



INNOVATIVE DESIGN. **CLASSIC RESULTS.**

**WASTEWATER TREATMENT REPORT  
FOR  
MIDTOWN COLLECTION AT  
HANNAH RIDGE FILING NO. 1**

December 21, 2018

Prepared for:  
Elite Properties of America, Inc.  
6385 Corporate Drive, Suite 200  
Colorado Springs, CO 80919

Job no. 1116.30



# **WASTEWATER TREATMENT REPORT FOR MIDTOWN COLLECTION AT HANNAH RIDGE FILING NO. 1**

## **GENERAL LOCATION & DESCRIPTION**

Midtown Collection at Hannah Ridge Filing No. 1 is a 9.124 acre subdivision within Section 32, Township 13 South, Range 65 West of the 6<sup>th</sup> Principal Meridian in El Paso County, Colorado. The site is generally located northwest of the Hannah Ridge Drive and Constitution Avenue intersections.

The site is within the Cherokee Metropolitan District Service area. Water and wastewater services will be provided by Cherokee Metropolitan District, see attached letter.

The proposed Midtown Collection at Hannah Ridge Filing No. 1 development includes 61 single-family residences.

## **OPINION OF PROBABLY POPULATION AND QUANTITY OF EFFLUENT**

The proposed development will include 61 single-family residences. The opinion of probably population and quantity of effluent is as follows:

### Population:

Single-family Residences:  $61 \text{ units} \times 2.5 \text{ persons/unit} = 153 \text{ persons}$

### Quantity of Effluent:

Single-family Residents:  $153 \text{ persons} \times 65 \text{ GPD/person} = 9,945 \text{ GPD}$

The projected quantity of effluent is based upon industry standards as well as methodology used by other utility providers in the area. The actual population and flow could vary from these calculations.



## **LOCATION OF CONNECTION TO EXISTING WASTEWATER SYSTEM**

The Midtown Collection at Hannah Ridge Filing No. 1 development will connect to the existing 8" PVC wastewater system stubbed into the site from adjacent, previously constructed subdivision in the Hannah community. The existing system is owned and maintained by the Cherokee Metropolitan District and was installed in anticipation of future development.

## **LETTER OF COMMITMENT**

Cherokee Metropolitan District has provided a general Intent to Serve Letter to provide both Water and Wastewater Service to this property (attached).

## **ESTIMATE OF CONSTRUCTION COSTS**

Item	Quantity	Unit Cost	Total Cost
8" PVC Sanitary Sewer	1,875 LF	\$30.00/LF	\$56,250
Sanitary Sewer Manhole	10 EA	\$4000/EA	\$40,000
		TOTAL	\$93,460

## **CREATION OR ANNEXATION INTO SPECIAL SEWER DISTRICT**

This item does not require any action as this property is already within the service area for Cherokee Metropolitan District.

## **MAP OF EXISTING AND PROPOSED FACILITIES**

A map of the proposed utility plan is attached. The plan is subject to change based on review by Cherokee Metropolitan District. The level of use of the existing sanitary sewer stub is currently zero (0).

PREPARED BY:

