



3200 W 300 N, West Point, UT 84015

**WEST POINT CITY COUNCIL  
MEETING NOTICE & AGENDA  
October 18<sup>th</sup>, 2022  
WEST POINT CITY HALL**

**Mayor**  
Brian Vincent  
**Council**  
Gary Petersen, *Mayor Pro Tem*  
Annette Judd  
Jerry Chatterton  
Brad Lee  
Michele Swenson  
**City Manager**  
Kyle Laws

**THIS PUBLIC MEETING WILL BE HELD IN-PERSON AT WEST POINT CITY HALL AND ALSO ELECTRONICALLY.**

**The Public may attend the meeting electronically and comment when appropriate by:**

- Join via Zoom: <https://us02web.zoom.us/j/83938656267>
- Telephone: 1(669) 900-6833 – Meeting ID: 839 3865 6267

**The public may attend this meeting in-person at West Point City Hall under the following Guidelines:**

- *Avoid entering if they have a fever of 100.4° or above, cough, trouble breathing, sore throat, or feel generally unwell*

**The public may also participate in the Citizen Comment and Public Hearing Items PRIOR to the meeting via email:**

- Email: [carnold@westpointcity.org](mailto:carnold@westpointcity.org)
- Subject Line: "Citizen Comment – October 18, 2022 City Council"
- Email Body: **Must** include First & Last Name and Address and a succinct statement of your comment.

**ADMINISTRATIVE SESSION**

6:00 PM – OPEN TO THE PUBLIC


1. Discussion Regarding Health Insurance Renewal for Plan Year 2023 – Mr. Kyle Laws [pg. 4](#)
2. Discussion Regarding Storm Drain Agreement with the US Bureau of Land Reclamation – Mr. Boyd Davis [pg. 6](#)
3. Discussion Regarding Chickens in Residential Zones – Mrs. Bryn MacDonald [pg. 9](#)
4. Discussion Regarding the West Fields Subdivision – Mrs. Bryn MacDonald [pg. 11](#)
5. Other Items

**GENERAL SESSION**

7:00 PM – OPEN TO THE PUBLIC

1. Call to Order
2. Pledge of Allegiance
3. Prayer or Inspirational Thought *(Contact the City Recorder to request meeting participation by offering a prayer or inspirational thought)*
4. Communications and Disclosures from City Council and Mayor
5. Communications from Staff
6. Citizen Comment *(Emailed comments received prior to the meeting using the instructions above will be read to the Council at this time)*
  - Please clearly state your name and address prior to commenting and keep comments to a maximum of 2 ½ minutes
  - Do not repeat positions already stated; public comment is a time for the Council to receive new information and perspectives
  - If attending the meeting in-person, please approach the podium
  - If attending the meeting electronically, use the "raise hand" icon if on a computer or dial \*9 on the phone to indicate that you would like to make a comment; when it is your turn, the meeting host will unmute you.
7. Update from Davis County Commissioner Lorene Kamalu
8. Consideration of Approval of the Minutes from the May 3<sup>rd</sup>, 2022 West Point City Council Meeting
9. Consideration of Approval of the Final Plat of the West Field Subdivision – Mrs. Bryn MacDonald [pg. 11](#)
10. Consideration of Approval of Resolution No. 10-18-2022A, Approving the Engineering Contract for the Design of the Sewer Expansion Project – Mr. Boyd Davis [pg. 27](#)
11. Consideration of Approval of Resolution No. 10-18-2022B Approving a License Agreement Between West Point City and the Bureau of Reclamation For Construction Of Storm Drain Improvements Near 1300 North 4000 West – Mr. Boyd Davis [pg. 6](#)
12. Consideration of Approval of Ordinance No. 10-18-2022A, Adopting the Transportation Master Plan as Part of West Point City's General Plan – Mr. Boyd Davis [pg. 56](#)
  - a. Public Hearing
  - b. Action
13. Motion to Adjourn the General Session

