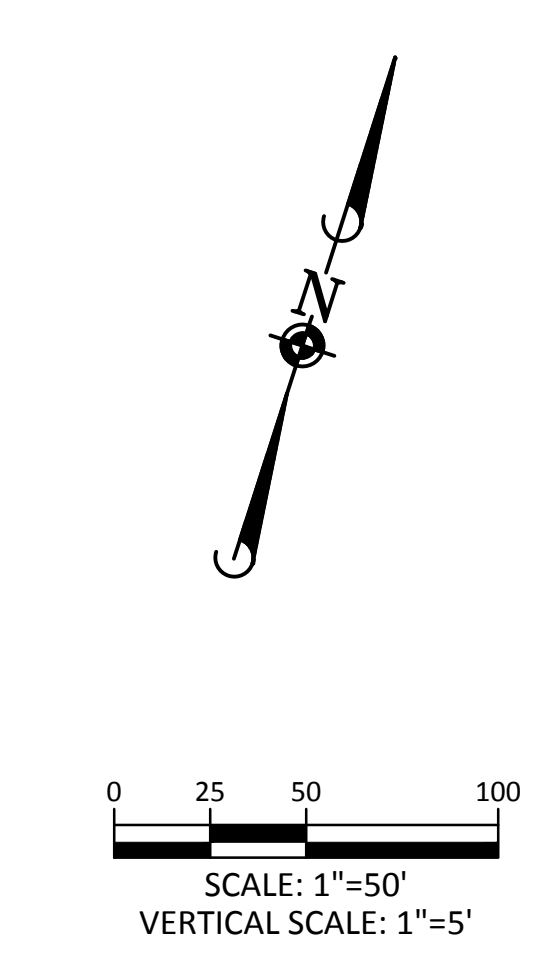
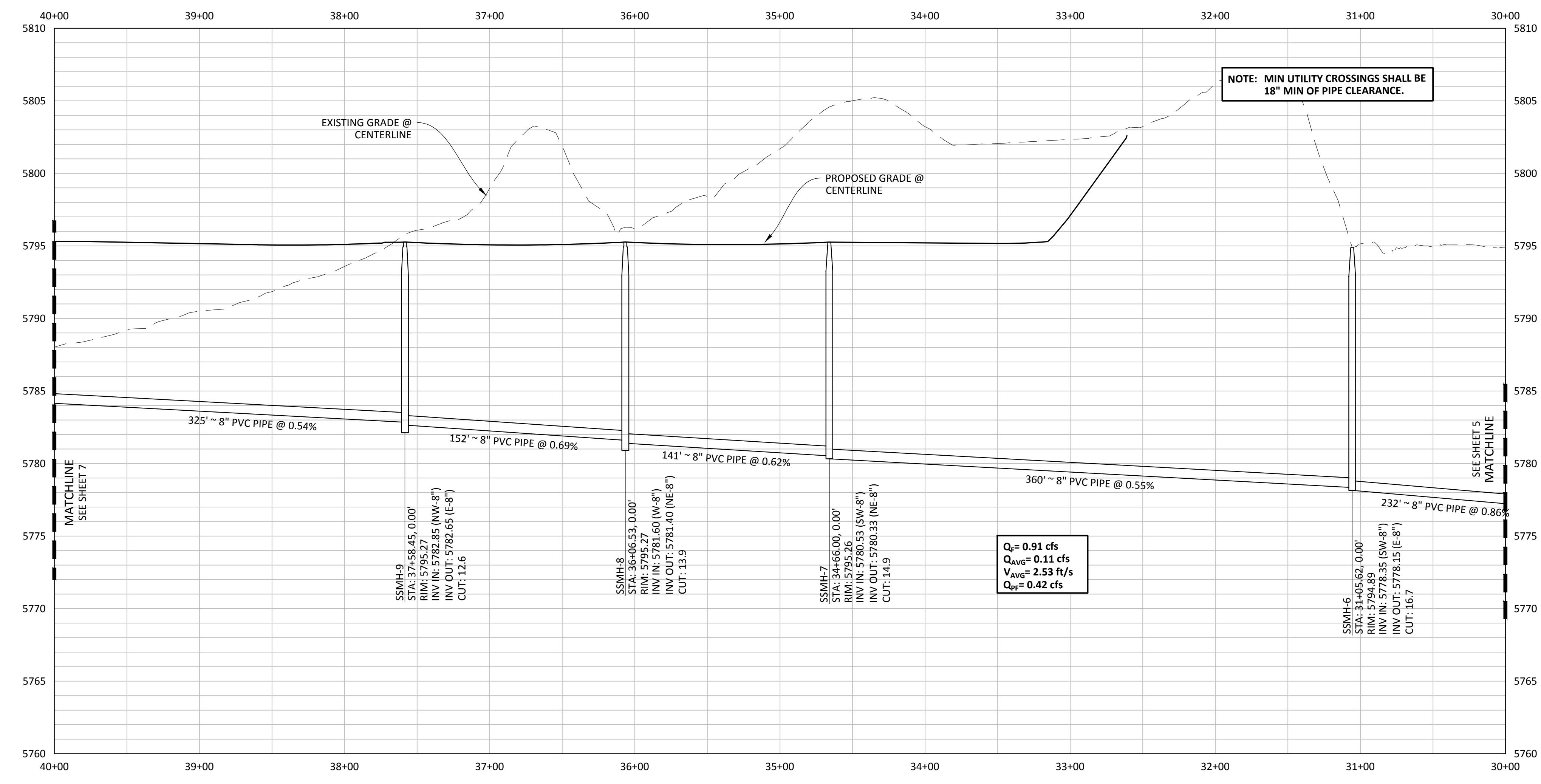


SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPAK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

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811
 Know what's below.
 Call before you dig.

$Q_t = 0.91$ cfs
 $Q_{avg} = 0.11$ cfs
 $V_{avg} = 2.53$ ft/s
 $Q_{cr} = 0.42$ cfs

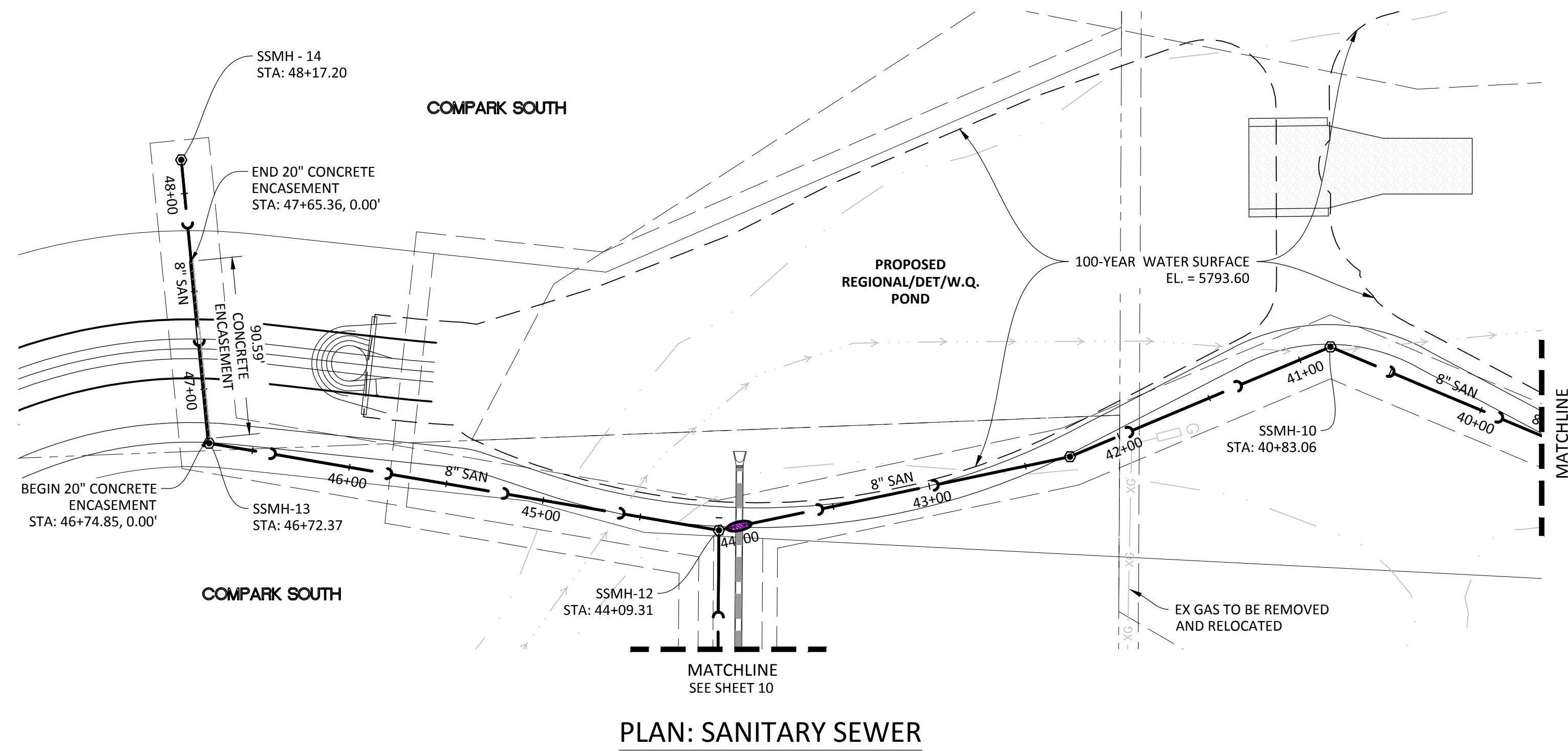
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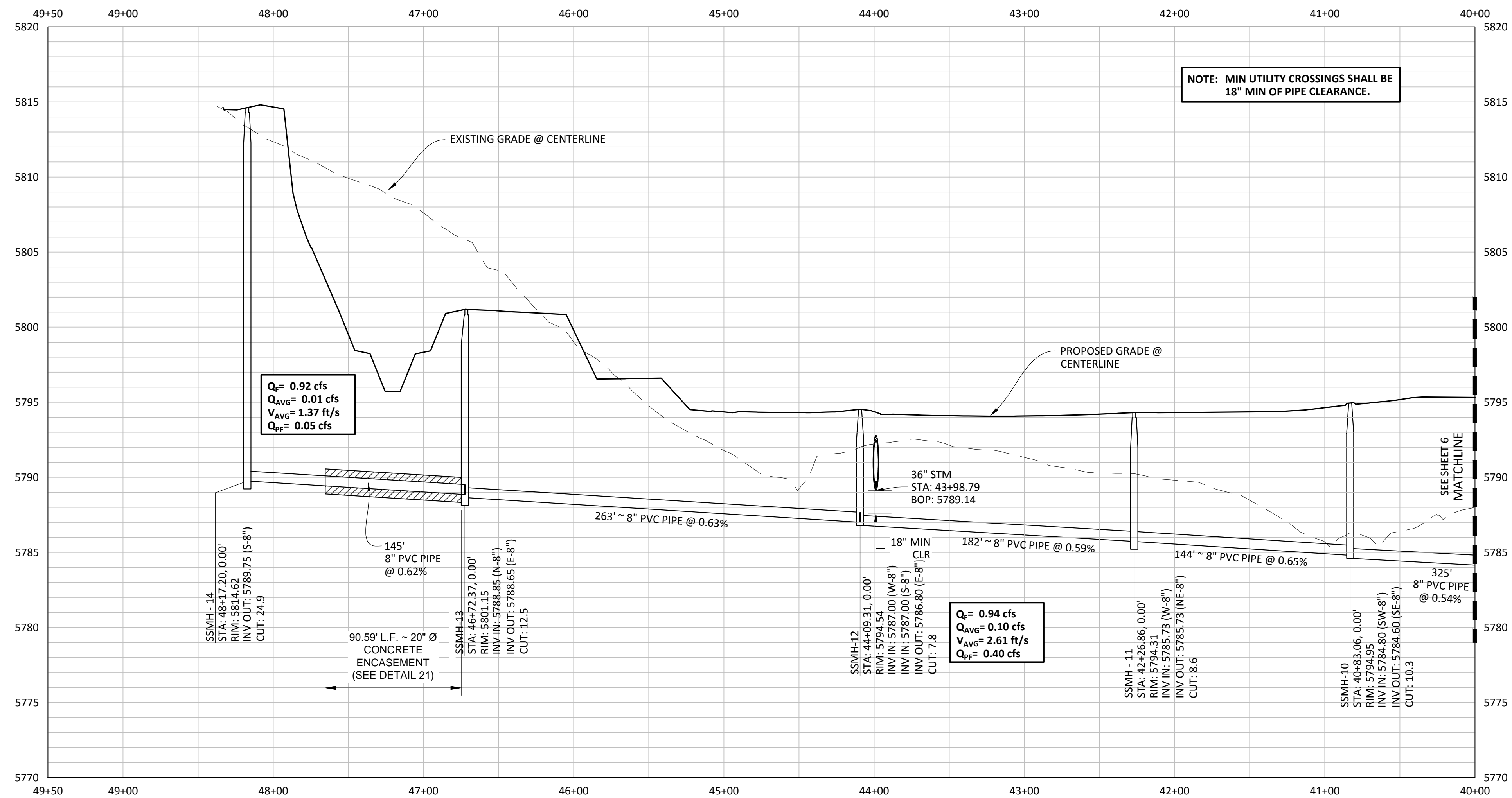
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 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015

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 CLCPK3

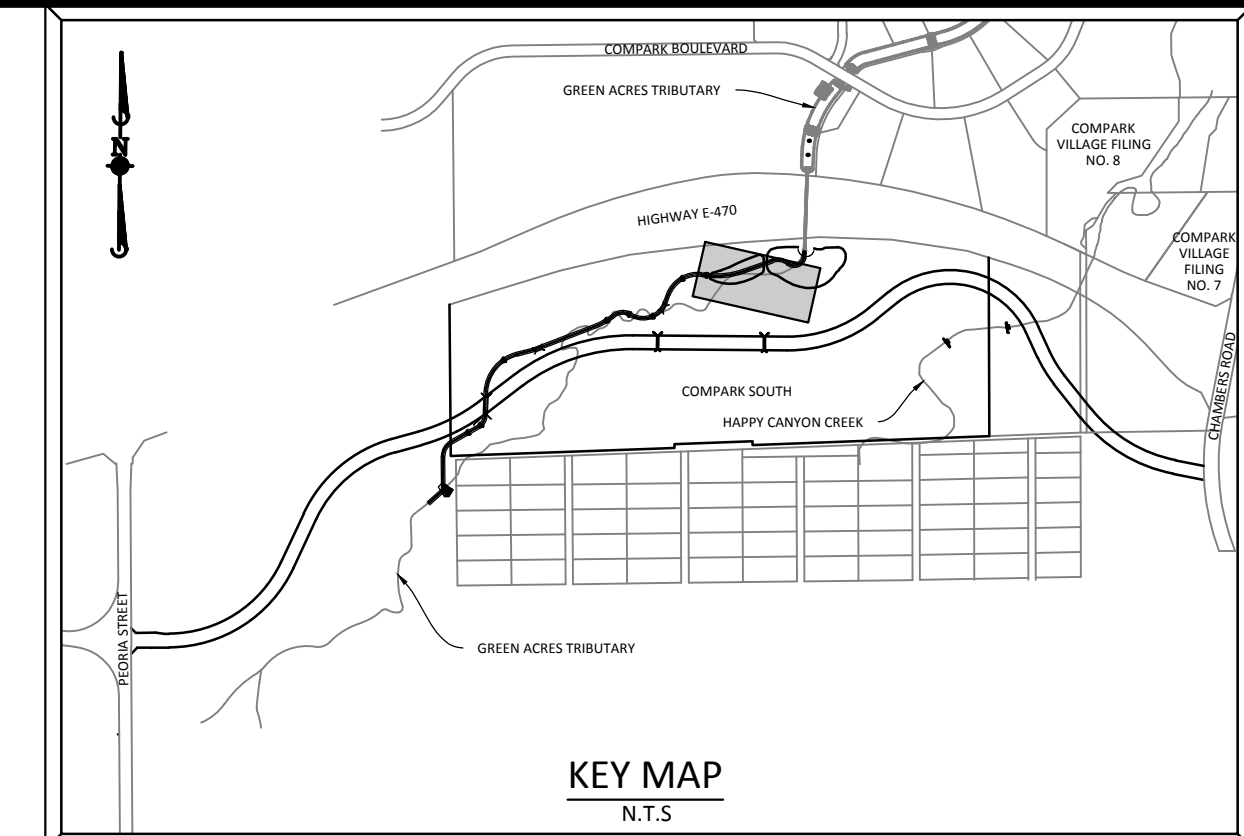
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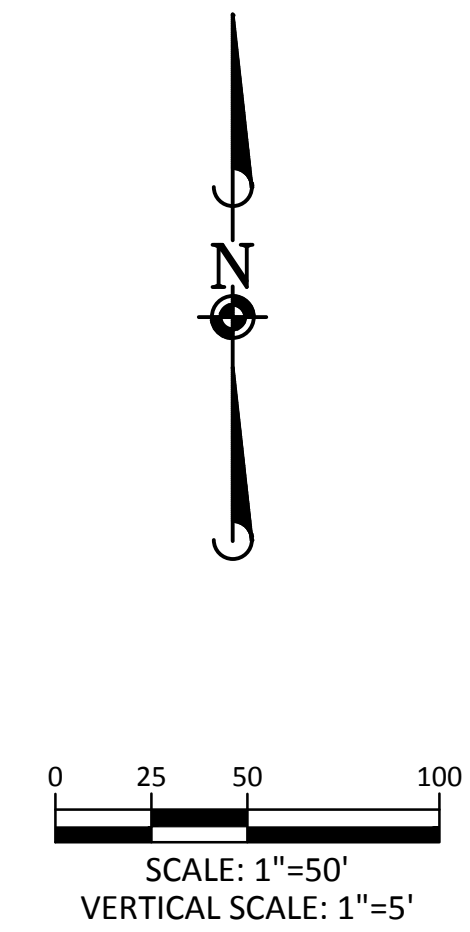
PLAN: SANITARY SEWER