**Classic Consulting Engineers & Surveyors, LLC**

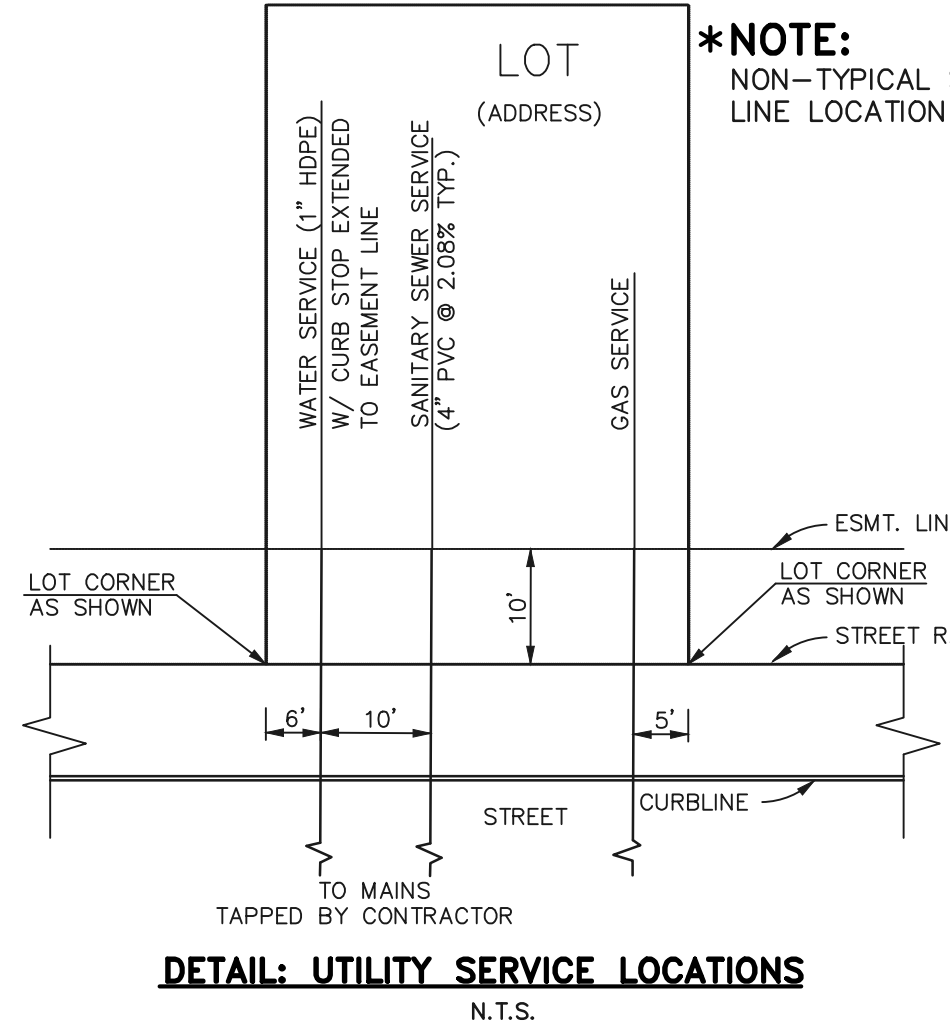
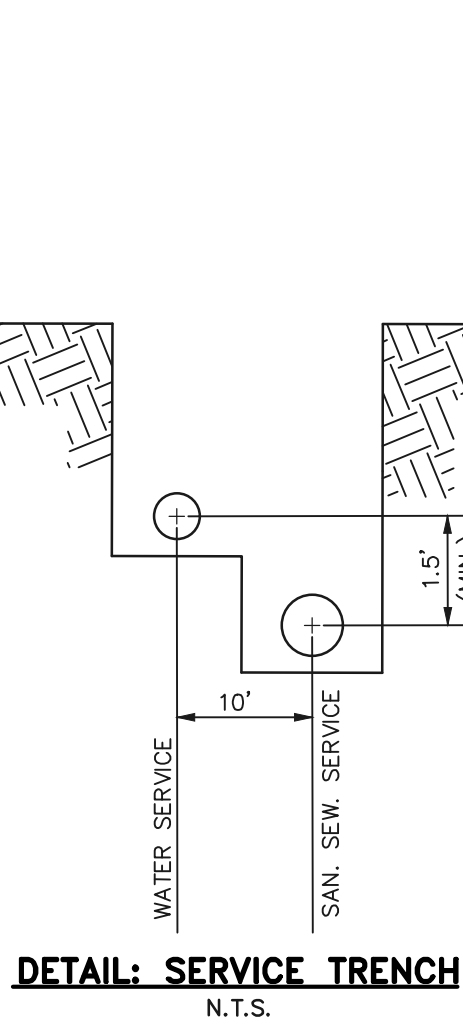
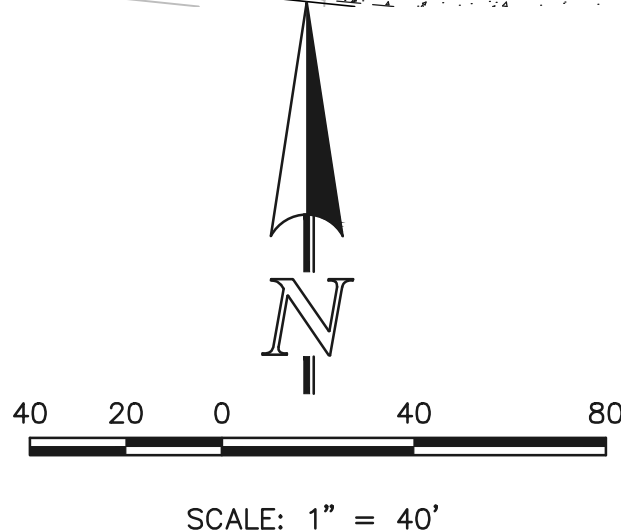
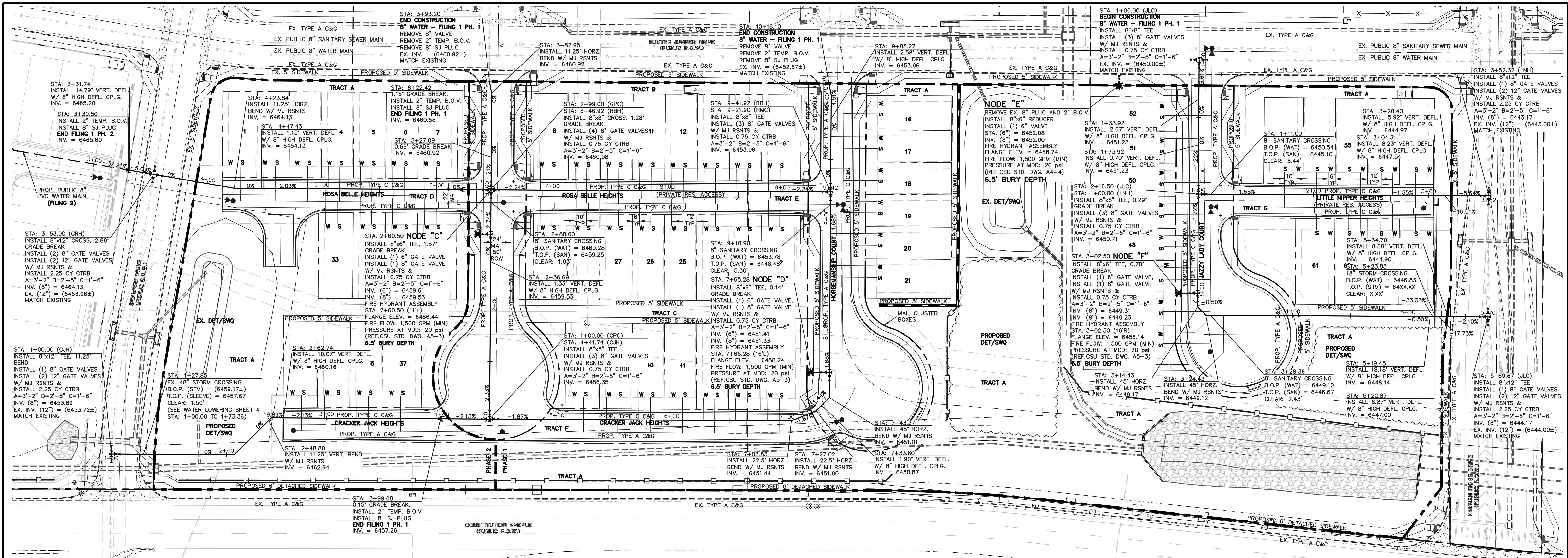
Kyle R. Campbell, P.E.  
Division Manager