Posted October 14<sup>th</sup>, 2022:

  
Casey Arnold, City Recorder

## TENTATIVE UPCOMING ITEMS

**Date:** **11/01/2022**

**Administrative Session – 6:00 pm**

1. Code Enforcement Update – Mr. Bruce Dopp
2. Quarterly Financial Update
3. Discussion Regarding Proposed Changes to Business License Renewal Dates – Mrs. Bryn MacDonald
4. Discussion Regarding a Cell Tower Contract – Mr. Kyle Laws
5. Discussion Regarding APRA Funds – Mr. Ryan Harvey
6. Discussion of a Proposed Text Change for Subdivision Phasing and Second Access – Mrs. Bryn MacDonald

**General Session – 7:00 pm**

1. Youth Council Update
  2. Consideration of Approval of Resolution No. 11-01-2022A, Approving a Storm Drain Agreement with the US Bureau of Land Reclamation – Mr. Boyd Davis
  3. Consideration of Approval of Ordinance No. 110-01-2022\*\*, an Ordinance Establishing the West Point City Arts Council of Utah and Adopting the Bylaws of the Organization – Mr. Kyle Laws
  4. Consideration of Approval of Resolution No. 11-01-2022\*\*, Approving a Notice of Intent of A Boundary Line Adjustment with Syracuse City – Mrs. Bryn MacDonald
  5. *Consideration of Approval of Resolution No. 11-01-2022B, Approving an Amendment to the FY2023 Budget – Mr. Ryan Harvey*
    - a. *Public Hearing*
    - b. *Action*
  6. Consideration of Approval of Ordinance No. 11-01-2022A, Amending WPCC Section \*\* Regarding Chickens in Residential Zones – Mrs. Bryn MacDonald
    - a. Public Hearing
    - b. Action
- 

**Date:** **11/15/2022**

**Administrative Session – 6:00 pm**

1. Discussion Regarding the 2023 City Council Meeting Schedule – Ms. Casey Arnold

**General Session – 7:00 pm**

1. Consideration of Approval of Ordinance No. 11-15-2022A, Approving the 2023 West Point City Council Meeting Schedule – Ms. Casey Arnold
  2. Consideration of Approval of Ordinance No. 11-15-2022B, Amending Section \*\*\* of the WPCC Regarding Subdivision Phases and Second Accesses – Mrs. Bryn MacDonald
    - a. Public Hearing
    - b. Action
- 

**Date:** **12/06/2022**

**Administrative Session – 6:00 pm**

1. Quarterly Financial Update – Mr. Ryan Harvey

**General Session – 7:00 pm**

1. Youth Council Update
  2. Davis County Sheriff's Office Quarterly Update
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**Date:** **12/20/2022**

**Administrative Session – 6:00 pm**

**General Session – 7:00 pm**

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**Date:** **01/03/2023**

**Administrative Session – 6:00 pm**

1. Discussion Regarding \*\*

**General Session – 7:00 pm**



# WEST POINT CITY 2022 CALENDAR

## 2022

## IMPORTANT DATES

### JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### JULY

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### FEBRUARY

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

### AUGUST

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

### MARCH

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

### SEPTEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

### APRIL

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

### OCTOBER

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### MAY

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

### NOVEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

### JUNE

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

### DECEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

### JANUARY

3	Swearing-In Ceremony - 12 PM
4	City Council - 6 PM
10	Senior Lunch - 11:30 AM
11	Council/Staff Lunch - 11:30 AM
13	Planning Commission - 6 PM
17	MLK Jr. Day - CLOSED
18	City Council - 6 PM
27	Planning Commission - 6 PM

### JULY

2 & 4	PARTY AT THE POINT EVENTS
11	Senior Lunch - 11:30 AM
14	Planning Commission - 6 PM
16	MOVIE IN THE PARK - DUSK
19	City Council - 6 PM
25	Pioneer Day Holiday - CLOSED
28	Planning Commission - 6 PM

