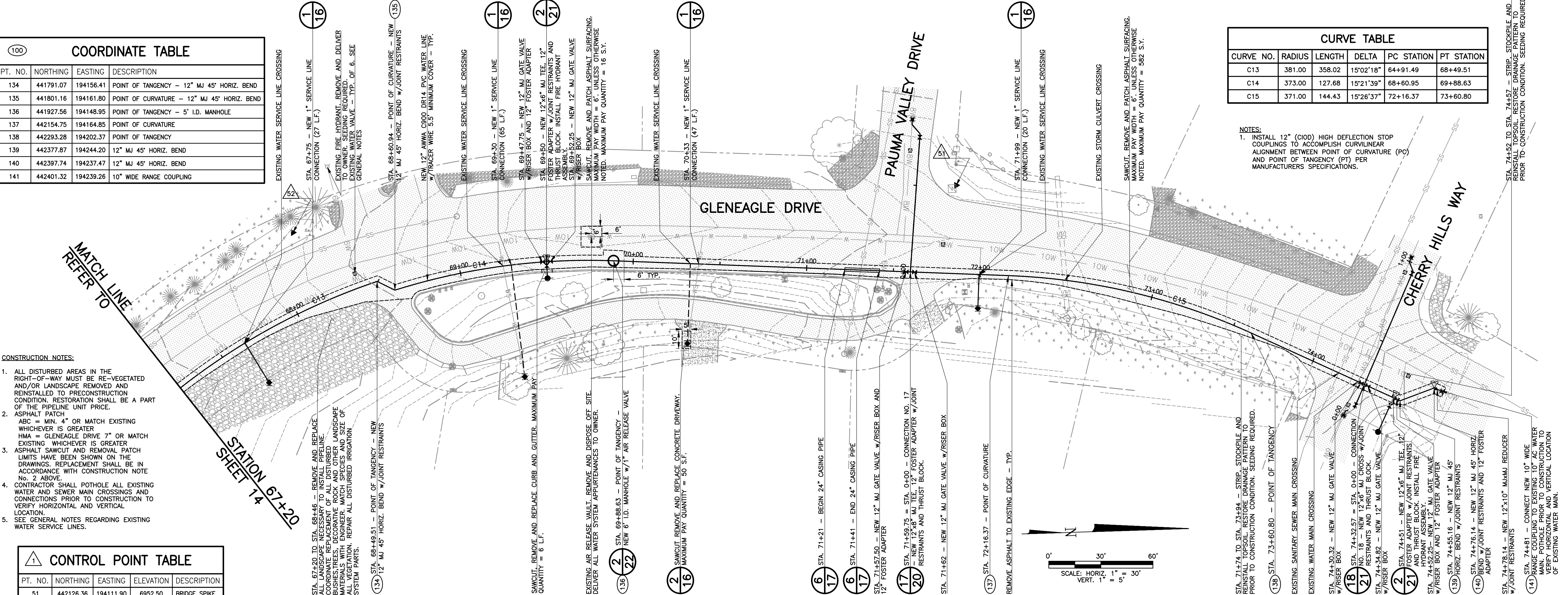
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CONTROL POINT TABLE				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
51	442126.36	194111.90	6952.50	BRIDGE SPIKE
52	441743.56	194126.74	6953.42	BRIDGE SPIKE

- CONSTRUCTION NOTES:
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
 - ASPHALT PATCH ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER. HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER.
 - ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE NO. 2 ABOVE.
 - CONTRACTOR SHALL PATCH ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
134	441791.07	194156.41	POINT OF TANGENCY - 12" MJ 45° HORIZ. BEND
135	441801.16	194161.80	POINT OF CURVATURE - 12" MJ 45° HORIZ. BEND
136	441927.56	194148.95	POINT OF TANGENCY - 5' I.D. MANHOLE
137	442154.75	194164.85	POINT OF CURVATURE
138	442293.28	194202.37	POINT OF TANGENCY
139	442377.87	194244.20	12" MJ 45° HORIZ. BEND
140	442397.74	194237.47	12" MJ 45° HORIZ. BEND
141	442401.32	194239.26	10" WIDE RANGE COUPLING

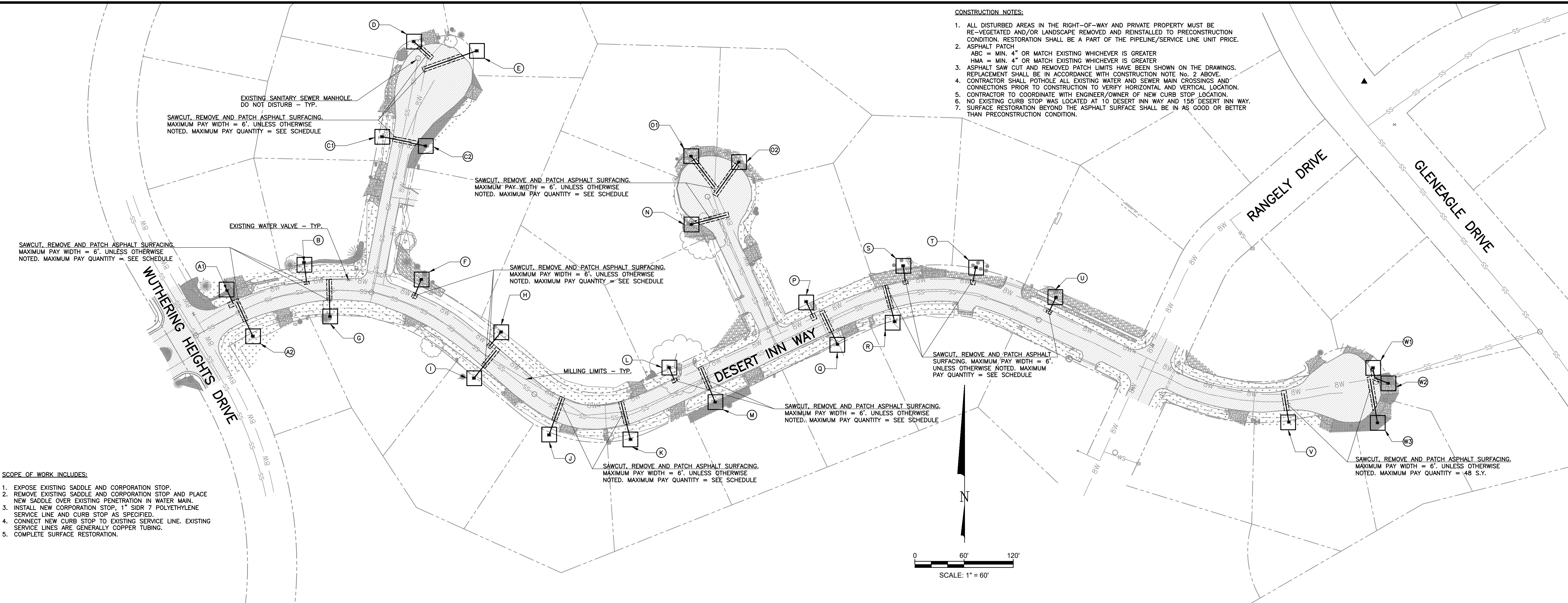


CURVE TABLE					
CURVE NO.	RADIUS	LENGTH	DELTA	PC STATION	PT STATION
C13	381.00	358.02	15°02'18"	64+91.49	68+49.51
C14	373.00	127.68	15°21'39"	68+60.95	69+88.63
C15	371.00	144.43	15°26'37"	72+16.37	73+60.80

- NOTES:
- INSTALL 12" (100D) HIGH DEFLECTION STOP COUPLINGS TO ACCOMPLISH CURVILINEAR ALIGNMENT BETWEEN POINT OF CURVATURE (PC) AND POINT OF TANGENCY (PT) PER MANUFACTURERS SPECIFICATIONS.

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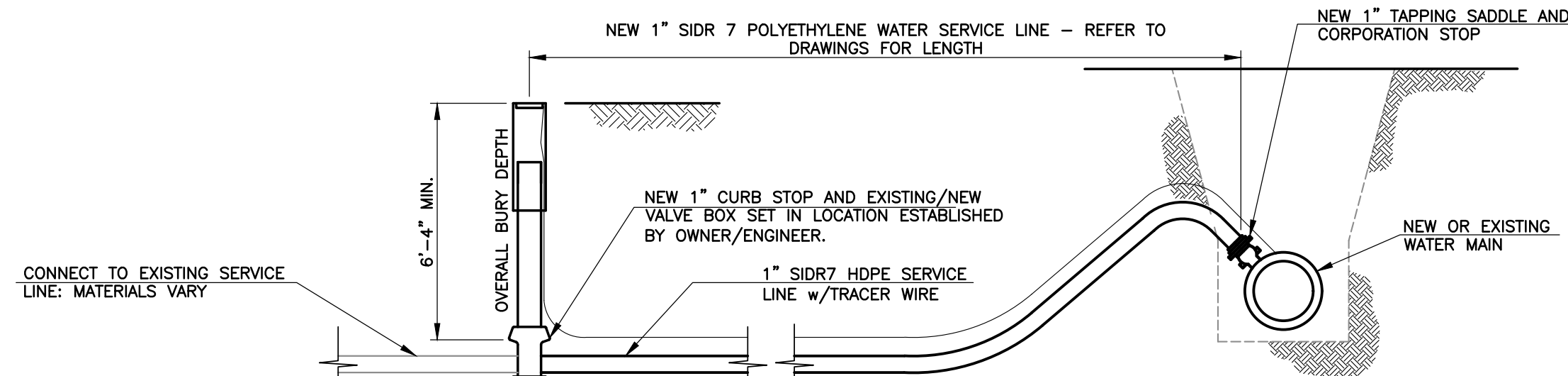


CONSTRUCTION NOTES:

1. ALL DISTURBED AREAS IN THE RIGHT-OF-WAY AND PRIVATE PROPERTY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE/SERVICE LINE UNIT PRICE.
2. ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
3. ASPHALT SAW CUT AND REMOVED PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE No. 2 ABOVE.
4. CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
5. CONTRACTOR TO COORDINATE WITH ENGINEER/OWNER OF NEW CURB STOP LOCATION.
6. NO EXISTING CURB STOP WAS LOCATED AT 10 DESERT INN WAY AND 155 DESERT INN WAY.
7. SURFACE RESTORATION BEYOND THE ASPHALT SURFACE SHALL BE IN AS GOOD OR BETTER THAN PRECONSTRUCTION CONDITION.

SCOPE OF WORK INCLUDES:

1. EXPOSE EXISTING SADDLE AND CORPORATION STOP.
2. REMOVE EXISTING SADDLE AND CORPORATION STOP AND PLACE NEW SADDLE OVER EXISTING PENETRATION IN WATER MAIN.
3. INSTALL NEW CORPORATION STOP, 1" SDR 7 POLYETHYLENE SERVICE LINE, AND CURB STOP AS SPECIFIED.
4. CONNECT NEW CURB STOP TO EXISTING SERVICE LINE. EXISTING SERVICE LINES ARE GENERALLY COPPER TUBING.
5. COMPLETE SURFACE RESTORATION.



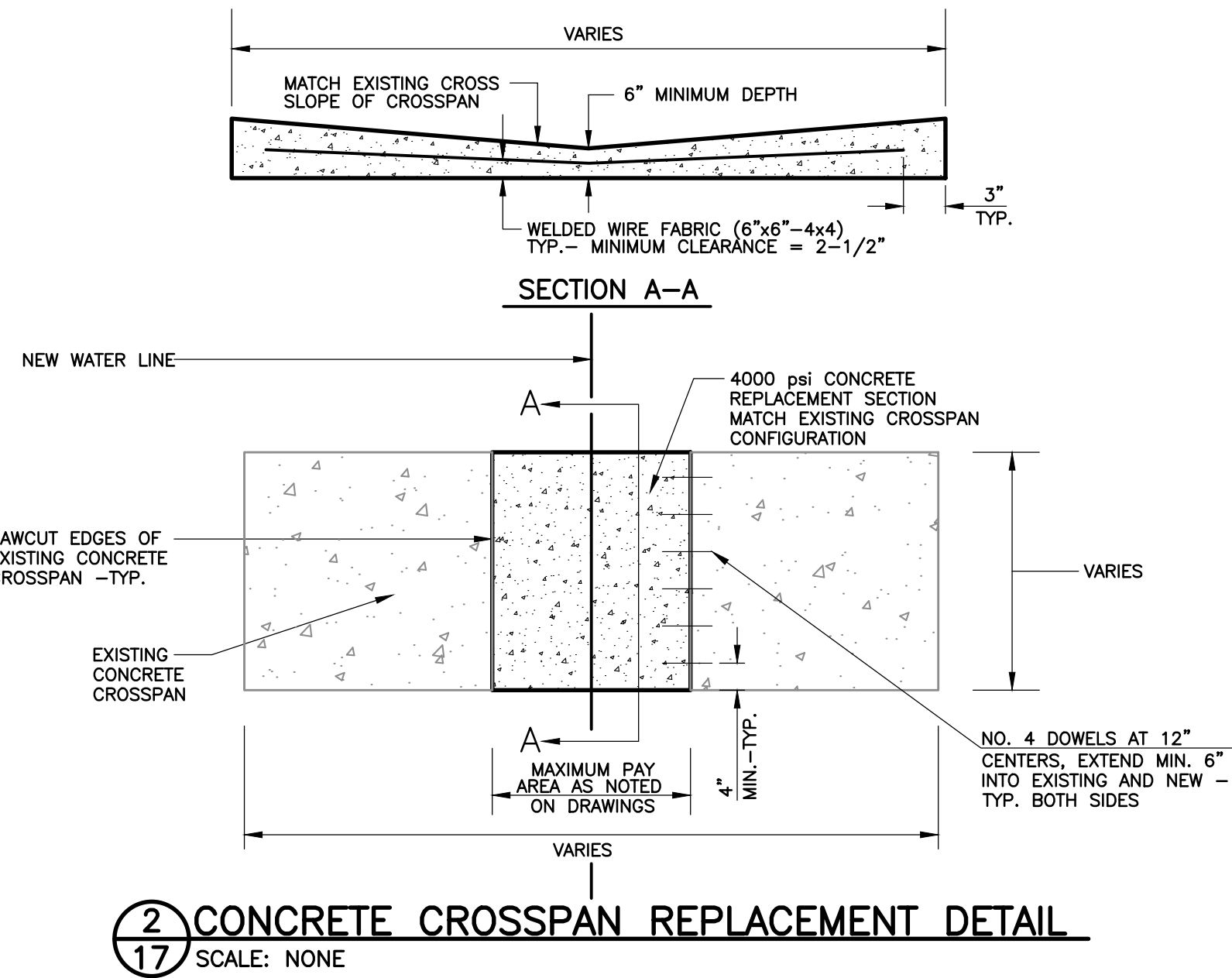
NOTES:

1. FINAL LOCATION OF CURB STOP TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER/OWNER.
2. ALL 1" SERVICE LINE CROSSING ASPHALT SHALL BE INSTALLED BY DIRECTIONAL DRILLING METHOD (DD), PIPE PULLING (PIPE BURSTING) (PP) METHOD OR OPEN EXCAVATION (OE).
3. INSTALL TRACER WIRE ON ALL SERVICE LINES.
4. ALL SERVICE LINES MUST BE CONTINUOUS FROM NEW CORPORATION STOP TO NEW CURB STOP.
5. EXISTING VALVE BOXES TO BE REINSTALLED. CONFIRM CONDITION WITH ENGINEER/OWNER PRIOR TO INSTALLATION.
6. ALL NEW WATER MAINS SHALL BE AWWA C900 DR14 PVC PIPE.
7. EXISTING WATER MAINS ARE GENERALLY AC PIPE.

1 CURB STOP AND SERVICE LINE
SCALE: NONE

DESERT INN WAY - SCHEDULE

ITEM	ADDRESS	ASPHALT PATCH (SY)	1" SERVICE LINE (LF)	INSTALLATION METHOD
A1	10 DESERT INN WAY	26	18	OE
A2	15 DESERT INN WAY		46	OE
B	20 DESERT INN WAY	3	24	OE
C1	30 DESERT INN WAY	20	36	OE
C2	60 DESERT INN WAY		19	OE
D	40 DESERT INN WAY	14	28	OE
E	50 DESERT INN WAY	34	67	OE
F	70 DESERT INN WAY	4	22	OE
G	45 DESERT INN WAY	17	45	OE
H	90 DESERT INN WAY	5	21	OE
I	75 DESERT INN WAY	19	44	OE
J	95 DESERT INN WAY	21	47	OE
K	115 DESERT INN WAY	20	47	OE
L	130 DESERT INN WAY	3	17	OE
M	135 DESERT INN WAY	19	45	OE
N	140 DESERT INN WAY	26	45	OE
O1	150 DESERT INN WAY	61	48	OE
O2	160 DESERT INN WAY		48	OE
P	170 DESERT INN WAY	22	6	OE
Q	155 DESERT INN WAY	19	43	OE
R	205 DESERT INN WAY	19	45	OE
S	190 DESERT INN WAY	3	20	OE
T	210 DESERT INN WAY	3	18	OE
U	250 RANGELY DRIVE	4	19	OE
V	275 DESERT INN WAY	16	37	OE
W1	280 DESERT INN WAY	32	14	OE
W2	295 DESERT INN WAY		17	OE
W3	285 DESERT INN WAY		54	OE
TOTALS		384	922	



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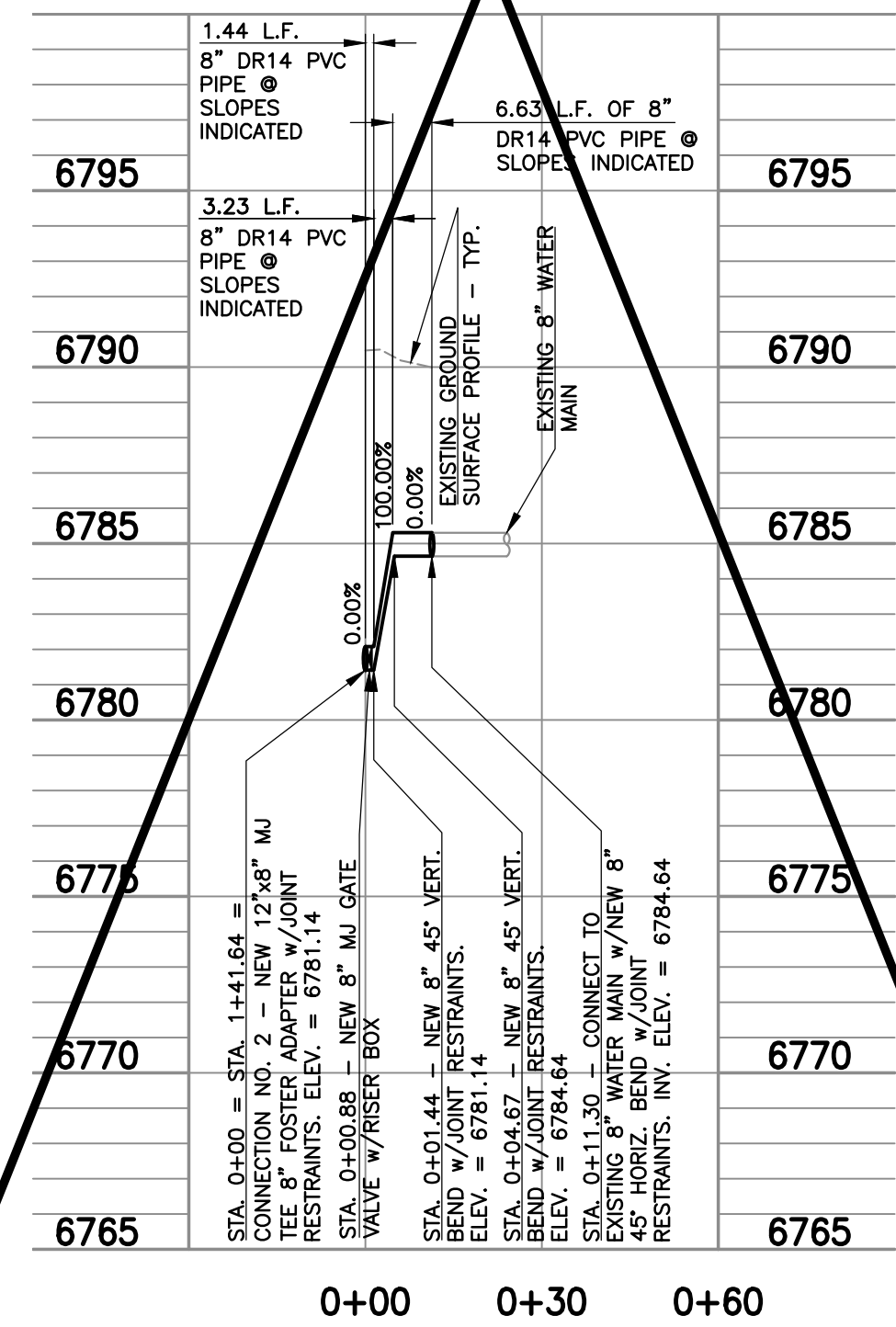
SCHEDULE 3
SERVICE LINE REPLACEMENT
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