Kc/111630/wastewater disposal report filing 1.docx





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\*NOTE:  
NON-TYPICAL SERVICE  
LINE LOCATION

NOTE:  
SEE SHEET 4 FOR FILING  
2 WATER MAIN PROFILES

STREET ABBREVIATION INDEX:

SHAWNEE DRIVE	HUNTER JUMPER DRIVE
ROSA BELLE HEIGHTS	GRAND PRX COURT
HORSEMANSHIP COURT	LITTLE NIPPER HEIGHTS
JAZZY LADY COURT	HANNAH RIDGE DRIVE
HRD	

NOTE:  
NO TREES WILL BE ALLOWED  
WITHIN 15' OF ANY PUBLIC  
WATER/WASTEWATER MAINLINES.

NOTE:  
EXISTING UTILITIES AND STORM SEWER SHOWN IN  
AN APPROXIMATE WAY ONLY. ALL EXISTING UTILITIES  
AND STORM SEWER TO BE POTOLED AND VERIFIED  
BOTH HORIZONTALLY & VERTICALLY PRIOR TO  
CONSTRUCTION & CONFLICTS REPORTED TO ENGINEER.

LEGEND			
	PROPOSED FIRE HYDRANT		EXISTING FIRE HYDRANT
	PROPOSED WATER MAIN		EXISTING WATER MAIN
	PROPOSED SANITARY SEWER MAIN		EXISTING SANITARY SEWER MAIN
	PROPOSED STORM SEWER		EXISTING STORM SEWER
	PROPOSED STORM INLET		EXISTING STORM INLET
	ROW/BOUNDARY LINE		EXISTING GAS MAIN
			EXISTING ELECTRIC

48 HOURS BEFORE YOU DIG,  
CALL UTILITY LOCATORS  
**811**  
UTILITY NOTIFICATION CENTER OF COLORADO  
IT'S THE LAW  
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE  
SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR  
SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING  
UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL  
BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH  
MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND  
PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:  
PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF  
CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC  
KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE

**CLASSIC**  
CONSULTING  
ENGINEERS & SURVEYORS  
619 N. Cascade Avenue, Suite 200  
Colorado Springs, Colorado 80903  
(719)785-0790  
(719)785-0799(Fax)

MIDTOWN COLLECTION AT HANNAH RIDGE			
FILING NO. 1			
PUBLIC 8" PVC WATER SYSTEM PLANS INCLUDING UTILITY SERVICES			
DESIGNED BY	KRC	SCALE	DATE 12/3/18
DRAWN BY	KC	(H) 1"= 40'	SHEET 3 OF X
CHECKED BY		(V) 1"= NA	JOB NO. 1116.30



INNOVATIVE DESIGN. **CLASSIC RESULTS.**

**WASTEWATER TREATMENT REPORT  
FOR  
MIDTOWN COLLECTION AT  
HANNAH RIDGE FILING NO. 2**

December 21, 2018

Prepared for:  
Elite Properties of America, Inc.  
6385 Corporate Drive, Suite 200  
Colorado Springs, CO 80919

Job no. 1116.30



# **WASTEWATER TREATMENT REPORT FOR MIDTOWN COLLECTION AT HANNAH RIDGE FILING NO. 2**

## **GENERAL LOCATION & DESCRIPTION**

Midtown Collection at Hannah Ridge Filing No. 2 is a 3.260 acre subdivision within Section 32, Township 13 South, Range 65 West of the 6<sup>th</sup> Principal Meridian in El Paso County, Colorado. The site is generally located northwest of the Shawnee Drive and Constitution Avenue intersections.