### FEBRUARY

1	City Council - 6 PM
4-5	City Council Planning & Visioning Session
10	Planning Commission - 6 PM
14	Senior Lunch - 11:30 AM
15	City Council - 6 PM
21	President's Day - CLOSED
24	Planning Commission - 6 PM

### AUGUST

2	City Council - 6 PM
8	Senior Lunch - 11:30 AM
11	Planning Commission - 6 PM
12	Summer Party 6:30 - 8:30 PM
13	MOVIE IN THE PARK - DUSK
16	City Council - 6 PM
25	Planning Commission - 6 PM

### MARCH

1	City Council - 6 PM
10	Planning Commission - 6 PM
15	City Council - 6 PM
21	Senior Lunch - 11:30 AM
24	Planning Commission - 6 PM

### SEPTEMBER

5	Labor Day - CLOSED
6	City Council - 6 PM
8	Planning Commission - 6 PM
12	Senior Lunch - 11:30 AM
20	City Council - 6 PM
22	Planning Commission - 6 PM

### APRIL

5	City Council - 6 PM
11	Senior Lunch - 11:30 AM
14	Planning Commission - 6 PM
16	EASTER EGG HUNT - 10 AM
19	City Council - 6 PM
22-23	ANNUAL SPRING CLEAN-UP
28	Planning Commission - 6 PM

### OCTOBER

4	City Council - 6 PM
6	CEMETERY CLEANING
10	Employee Training - CLOSED
13	Planning Commission - 6 PM
13-15	ANNUAL FALL CLEAN-UP
18	Senior Lunch - 11:30 AM
18	City Council - 6 PM
22	HALLOWEEN CARNIVAL - 6-8 PM
25	Council/Staff Lunch - 11:30 AM
27	Planning Commission - 6 PM

### MAY

3	City Council - 6 PM
5	CEMETERY CLEANING
9	Senior Lunch - 11:30 AM
10	Council/Staff Lunch - 11:30 AM
12	Planning Commission - 6 PM
14	TAKE PRIDE IN WEST POINT
17	City Council - 6 PM
26	Planning Commission - 6 PM
30	Memorial Day - CLOSED

### NOVEMBER

1	City Council - 6 PM
3	FLAGS ON VETERANS' GRAVES
8	ELECTION DAY
10	Planning Commission - 6 PM
11	Veterans Day - CLOSED
15	Senior Lunch - 11:30 AM
15	City Council - 6 PM
24/25	Thanksgiving - CLOSED
28	CITY HALL LIGHTING - 6 PM

### JUNE

4	MISS WEST POINT PAGEANT
6	Senior Lunch - 11:30 AM (Loy Blake)
7	City Council - 6 PM
9	Planning Commission - 6 PM
10	MOVIE IN THE PARK - DUSK
20	JUNETEENTH (OBSERVED) - CLOSED
21	City Council - 6 PM
23	Planning Commission - 6 PM

### DECEMBER

2	Christmas Party - 7 PM
6	CHILD REMEMBRANCE - 7 PM
6	City Council - 6 PM
8	Planning Commission - 6 PM
13	Senior Lunch - 11:30 AM
20	City Council - 6 PM
22	Planning Commission - 6 PM
23	CEMETERY LUMINARY - 4 PM
26-27	Christmas Holiday - CLOSED

# CITY COUNCIL STAFF REPORT



**Subject:** Discussion of Health Insurance Renewal  
**Author:** Kyle Laws  
**Department:** Executive  
**Meeting Date:** October 18, 2022

## Background

Each year we are presented with the renewal for employee health insurance. Once we get the renewal from PEHP, our insurance broker, Keyes Insurance Services, Inc., puts together a package showing how our plan lines up with other insurance providers in the market. We do this each year to make sure there isn't something better out there.