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

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PROJECT NO.	MAY 2018
GMS FILE NO.	XXXX

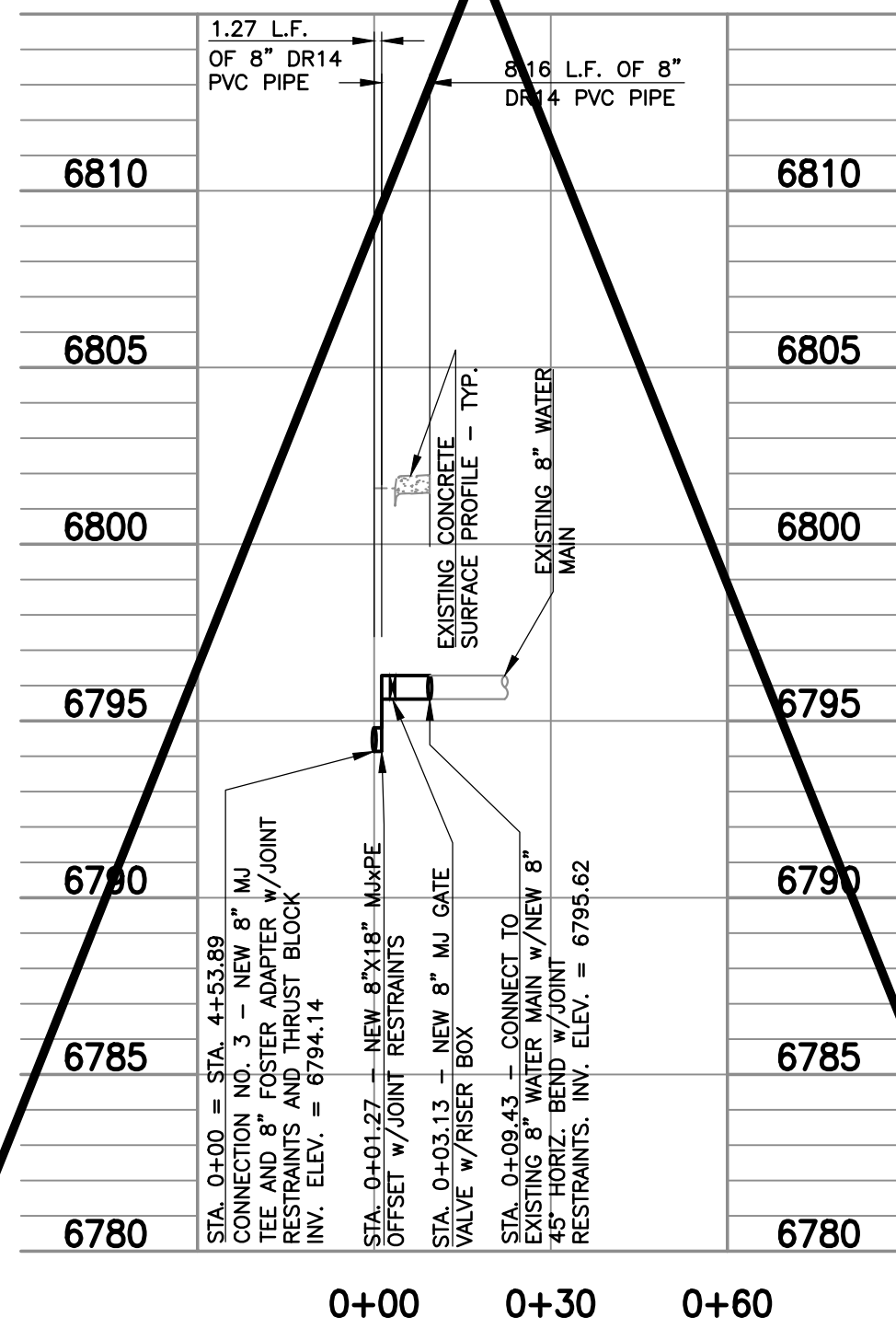
SHEET
16
OF
22

2 CONNECTION NO. 2 DETAIL
17 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



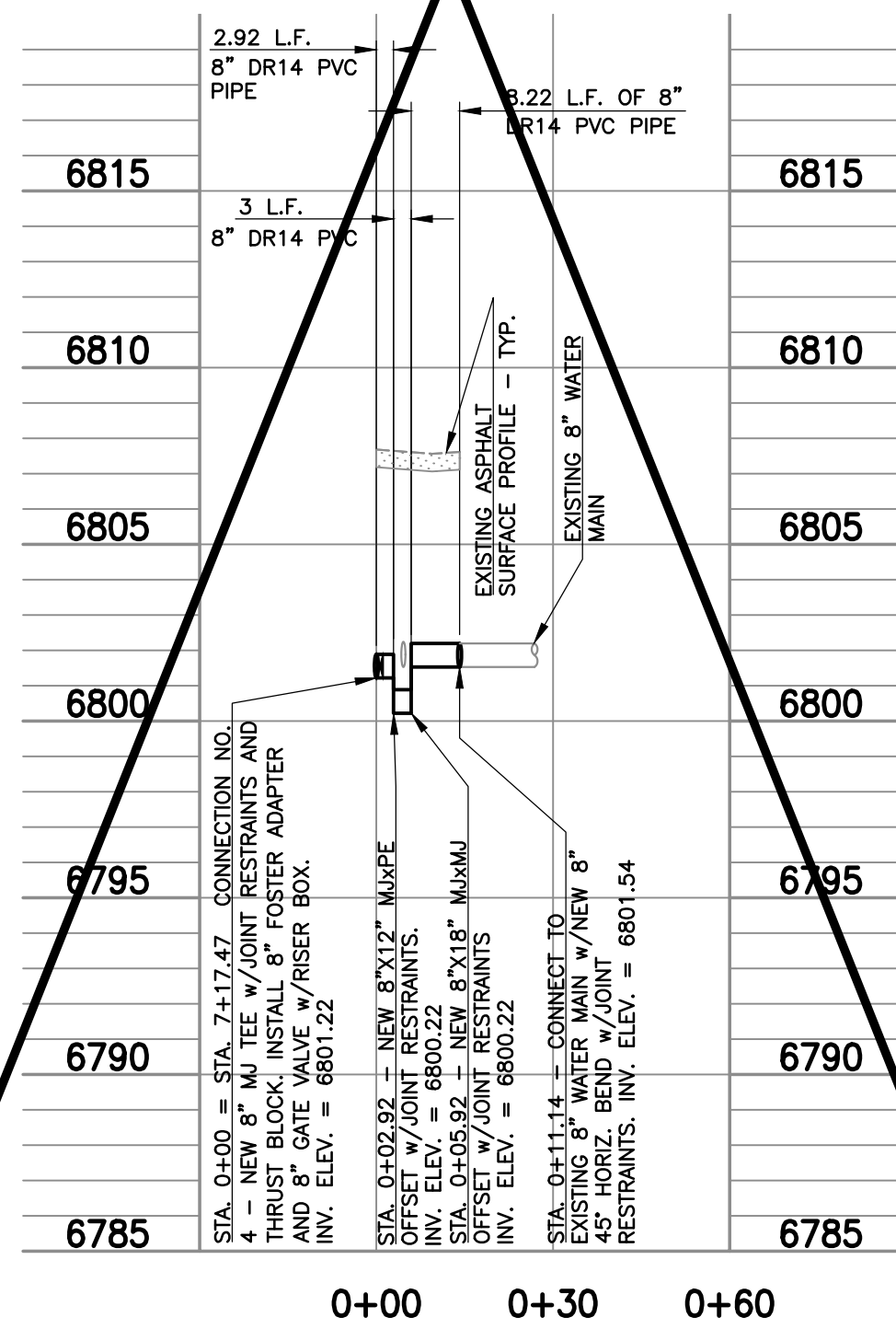
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3 CONNECTION NO. 3 DETAIL
17 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



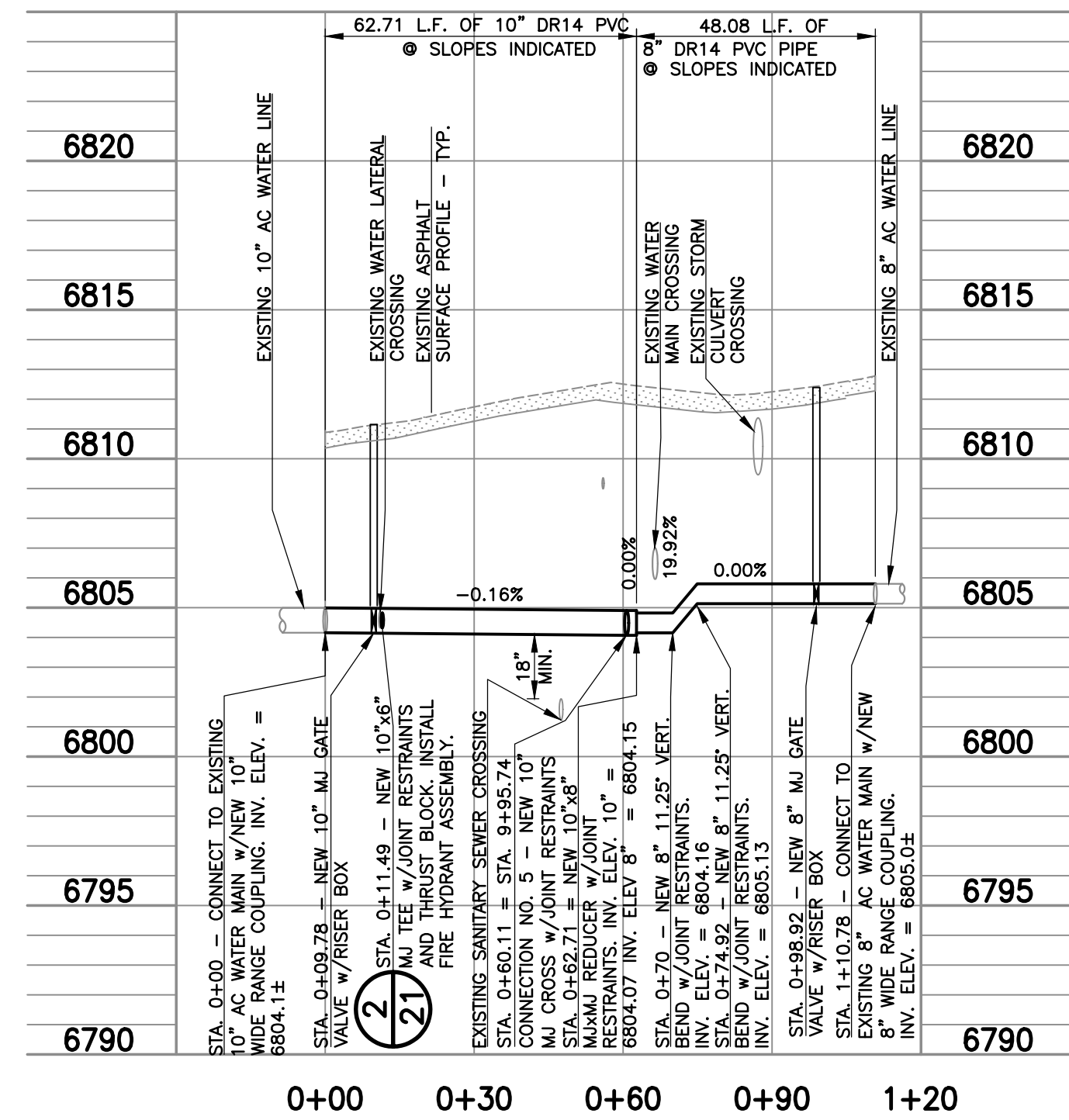
CONNECTION NO. 3
NOT PART OF PROJECT.

4 CONNECTION NO. 4 DETAIL
17 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



CONNECTION NO. 4
NOT PART OF PROJECT.

5 CONNECTION NO. 5 DETAIL
17 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



SCHEDULE 2
CONNECTIONS NO. 1 THRU NO. 5
AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION DISTRICT

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

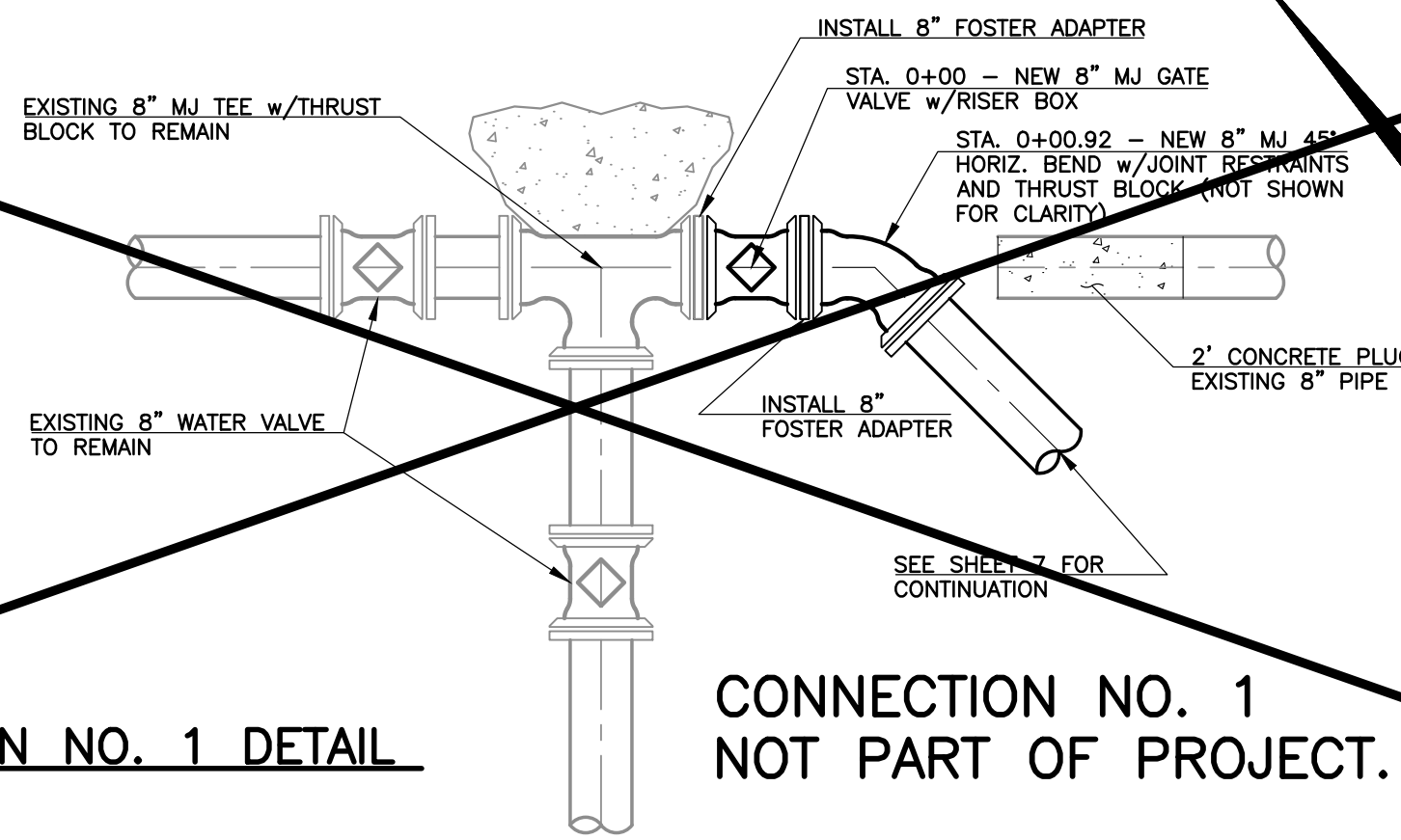
DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
MAL	MAL	DRF	MAY 2018	17072-400	2851

SHEET
17
OF
22

NO.	DATE	DESCRIPTION
1		

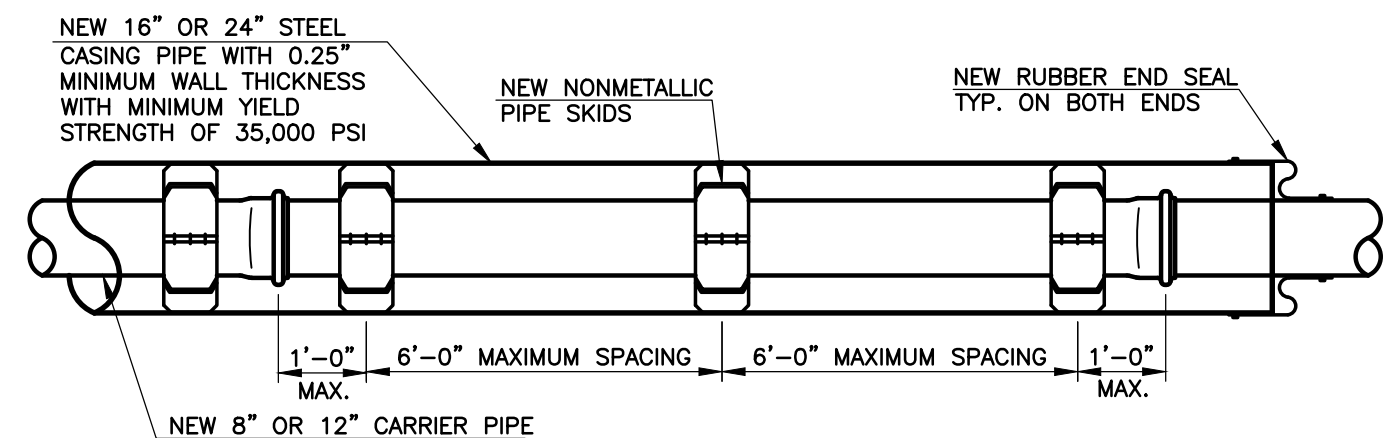
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1 CONNECTION NO. 1 DETAIL
17 SCALE: NONE



CONNECTION NO. 1
NOT PART OF PROJECT.