PROFILE: SANITARY SEWER



SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET
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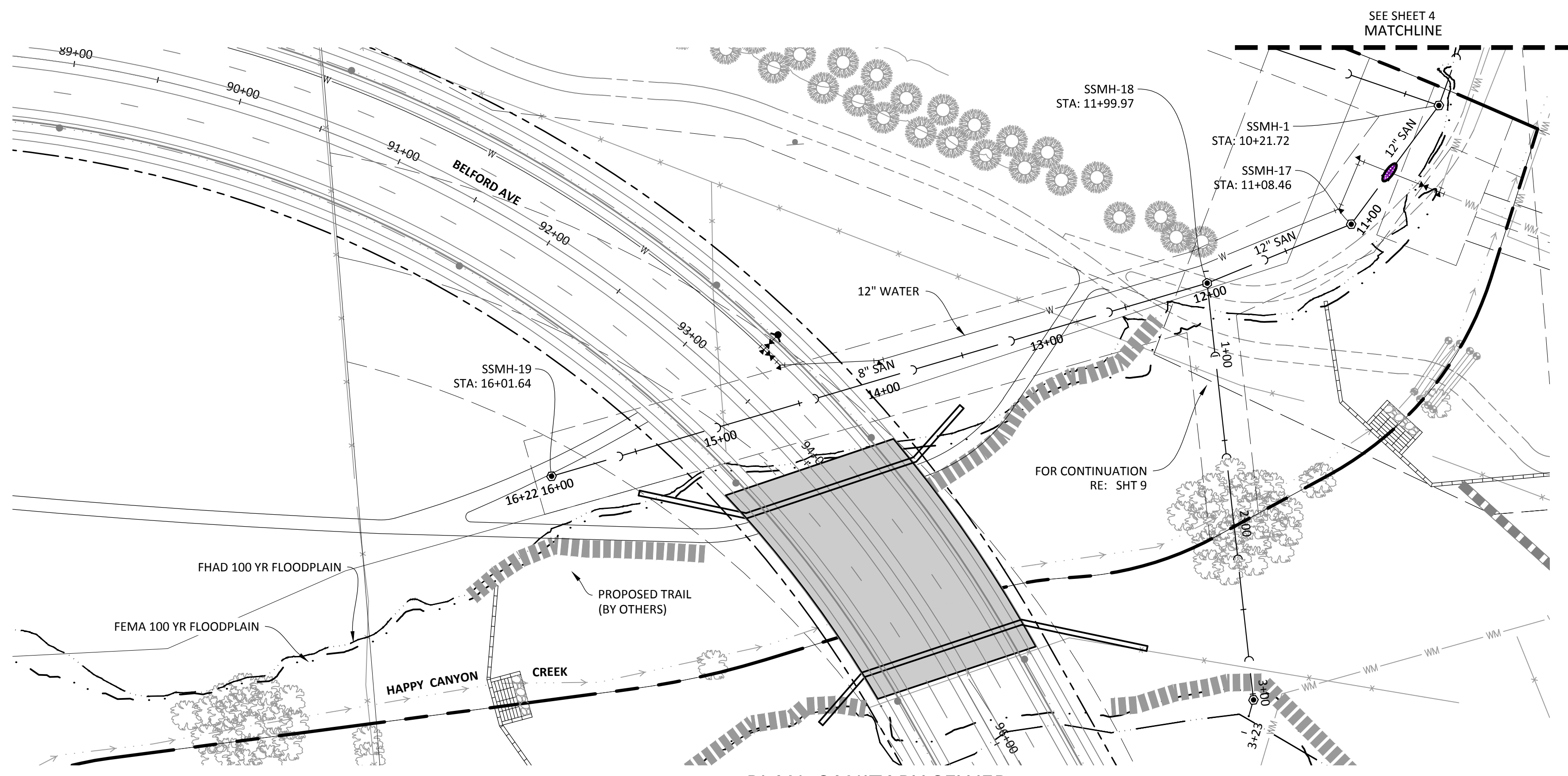
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COMPARK VILLAGE SOUTH
 TOWN OF PARKER, COLORADO
 SANITARY SEWER PLAN & PROFILE

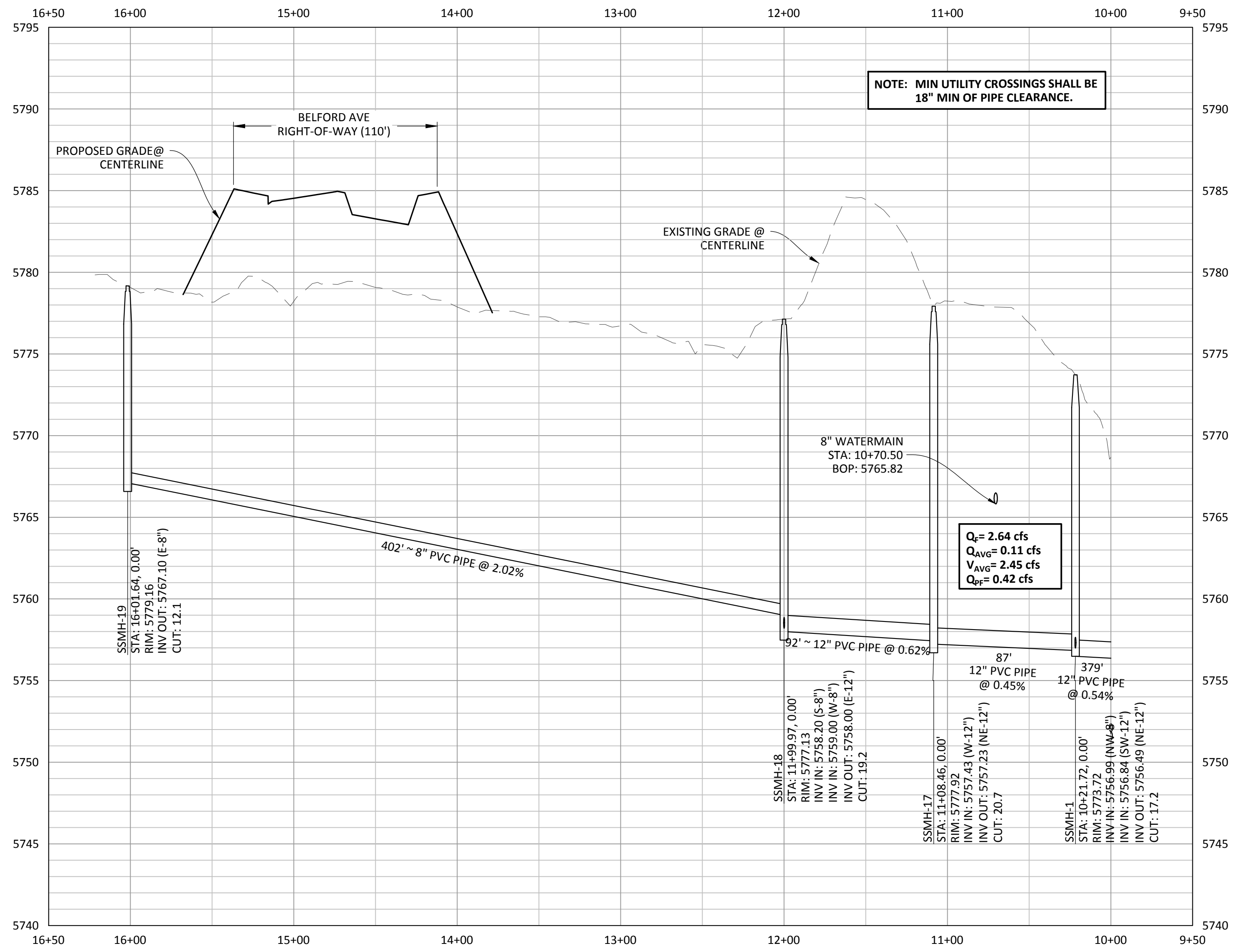
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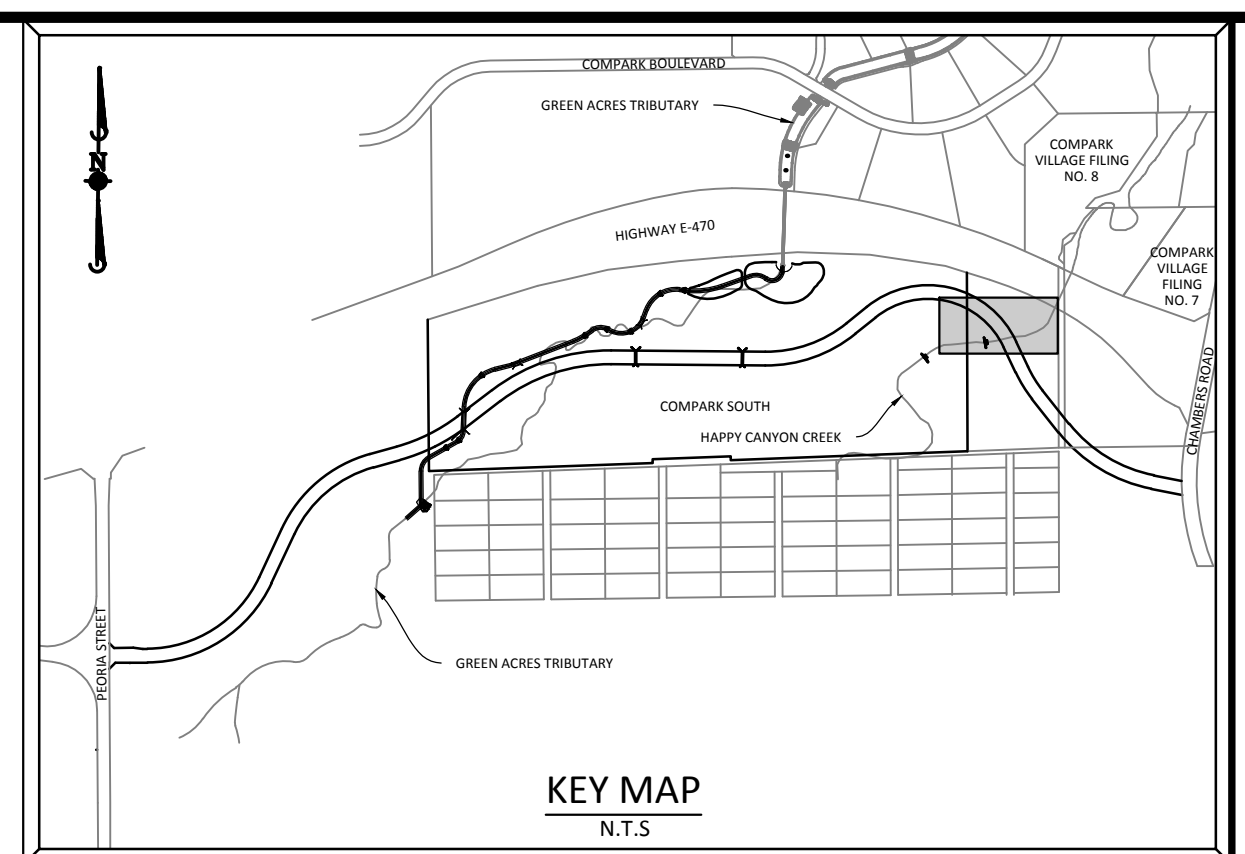
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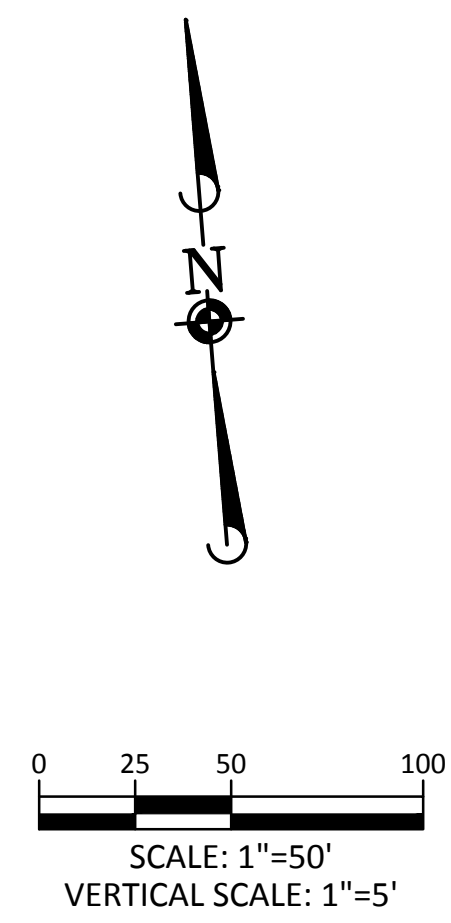
PLAN: SANITARY SEWER