## Analysis

As mentioned above, the City's current health insurance provider is PEHP, and the renewal this year to stay with our existing plan for medical insurance is 5.9%. This current plan is a high deductible plan with a Health Savings Account (HSA). The current premium share with employees is 90/10, with the City paying 90% and the employee paying 10%. The City also contributes \$5,000 per year to employees with family coverage and \$2,500 per year for individual coverage to the employees' HSA. The dental insurance renewal has a 0.5% increase. The table below summarizes the health insurance plan:

	<b>PEHP</b>	
	Current - STAR Opt 4	
	In - Network	Out-Of-Network
<b>DEDUCTIBLE</b>		
Per Person	\$2,500	
Per Family	\$5,000	
<b>OUT-OF-POCKET MAX</b>		
Per Person	\$2,500	
Per Family	\$5,000	
<b>LIFETIME PLAN MAXIMUM</b>	Unlimited	
<b>PROFESSIONAL OFFICE SERVICES</b>		
<b>OFFICE VISITS PCP</b>	Covered 100% AD	20% AD
<b>OFFICE VISITS SCP</b>	Covered 100% AD	20% AD
<b>HOSPITAL SERVICES</b>		
<b>HOSPITALIZATION</b>		
Inpatient	Covered 100% AD	20% AD
Outpatient	Covered 100% AD	20% AD
<b>EMERGENCY ROOM</b>	Covered 100% AD	
<b>URGENT CARE</b>	Covered 100% AD	20% AD
<b>OTHER BENEFITS</b>		
<b>PREVENTATIVE CARE</b>	Covered 100%	20% AD
Routine exams, hearing		
<b>MENTAL / DRUG</b>		
Office Visit	Covered 100% AD	20% AD
Inpatient	Covered 100% AD	20% AD
<b>PRESCRIPTION DRUGS</b>	Covered 100% AD	
Generic / Brand Name / Non Preferred		

The total annual cost increased by \$15,112.80 (\$256,124.40 to \$271,237.20). As we went through the budget process in June, we budgeted for a 12% increase knowing that we wouldn't just take a 12% increase without looking at other options. So, the impact to the City budget is significantly less than what was budgeted.

**Recommendation**

Having seen the results from multiple providers compared to our renewal and considering the changes to the plan to get a smaller increase, my recommendation is to stay with the current plan with PEHP, resulting in a 5.9% increase to medical and a 0.5% increase to dental.

**Significant Impacts**

The impact of this decision is a savings to the budgeted amount for health insurance.

**Attachments**

None

# CITY COUNCIL STAFF REPORT

**Subject:** License Agreement – US Bureau of Reclamation  
**Author:** Boyd Davis  
**Department:** Engineering  
**Meeting Date:** October 18, 2022



## **Background**

Staff has been working with Gardner Engineering to design two separate storm drain projects on 1300 N near 4000 West. Both projects will be crossing property owned by the US Bureau of Reclamation (BOR) and will require a license agreement to do so. We have been working with the BOR for several months to acquire the agreement and they recently sent us a final agreement that is ready for approval.

## **Analysis**

The two storm drain projects are shown on the attached map. These projects have been on the capital projects list for several years and are part of the current budget. The first project at 4000 West is a large pipeline that will convey all storm water along 1300 N and 4000 W to the north to an existing pipeline on the north side of the Layton Canal. For many years the water has gone to the west through an undersized pipe and ditch system. This new pipe will have the capacity to serve a larger section of land in the center of the City.

The second project is on 1300 North at approximately 4200 West. This project will complete the gap in an existing storm drain pipe and will allow us to eliminate the detention pond at this location. The new pipe to be installed will go under the Hooper Canal and will also go under a pipeline owned by the BOR that runs parallel to 1300 N.

The proposed agreement grants the City use of the property for 25 years and can be renewed for an additional 25 years. The agreement allows the City to install storm drain improvements on the BOR's property.