6 CASING PIPE DETAIL
17 SCALE: NONE

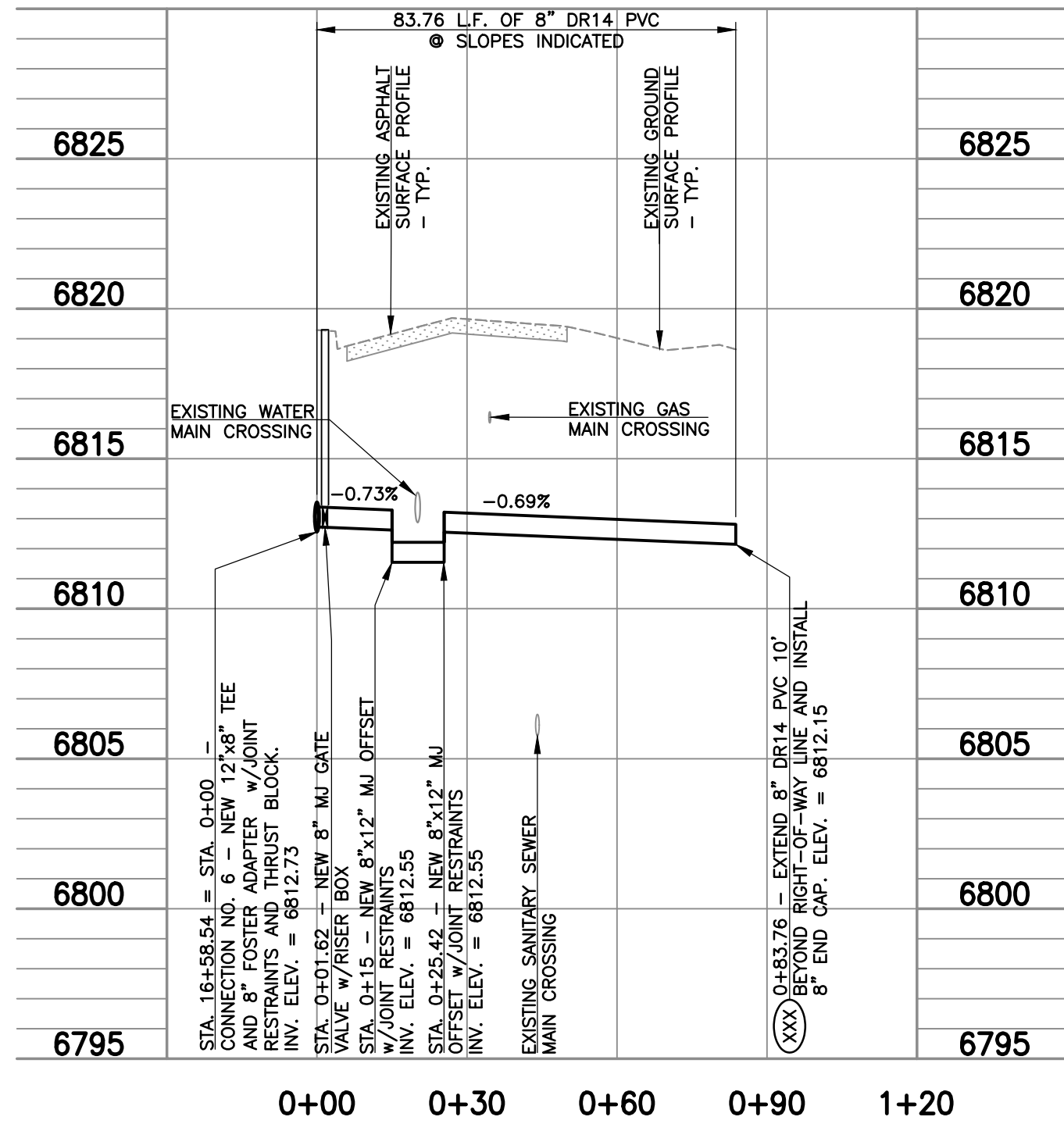


CONSTRUCTION NOTES:

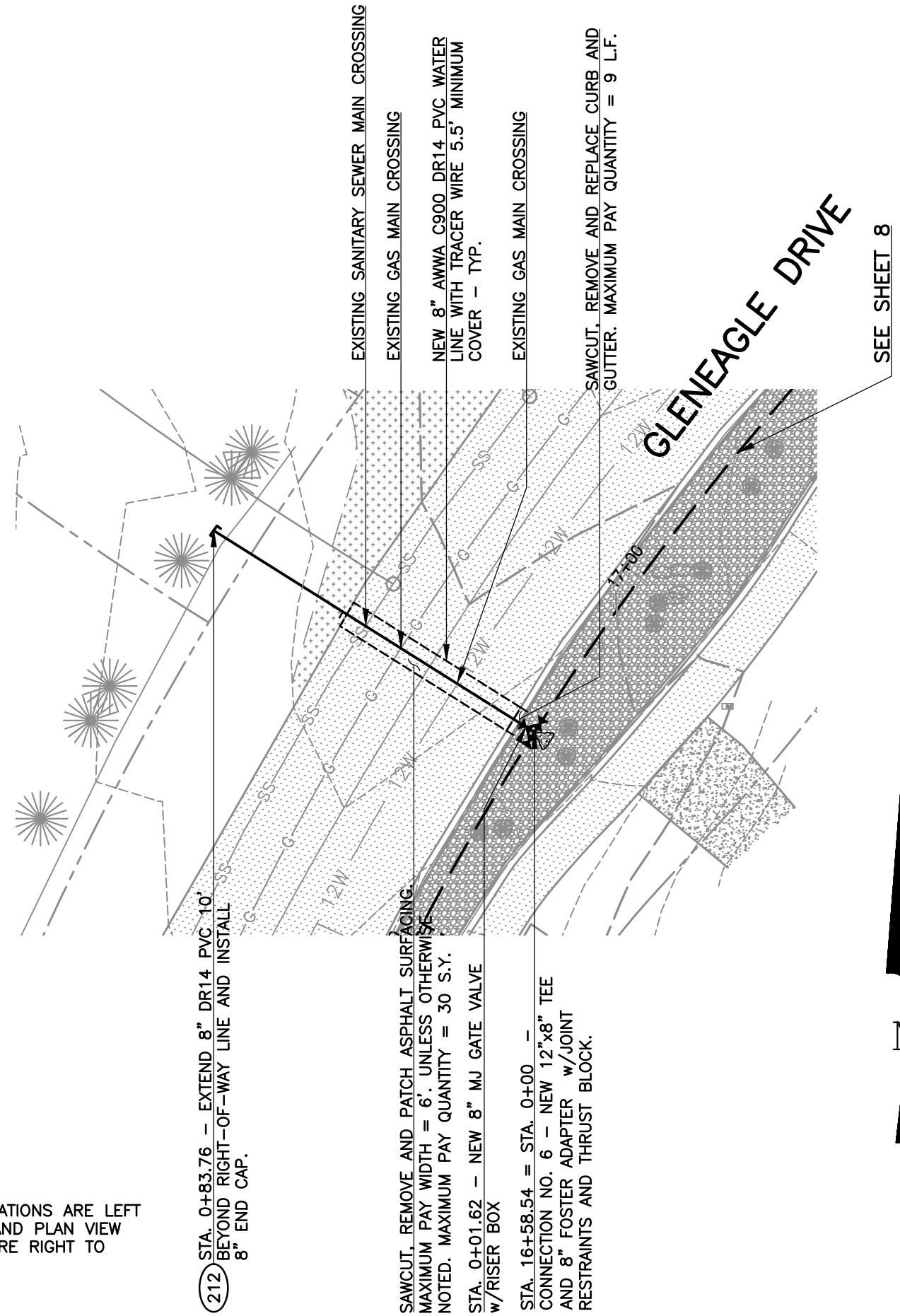
- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
- ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
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- CONTRACTOR SHALL POTHOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
- SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

PT. NO.	NORTHING	EASTING	DESCRIPTION
200	437892.61	191538.16	8" MJ 45° HORIZ. BEND
201	437891.35	191543.31	8" MJ 45° HORIZ. BEND
202	438021.98	191821.48	8" MJ 45° HORIZ. BEND
203	438018.75	191820.31	8" MJ 45° HORIZ. BEND
204	438191.01	192008.53	8" MJ 45° HORIZ. BEND
205	438191.85	192013.12	8" MJ 45° HORIZ. BEND
206	438464.08	192010.58	10" WIDE RANGE COUPLING
207	438463.99	192013.58	10" MJ 45° HORIZ. BEND
208	438460.41	192017.16	10" MJ 45° HORIZ. BEND
209	438460.41	192112.92	10" MJ 45° HORIZ. BEND
210	438457.61	192115.72	10" MJ 45° HORIZ. BEND
211	438457.63	192118.72	10" WIDE RANGE COUPLING

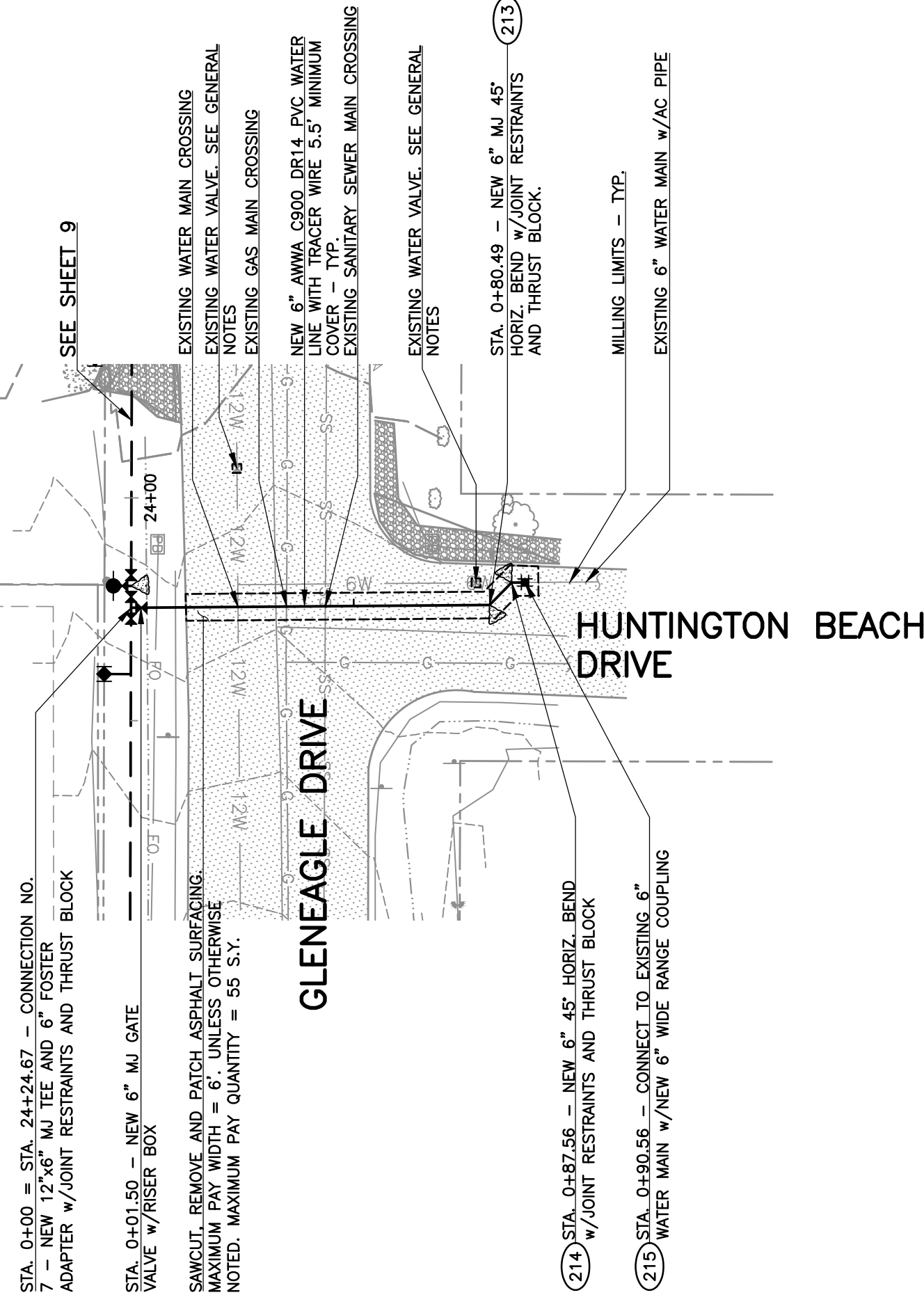
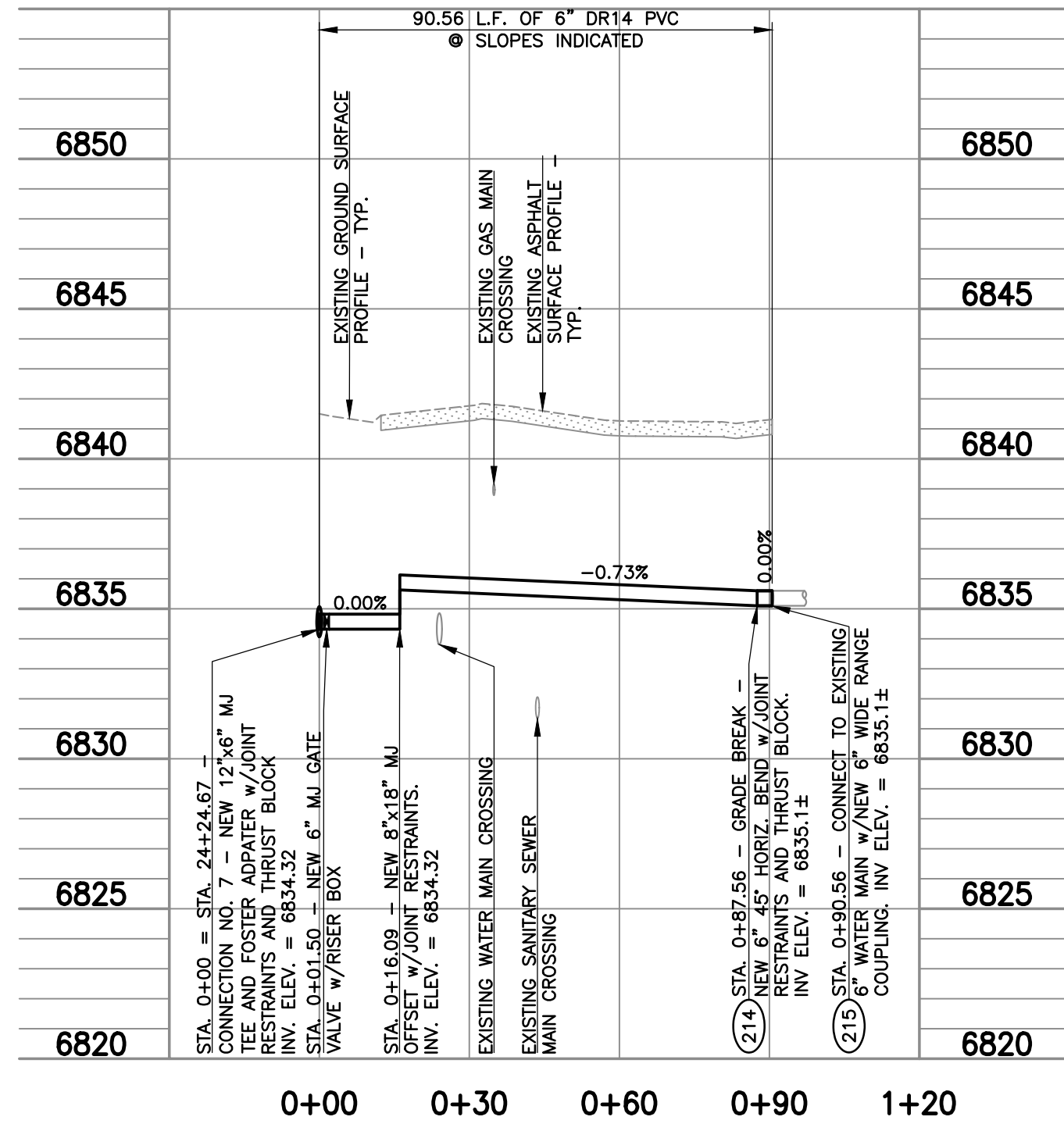
6 CONNECTION NO. 6 DETAIL
SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