PROFILE: SANITARY SEWER



SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



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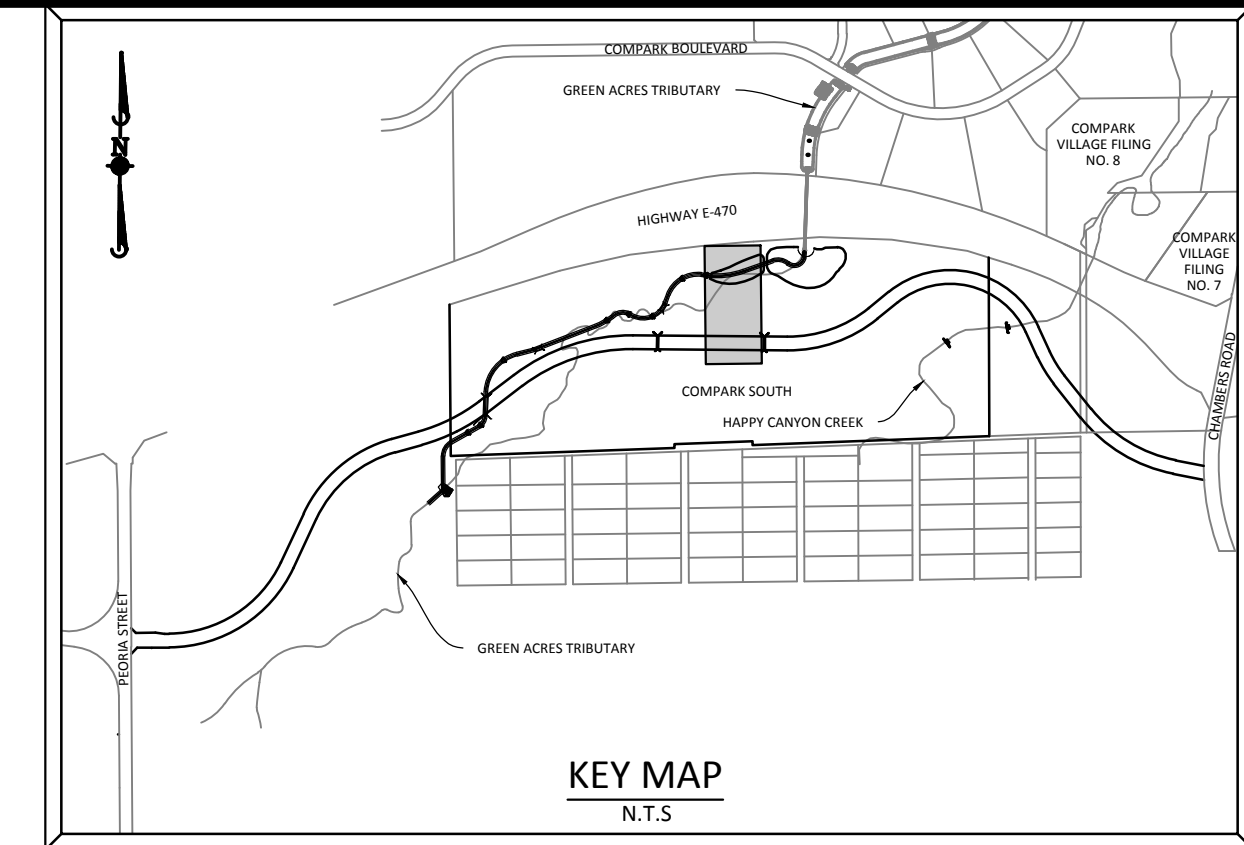
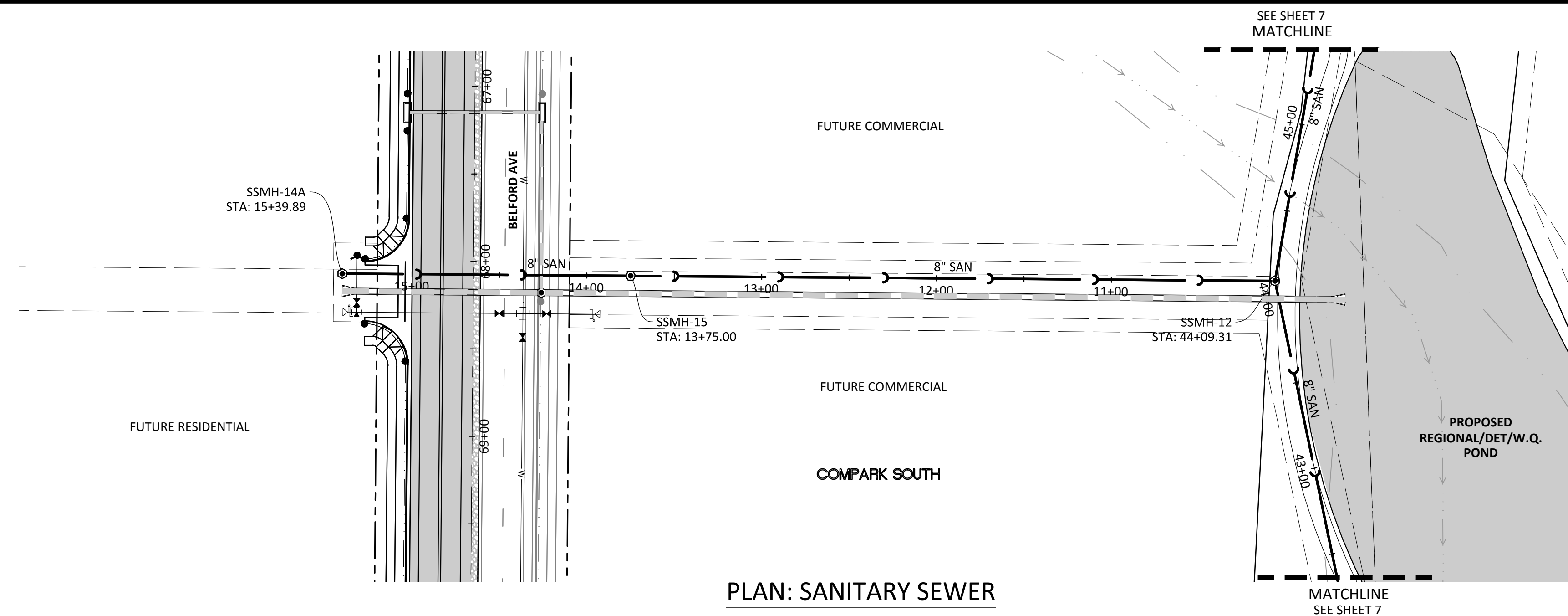
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 TOWN OF PARKER, COLORADO
 SANITARY SEWER PLAN & PROFILE

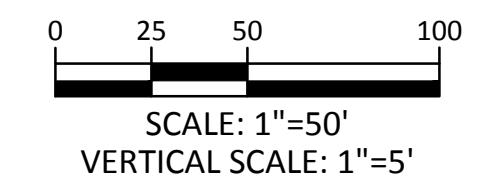
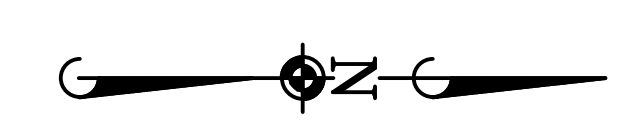
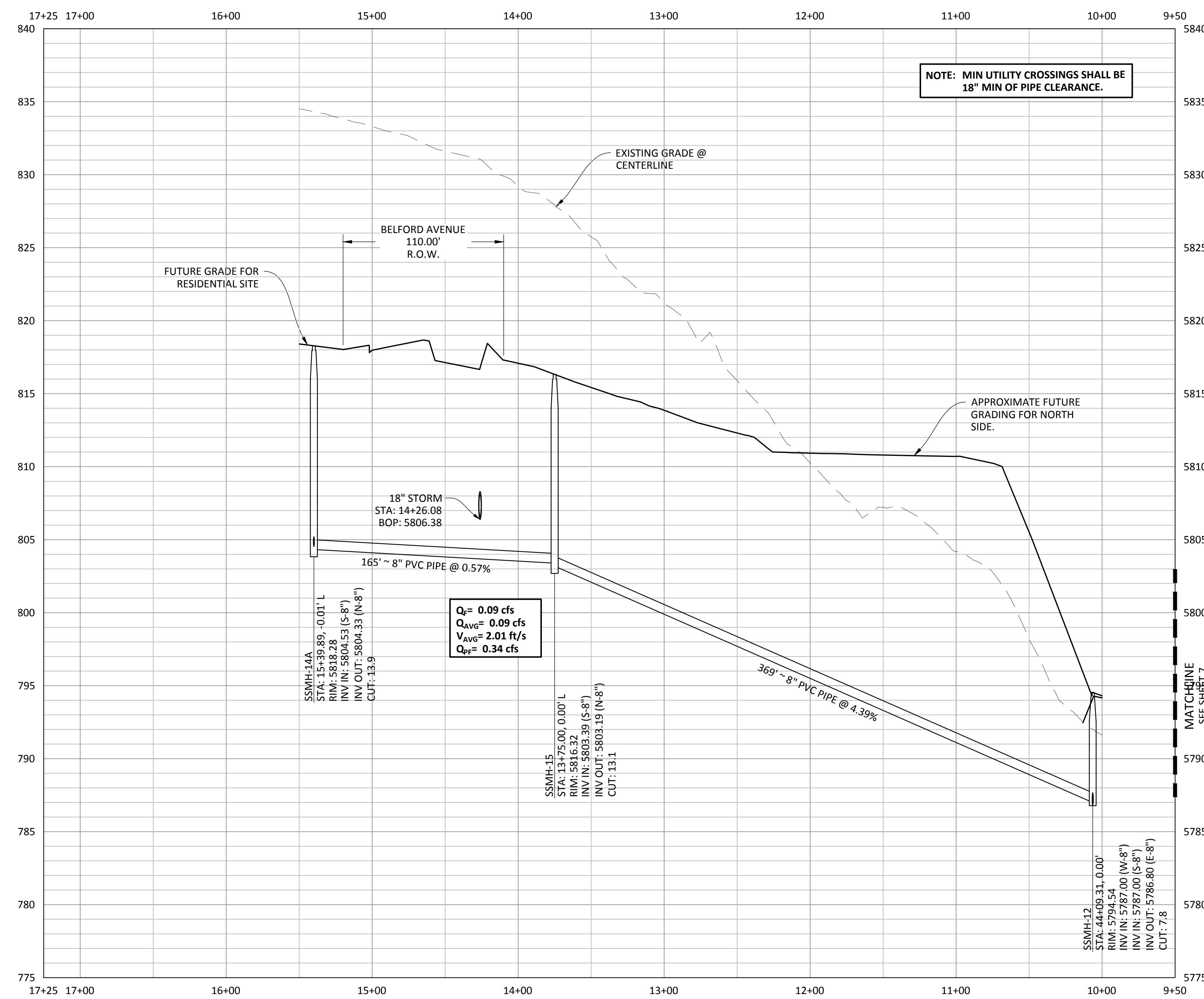
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| PROJ. ASSOC.: | ASD |
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SOURCE BENCHMARKS:
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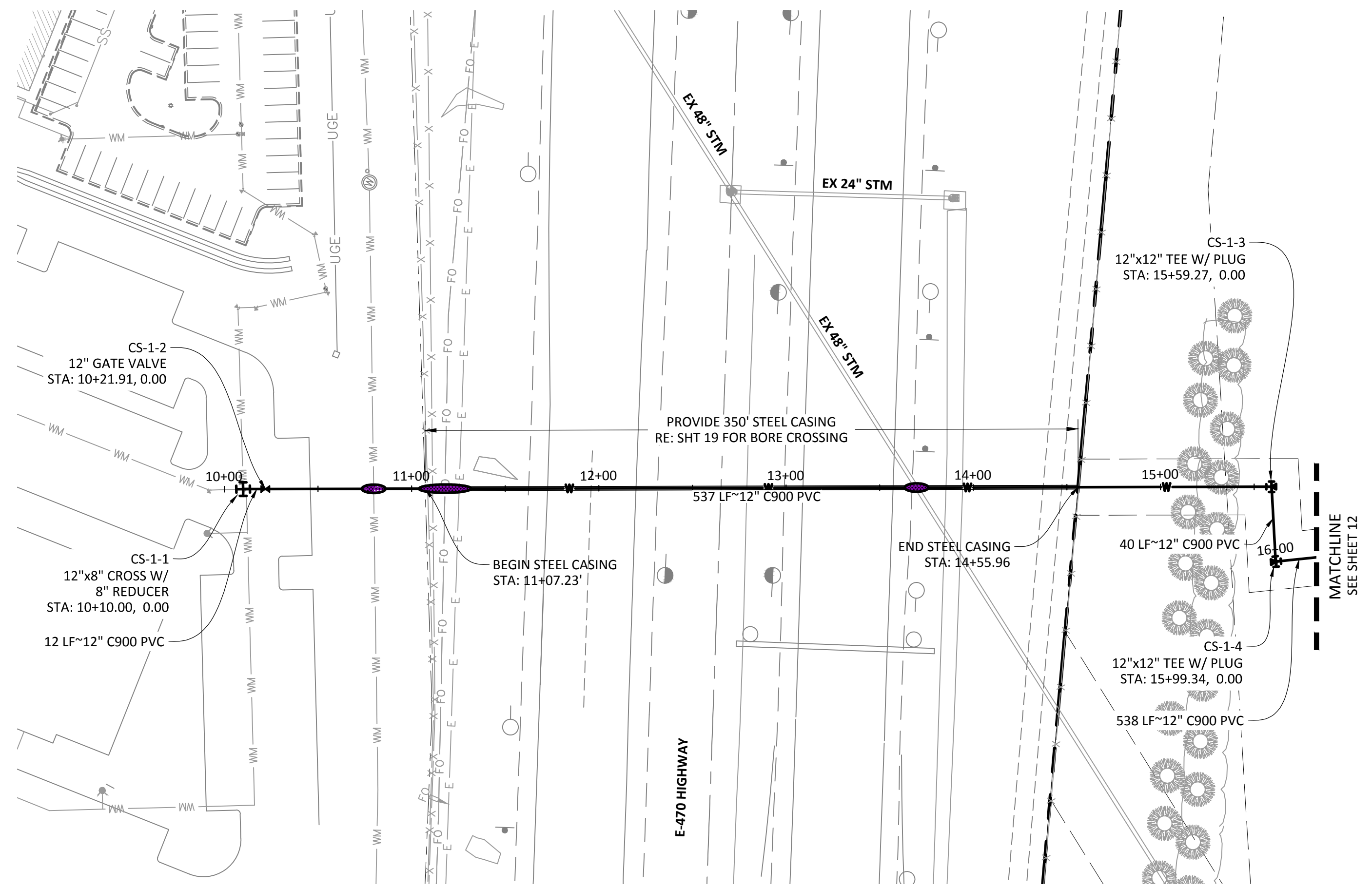