The City must agree to abide by the terms of the agreement and pay \$100. The agreement also requires that the City notify Weber Basin prior to any work commencing. Weber Basin oversees any work done within the BOR's property near the Layton Canal. Staff has been in contact with Weber Basin and they are in full agreement with the proposed project.

The agreement is being reviewed by the City Attorney and we will share his comments at the meeting.

## **Recommendation**

Staff recommends approval of Resolution 10-18-2022B

## **Significant Impacts**

None

## **Attachments**

Agreement , Resolution 10-18-2022B, Map

**RESOLUTION NO. 10-18-2022B**

**A RESOLUTION APPROVING A LICENSE AGREEMENT BETWEEN WEST POINT CITY AND THE BUREAU OF RECLAMATION FOR THE CONSTRUCTION OF STORM DRAIN IMPROVEMENTS NEAR 1300 NORTH 4000 WEST**

**WHEREAS**, West Point City plans to construct a storm drain on property owned by the Bureau of Reclamation; and

**WHEREAS**, the Bureau of Reclamation is agreeable to the proposed construction; and

**WHEREAS**, a license agreement has been prepared by the Bureau of Reclamation; and

**WHEREAS**, the West Point City Council is in favor of said agreement.

**NOW, THEREFORE, BE IT RESOLVED, FOUND AND ORDERED**, by the City Council of West Point City as follows:

1. The license agreement, which is attached hereto and incorporated by this reference, is hereby approved.
2. The Mayor is hereby authorized to sign and execute said agreement.

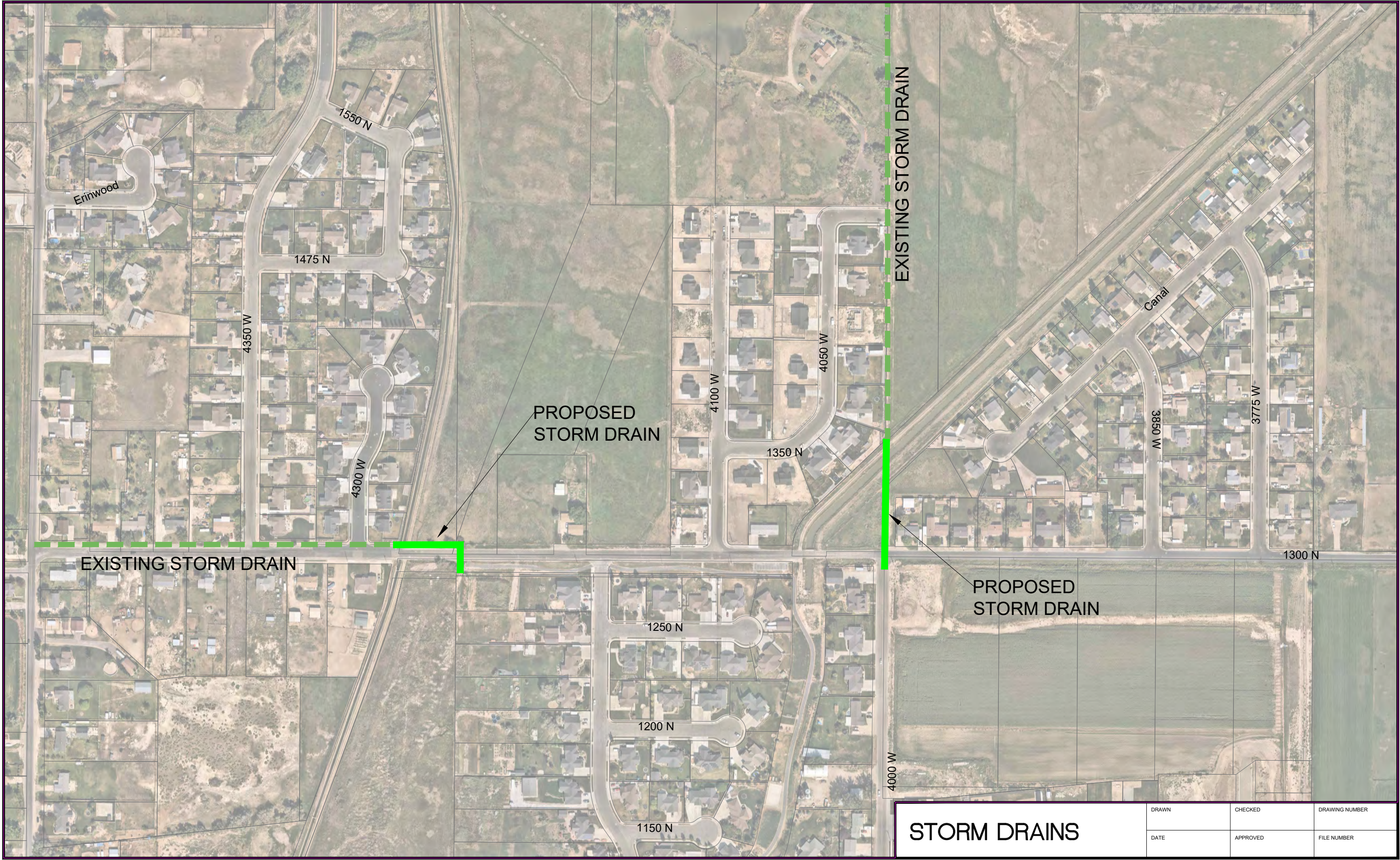
**PASSED AND ADOPTED** this 18<sup>th</sup> day of October, 2022.