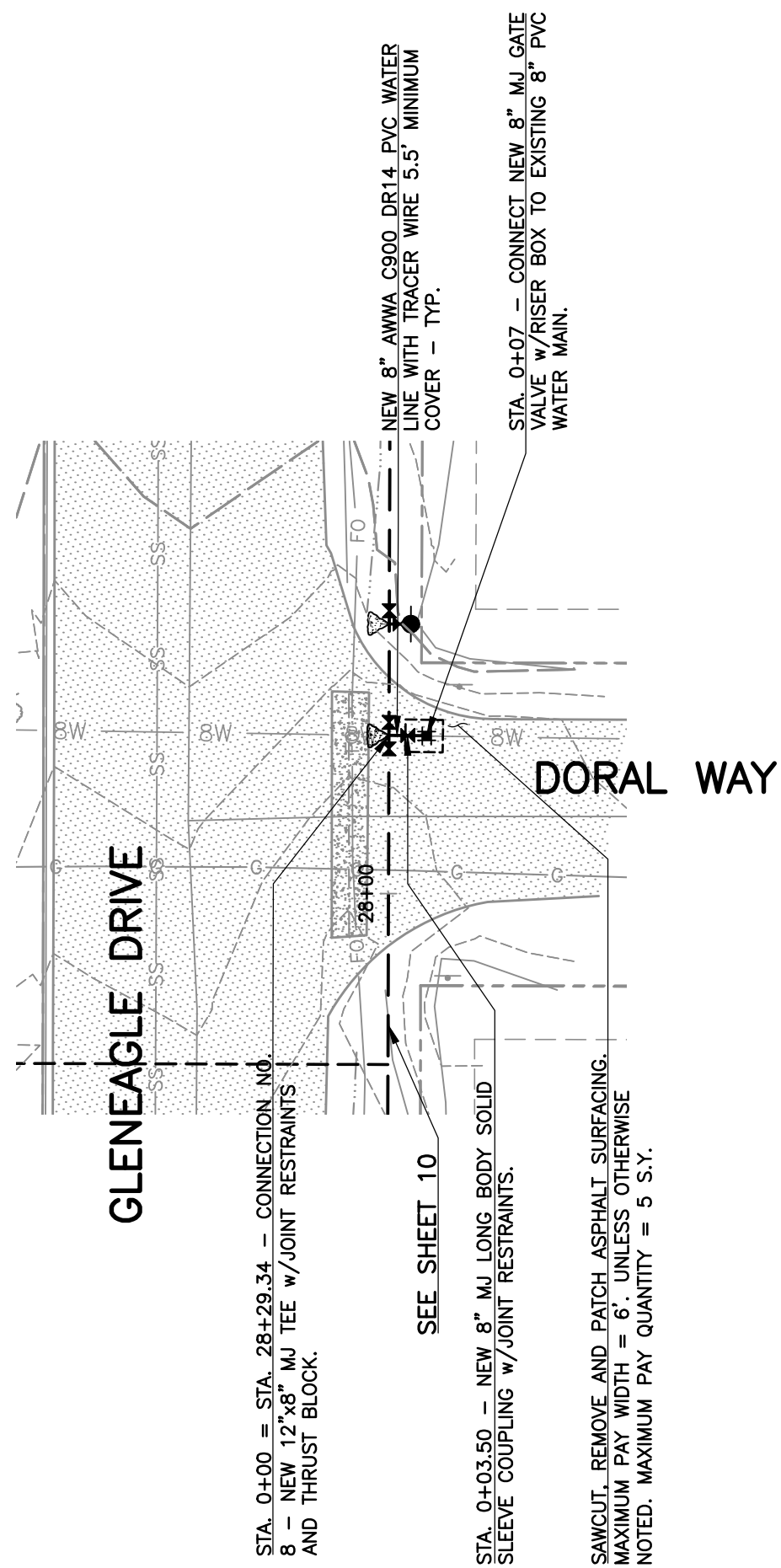
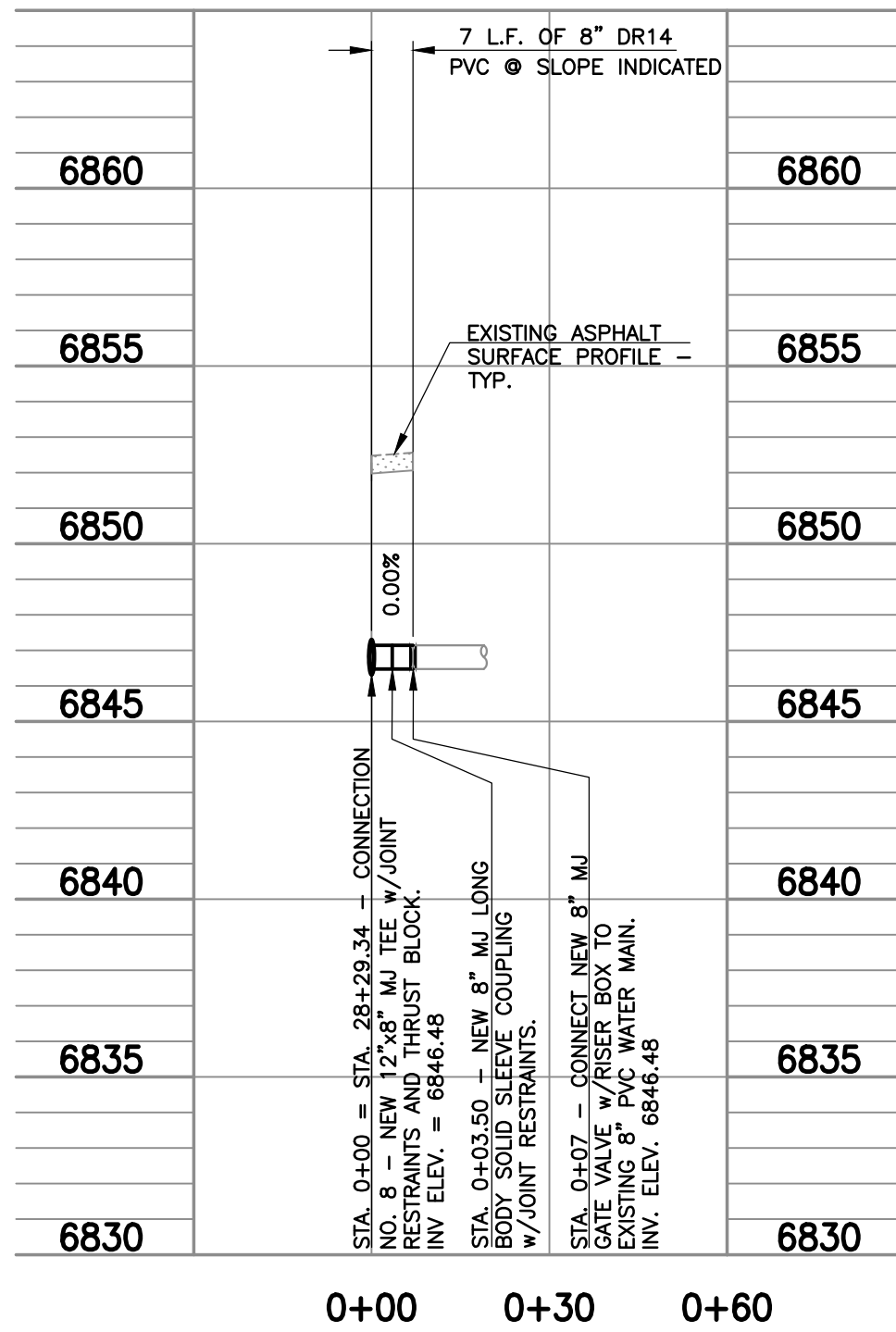
NOTE:
PROFILE STATIONS ARE LEFT
TO RIGHT AND PLAN VIEW
STATIONS ARE RIGHT TO
LEFT



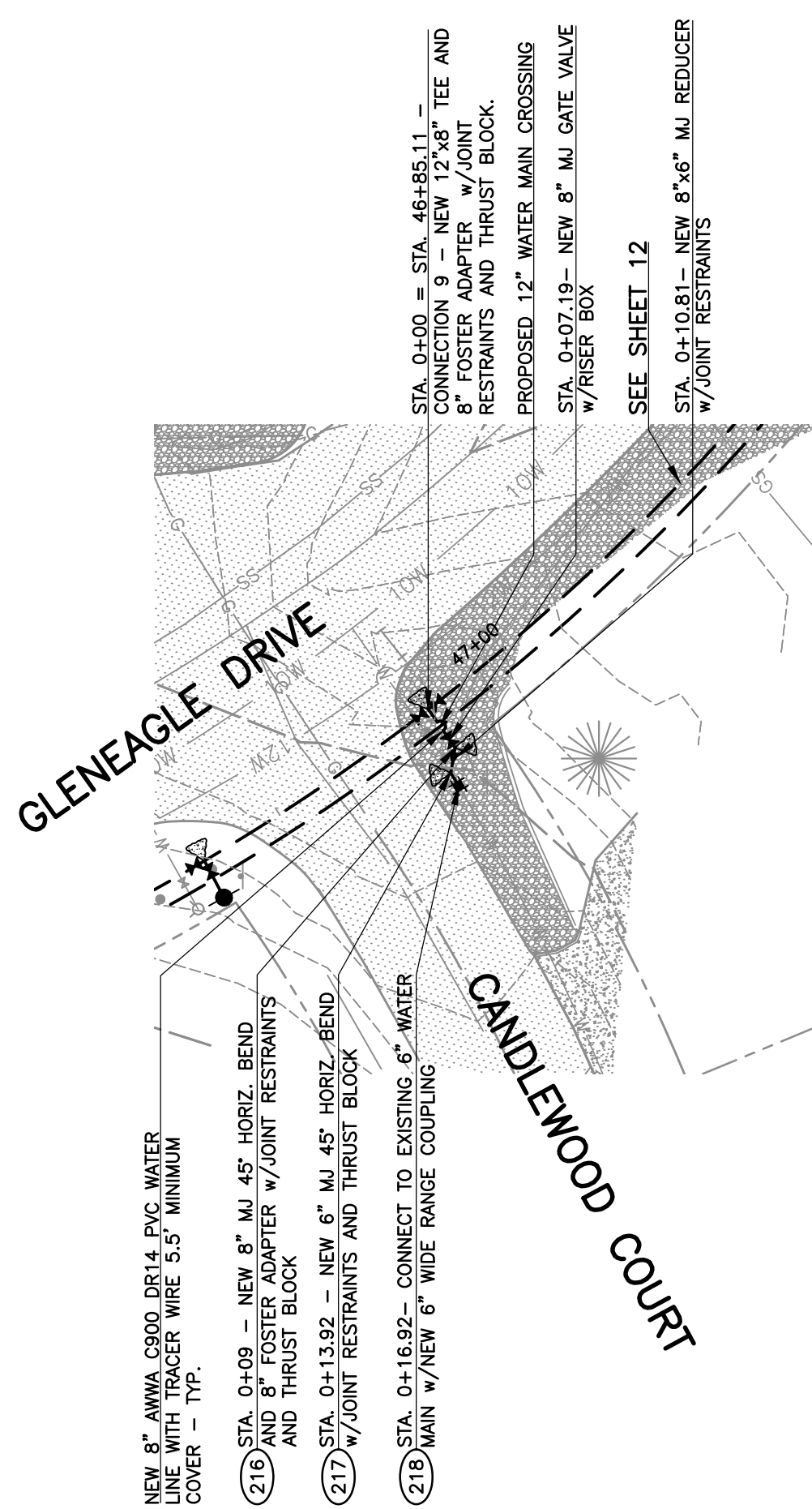
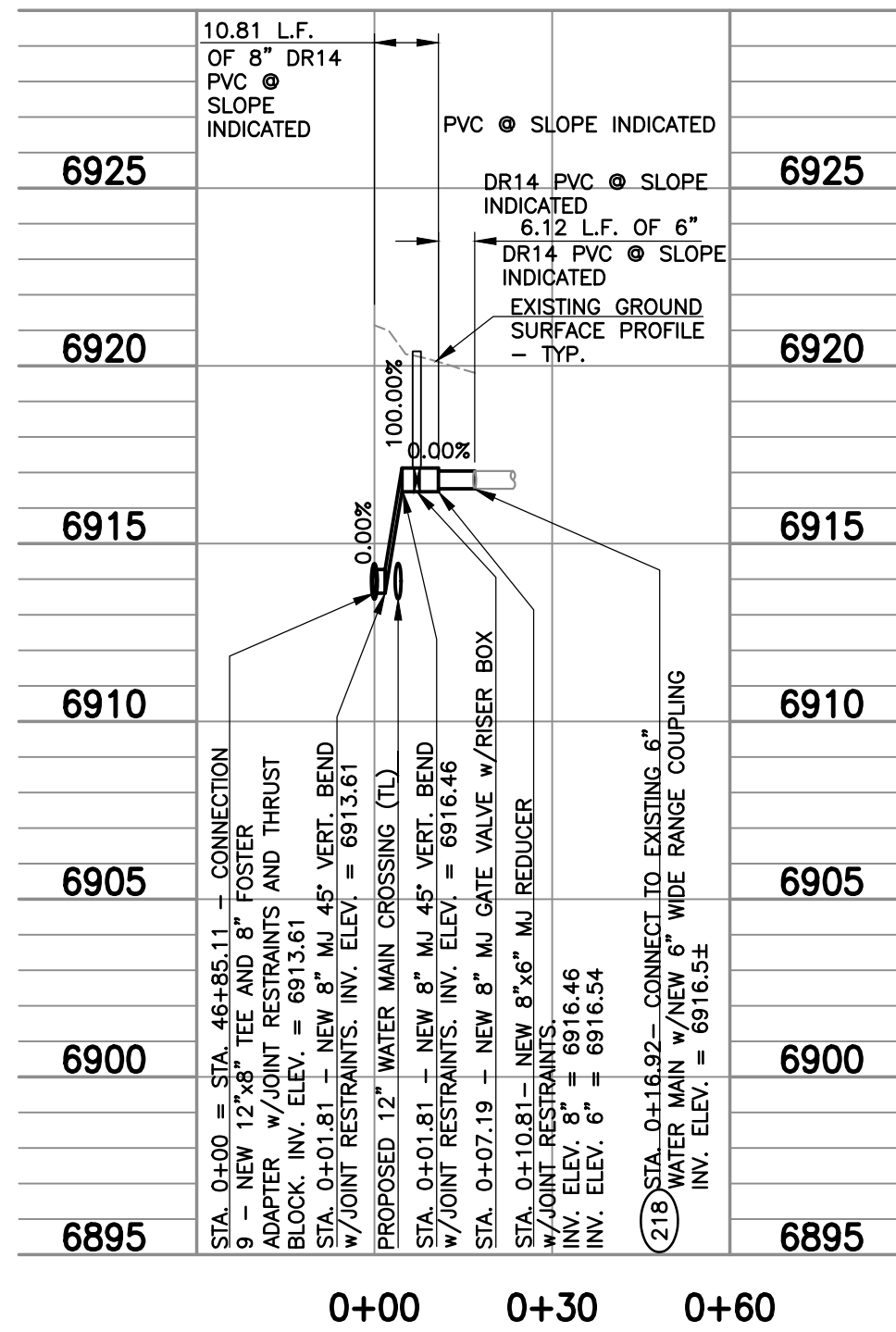
7 CONNECTION NO. 7 DETAIL
SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



8 CONNECTION NO. 8 DETAIL
SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



9 CONNECTION NO. 9 DETAIL
SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



- CONSTRUCTION NOTES:**
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 - SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

100 COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
212	439135.63	192127.58	8" END CAP
213	439460.36	192863.96	6" MJ 45° HORIZ. BEND
214	439465.32	192858.92	6" MJ 45° HORIZ. BEND
215	439468.32	192858.90	6" WIDE RANGE COUPLING
216	440129.95	194938.59	8" MJ 45° HORIZ. BEND
217	440125.10	194937.74	6" MJ 45° HORIZ. BEND
218	440122.52	194939.27	6" WIDE RANGE COUPLING

DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
			MAY 2018	17072-400	2851

SHEET
18
OF
22

SCHEDULE 2
CONNECTIONS NO. 6 THRU NO. 9
AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONAL WATER AND SANITATION DISTRICT

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

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REVISIONS		NO.	DATE	DESCRIPTION
		1		

100 COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
219	440255.28	195047.37	8" MJ 45° HORIZ. BEND
220	440251.28	195048.79	8" MJ 45° HORIZ. BEND
221	440250.00	195051.50	8" WIDE RANGE COUPLING
222	440365.78	194991.98	8" END CAP
223	440583.42	195044.17	10" MJ 45° HORIZ. BEND
224	440580.20	195041.03	10" MJ 45° HORIZ. BEND
225	440580.14	195038.05	10" WIDE RANGE COUPLING
226	441042.84	194929.08	6" MJ 45° HORIZ. BEND
227	441042.82	194926.08	6" WIDE RANGE COUPLING

STA. 0+00 = STA. 48+47.95 - CONNECTION NO. 10 - NEW 12"x8" TEE W/Joint RESTRAINTS AND THRUST BLOCK.

STA. 0+07.21 = NEW 8" MJ 45° HORIZ. BEND W/Joint RESTRAINTS AND THRUST BLOCK.

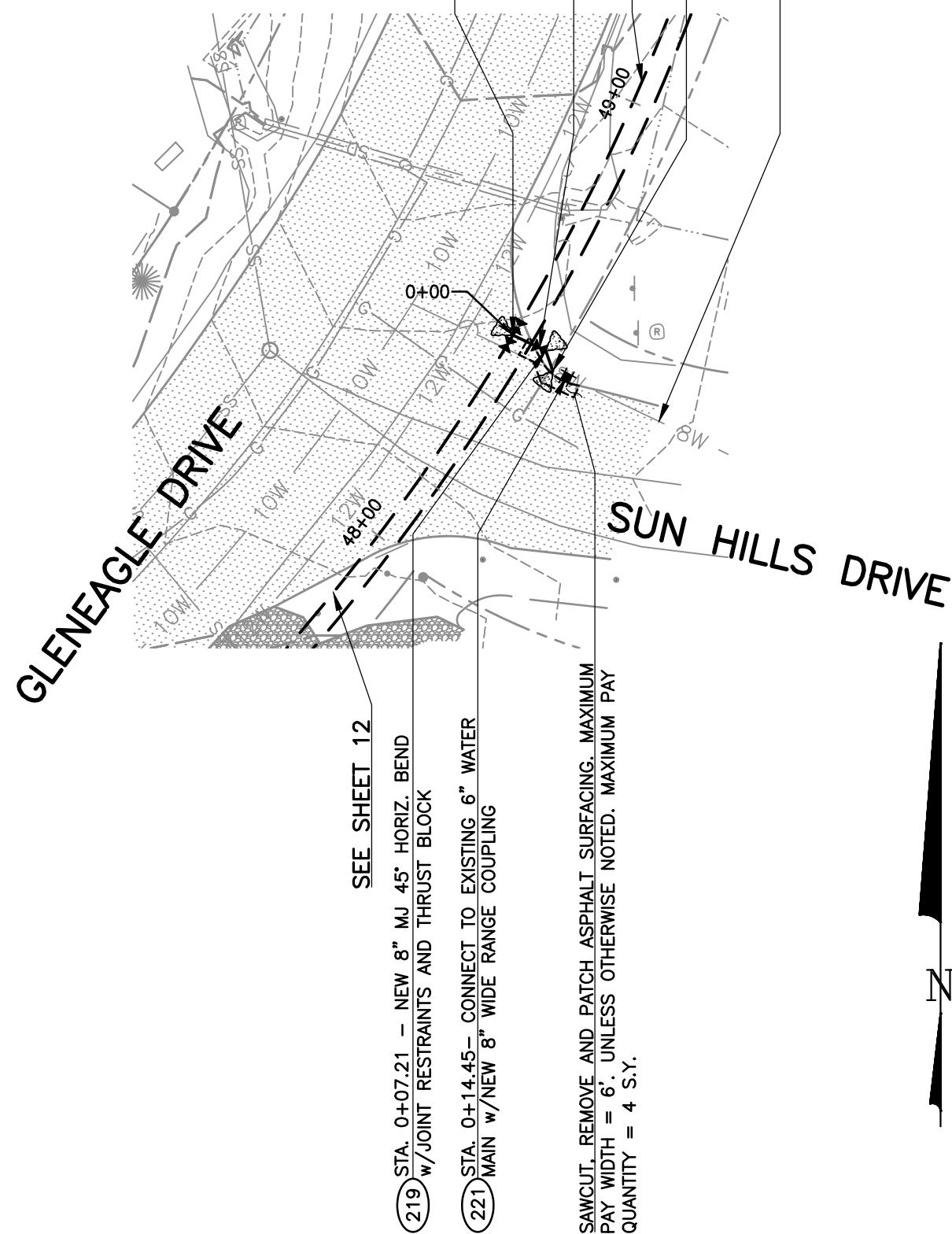
STA. 0+14.45 = CONNECTION TO EXISTING 6" WATER MAIN W/NEW 8" WIDE RANGE COUPLING