The site is within the Cherokee Metropolitan District Service area. Water and wastewater services will be provided by Cherokee Metropolitan District, see attached letter.

The proposed Midtown Collection at Hannah Ridge Filing No. 1 development includes 28 single-family residences.

## **OPINION OF PROBABLY POPULATION AND QUANTITY OF EFFLUENT**

The proposed development will include 28 single-family residences. The opinion of probably population and quantity of effluent is as follows:

### Population:

Single-family Residences:  $28 \text{ units} \times 2.5 \text{ persons/unit} = 70 \text{ persons}$

### Quantity of Effluent:

Single-family Residents:  $70 \text{ persons} \times 65 \text{ GPD/person} = 4,550 \text{ GPD}$

The projected quantity of effluent is based upon industry standards as well as methodology used by other utility providers in the area. The actual population and flow could vary from these calculations.





## **LOCATION OF CONNECTION TO EXISTING WASTEWATER SYSTEM**

The Midtown Collection at Hannah Ridge Filing No. 2 development will connect to the existing 8" PVC wastewater system stubbed into the site from adjacent, previously constructed subdivision in the Hannah community. The existing system is owned and maintained by the Cherokee Metropolitan District and was installed in anticipation of future development.

## **LETTER OF COMMITMENT**

Cherokee Metropolitan District has provided a general Intent to Serve Letter to provide both Water and Wastewater Service to this property (attached).

## **ESTIMATE OF CONSTRUCTION COSTS**

Item	Quantity	Unit Cost	Total Cost
8" PVC Sanitary Sewer	695 LF	\$30.00/LF	\$20,850
Sanitary Sewer Manhole	6 EA	\$4000/EA	\$20,000
		TOTAL	\$42,080

## **CREATION OR ANNEXATION INTO SPECIAL SEWER DISTRICT**

This item does not require any action as this property is already within the service area for Cherokee Metropolitan District.

## **MAP OF EXISTING AND PROPOSED FACILITIES**

A map of the proposed utility plan is attached. The plan is subject to change based on review by Cherokee Metropolitan District. The level of use of the existing sanitary sewer stub is currently zero (0).