**WEST POINT CITY,**  
A Municipal Corporation

By: \_\_\_\_\_  
Brian Vincent, Mayor

**ATTEST:**

\_\_\_\_\_  
Casey Arnold, City Recorder



# CITY COUNCIL STAFF REPORT

**Subject:** Discussion of Chickens in Residential Zones  
**Author:** Bryn MacDonald  
**Department:** Community Development  
**Date:** October 18, 2022



## **Background**

Over the past several weeks, the Planning Commission has discussed changes to farm animal regulations, specifically the allowance of chickens in R-4 multi-family zones. It was discussed that chickens could be allowed based on the size of the lot. There has also been discussion of increasing the base number of chickens from four to six.

The Planning Commission is having a public hearing regarding this text change on October 13, 2022.

## **Analysis**

City Code currently allows residents in the R-1, R-2, and R-3 code to have chickens. Every lot can have 4 chickens, regardless of lot size. Additional chickens are allowed based on the size of the lot and the point system, as outlined in the code. Although the R-4 zone is typically a multi-family zone, there are lots in the city within the R-4 zone that are single family lots with adequate size for chickens. The proposed code allows chickens in all of the residential zones, as long as they have a minimum lot size of 5,000 square feet. The proposal also increases the base number of chicken from four to six.

## **Proposed Code**

*(The proposed text is in red)*

### **17.70.100 Farm Animal Regulations**

- A. *Purpose and Intent.* To establish the standards and criteria by which farm animals may be kept within West Point City. The city recognizes that farm animals are inextricably associated with certain noise, sight, and smell nuisances that are generally unacceptable in urban areas. However, the city also recognizes the importance of maintaining its farming heritage and the traditional values associated with that heritage. It is with this purpose, to preserve the farming heritage of the community, that this chapter is enacted.
  