STA. 0+05.88 = NEW 8" MJ GATE VALVE W/RISE BOX AND 8" FOSTER ADAPTER

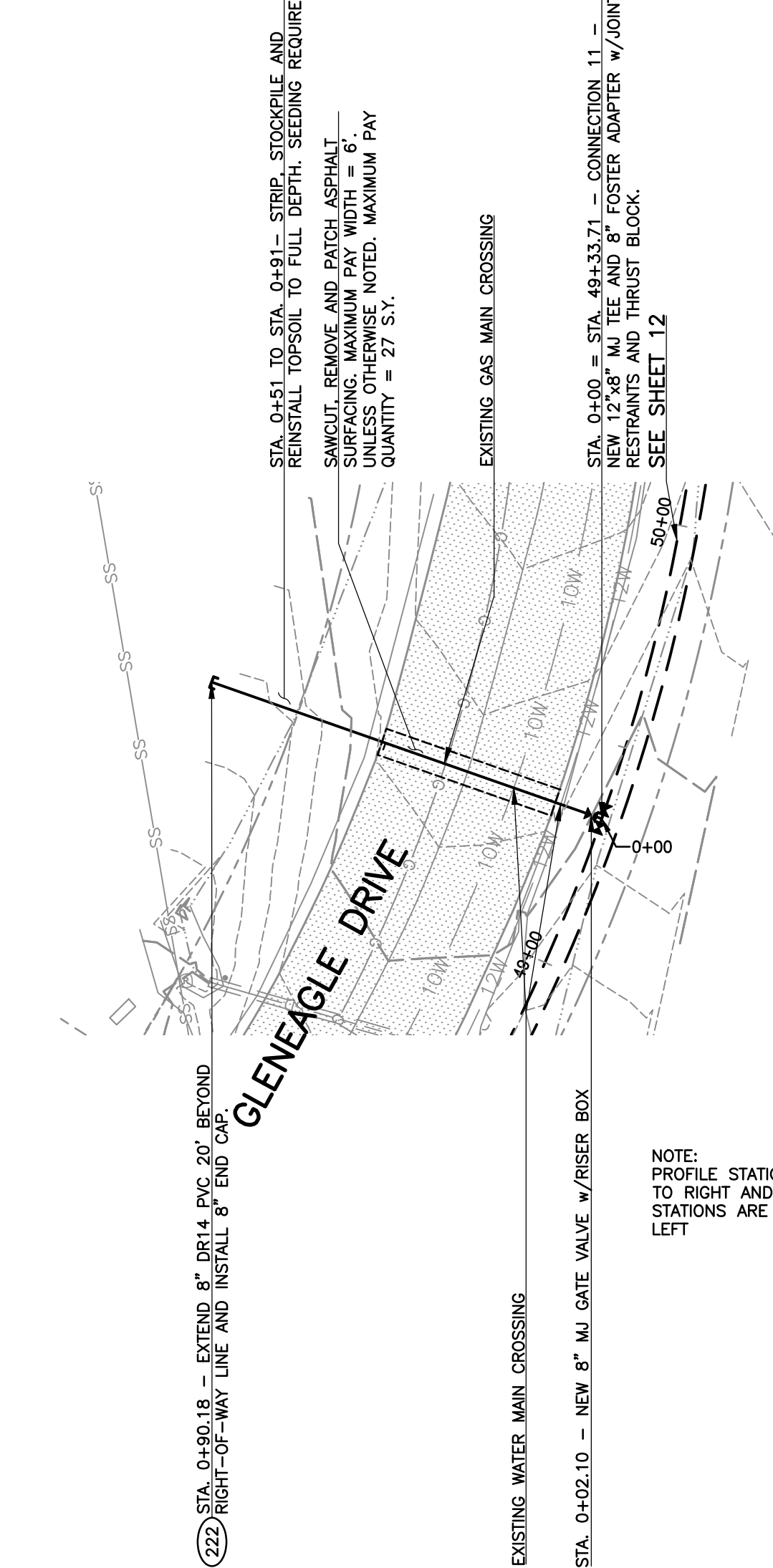
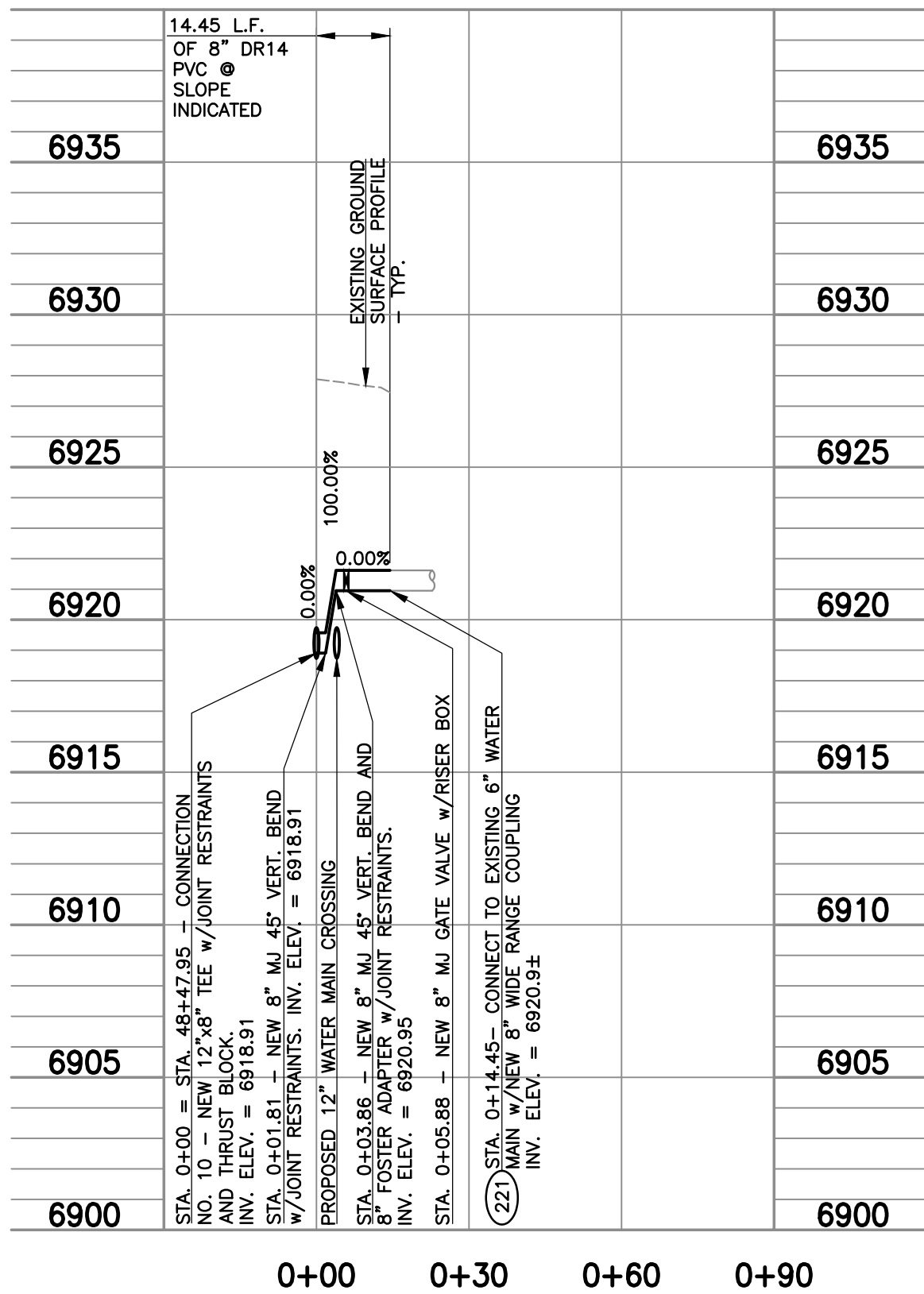
SEE SHEET 12

STA. 0+11.45 = NEW 8" MJ 45° HORIZ. BEND W/Joint RESTRAINTS AND THRUST BLOCK

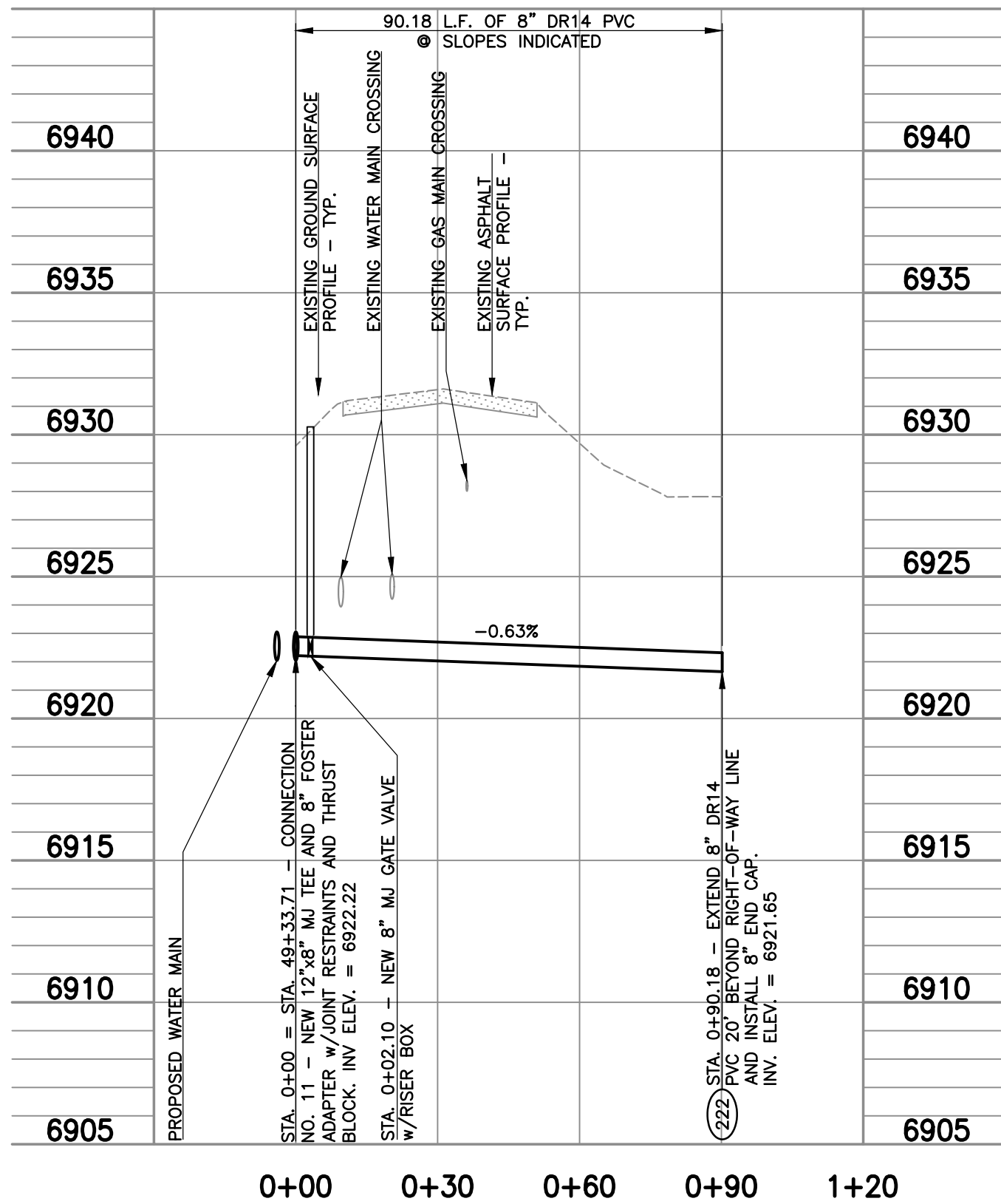
EXISTING 8" AC WATER LINE



10 CONNECTION NO. 10 DETAIL
19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



11 CONNECTION NO. 11 DETAIL
19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



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5. SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

EXISTING 10" AC WATER LINE

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

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STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

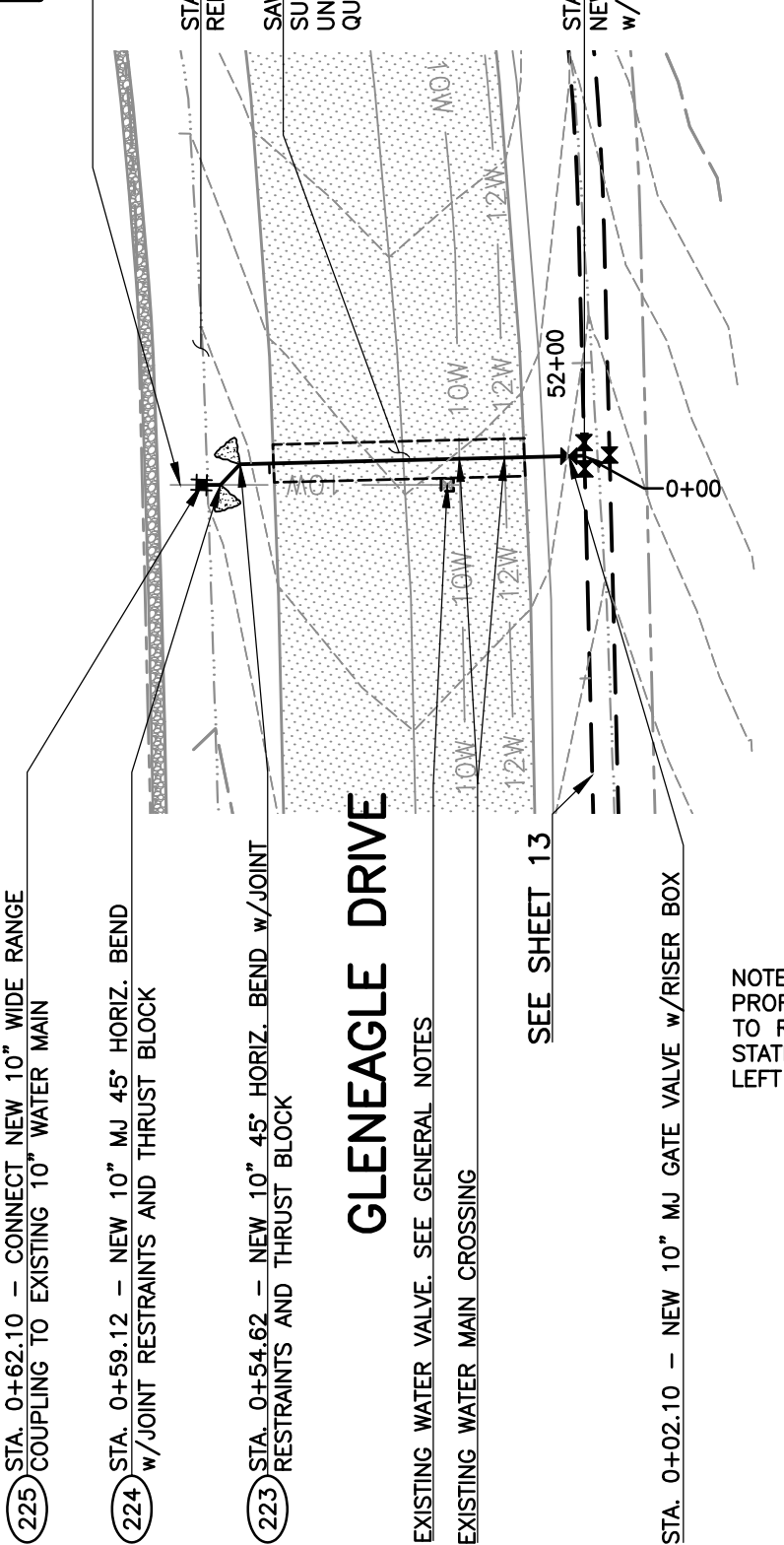
STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

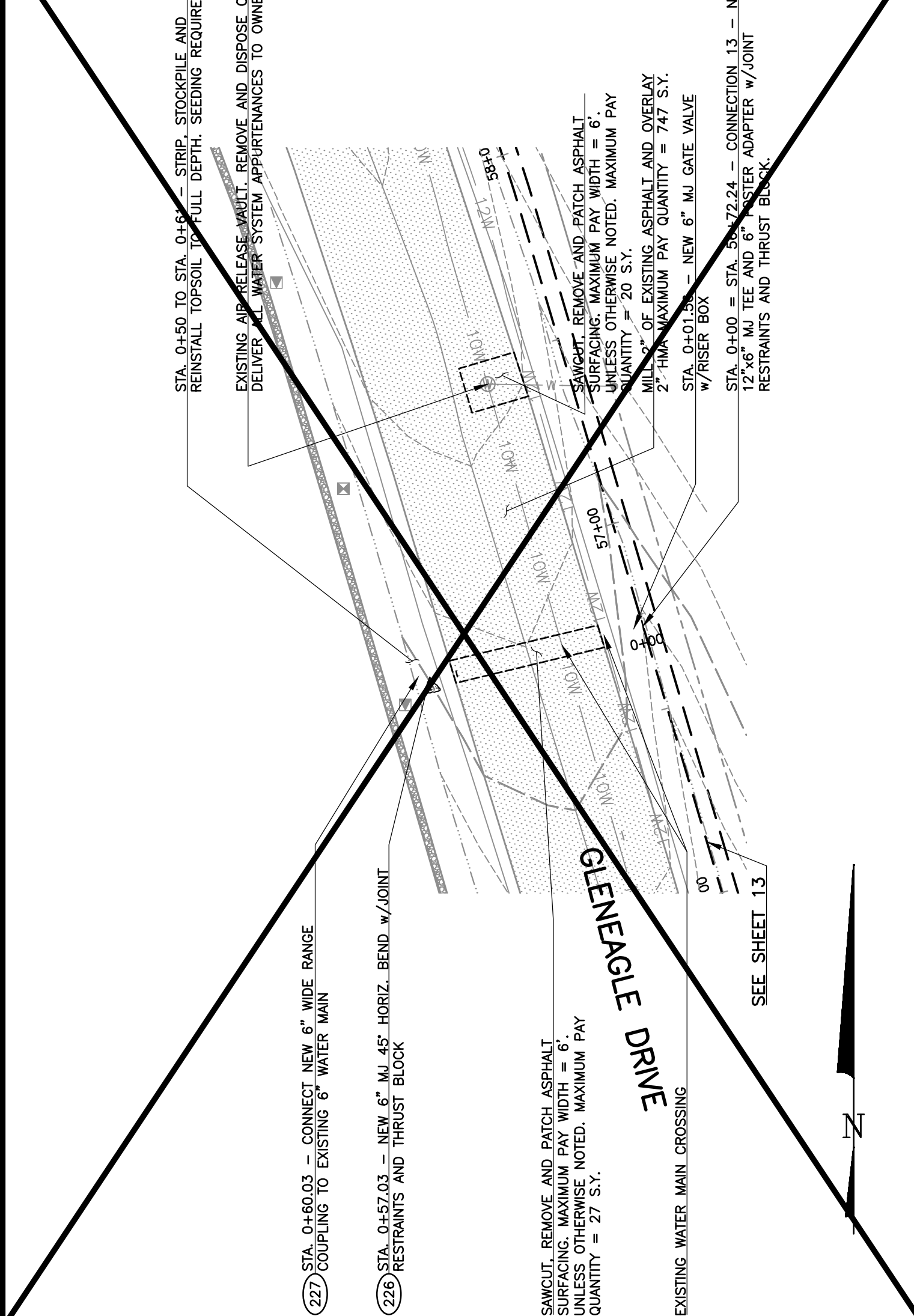
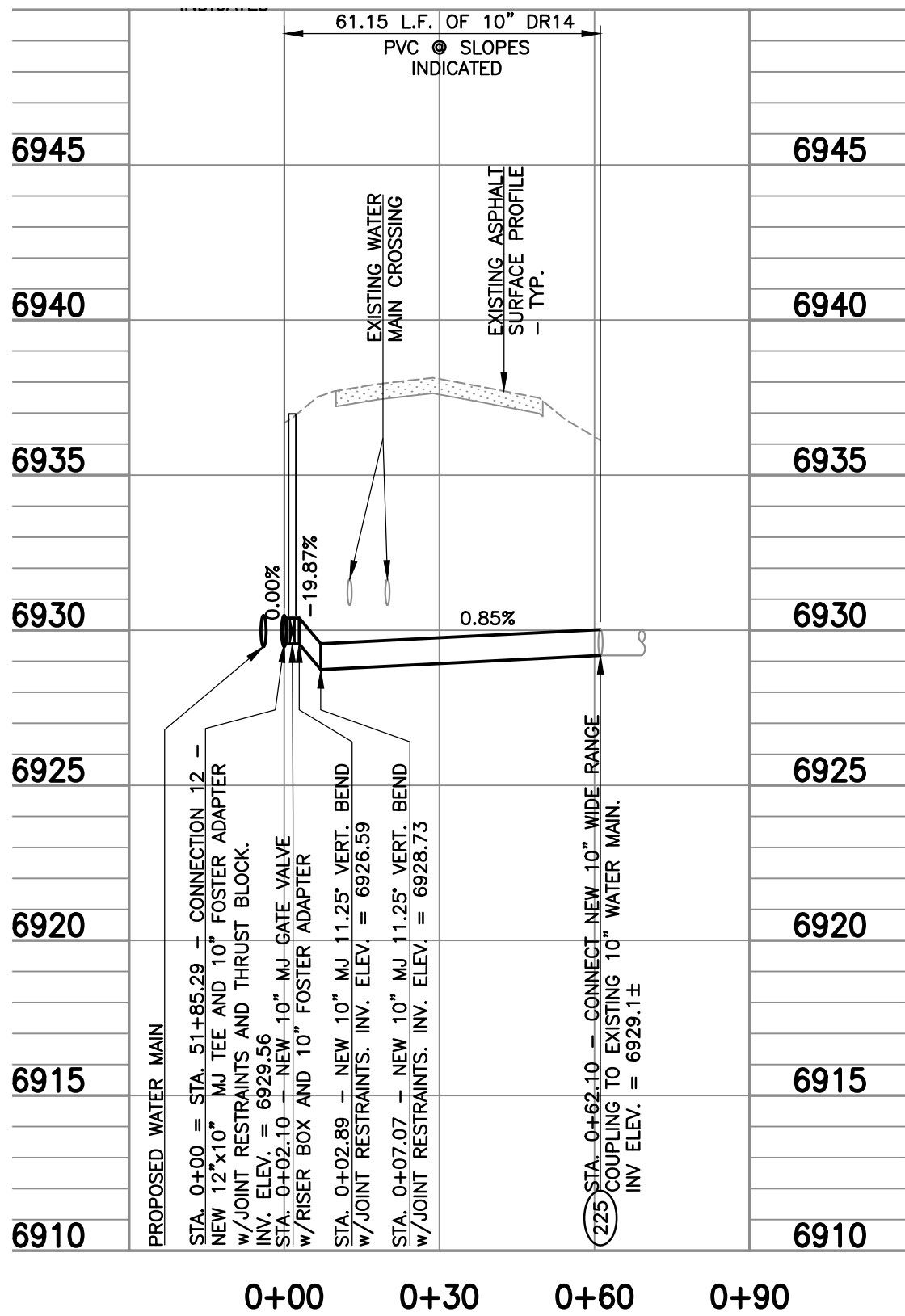
STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.