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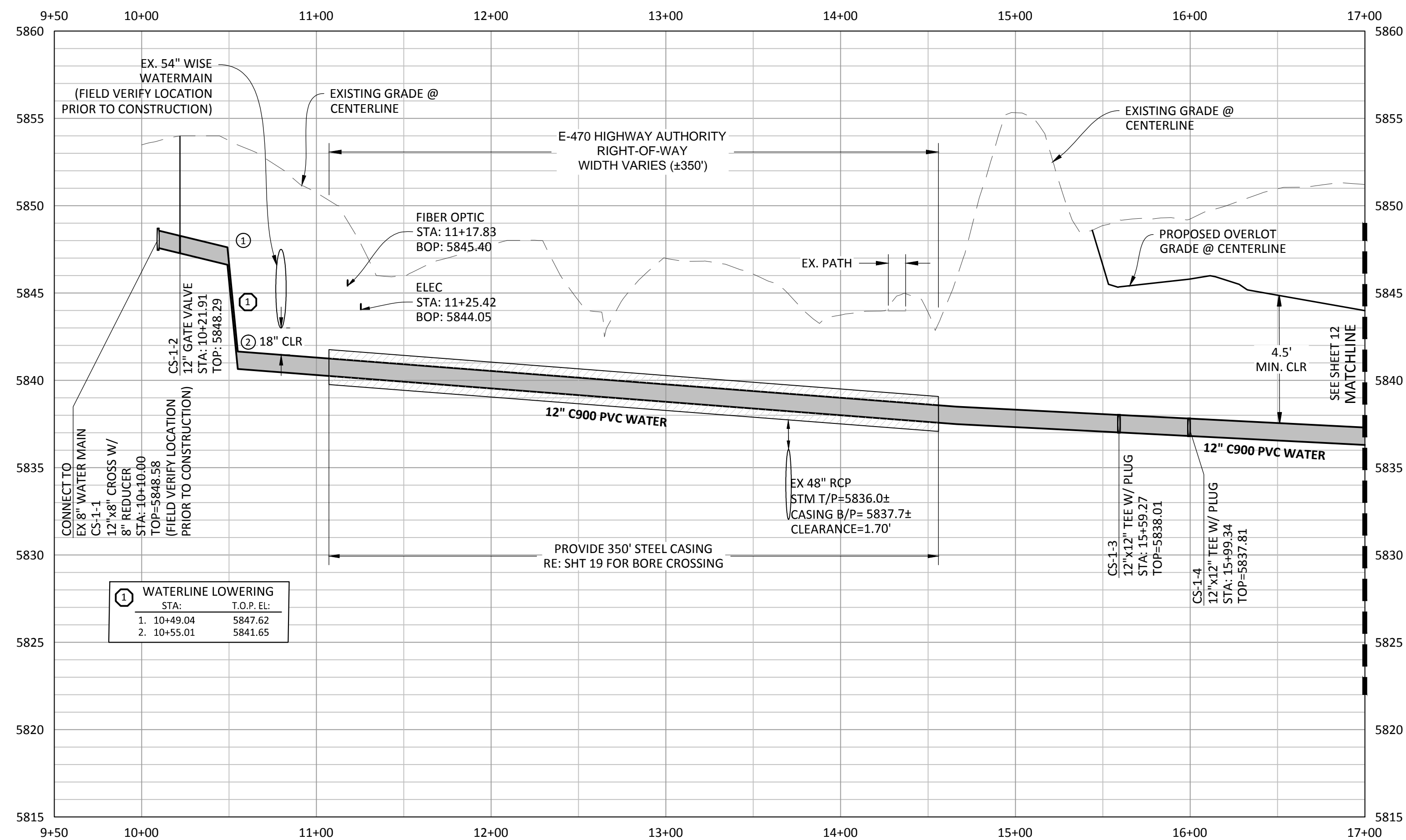
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 TOWN OF PARKER, COLORADO
 SANITARY SEWER PLAN & PROFILE
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10 OF 23
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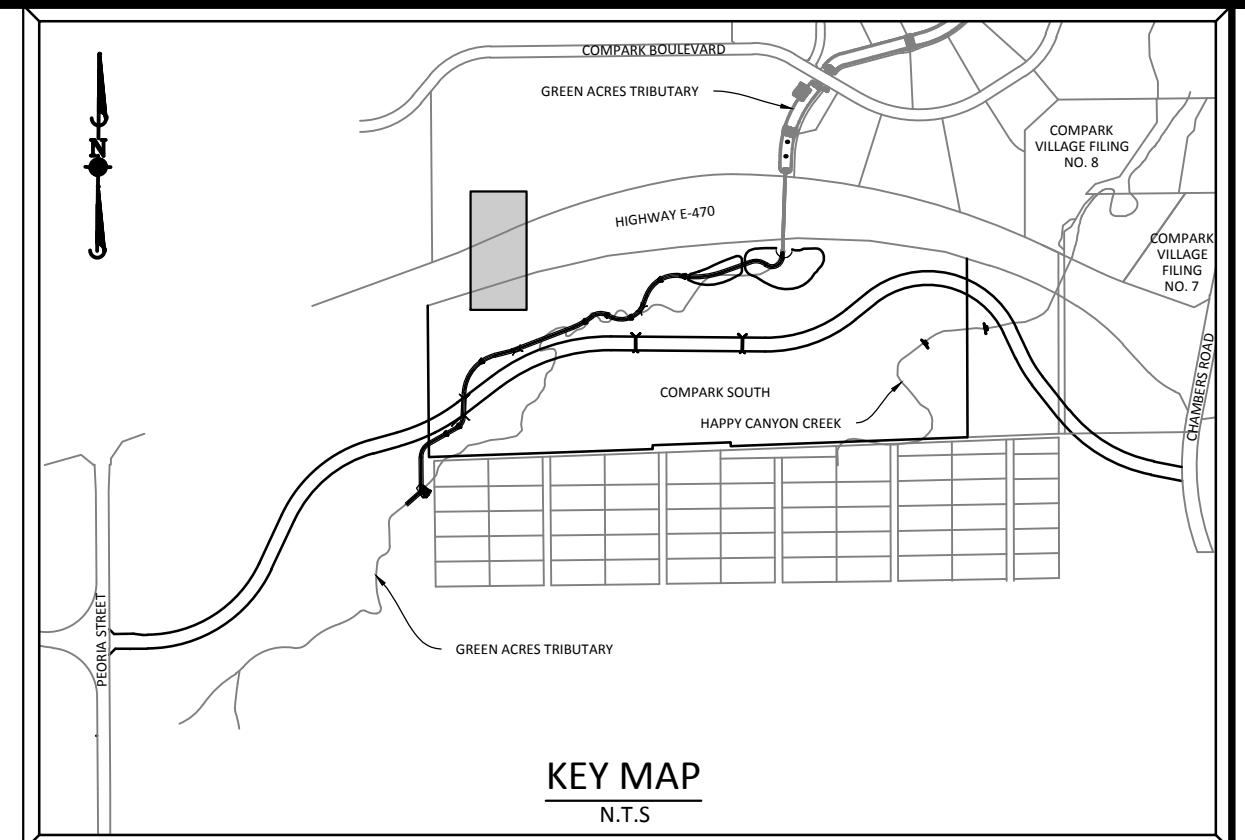
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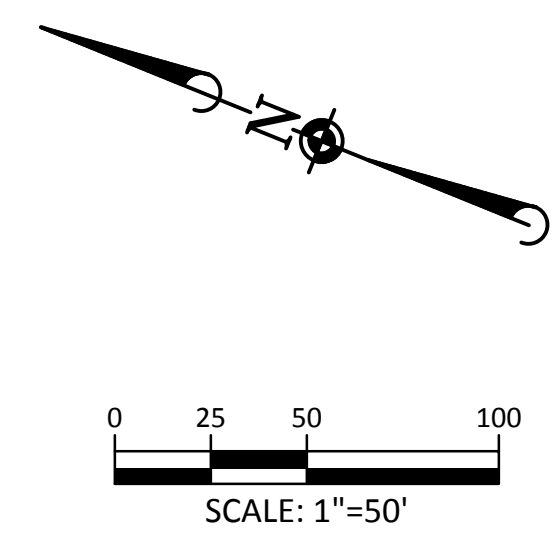
PLAN: 12" WATERLINE



PROFILE: 12" WATERLINE



SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET
 SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF
 THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



NOTE:

1. ALL CROSSING UTILITY LOCATION NEED TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION

Project: 12/16/2015 12:29 PM Day Name: D:\Cparks3\comsouth04.master san & water\dwg\final drawings\Plan_Spl\Office\CLCPKC3.Offline.Wat_P80-1.dwg. Updated By: bblair

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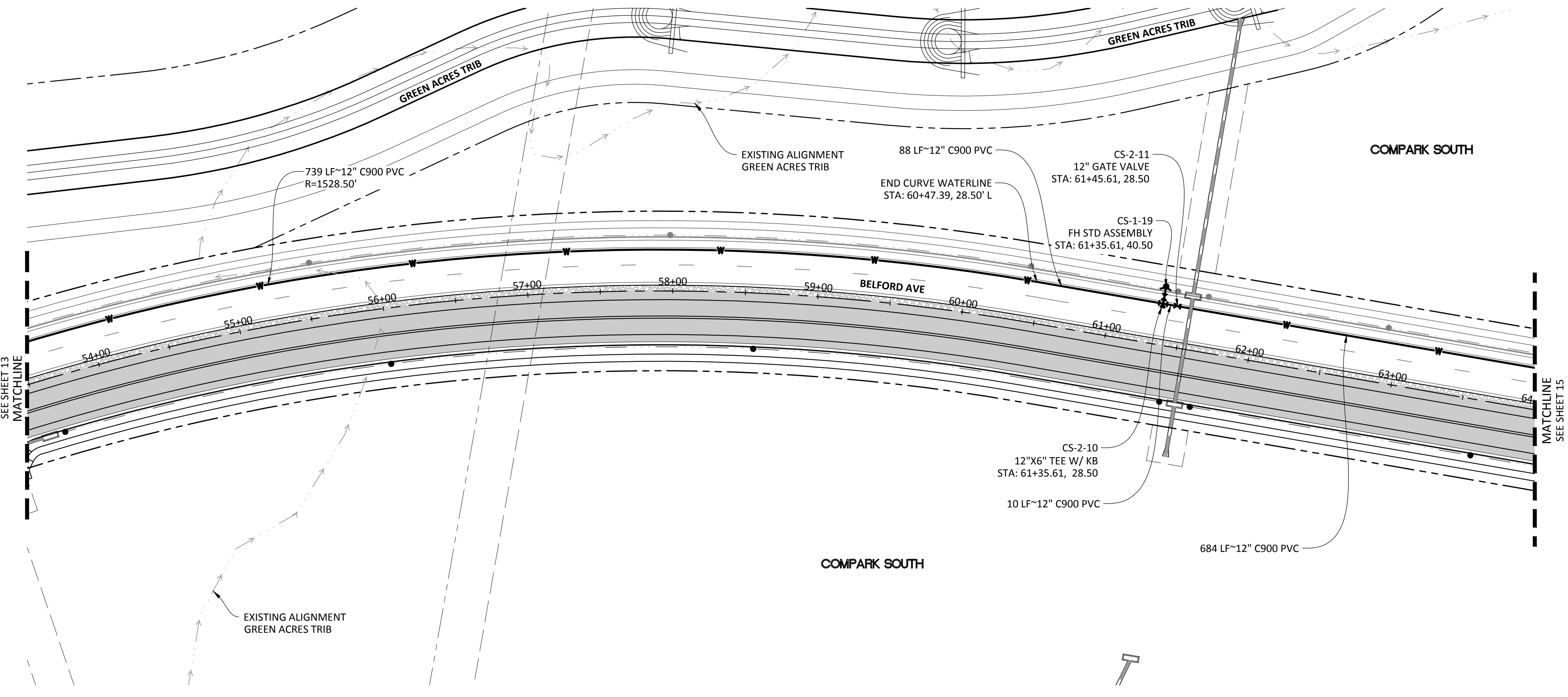
COMPARK VILLAGE SOUTH
 TOWN OF PARKER, COLORADO
 E-470 WATER MAIN BORE PLAN & PROFILE

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 PROJ ASSOC: ASD
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 DATE: 11/2015

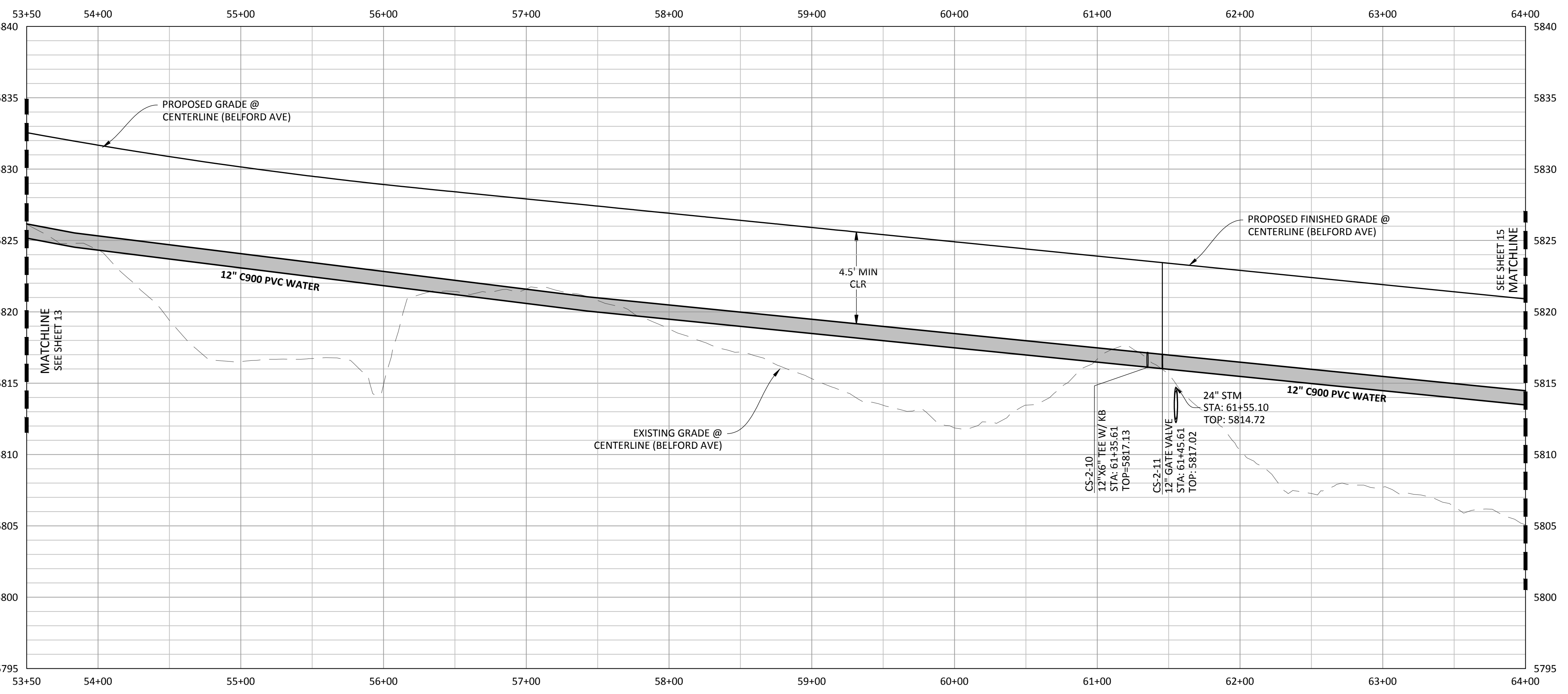
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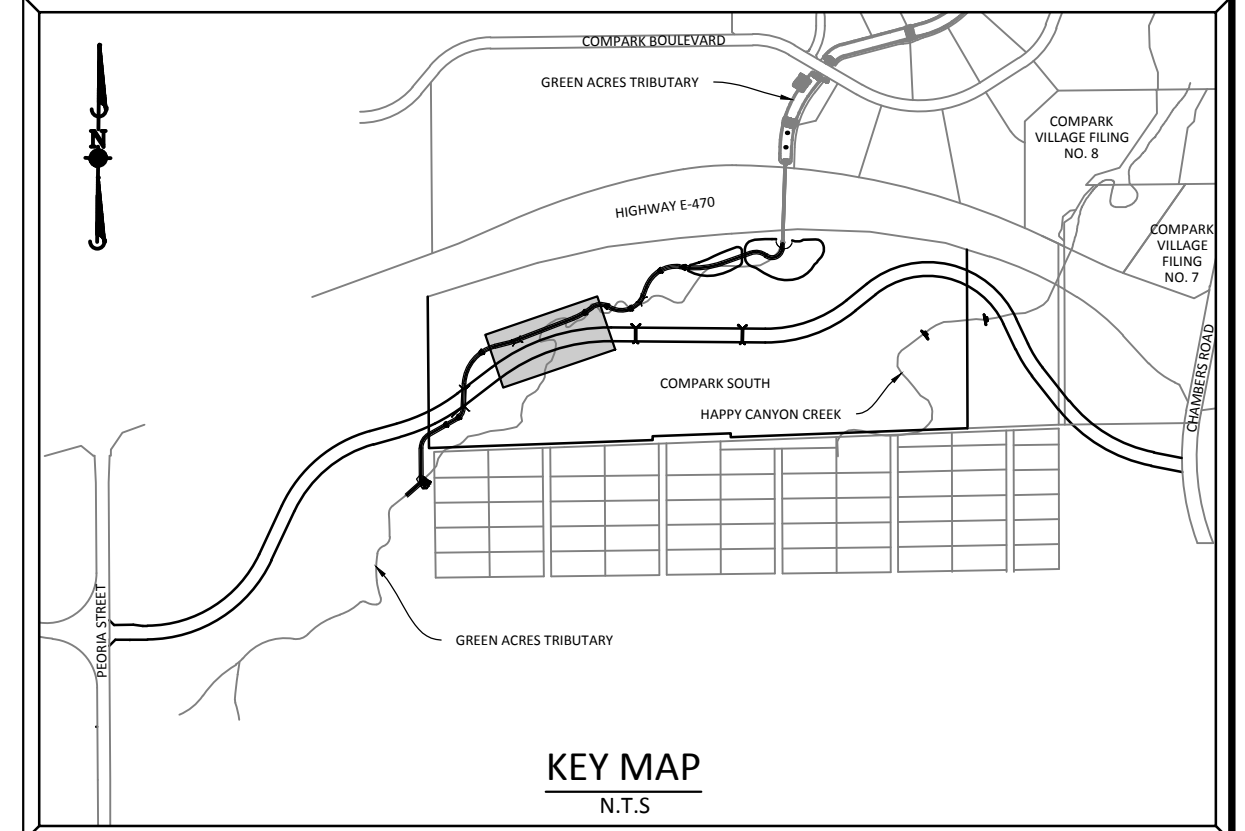
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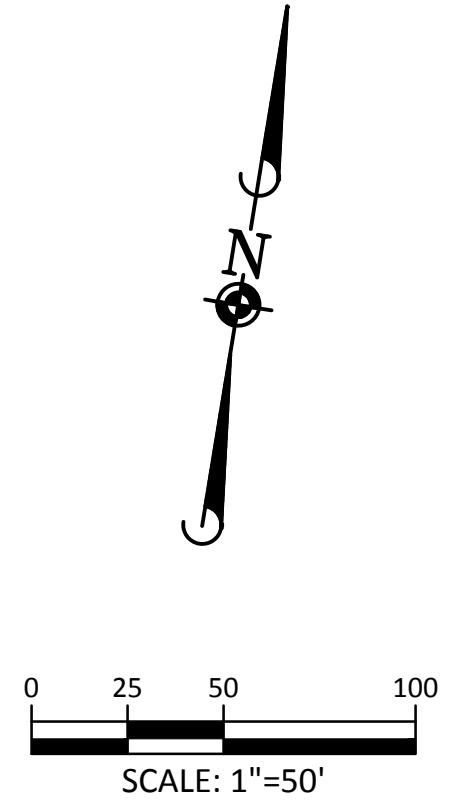
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PROFILE: 12" WATERLINE



SOURCE BENCHMARKS:
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 THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