- B. *Animal Allowance.* Farm animals held for noncommercial purposes are permitted solely in the agricultural A-5 and A-40, R-1, and R-2 zones as a permitted use and shall be an administrative conditional use in the R-3 zone for all animals except small animals which may include chickens, ducks, geese, pigeons, and rabbits, unless restricted by private development agreements, covenants, or other legally binding contracts. Roosters shall not be kept in any residential zone. Residents in the R-1, R-2, ~~and R-3~~ and R-4 zones with property not less than 5,000 square feet zones may, at any time, keep and maintain a base number of no greater than six ~~four~~ chickens, regardless of the size of their property,

subject to the requirements of this section and any other applicable provisions of this code. The number of additional chickens shall be based on the same formula as other animals as follows:

1. The quantity of animals permitted on a property shall be determined on the basis of 100 animal points per vacant acre (e.g., 0.50 acres x 100 = 50 animal points; 1.45 acres x 100 = 145 animal points).
2. Vacant acreage on properties with nonagricultural uses is determined by the following: Residential properties shall deduct 0.20 acres (approximately 8,700 square feet) per unit from the total acreage before calculating the animal allowance (e.g., (0.50 acres – 0.20 acres) x 100 = 30 animal points; (1.45 acres – 0.20 acres) x 100 = 125 points). All other properties shall deduct the exact amount of acreage not being used for animal production before calculating the animal allowance.

Type of Animal	Number of Points per Animal
Pigs	50
Horses and cattle	25
Sheep and goats	10
Chickens, ducks, geese, pigeons, rabbits, and other small animals	5

3. Commercial agricultural operations shall only be permitted in A-40 and A-5 zones. Intensive commercial agricultural operations, such as feed lots, shall only be permitted by an administrative conditional use with a minimum lot size of five acres.

**Recommendation**

This item is on for discussion only. A public hearing will be scheduled for a future meeting.

# CITY COUNCIL STAFF REPORT



**Subject:** Final Plat – West Fields Subdivision  
**Author:** Bryn MacDonald  
**Department:** Community Development  
**Meeting Date:** October 18, 2022

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## **Background**

The applicant, Travis Taylor, is seeking final plat approval for a proposed subdivision located at approximately 814 N 4000 W. This property is 9.75 acres and is located in the R-2 zone, which has a max density of 2.7 units per acre. This development will consist of 26 lots ranging from 10,000 to 13,000 square feet.

This property was rezoned from A-40 to R-2 on March 3, 2007. Due to the market conditions of 2008, the development never completed the subdivision process.

## **Analysis**

The following standards and requirements apply to a subdivision in the R-2 zone:

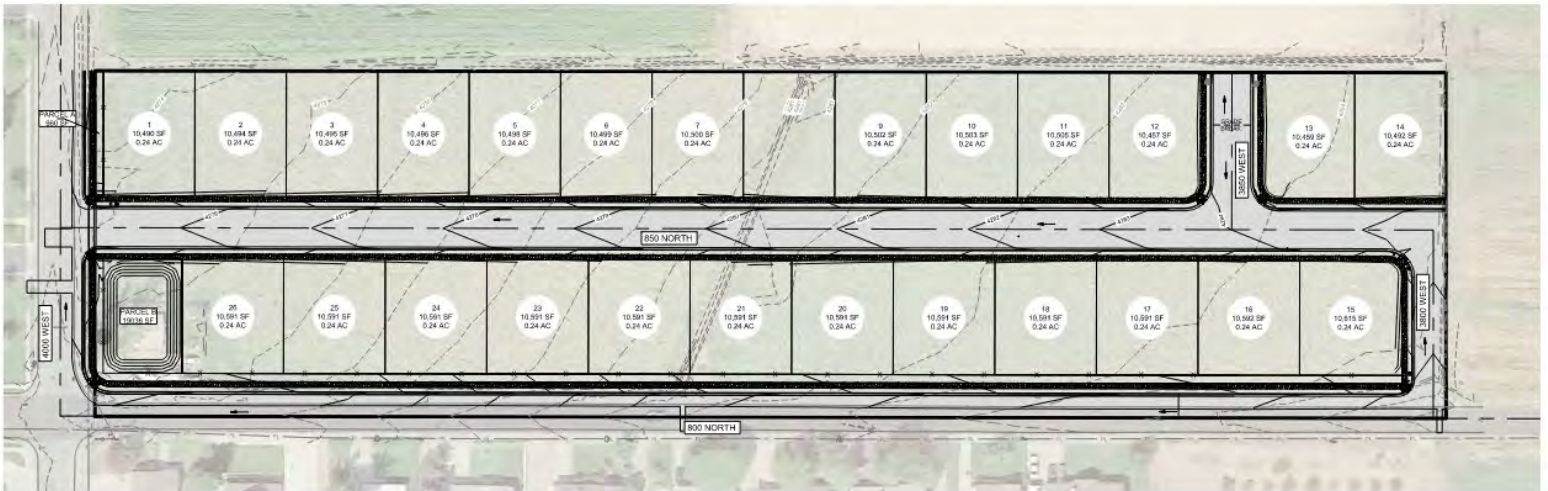
<b>Standard</b>	<b>Required</b>	<b>Proposed</b>
Density for R-2 Residential (units per acre)	$\leq 2.7$	2.7
Max number of lots	$\leq 26$	26
Minimum lot size (square feet)	$\geq 10,000$	10,000
Minimum lot frontage average (min of 85')	$\geq 90'$	90'
Minimum lot depth	$\geq 100'$	100'
Dedicated landscape strip required (17.130.100(K))	Yes	Yes
Landscape buffering required	No	No