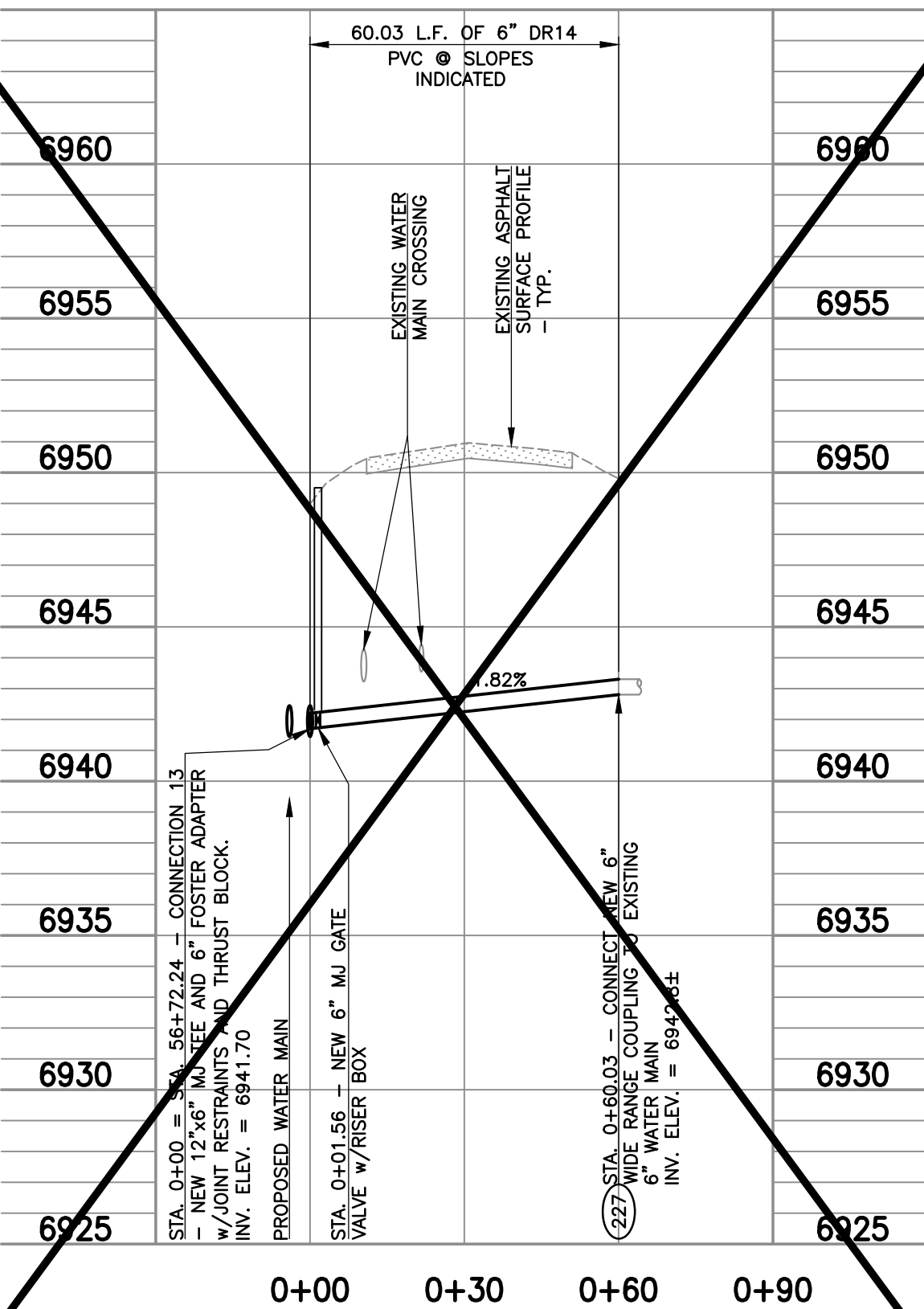
STA. 0+49 TO STA. 0+61 - STRIP, STOCKPILE AND REINSTALL TOPSOIL TO FULL DEPTH, SEEDING REQUIRED.



12 CONNECTION NO. 12 DETAIL
19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



13 CONNECTION NO. 13 DETAIL
19 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



CONNECTION NO. 13
NOT PART OF PROJECT.

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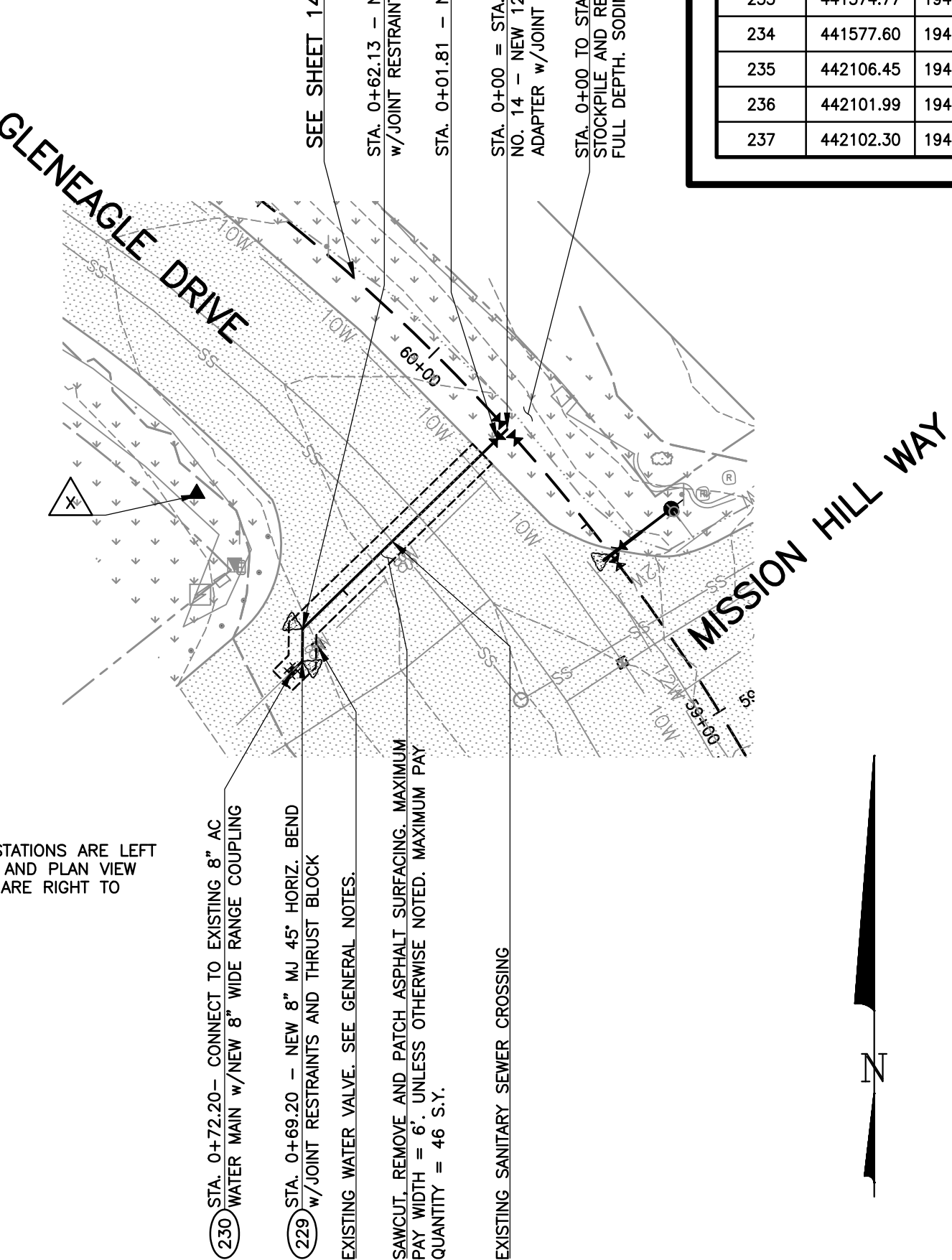
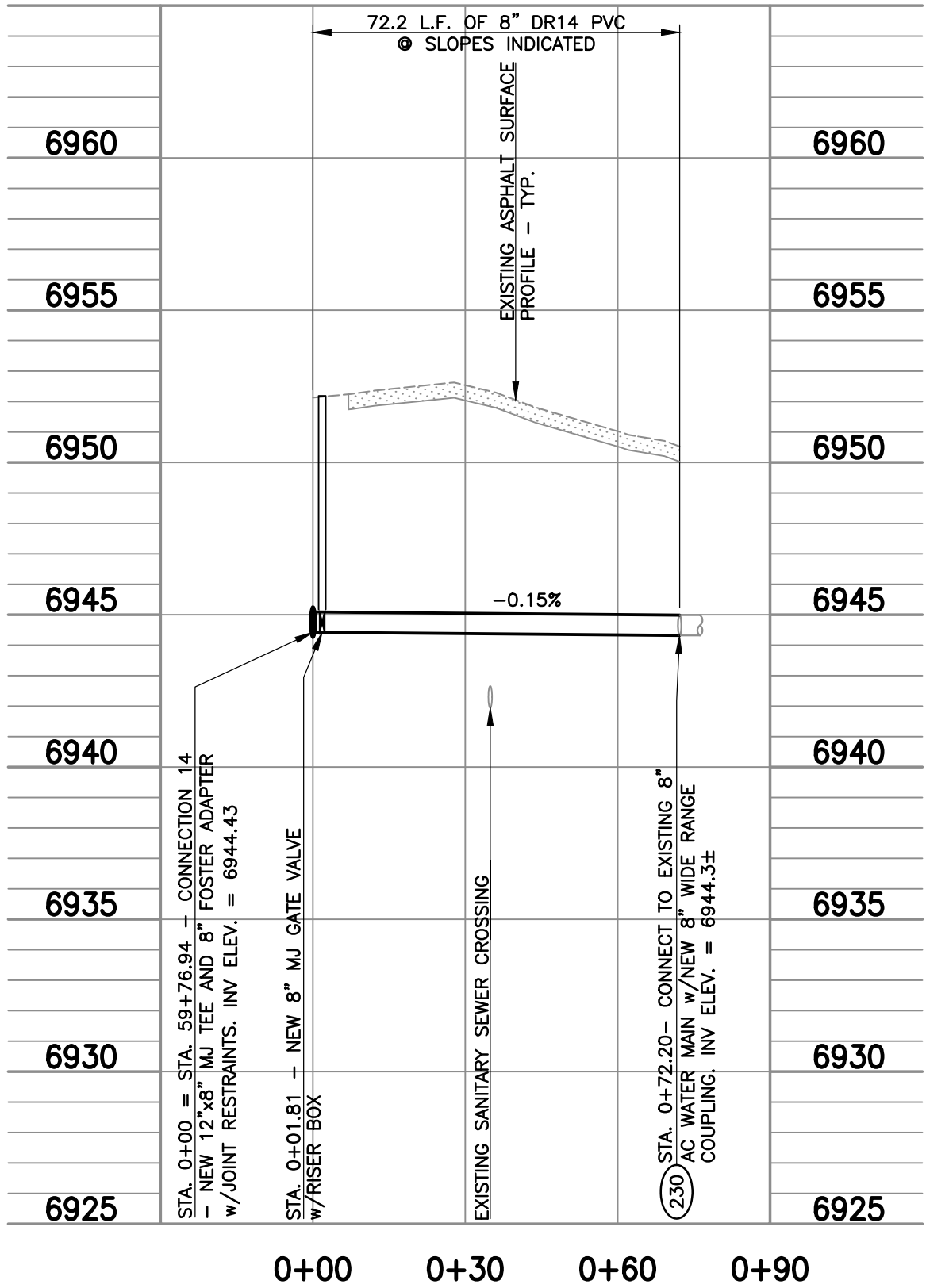
REVISIONS	
NO.	DESCRIPTION
1	

SCHEDULE 2	
CONNECTIONS NO. 10 THRU NO. 13	
AND COORDINATE DATA	
2018 WATER SYSTEM IMPROVEMENTS	
DONALAY WATER AND SANITATION DISTRICT	

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

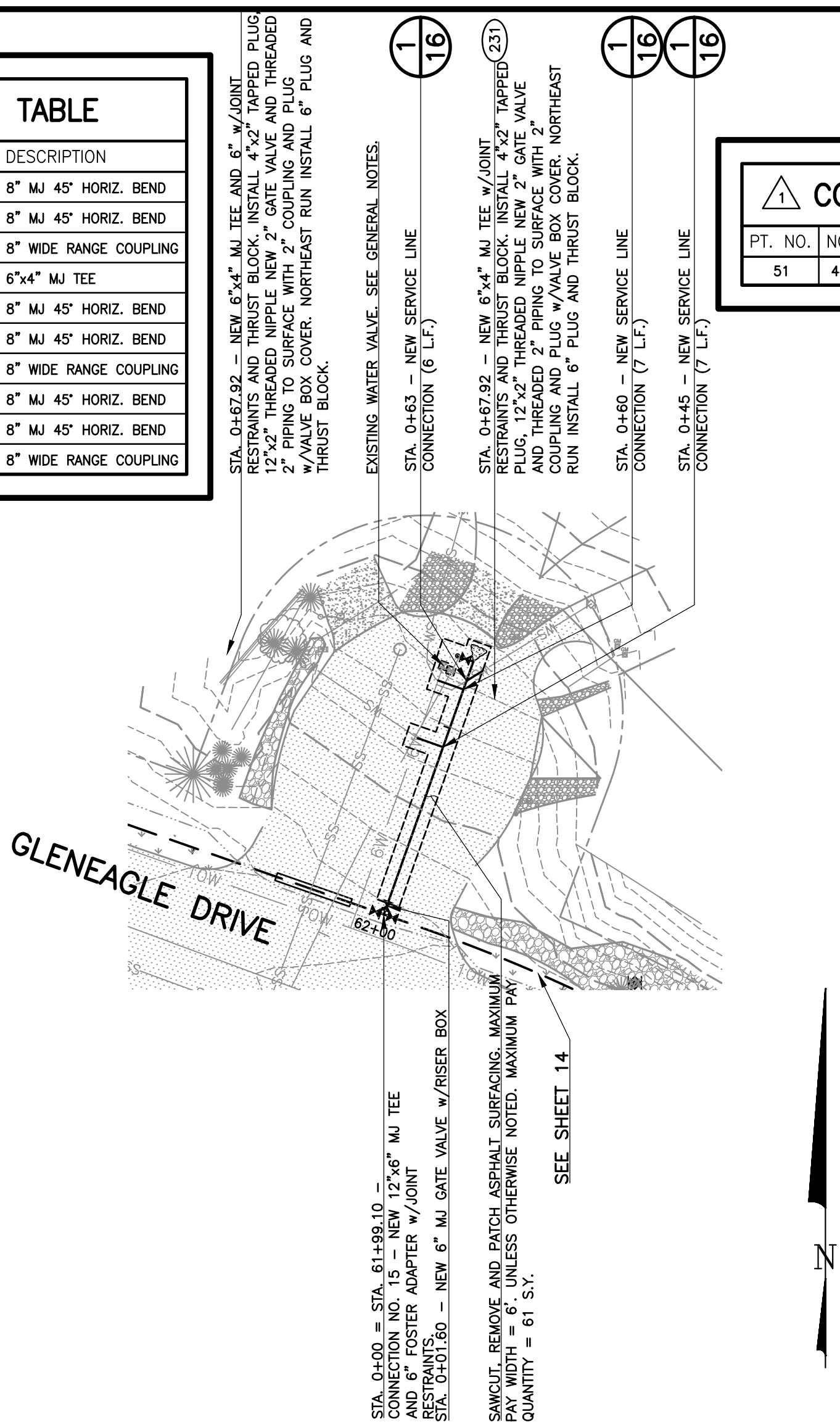
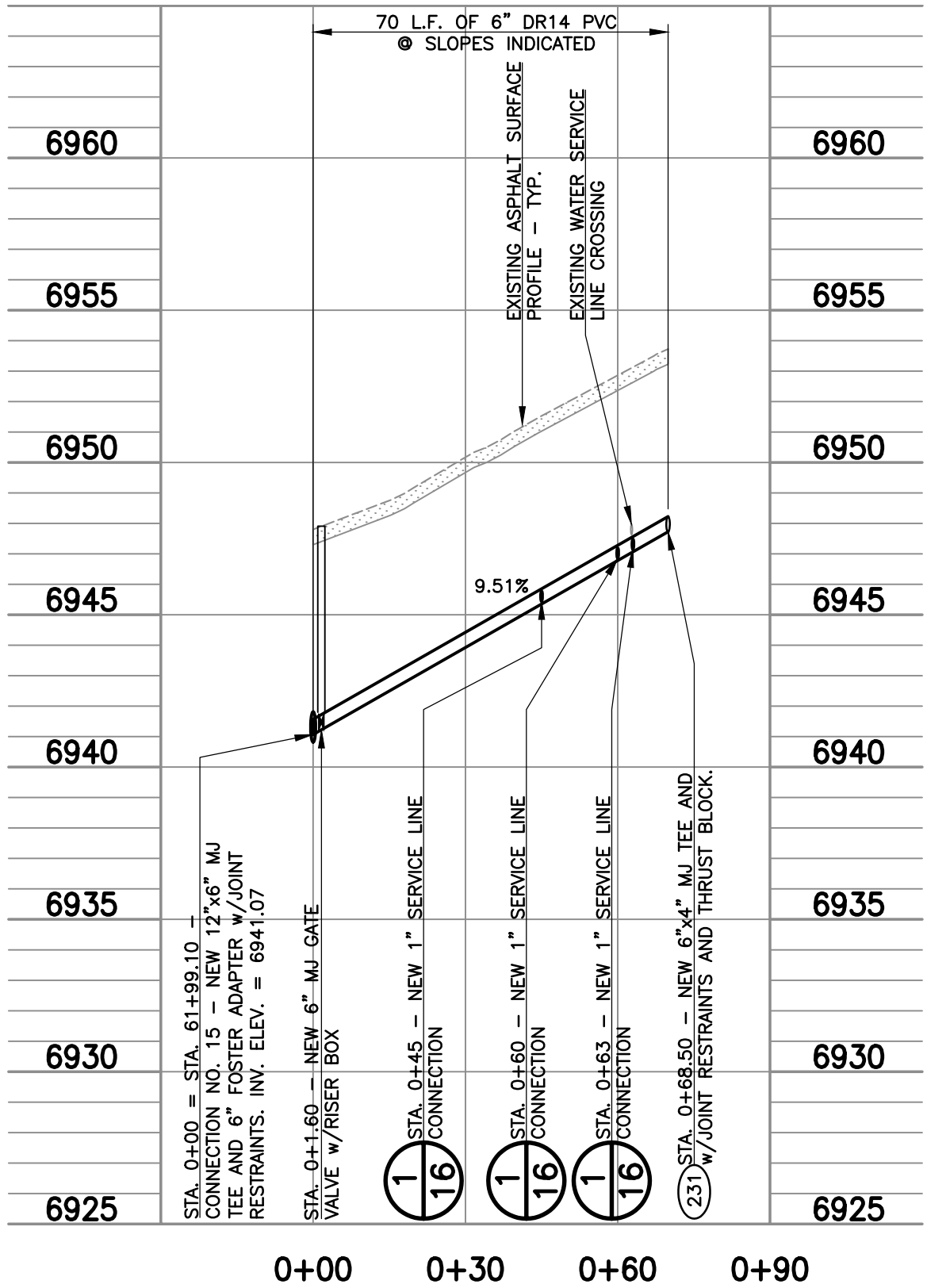
DRAWN	DESIGNED	CHECKED	DATE	PROJECT NO.	GMS FILE NO.
MAL	MAL	DRF	MAY 2018	17072-400	2851