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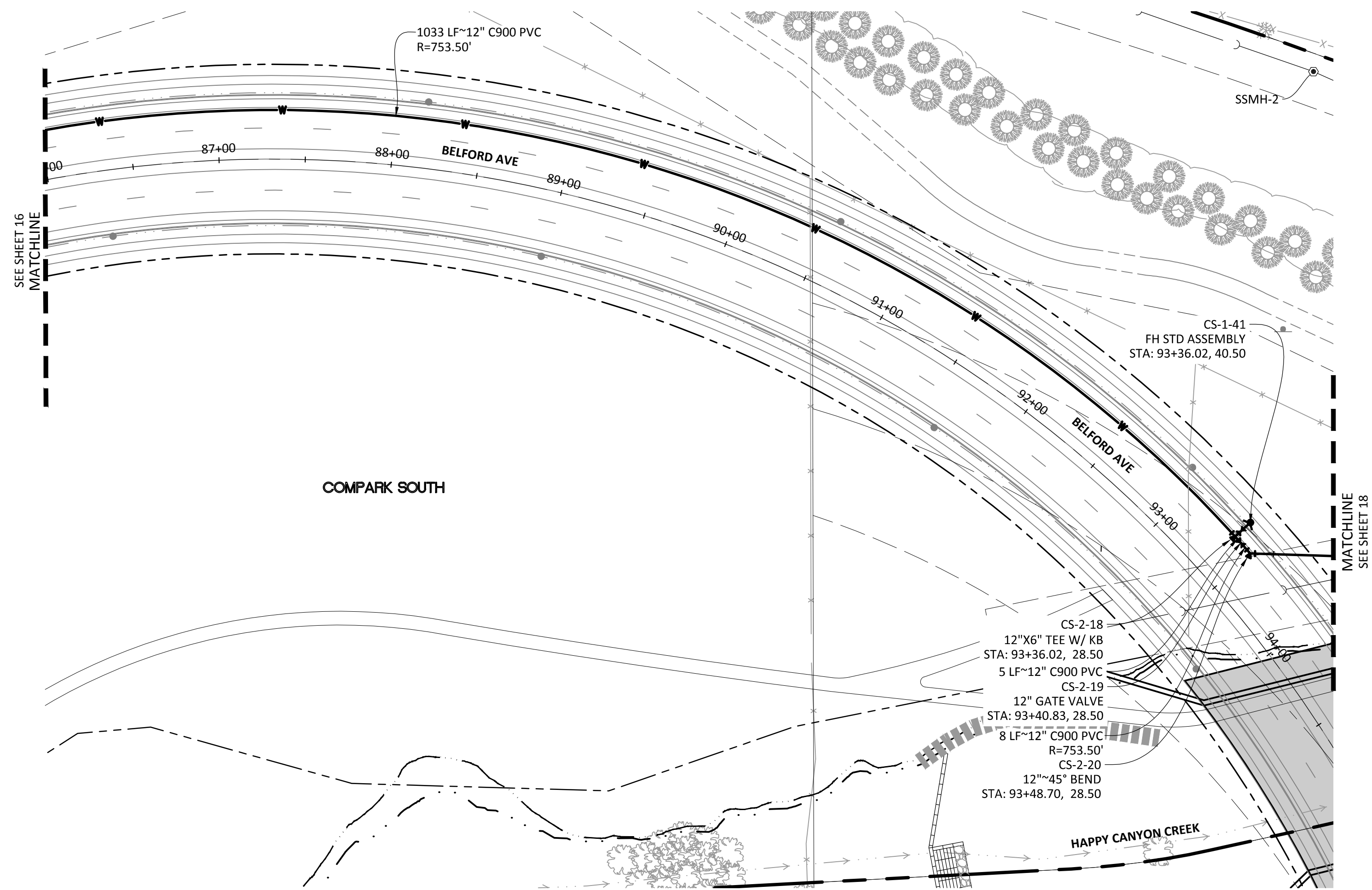
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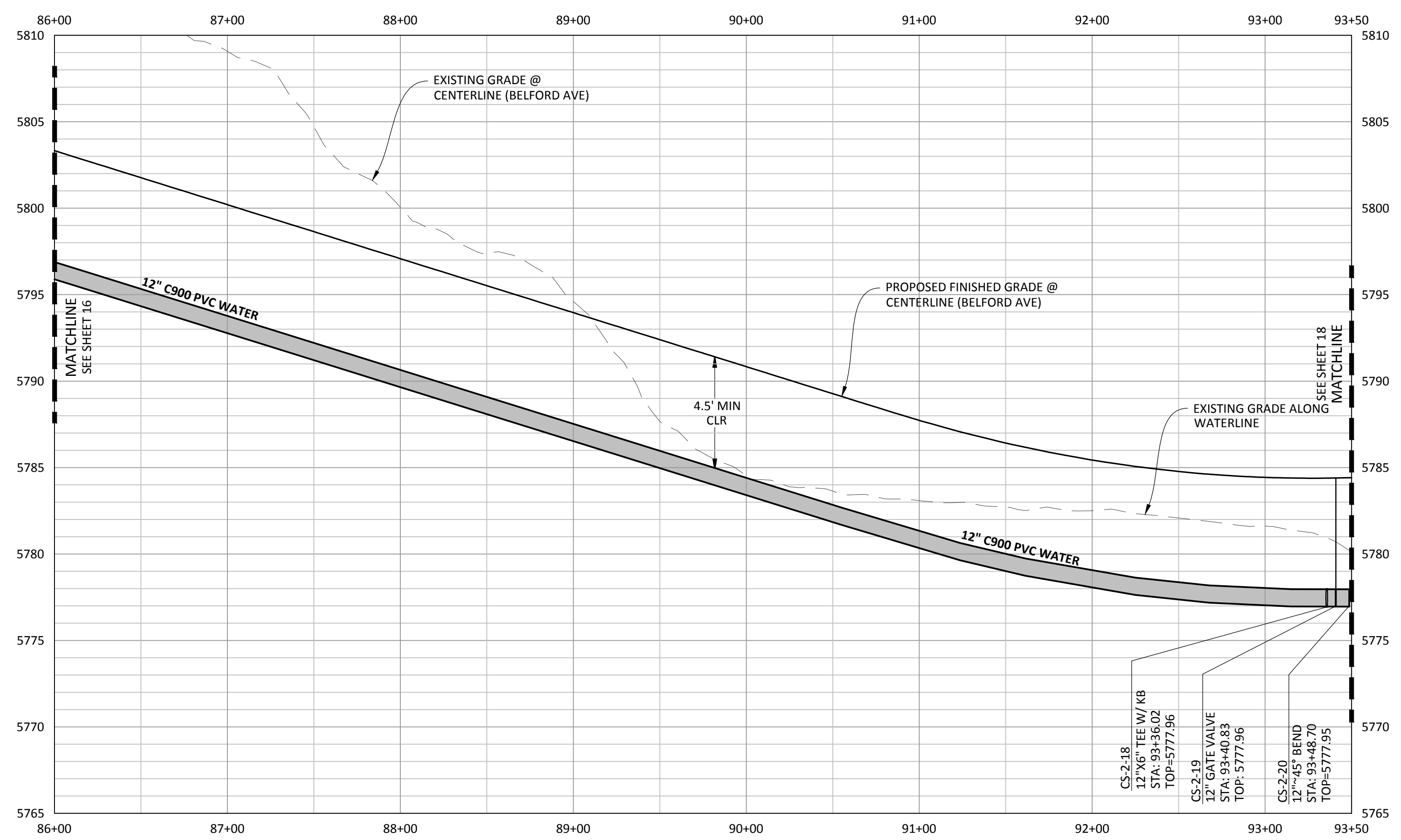
COMPARK VILLAGE SOUTH
 TOWN OF PARKER, COLORADO
 WATER PLAN & PROFILE

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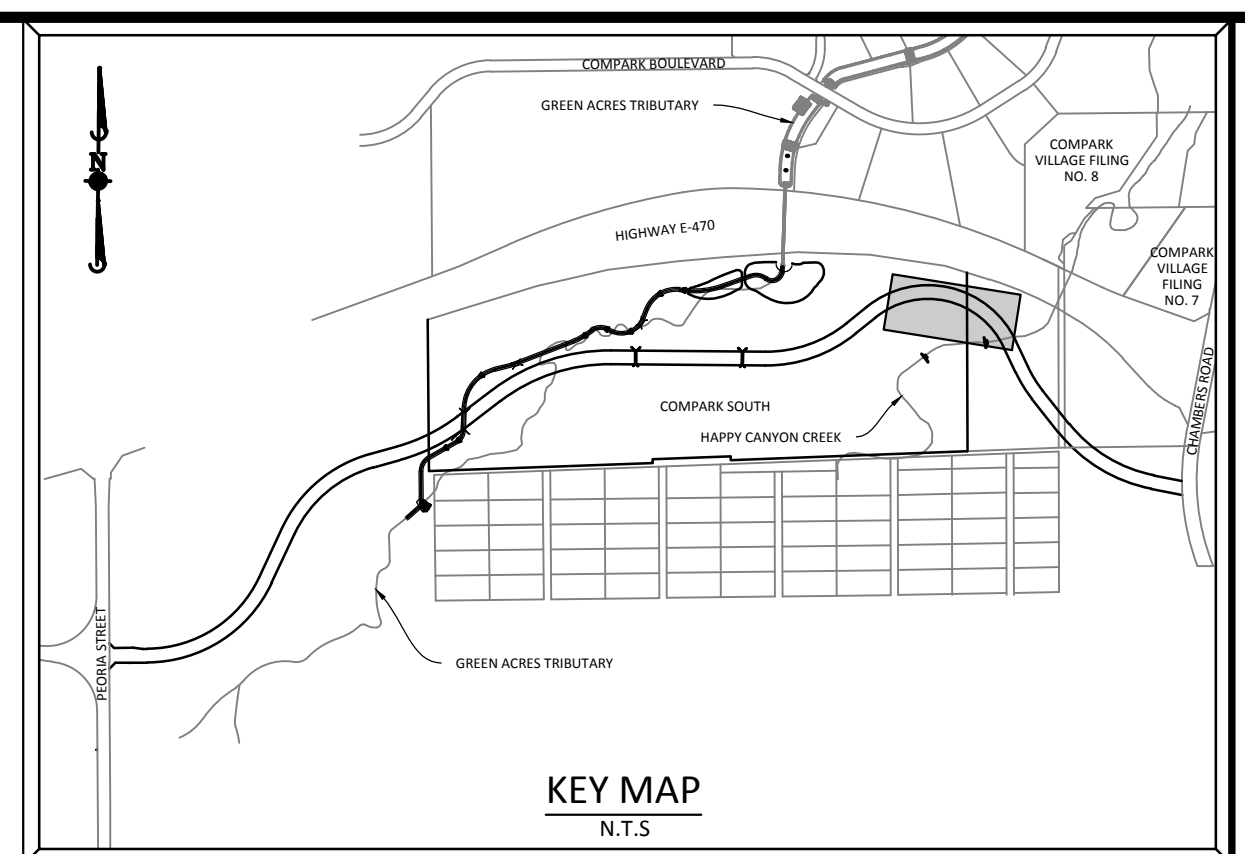
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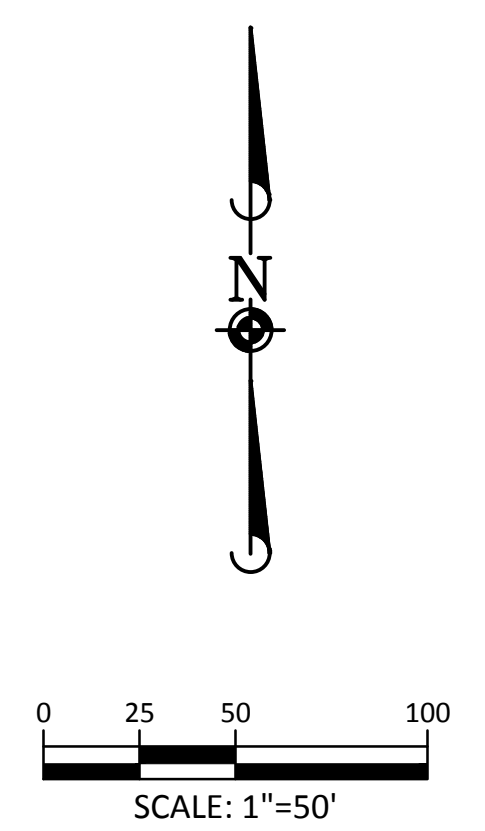
PLAN: 12" WATERLINE



PROFILE: 12" WATERLINE



SOURCE BENCHMARKS:
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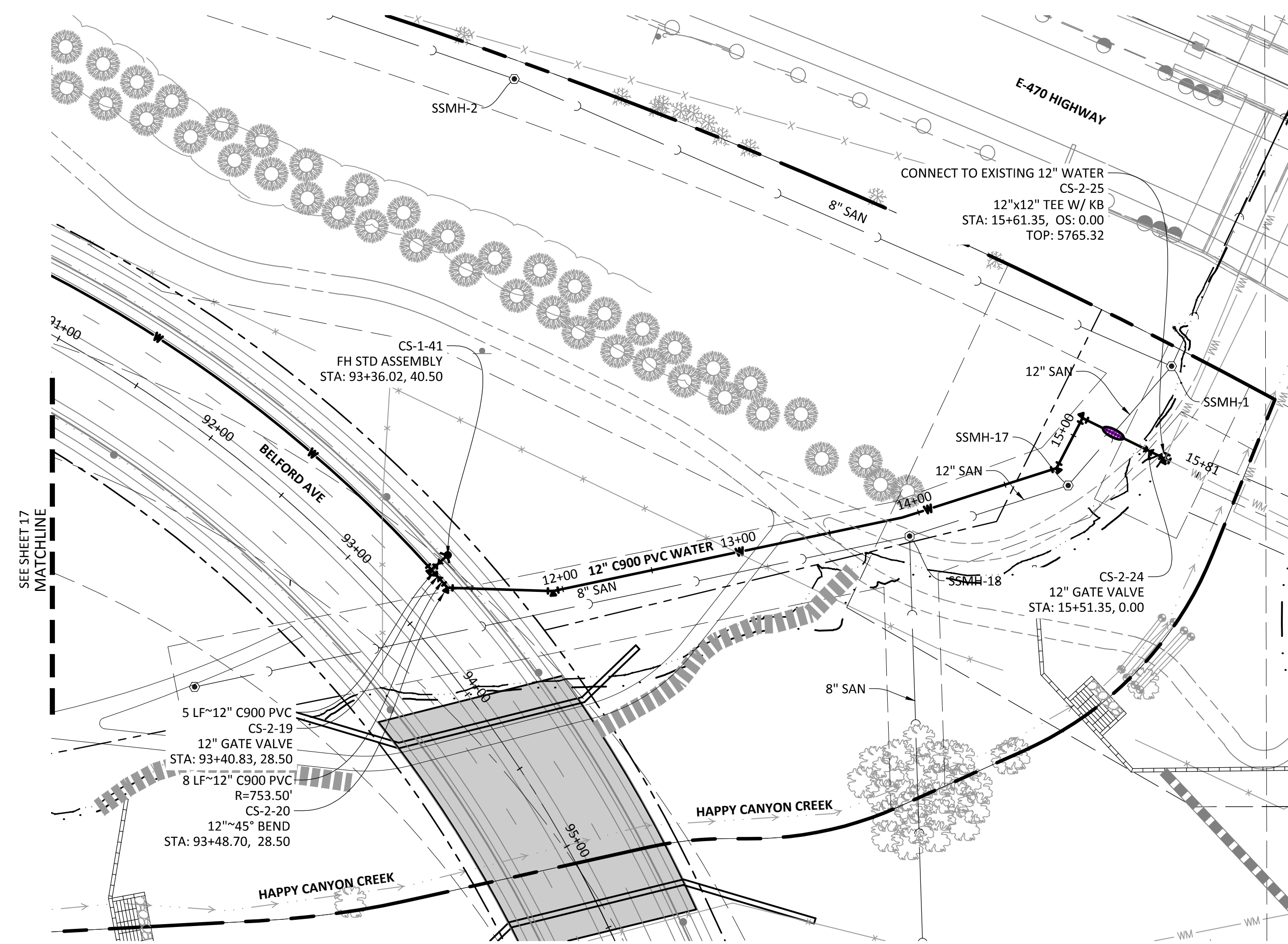
COMPARK VILLAGE SOUTH
 TOWN OF PARKER, COLORADO
 WATER PLAN & PROFILE

PROJ. MGR.: RLB
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 DATE: 11/2015