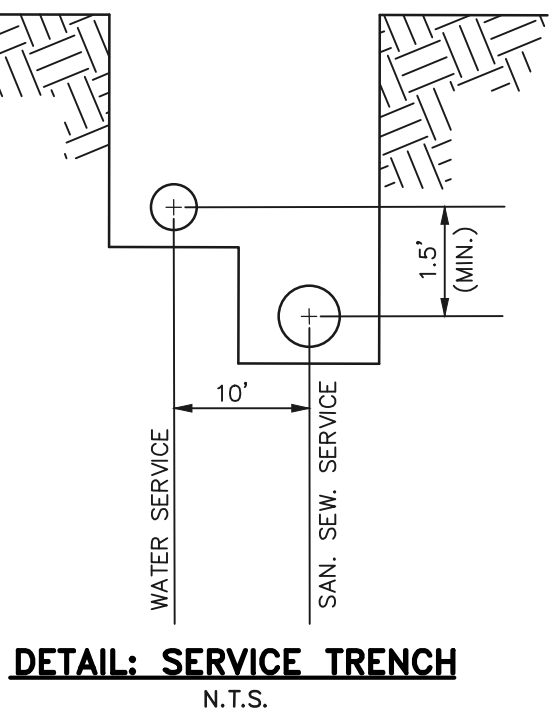
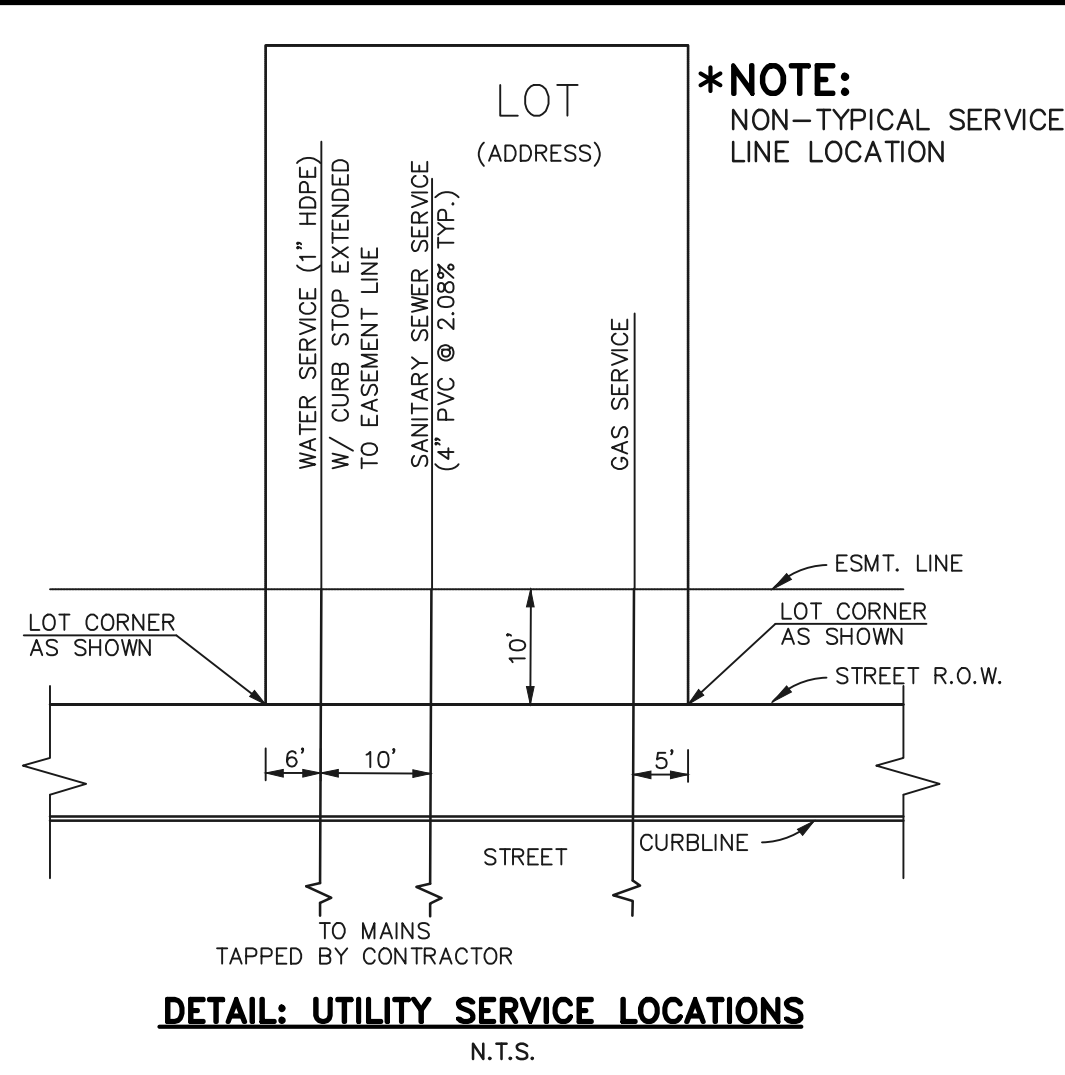
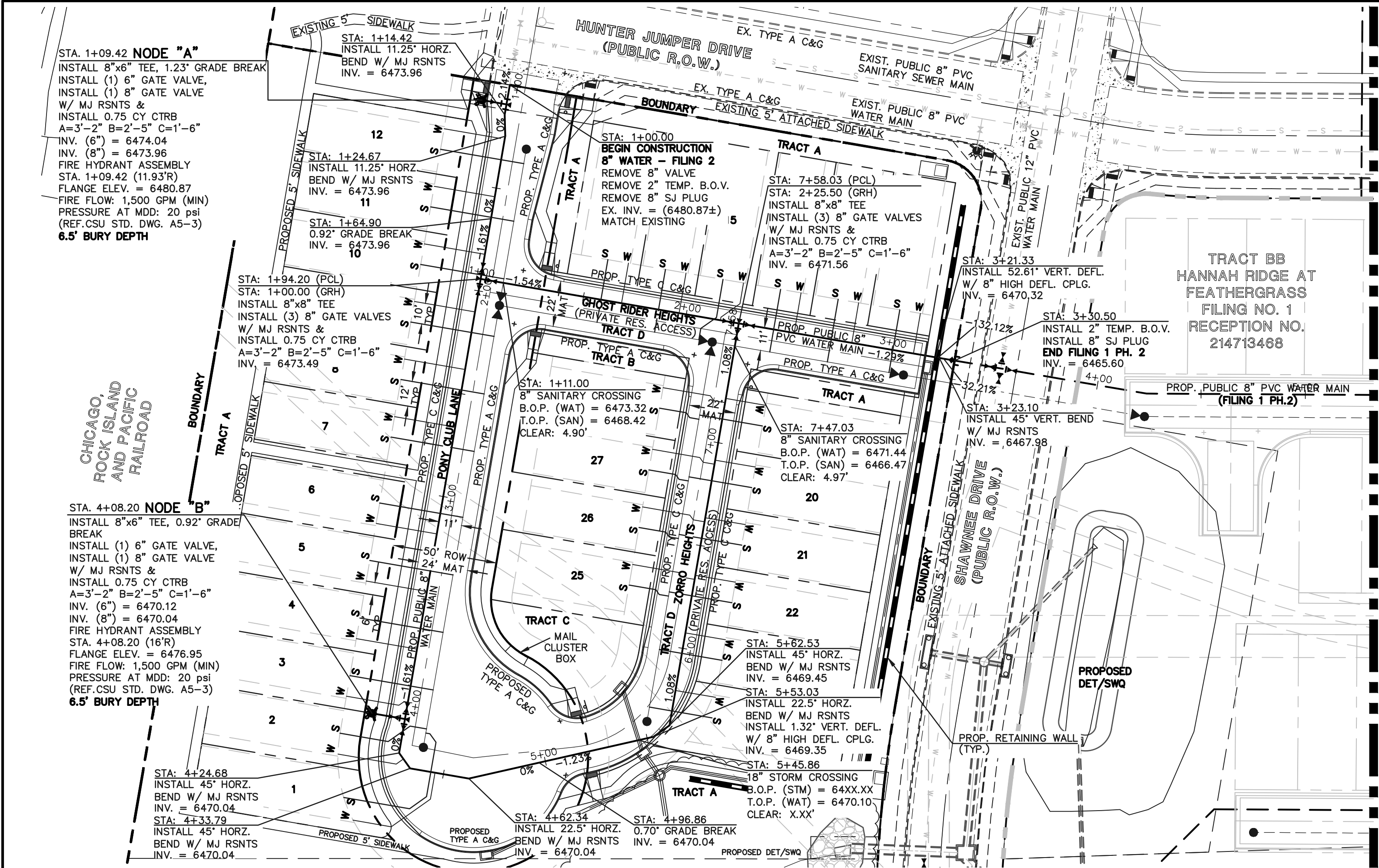
PREPARED BY:

**Classic Consulting Engineers & Surveyors, LLC**

Kyle R. Campbell, P.E.  
Division Manager

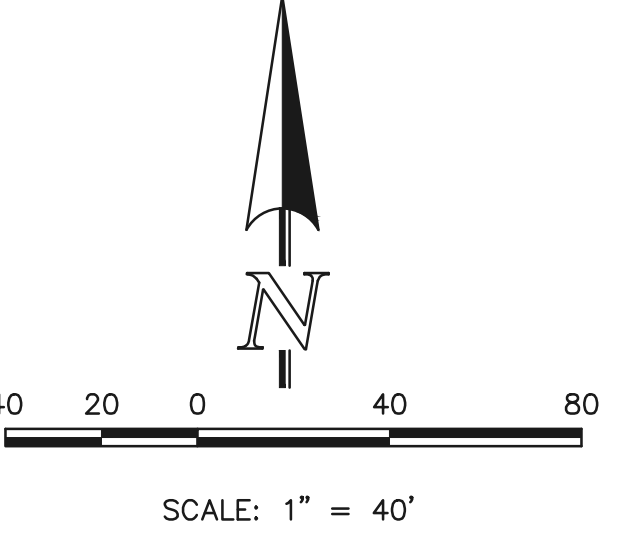
Kc/111630/wastewater disposal report filing2.docx





\*NOTE:  
NON-TYPICAL SERVICE  
LINE LOCATION

- UTILITY SERVICE LOCATION NOTES:
- 1.) DIMENSIONS SHOWN ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS.
  - 2.) SEE PLANS FOR MAINLINE SIZES.
  - 3.) ALL WATER SERVICES TO BE 1" HDPE SDR9 CTS (COPPER TUBE SIZE) UNLESS OTHERWISE SHOWN ON PLANS. ALL WATER SERVICES ARE 3/4"x 8" TAPS BY DEVELOPER UNLESS OTHERWISE NOTED ON PLANS.
  - 4.) ALL CLEANOUTS TO BE INSTALLED PER COLORADO SPRINGS UTILITY STANDARD DETAIL C 5-4.
  - 5.) SEE DETAIL C5-5 AND SECTION 7.03 FOR JOINT TRENCH SERVICE LOCATIONS.
  - 6.) ALL WASTEWATER SERVICES TO BE 4" PVC UNLESS OTHERWISE SHOWN ON PLANS. ALL WASTEWATER SERVICES ARE 4"x 8" TAPS UNLESS OTHERWISE NOTED ON PLANS.
  - 7.) WATER CURB STOPS AND SANITARY SEWER CLEANOUTS NOT TO BE WITHIN DRIVEWAYS OR SIDEWALKS.
  - 8.) INSTALL WATER CURB STOP LOCATION PER COLORADO SPRINGS UTILITY STANDARD DETAIL B2-3.