14 CONNECTION NO. 14 DETAIL
20 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



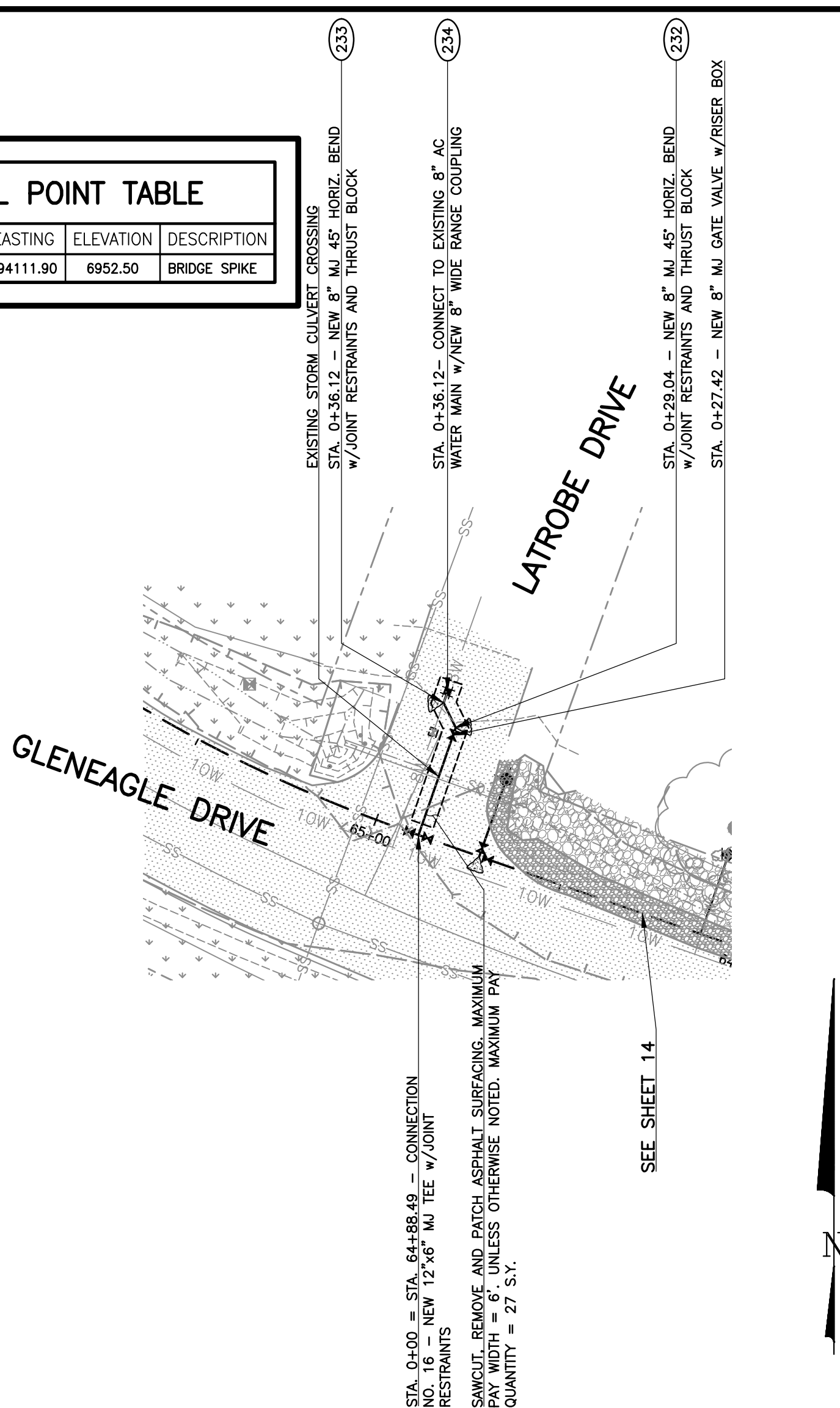
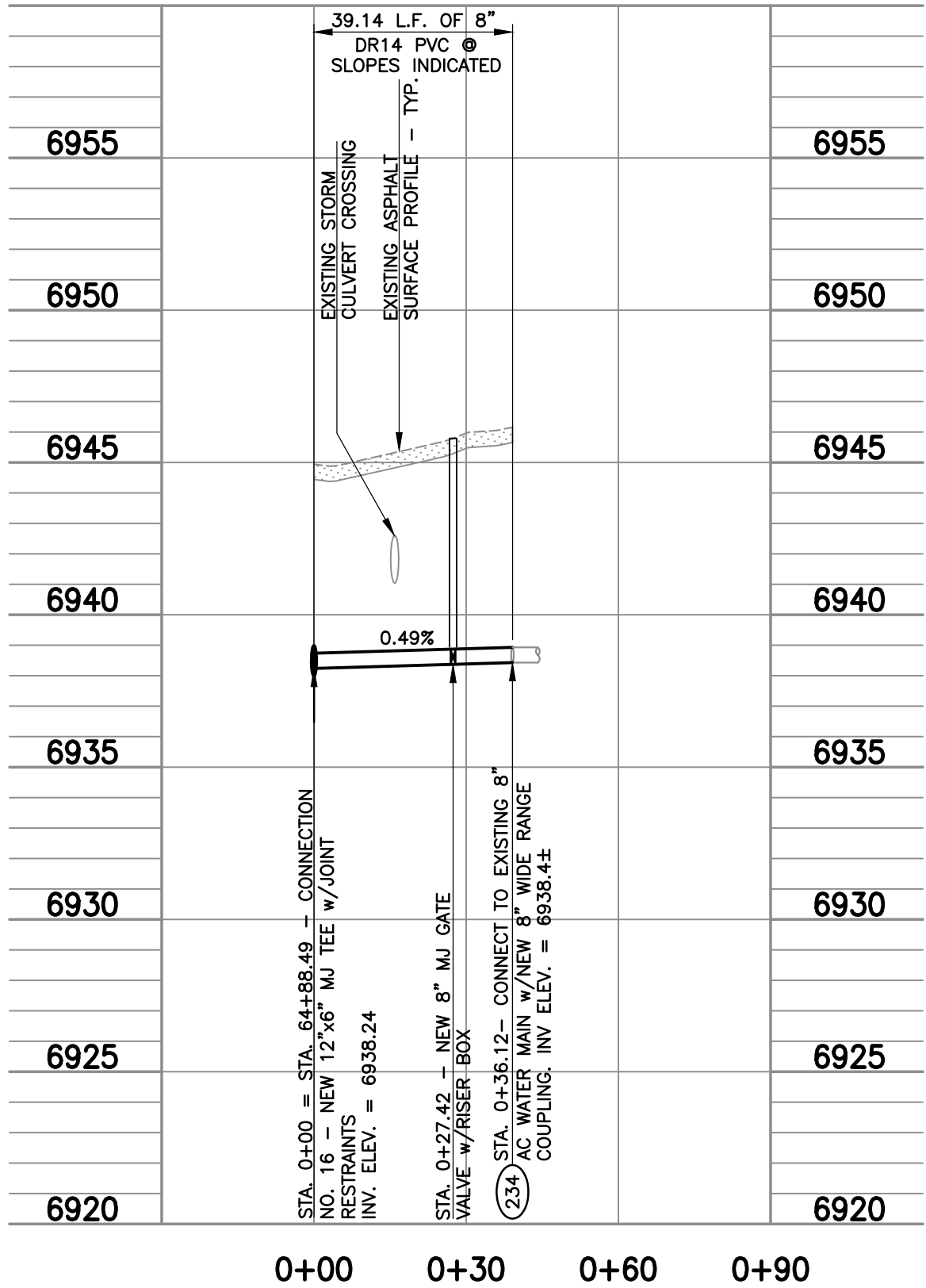
100 COORDINATE TABLE			
PT. NO.	NORTHING	EASTING	DESCRIPTION
228	441282.46	194810.87	8" MJ 45° HORIZ. BEND
229	441275.39	194810.78	8" MJ 45° HORIZ. BEND
230	441273.30	194808.63	8" WIDE RANGE COUPLING
231	441511.19	194694.35	6"x4" MJ TEE
232	441568.40	194407.43	8" MJ 45° HORIZ. BEND
233	441574.77	194404.34	8" MJ 45° HORIZ. BEND
234	441577.60	194405.34	8" WIDE RANGE COUPLING
235	442106.45	194081.55	8" MJ 45° HORIZ. BEND
236	442101.99	194076.06	8" MJ 45° HORIZ. BEND
237	442102.30	194073.07	8" WIDE RANGE COUPLING

15 CONNECTION NO. 15 DETAIL
20 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'

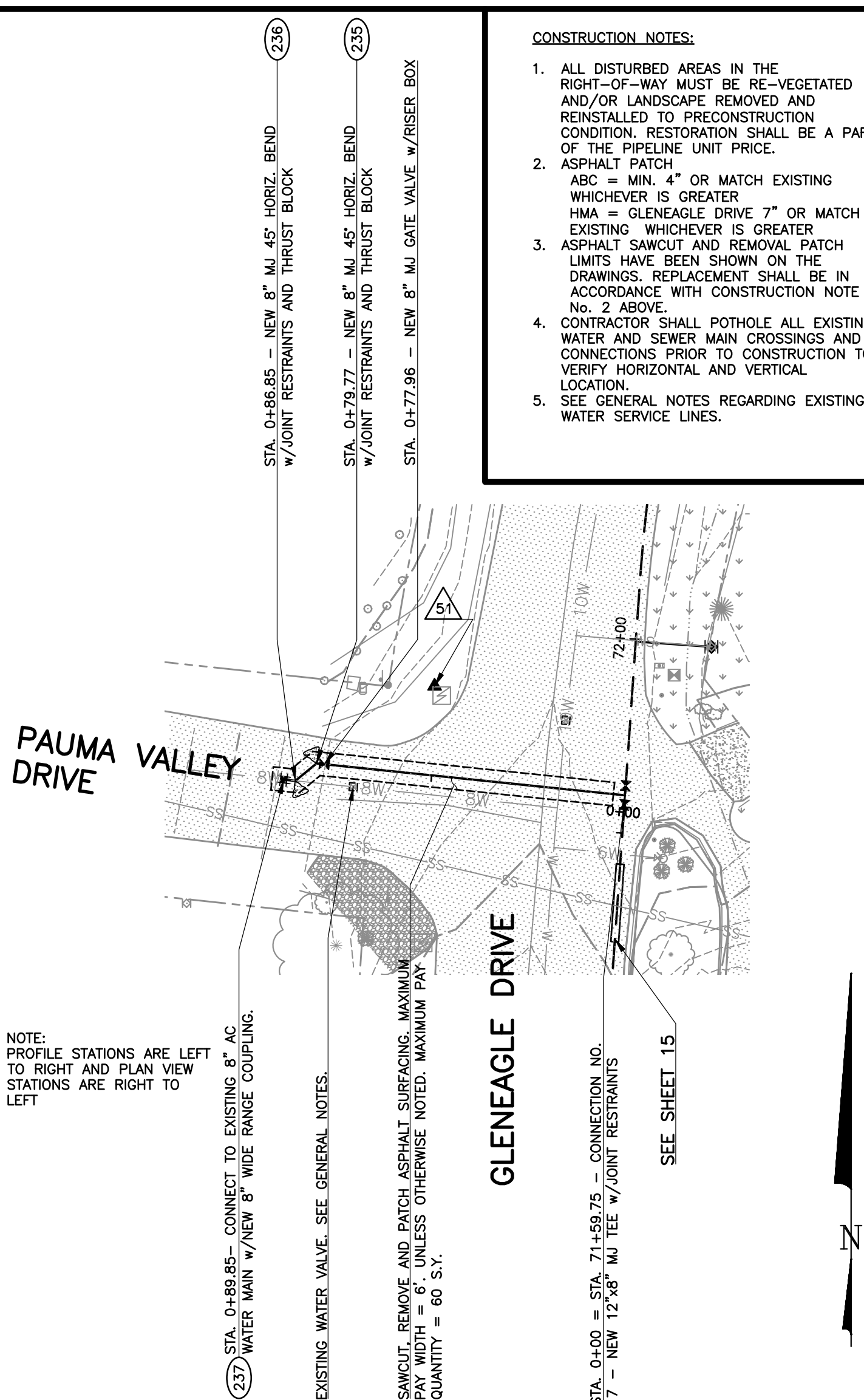
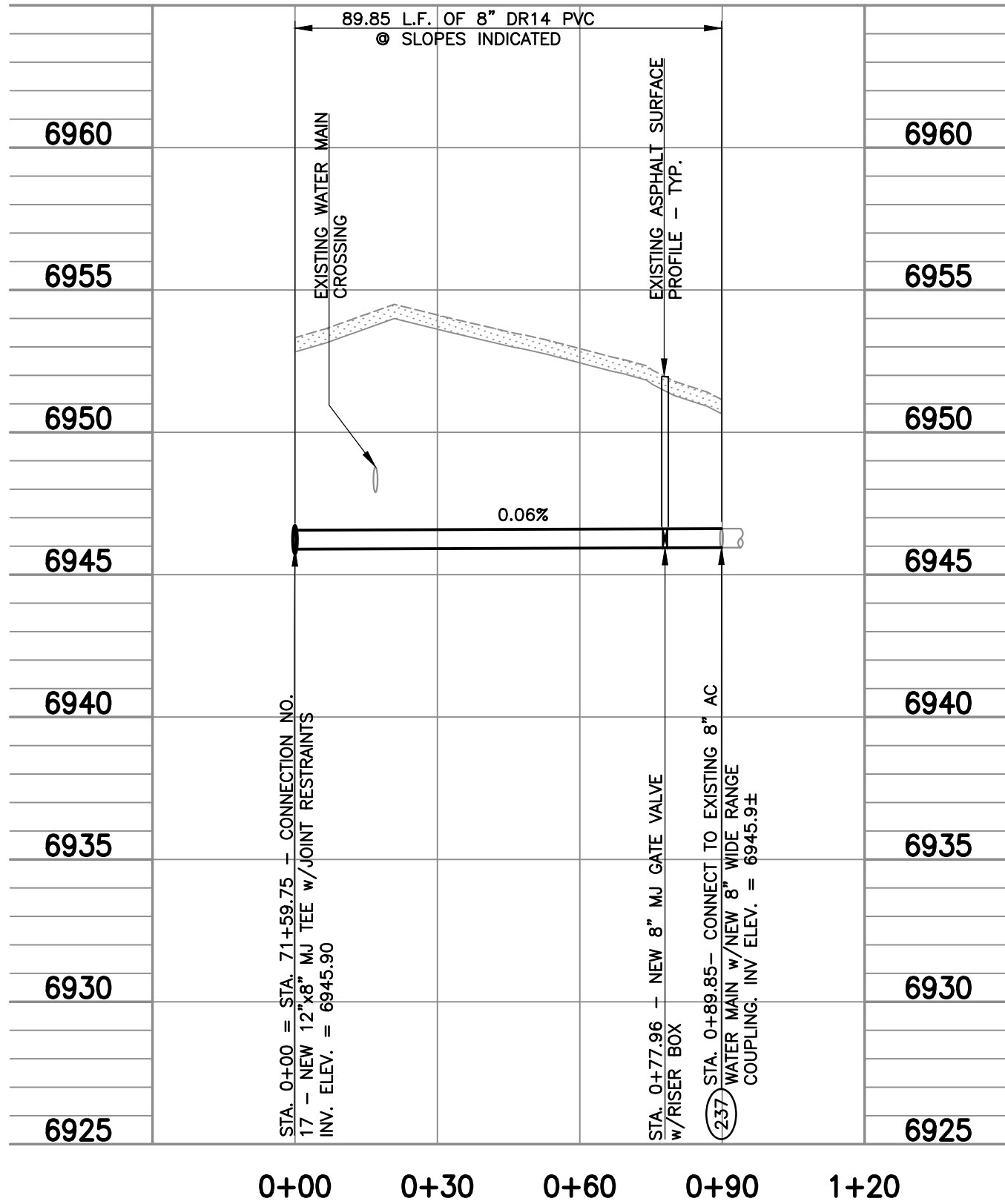


CONTROL POINT TABLE				
PT. NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
51	442126.36	194111.90	6952.50	BRIDGE SPIKE