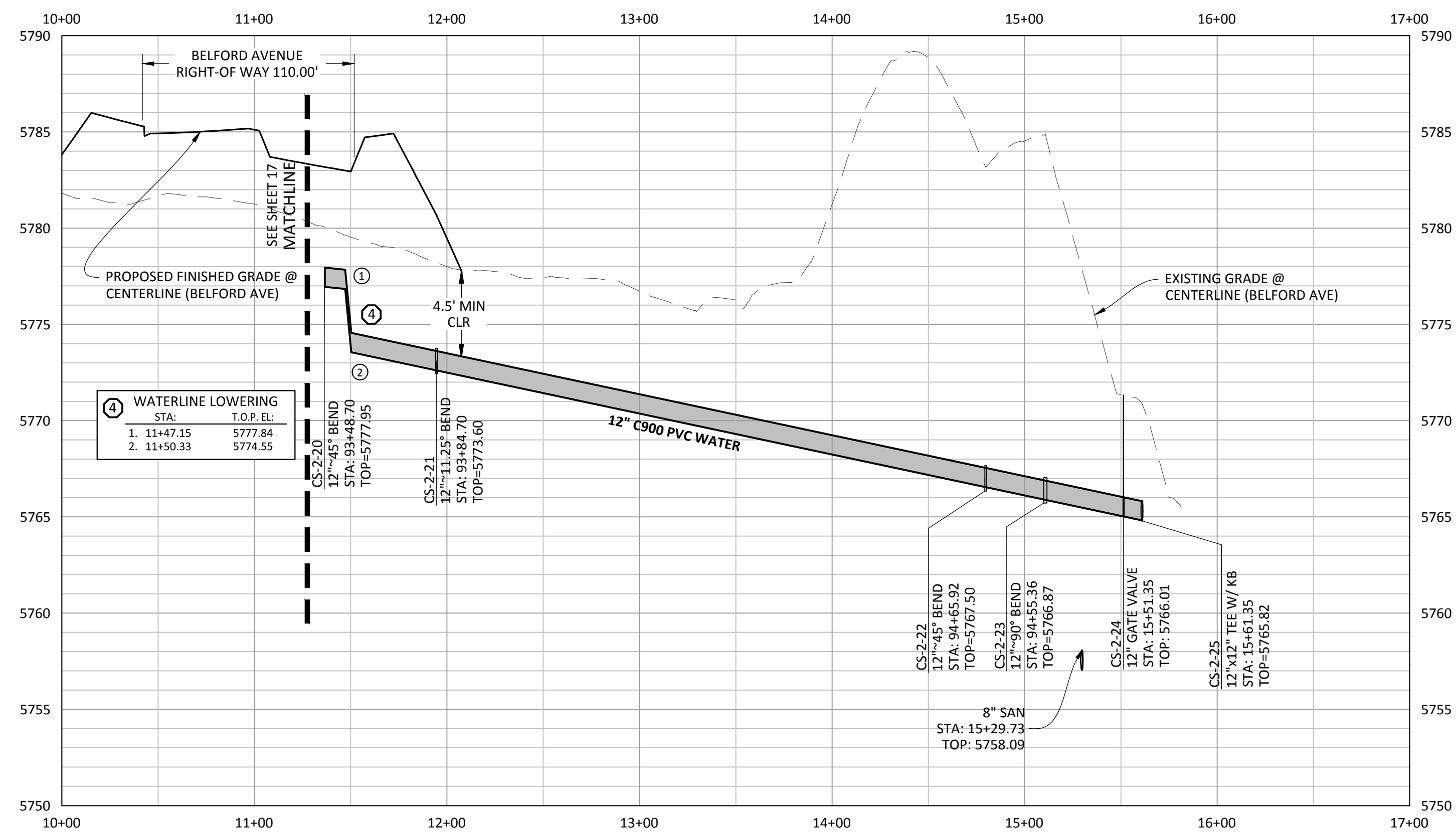
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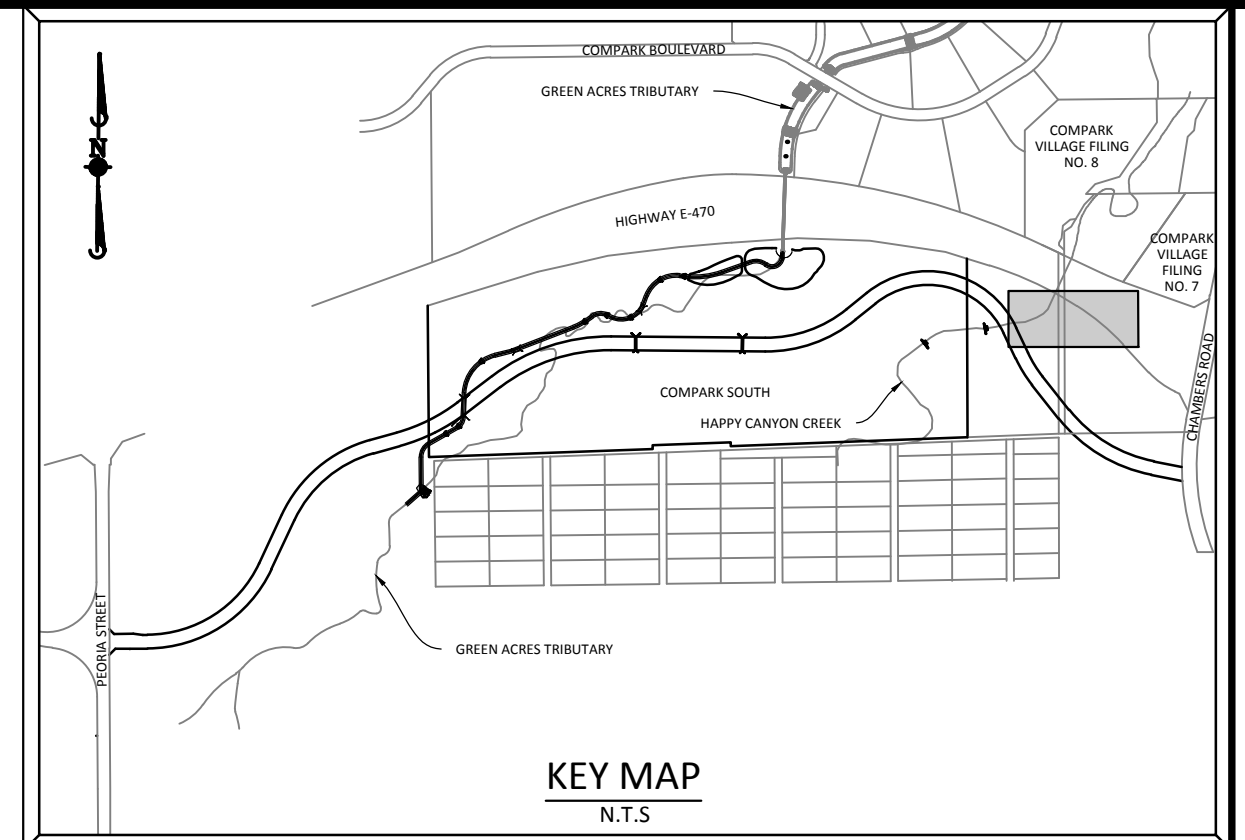
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PLAN: 12" WATERLINE

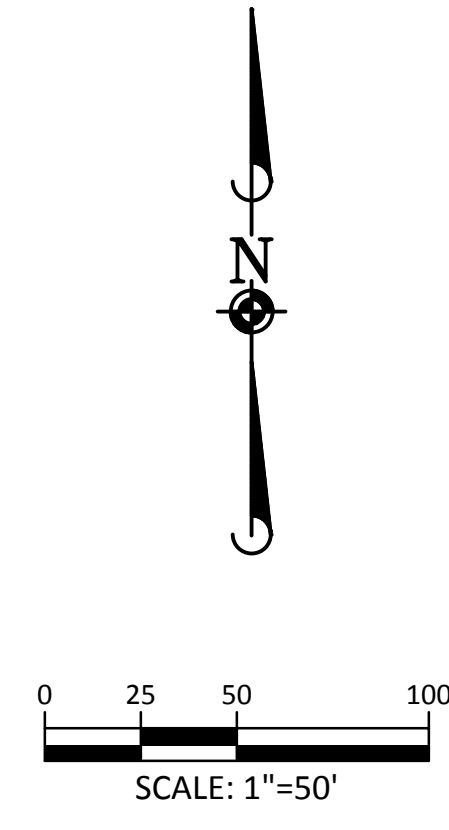


PROFILE: 12" WATERLINE



KEY MAP
N.T.S.

SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
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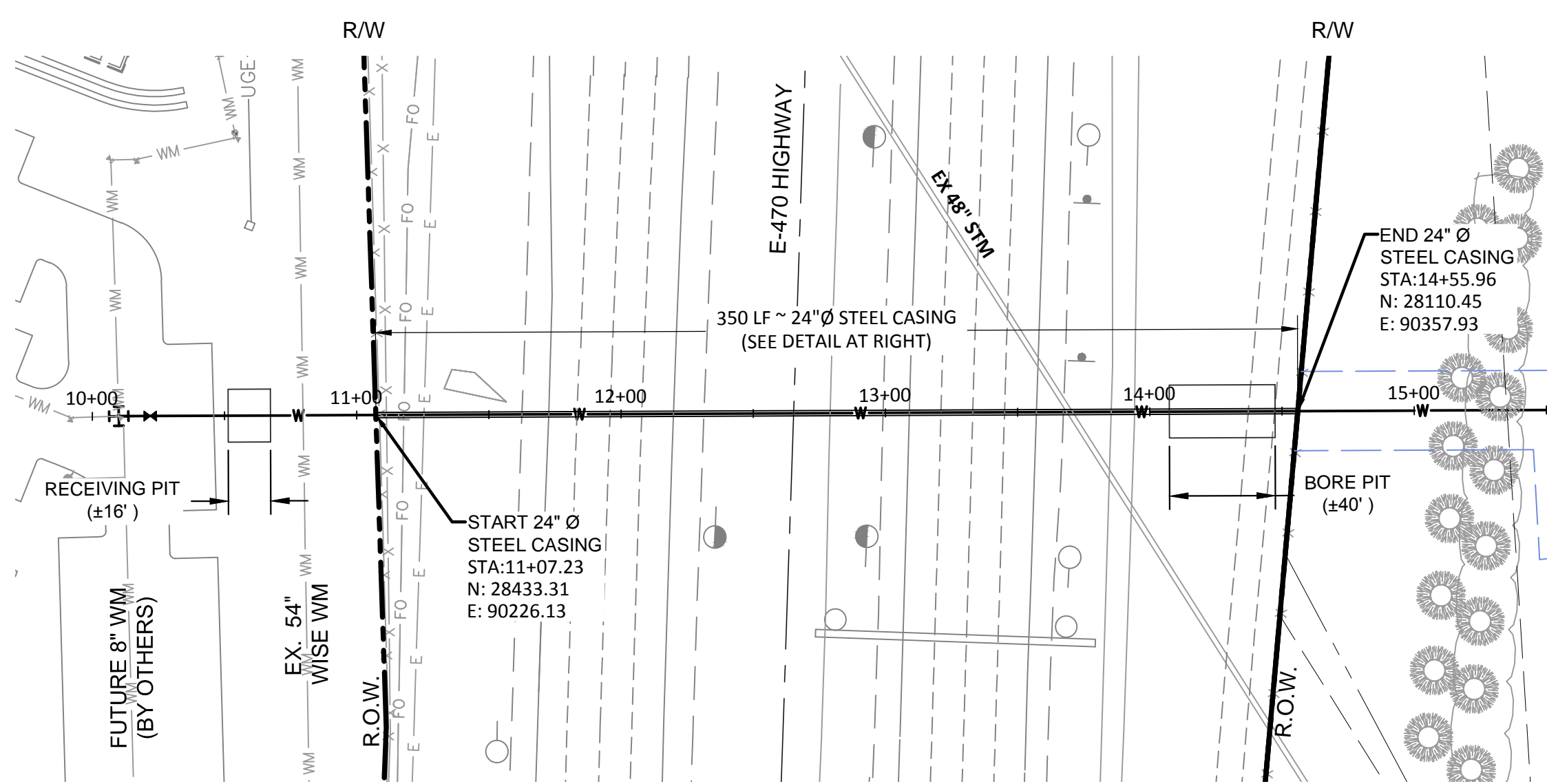
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COMPARK VILLAGE SOUTH
 TOWN OF PARKER, COLORADO
 WATER PLAN & PROFILE

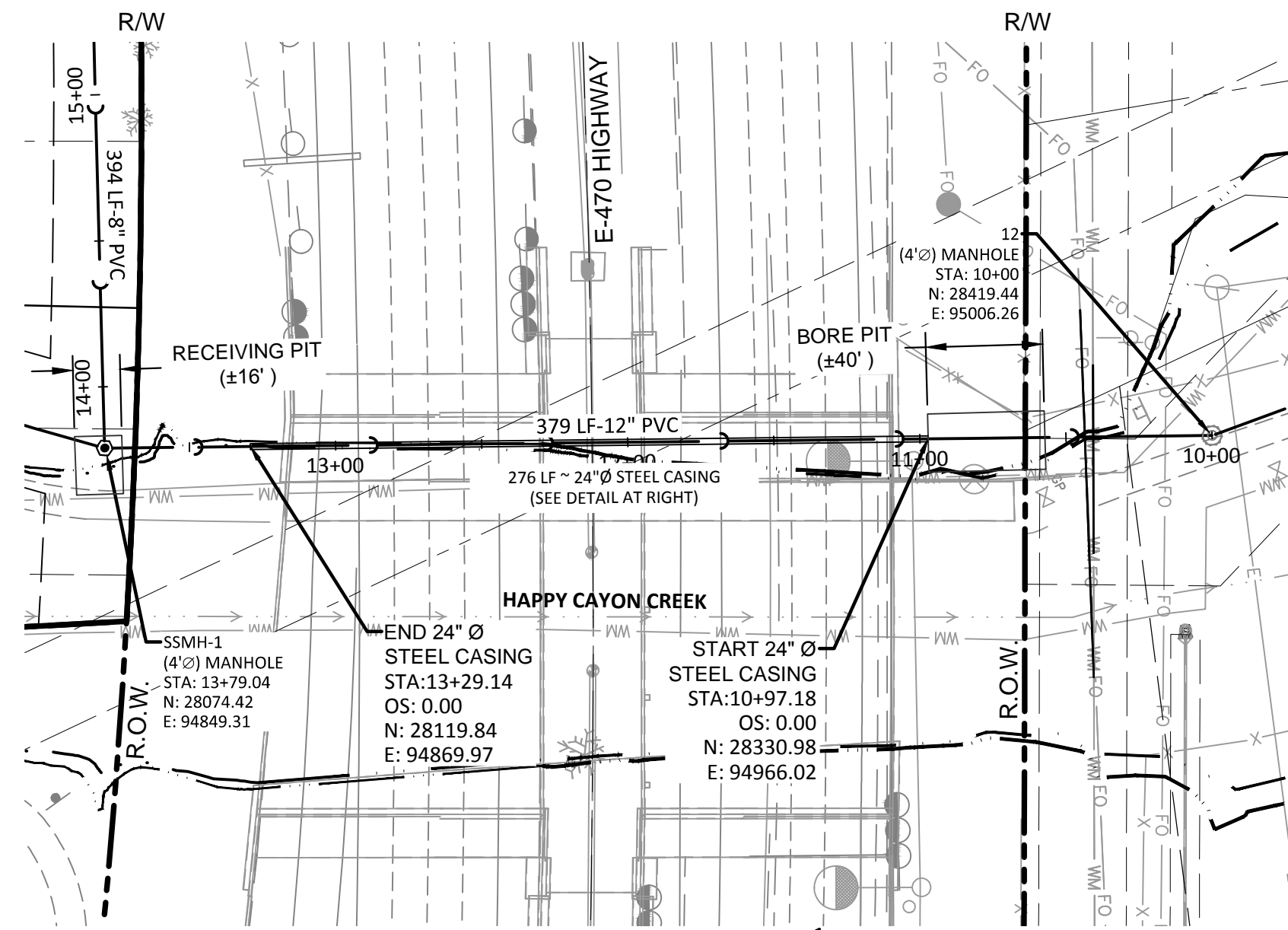
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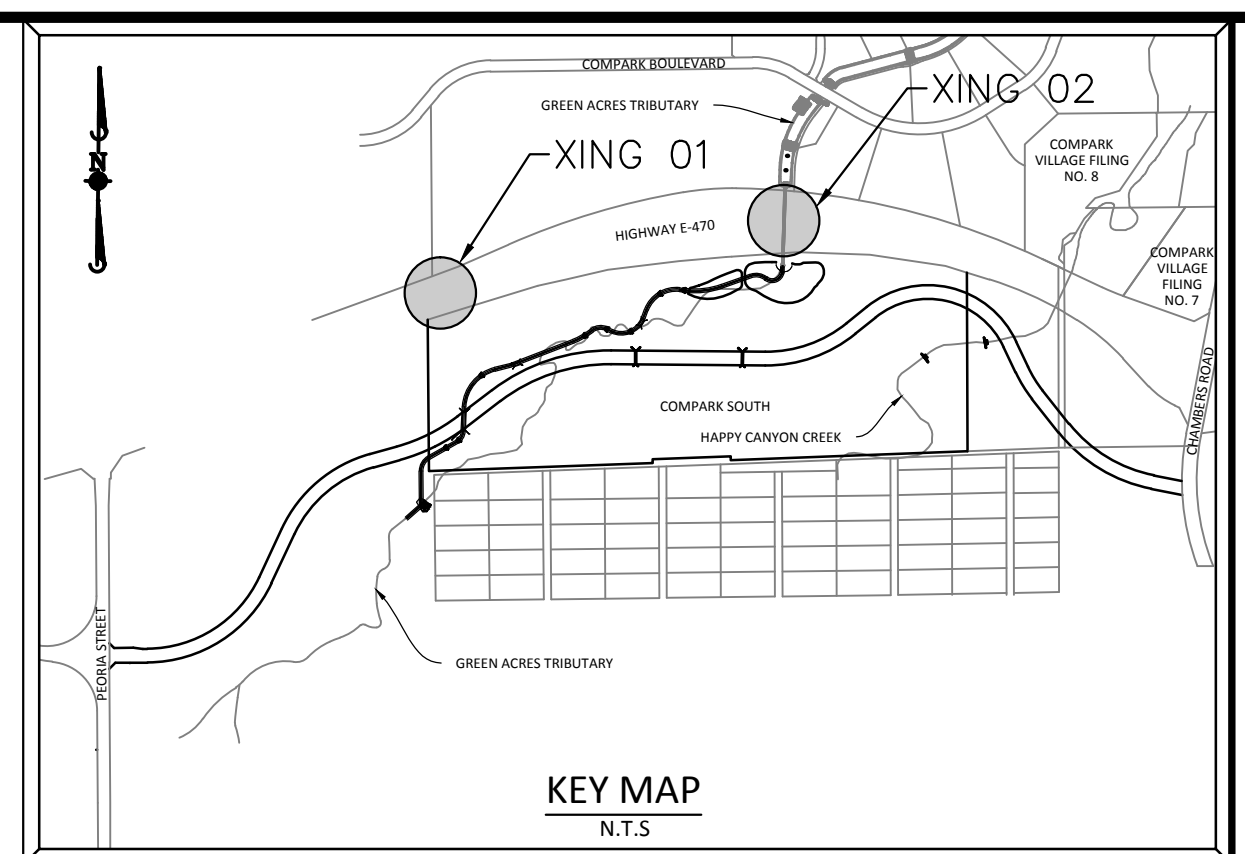
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E-470 BORE CROSSING NO. 1
12" WATER MAIN
SCALE 1"=50'