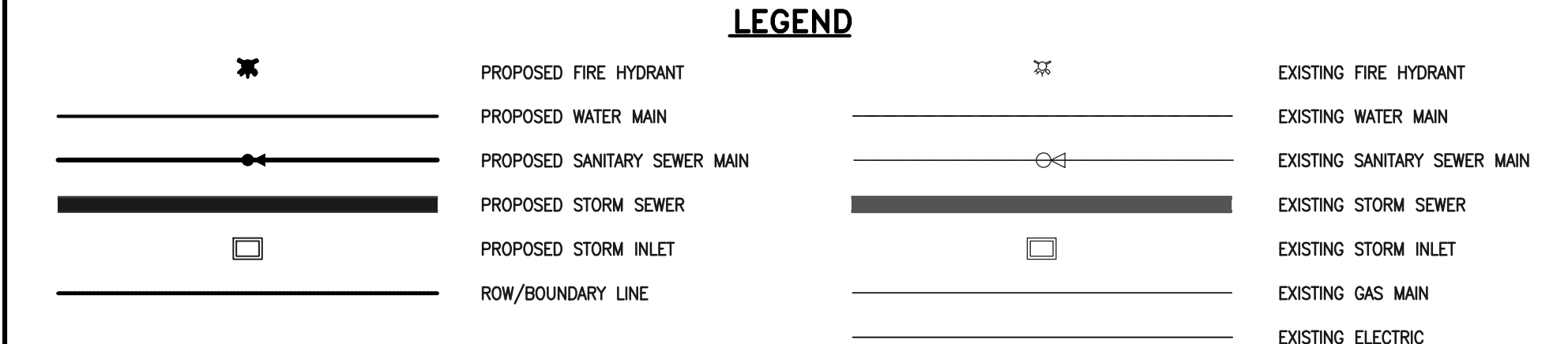
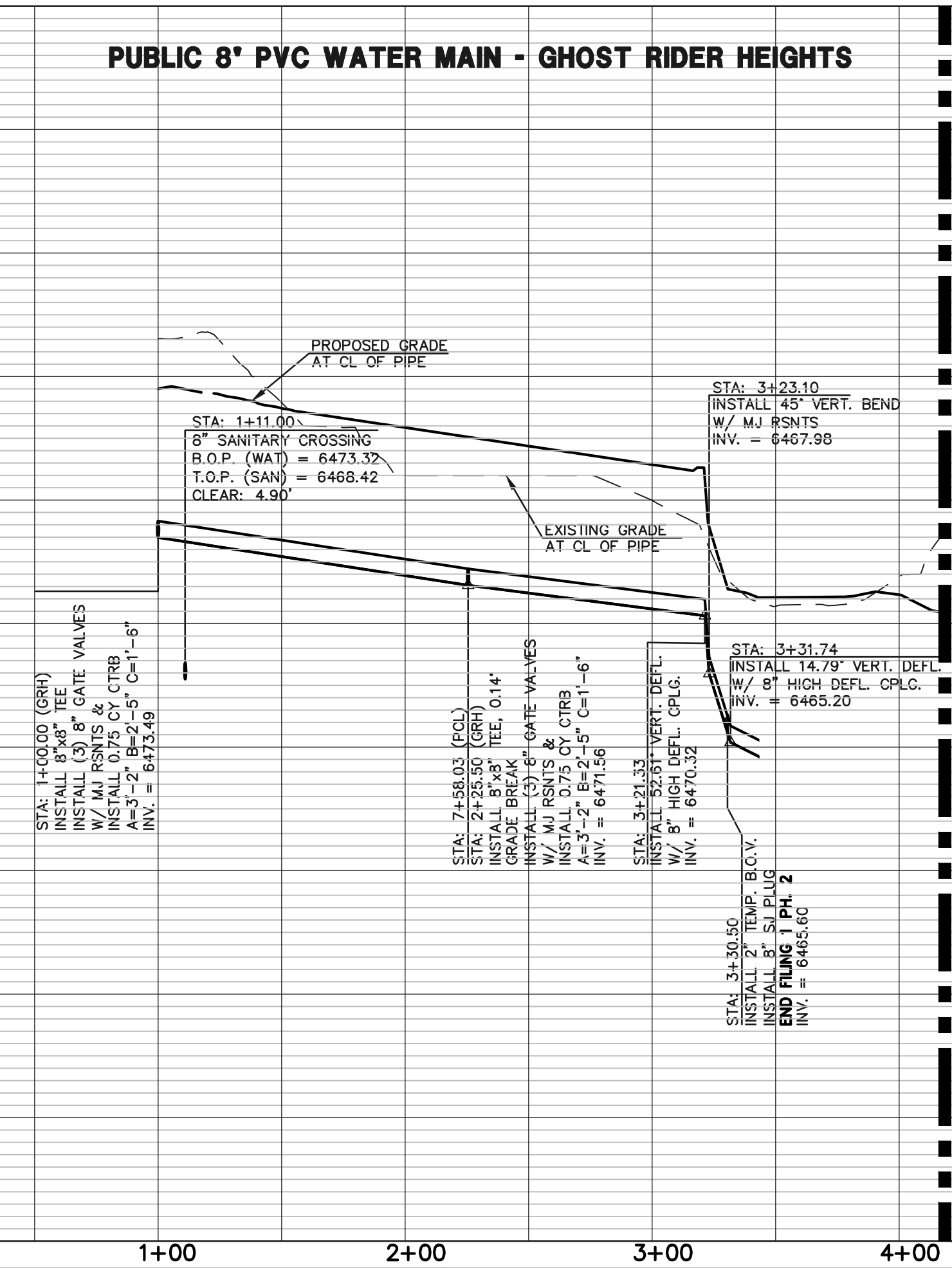
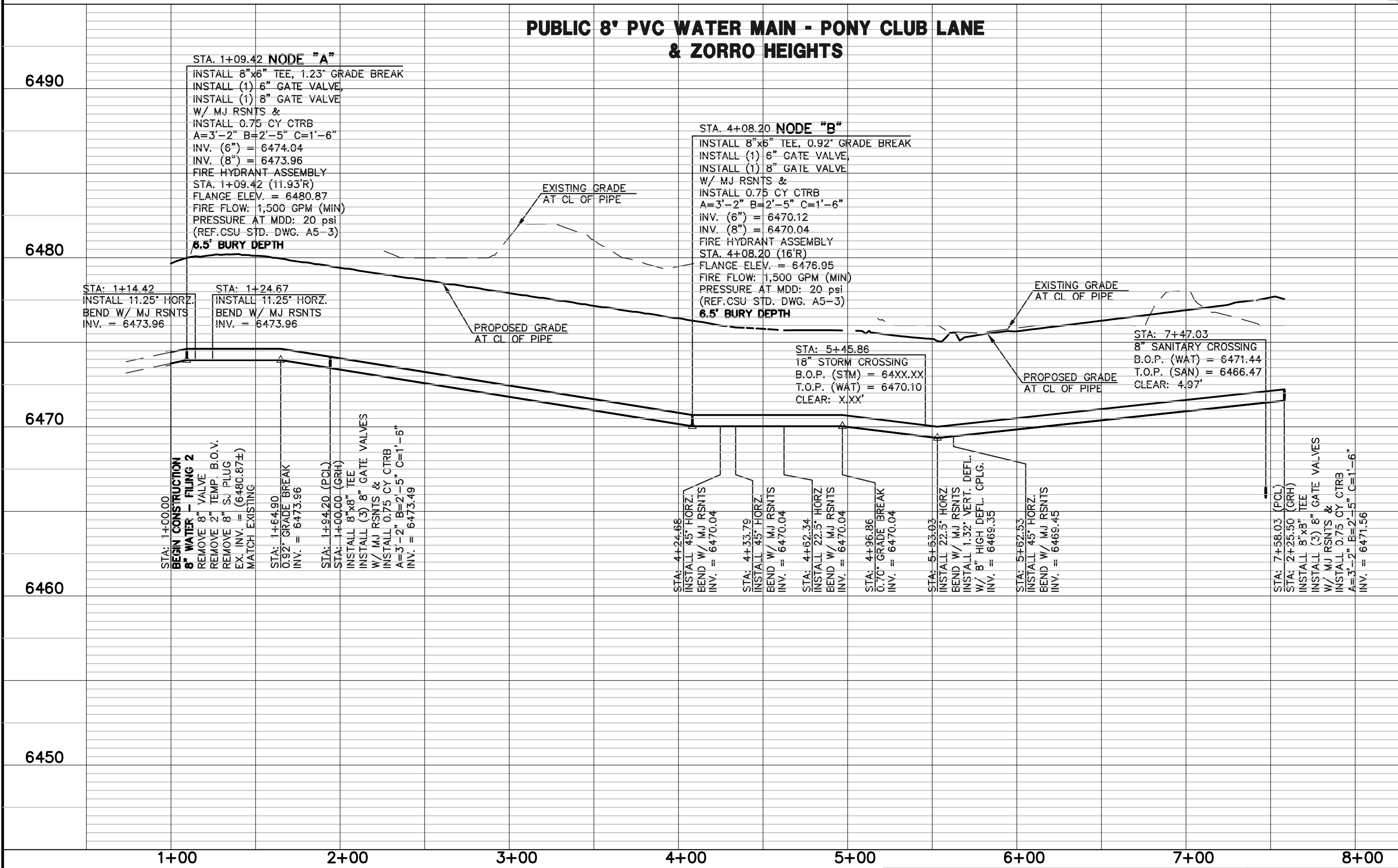