16 CONNECTION NO. 16 DETAIL
20 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



17 CONNECTION NO. 17 DETAIL
20 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



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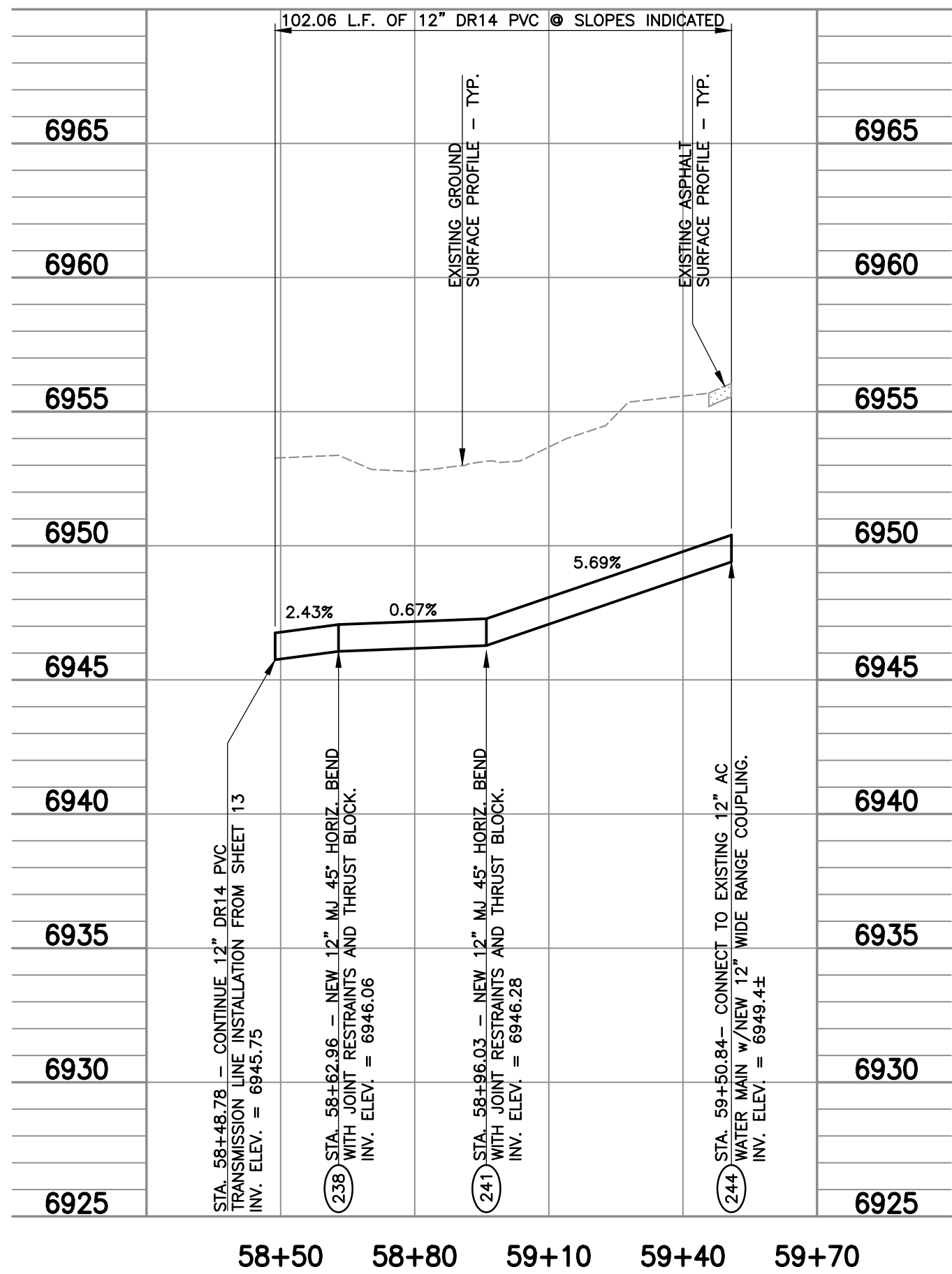
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REVISIONS		DATE	DESCRIPTION
NO. 1			

SCHEDULE 2
CONNECTIONS NO. 14 THRU NO. 17
AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALAY WATER AND SANITATION DISTRICT

GMS, INC. CONSULTING ENGINEERS 611 N. WEBER, SUITE 300 COLORADO SPRINGS, COLORADO 80903		
DRAWN	MAL	
DESIGNED	MAL	
CHECKED	DRF	
DATE	MAY 2018	
PROJECT NO.	17072.400	
GMS FILE NO.	2851	



1 12" TRANSMISSION LINE CONTINUATION
21 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'

FIRE HYDRANT - SCHEDULE

SHEET NO.	SCHEDULE	STATION	LATERAL 6" (LF)
8	2	13+96	6
9	2	19+06	5
9	2	24+19.77	5
10	2	28+50	5
11	2	36+29	5
11	2	41+18	5
12	2	46+33	8
13	2	50+69	8
13	2	55+05	8
14	2	59+41.50	17
14	2	64+72	21
15	2	69+50	10
15	2	74+51	22
17	2	0+11.49	23
TOTAL			148

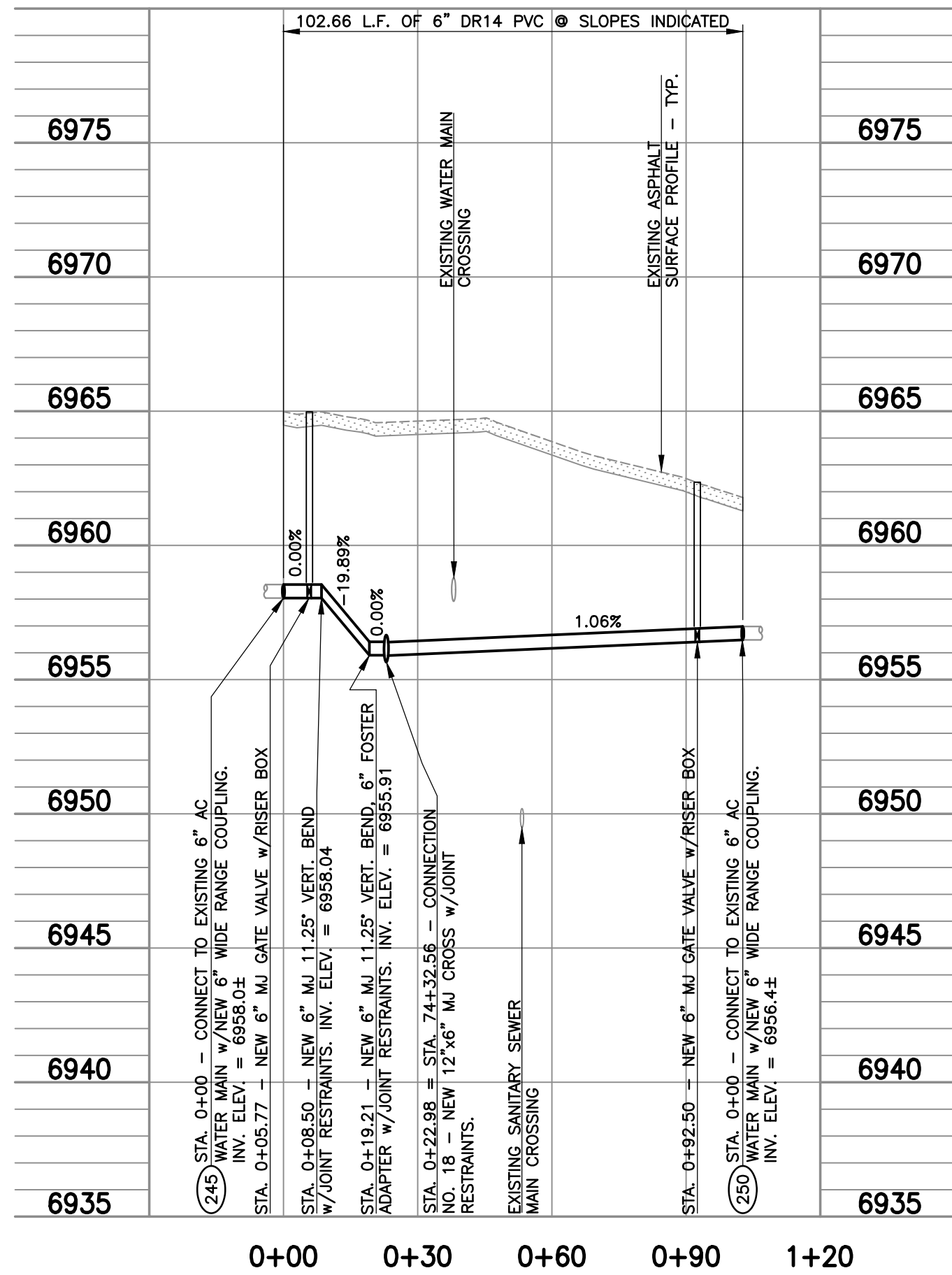
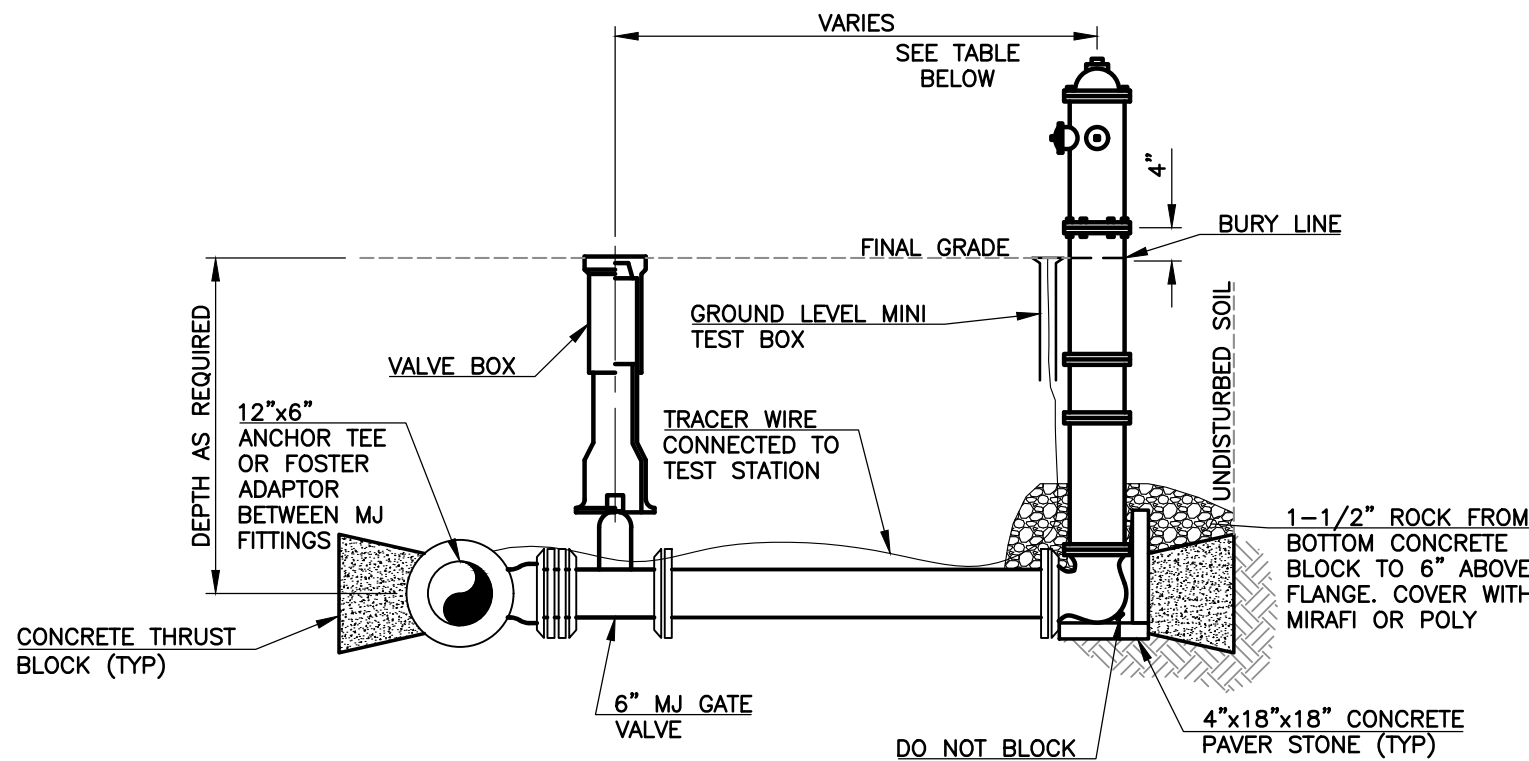
CONSTRUCTION NOTES:

- ALL DISTURBED AREAS IN THE RIGHT-OF-WAY MUST BE RE-VEGETATED AND/OR LANDSCAPE REMOVED AND REINSTALLED TO PRECONSTRUCTION CONDITION. RESTORATION SHALL BE A PART OF THE PIPELINE UNIT PRICE.
- ASPHALT PATCH
ABC = MIN. 4" OR MATCH EXISTING WHICHEVER IS GREATER
HMA = GLENEAGLE DRIVE 7" OR MATCH EXISTING WHICHEVER IS GREATER
- ASPHALT SAWCUT AND REMOVAL PATCH LIMITS HAVE BEEN SHOWN ON THE DRAWINGS. REPLACEMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION NOTE No. 2 ABOVE.
- CONTRACTOR SHALL POT HOLE ALL EXISTING WATER AND SEWER MAIN CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION.
- SEE GENERAL NOTES REGARDING EXISTING WATER SERVICE LINES.

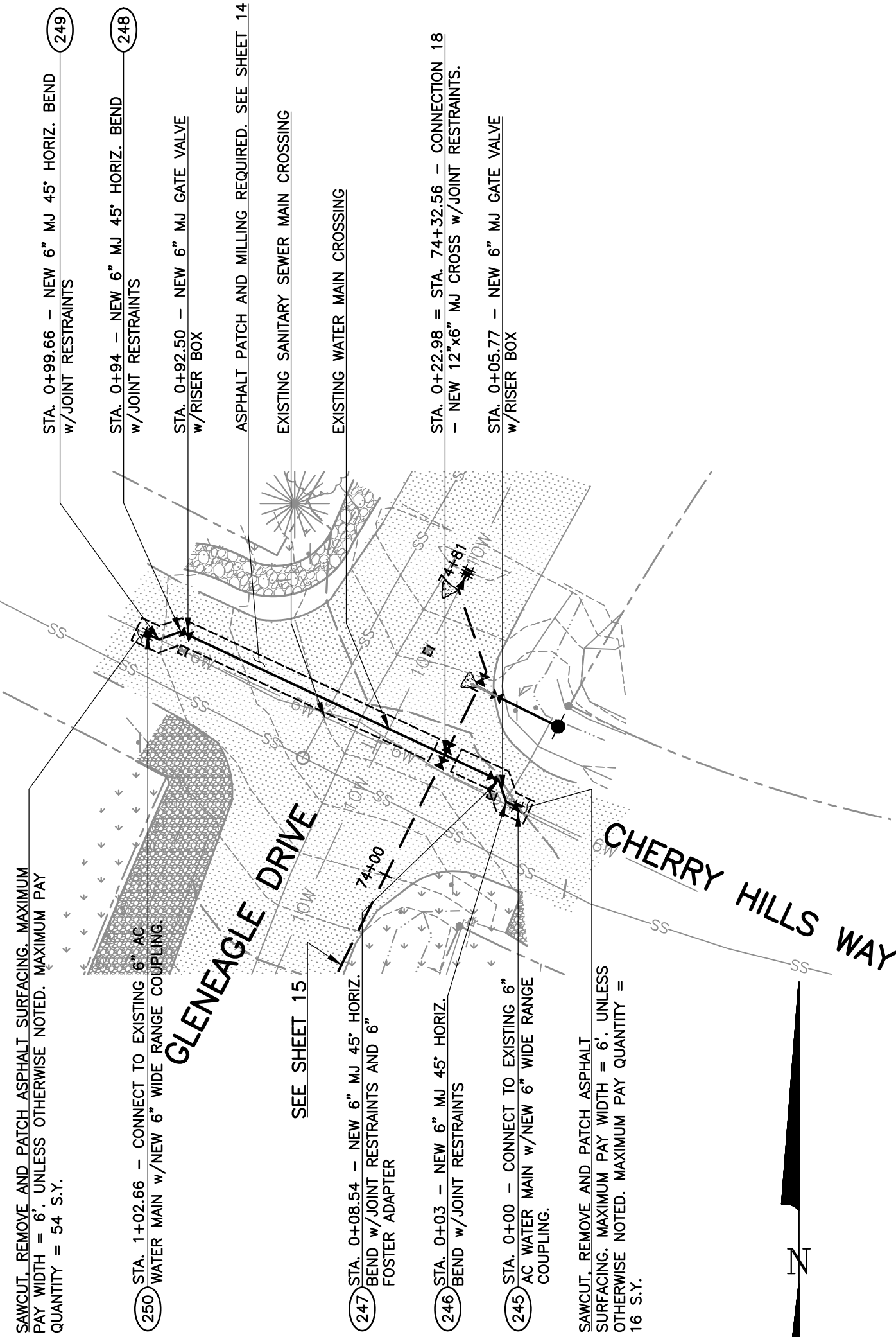
- NOTES:
- FINAL LOCATION OF GATE VALVE AND HYDRANT TO BE ESTABLISHED IN THE FIELD BY THE ENGINEER/OWNER.
 - INSTALL JOINT RESTRAINTS ON ALL MECHANICAL JOINTS.

2 FIRE HYDRANT ASSEMBLY DETAIL
21 SCALE: NONE

PT. NO.	NORTHING	EASTING	DESCRIPTION
238	441238.17	194927.01	12" MJ 45° HORIZ. BEND
239	441240.42	194919.98	12" MJ 45° HORIZ. BEND
240	441261.22	194909.37	12" MJ 45° HORIZ. BEND
241	441263.50	194909.81	12" MJ 45° HORIZ. BEND
242	441281.40	194936.36	12" MJ 45° HORIZ. BEND
243	441300.83	194940.14	12" MJ 45° HORIZ. BEND
244	441302.53	194942.61	12" WIDE RANGE COUPLING
245	442344.98	194251.76	6" WIDE RANGE COUPLING
246	442346.25	194249.04	6" MJ 45° HORIZ. BEND
247	442351.49	194247.27	6" MJ 45° HORIZ. BEND
248	442387.69	194169.85	6" MJ 45° HORIZ. BEND
249	442385.76	194164.53	6" MJ 45° HORIZ. BEND
250	442387.03	194161.81	6" WIDE RANGE COUPLING



3 CONNECTION NO. 18 DETAIL
21 SCALE: HORIZ. 1" = 30, VERT. 1" = 5'



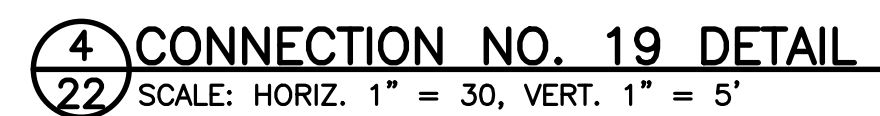
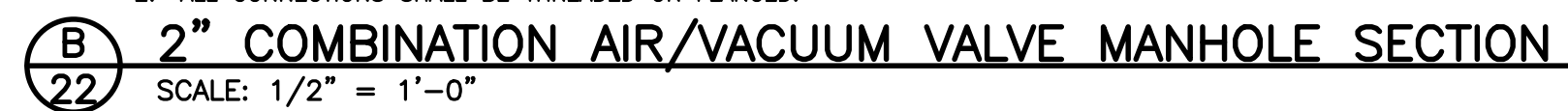
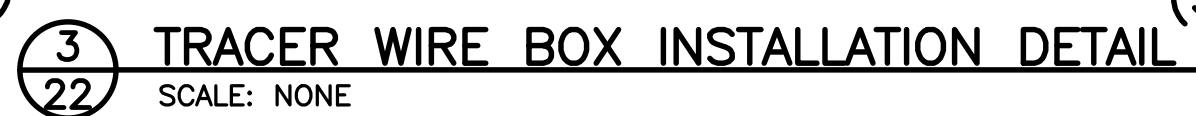
- NOTES:
- PROFILE STATIONS ARE LEFT TO RIGHT AND PLAN VIEW STATIONS ARE RIGHT TO LEFT

SCALE VERIFICATION
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY
THIS DRAWING IS THE PROPERTY OF GMS, INC., AND IS NOT TO BE RE-PRODUCED, MODIFIED OR USED FOR ANY OTHER PROJECT OR EXTENSION OF THE PROJECT WITHOUT THE AGREEMENT WITH THIS COMPANY.
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NO.	1	DATE	REVISIONS	DESCRIPTION

SCHEDULE 2 - 12" TRANSMISSION LINE CONTINUATION, CONNECTION NO. 18, DETAILS AND COORDINATE DATA
2018 WATER SYSTEM IMPROVEMENTS
DONALD WATER AND SANITATION 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 DRF MAY 2018 17072-400 2851
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<div style="display: flex; align-items: center; justify-content: space-between;"> <div style="border: 1px solid black; border-radius: 50%; padding: 2px 10px; width: 10%;">100</div> <div>COORDINATE TABLE</div> </div>			
PT. NO.	NORTHING	EASTING	DESCRIPTION
400	439952.98	194623.83	10" MJ SOLID SLEEVE COUPLIN

[illegible]

SHEET
22
OF
22