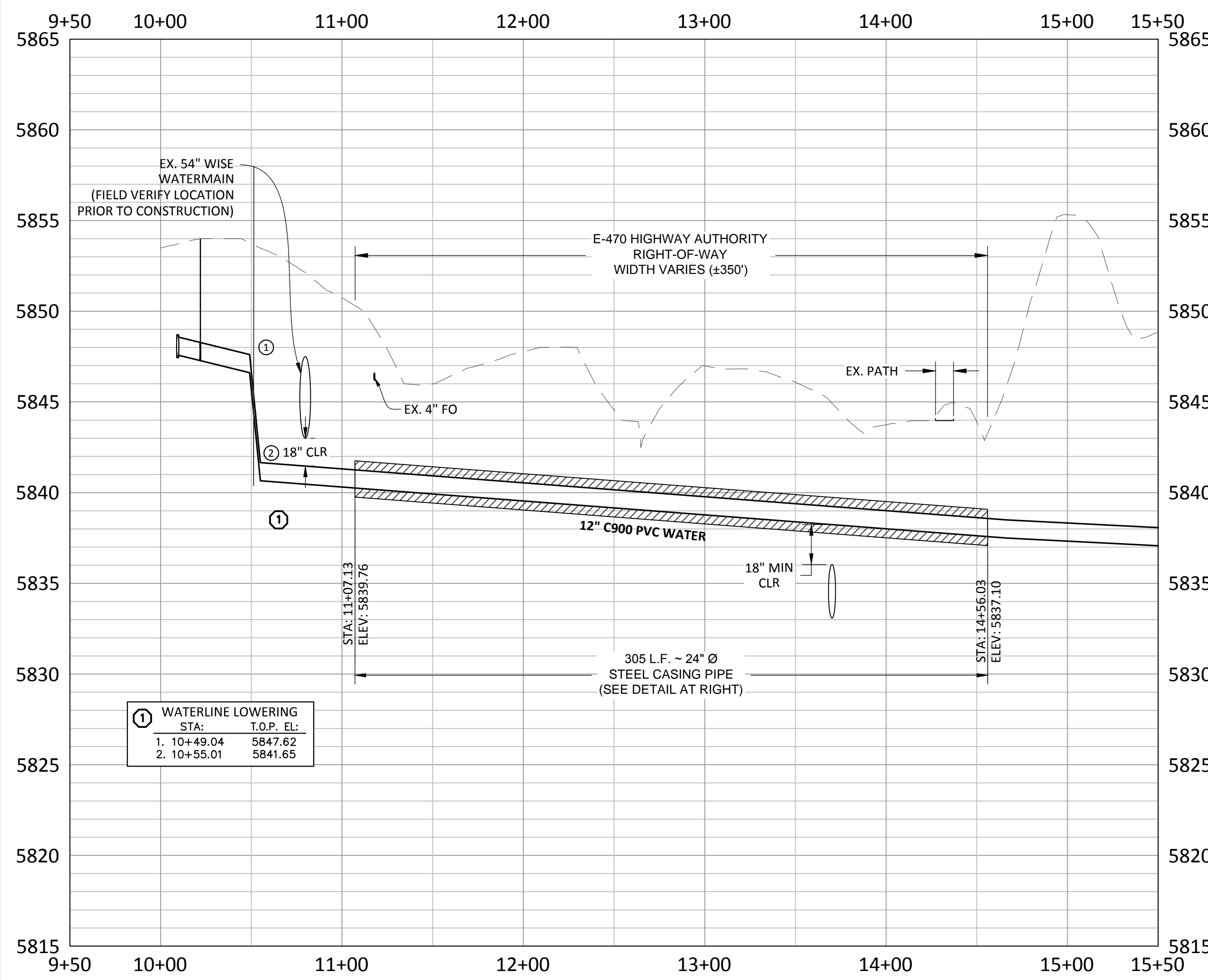


E-470 CROSSING NO. 2
12" SAN. SEWER
SCALE 1"=50'

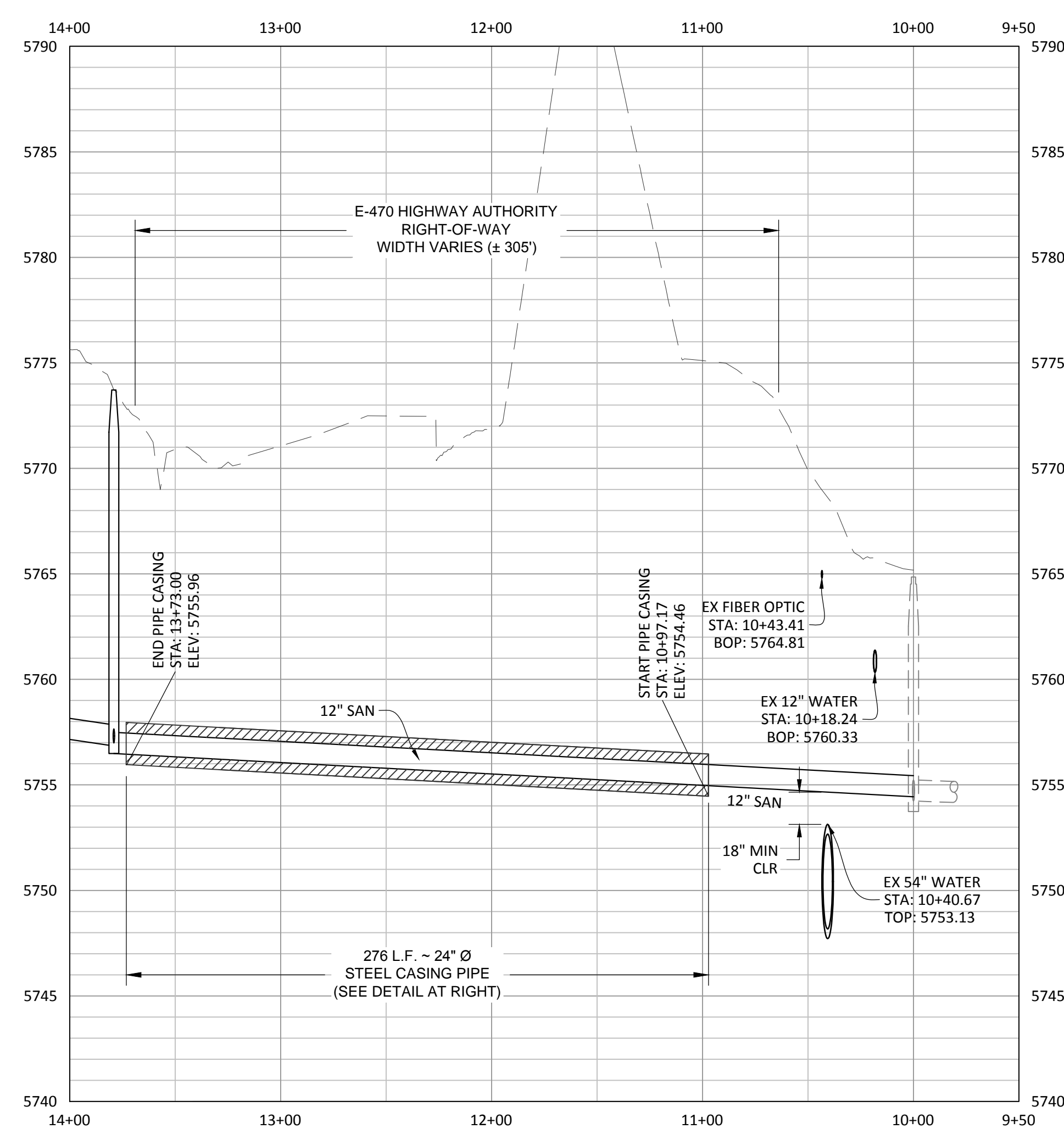


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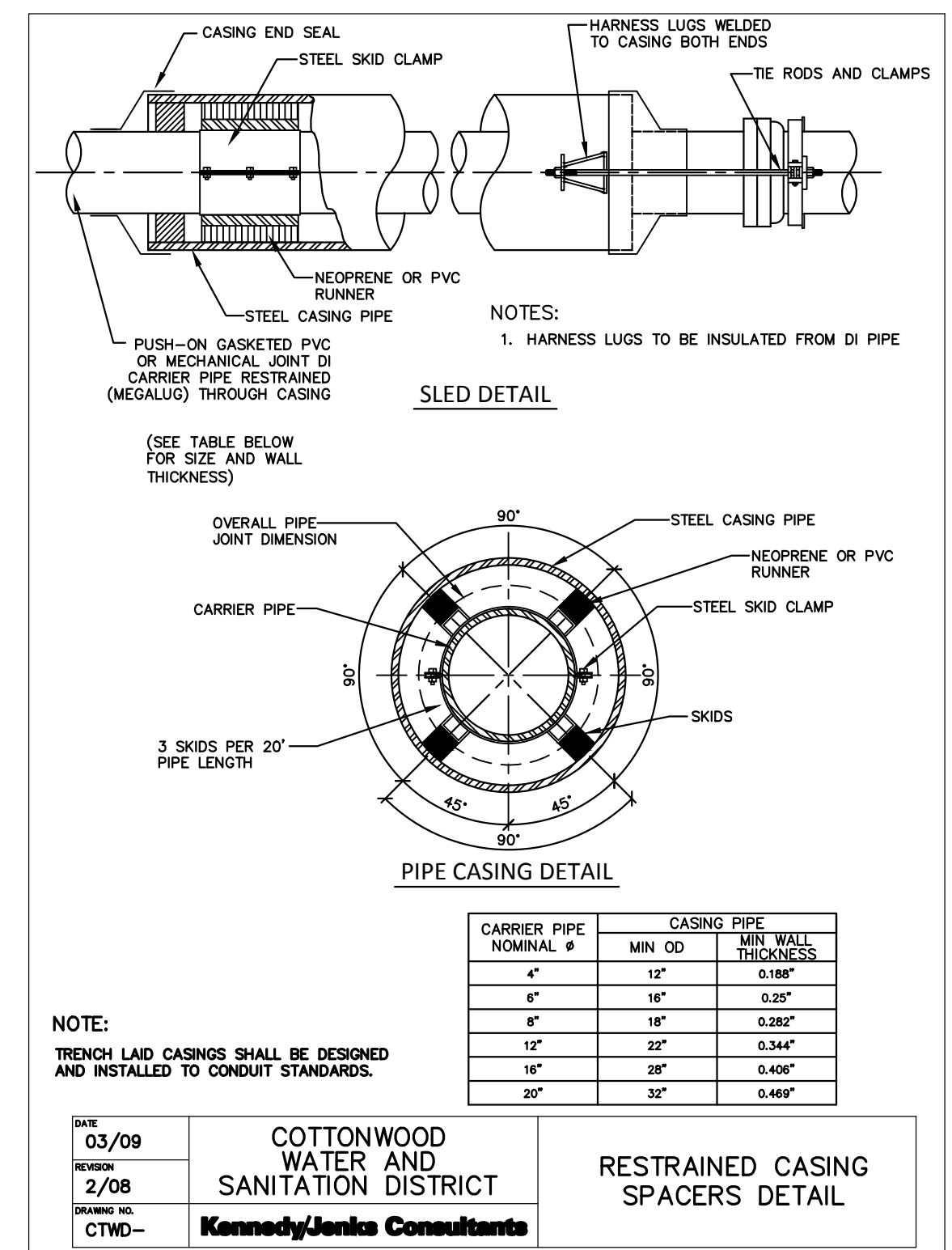
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PROFILE: BORE CROSSING NO. 1
SCALE 1"=50'



PROFILE: CROSSING NO. 2
SCALE 1"=50'



CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES CROSSINGS CONFLICTS PRIOR TO CONSTRUCTION & NOTIFY ENGINEER OF ANY DISCREPANCIES.