STREET ABBREVIATION INDEX:

GRH	GHOST RIDER HEIGHTS
ZH	ZORRO HEIGHTS
PCL	PONY CLUB LANE
HJD	HUNTER JUMPER DRIVE
SD	SHAWNEE DRIVE

NOTE:  
EXISTING UTILITIES AND STORM SEWER SHOWN IN AN APPROXIMATE WAY ONLY. ALL EXISTING UTILITIES AND STORM SEWER TO BE POTHOLED AND VERIFIED BOTH HORIZONTALLY & VERTICALLY PRIOR TO CONSTRUCTION & CONFLICTS REPORTED TO ENGINEER.

- SANITARY SEWER CONSTRUCTION NOTE:
1. SANITARY SEWER PIPE AND FITTINGS: PVC 4"-8" ASTM D3034, TYPE PSM, SDR 35; PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTION, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS FOR 8" PVC SANITARY SEWER MAIN MUST BE WITHIN MANUFACTURERS RECOMMENDATIONS). ALL HORIZONTAL DEFLECTIONS SHALL BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING THE PIPE JOINTS.
  2. SANITARY SEWER UNDERDRAIN PIPE AND SERVICES: 3" & 6" SDR 35 ASTM D3034 SOLID PVC SOLVENT WELD PIPE TO BE WHITE IN COLOR.



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