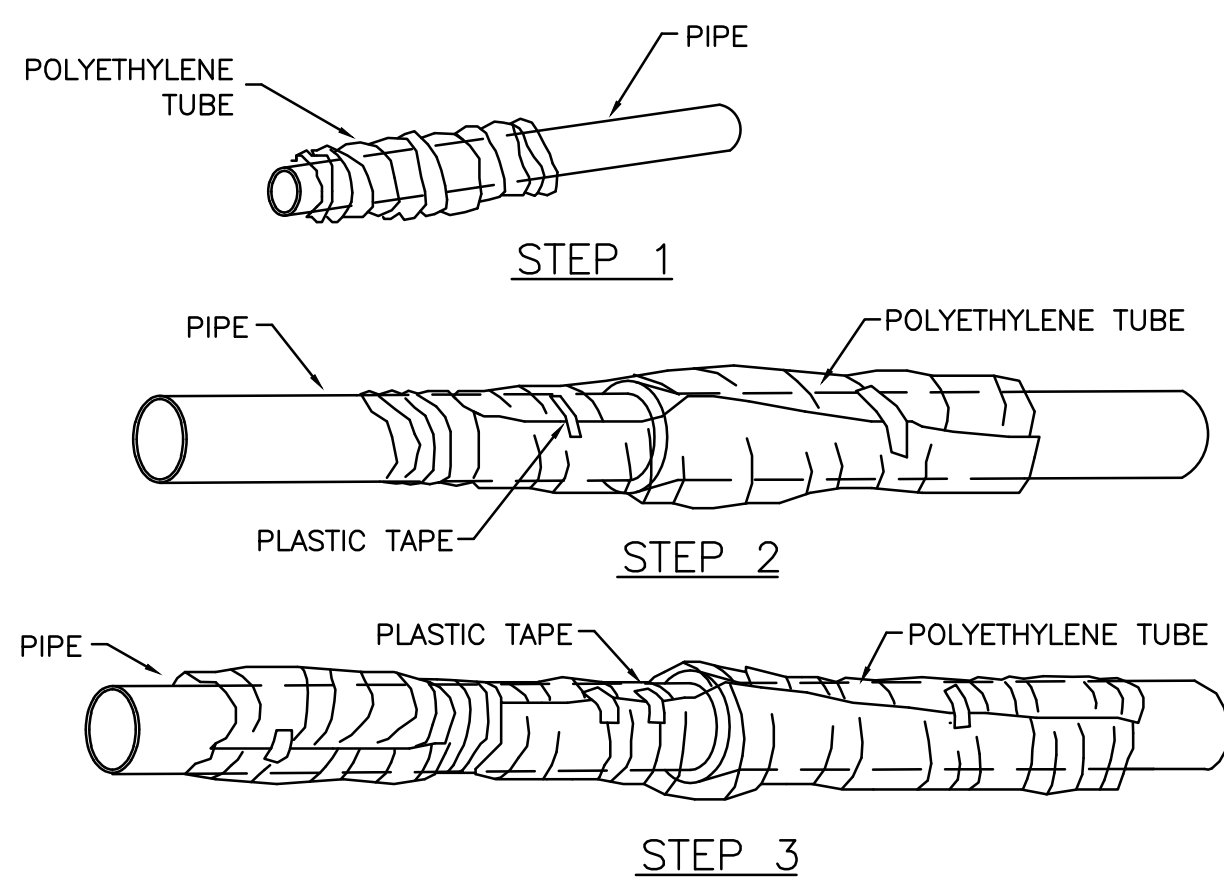
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COMPARK VILLAGE SOUTH
TOWN OF PARKER, COLORADO
WATER AND SANITARY SEWER BORE CROSSING

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015
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PENDING APPROVAL



FIELD INSTALLATION – POLYETHYLENE WRAP

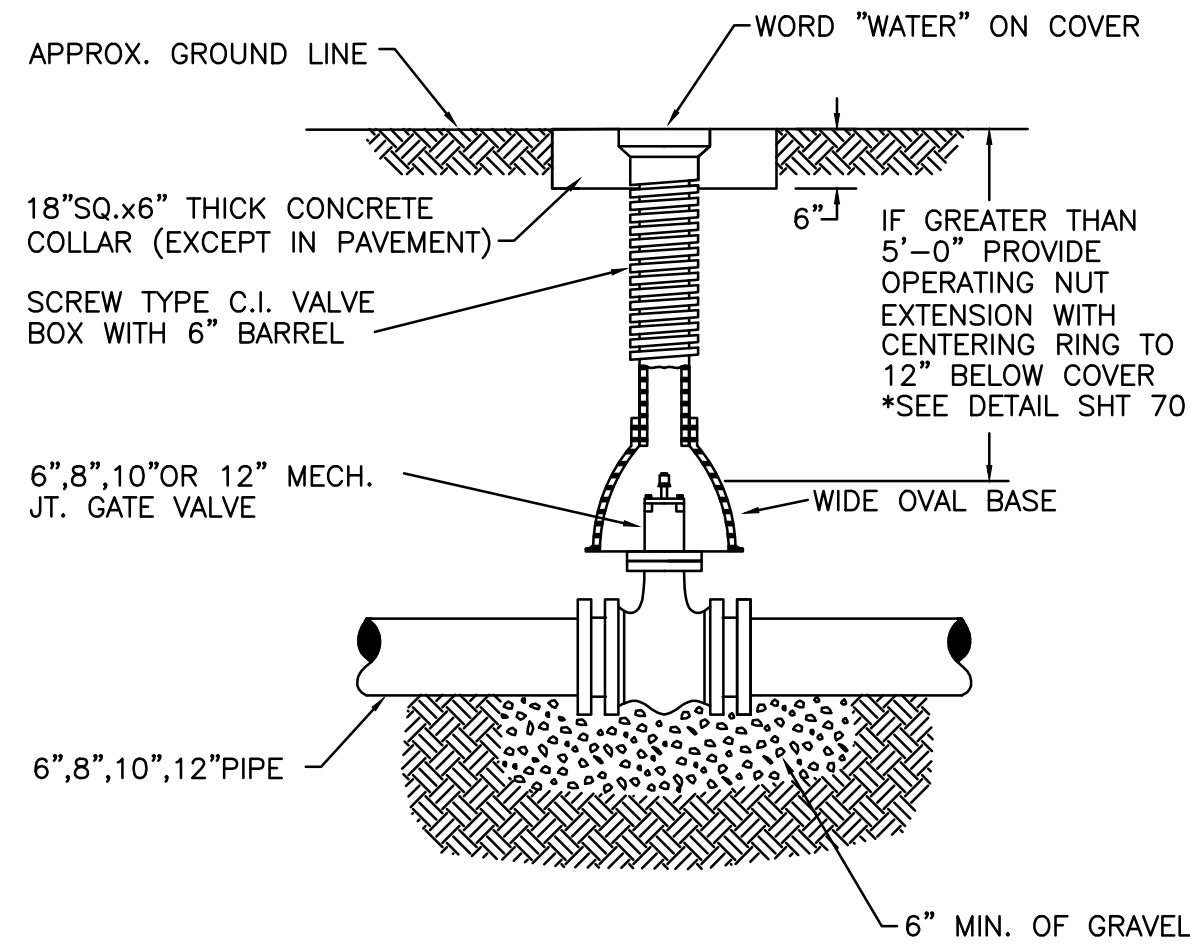
- STEP 1 – PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.
- STEP 2 – PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE.
- STEP 3 – OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

STONEGATE VILLAGE
METROPOLITAN DISTRICT

POLYETHYLENE WRAP

SCALE: NONE DATE: 4/00

APPROVED: R/JG DISTRICT ENGINEER



6-INCH VALVE BOXES

Materials:
Valve box parts shall be made from gray cast iron, ASTM A48 Class 20A. Use of an aluminum alloy as a casting material is not acceptable.

Approved Patterns:
Valve boxes shall be the three-piece adjustable screw type and the following two patterns are acceptable.

1. Tyler screw-type 6-inch cast iron valve box assembly series 6860 with No. 160 oval base.
2. Clay and Bailey screw-type 6-inch cast iron valve box assembly No. P-108 with No. 160 large oval base.

NOTES:

1. VALVE BOXES SHALL BE:
 - A. TYLER SCREW-TYPE 6\"/>
2. ALL C.I. SHALL BE WRAPPED WITH 8 MIL. MIN. THICKNESS POLYETHYLENE.
3. VALVE NUT SHALL BE CENTERED.
4. VALVE BOX SHALL BE PLUMB.

STONEGATE VILLAGE
METROPOLITAN DISTRICT

VALVE BOX DETAIL

SCALE: NONE DATE: 4/00

APPROVED: R/JG DISTRICT ENGINEER

- INSPECTION POLICY:**
1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE (303)841-2058 AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
 2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 8:00 A.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
 3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
 4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
 5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
 6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.

INSTALLATION NOTES:

- WATER**
1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING, (3/4\"/>
- SEWER**
1. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 90°± ANGLE. MAXIMUM, 45° ANGLE. MINIMUM, WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18\"/>

STONEGATE VILLAGE
METROPOLITAN DISTRICT

DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

SCALE: NONE DATE: 4/00

APPROVED: R/JG DISTRICT ENGINEER

LENGTH OF TIED PIPE

| PIPE SIZE | 4" | | 6" | | 8" | | 12" | | 16" | | 20" | | 24" | |
|--------------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|--------|
| | D | L | D | L | D | L | D | L | D | L | D | L | D | L |
| TEE OR VALVE | 3/4" | 6.0' | 3/4" | 13.0' | 3/4" | 20.0' | 3/4" | 40.0' | 3/4" | 60.0' | 3/4" | 80.0' | 3/4" | 100.0' |
| 90° BEND | 3/4" | 6.0' | 3/4" | 13.0' | 3/4" | 20.0' | 3/4" | 40.0' | 3/4" | 60.0' | 3/4" | 80.0' | 3/4" | 100.0' |
| 45° BEND | 3/4" | 2.0' | 3/4" | 4.0' | 3/4" | 6.0' | 3/4" | 11.0' | 3/4" | 18.0' | 3/4" | 24.0' | 3/4" | 40.0' |
| 22-1/2° BEND | 3/4" | 1.0' | 3/4" | 2.0' | 3/4" | 3.0' | 3/4" | 5.0' | 3/4" | 8.0' | 3/4" | 12.0' | 3/4" | 20.0' |
| 11-1/4° BEND | 3/4" | 0.0' | 3/4" | 0.0' | 3/4" | 1.0' | 3/4" | 1.0' | 3/4" | 1.0' | 3/4" | 2.0' | 3/4" | 3.0' |

NOTES:

1. LENGTH OF TIED PIPE MEASURED EACH WAY FROM VALVES AND BENDS.
2. CLAMPS AND RODS NOT ALLOWED FOR 24" AND LARGER PIPES.
3. D = DIAMETER, L = LENGTH, G = GRADE, M.S. = MILD STEEL, H.S. = HIGH STRENGTH
4. MINIMUM 4.5" GROUND COVER REQUIRED.
5. BASED ON 150 PSI INTERNAL PRESSURE.
6. M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36.
7. H.S. MEANS HIGH STRENGTH ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B-7.
8. NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-307 GRADE A OR B HEXAGON HEAVY SERIES.
9. SEE TIE ROD DETAIL DRAWING. ALSO, THE ROD COUPLING DETAILS, CLAMP DETAILS AND SET CLAMP DETAILS.
10. CLAMP DETAILS NOT TO BE USED. PIPE WHICH MUST BE BED UNDER TRENCHES NOT TO BE USED. PIPE WHICH MUST BE BED UNDER TRENCHES NOT TO BE USED.
11. STAR BOLTS NOT ALLOWED ON PIPE LARGER THAN 16".
12. MINIMUM OF 4 RODS REQUIRED ON 16" PIPE IF STAR BOLTS ARE USED.
13. TEES ARE TO BE RODDED ON BRANCH ONLY.
14. ALL VALVES TO BE RODDED IN BOTH DIRECTIONS.

STONEGATE VILLAGE
METROPOLITAN DISTRICT

LENGTH OF TIED PIPE

SCALE: NONE DATE: 4/00

APPROVED: R/JG DISTRICT ENGINEER

PIPE BEDDING:

(a) **Installation of Bedding and Pipe:** After completion of the trench excavation and proper preparation of the foundation, six inches (6") of bedding material shall be placed on the trench bottom for support under the pipe. Bell holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the bell and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug bell holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bell holes, and sling holes. The purpose of tamping is to ensure uniform support for the pipe.

The limits of bedding shall be from six inches (6") below the bottom of the pipe to twelve inches (12") above the top of the pipe. Approved backfill may then be installed to the groundline. See Section 6 of these Standards for backfill and compaction of backfill.

Compaction of bedding is not required. The only requirement is sufficient tamping to achieve uniform support under the pipe. See Sheet 8 of the Standard Drawings for a typical trench cross section.

(b) **Bedding Material:** The bedding material shall be a clean well-graded sand or squeeze sand and shall conform to the following limits when tested by means of laboratory sieves:

| Well-Graded Sand | |
|------------------|---------------------------------|
| sieve Size | Total Percent Passing by Weight |
| 3/8 inch | 100 |
| No. 4 | 95-100 |
| No. 8 | 80-100 |
| No. 16 | 50-85 |
| No. 30 | 25-60 |
| No. 50 | 10-30 |
| No. 100 | 2-10 |
| No. 200 | 0 |

| Squeeze Sand | |
|--------------|---------------------------------|
| sieve Size | Total Percent Passing by Weight |
| 3/8 inch | 100 |
| No. 100 | 0-5 |

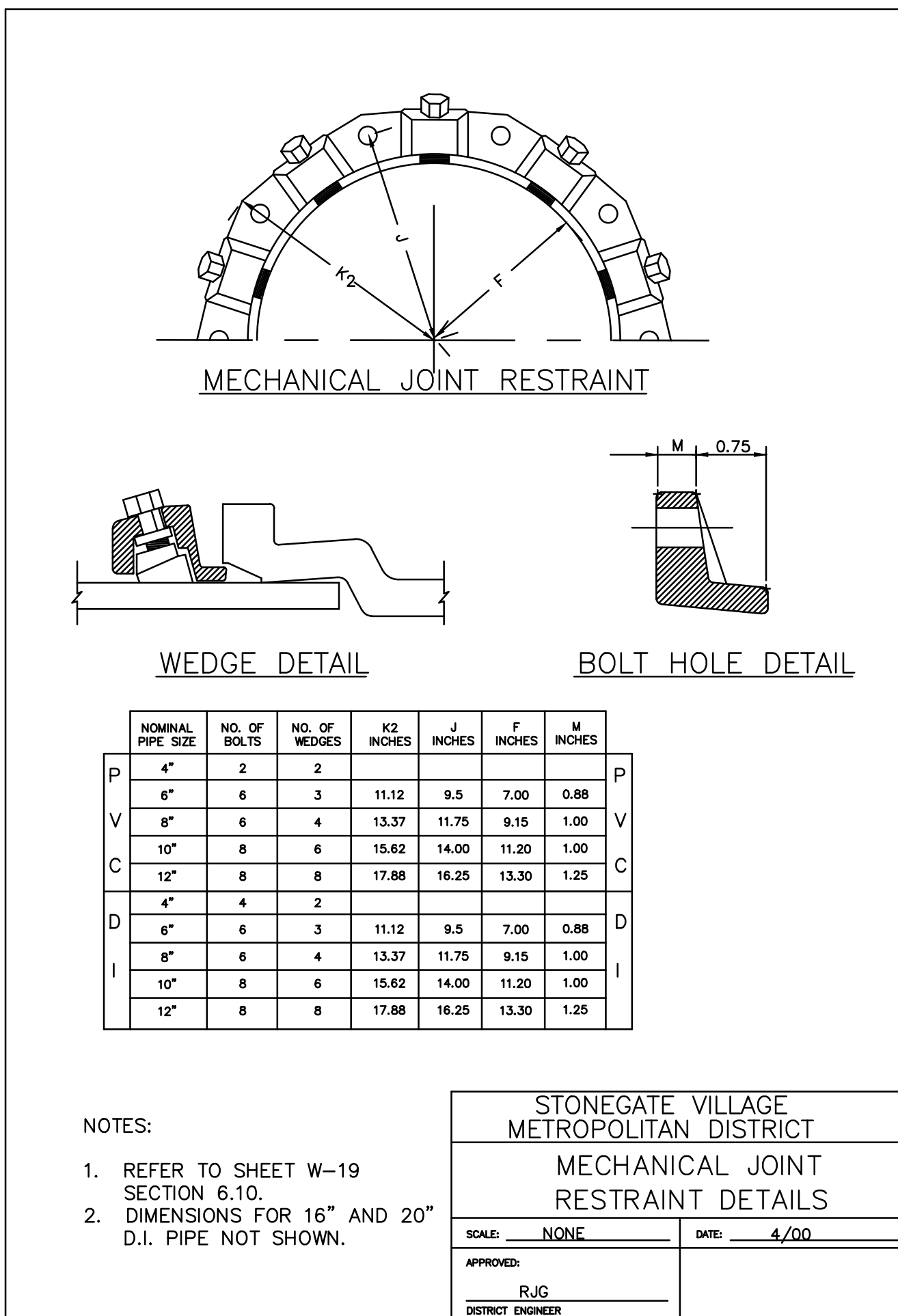
If approved by the District, fines form the trench walls and spoils pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detrimental substance, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.

STONEGATE VILLAGE
METROPOLITAN DISTRICT

PIPE BEDDING

SCALE: NONE DATE: 4/00

APPROVED: R/JG DISTRICT ENGINEER



2000 REVISION SHEET 65

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Construction Managers • Environmental Scientists • Landscaping Architects • Planners

COMPARK VILLAGE SOUTH
TOWN OF PARKER, COLORADO

WATER DETAILS

PROJ MGR: RLB
 PROJ ASSOC: ASD
 DRAWN BY: ETG
 DATE: 11/2015

SHEET
23 OF **23**
 CLCPK3

PENDING APPROVAL