*Streets:* The preliminary plat that was approved for Bennett Century Farms (property directly to the north) showed a concept of the road connecting right in the middle of this property. The applicant has worked with Craythorn Development and the City to provide a road stub to the north that is acceptable to both developers.

During the City Council meeting on June 21, 2022, there was a discussion about how the access to this subdivision would affect the access for the property to the south and the east. The applicant has revised their plan to move their road to the far east side of the property. This will line up better with the property to the south, and allow a future shared access with the property on the east.

Landscaping: A dedicated eight-foot landscape strip is required for “all-new developments along arterial and collector streets...” as outlined in 17.130.100(K). It also states that “A landscape and irrigation plan must be submitted and approved by the community development director. One two-inch caliper tree shall be required for every 25 feet of frontage... Five shrubs shall be required for every required tree...A six-foot non-chain link solid or semi-private fence shall be installed along the entire perimeter on the inside edge of the landscape strip.” This plan has been submitted and meets the requirements for trees and shrubs. The applicant is proposing mulch in the park strip in compliance with our newly adopted landscaping requirements.

Engineering: The city engineer reviewed the plans as well and provided comments to the applicant to address before final approval. All of these issues have been addressed and approval letters received.



## **Recommendation**

Staff recommends approval of the final plat for West Fields Subdivision.

## **Attachments**

- A. Application
- B. Plans
- C. Review Letters

# WEST FIELDS SUBDIVISION CONSTRUCTION DOCUMENTS

9/23/2022



Sheet List Table	
Sheet Number	Sheet Title
C001	INDEX
C002	LEGEND
C101	DEMOLITION PLAN
C200	GRADING OVERVIEW
C201	STORM WATER & EC PLAN
C202	STORMWATER CALCS
C301	PLAN & PROFILE
C501	DETAILS
C502	DETAILS
C503	DETAILS
C504	DETAILS
C505	DETAILS
C506	DETAILS
C507	DETAILS

**GENERAL NOTES:**

- APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A NOTICE TO PROCEED HAS BEEN ISSUED.
- THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF WEST POINT DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A SURVEY CREW MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR VERTICAL CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A SURVEY CREW SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE VERTICAL CONTROLLING MONUMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.
- CONTRACTOR SHALL CONTACT "BLUE STAKES" PRIOR TO START OF CONSTRUCTION ACTIVITIES BY CALLING 811 OR SUBMITTING AN ONLINE UTILITY LOCATION REQUEST AT WWW.BLUESTAKES.ORG.
- CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE OF UTAH AND WEST POINT CITY.
- "PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.
- PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF WEST POINT.
- DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.
- THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY.
- ALL ADA RAMP FORMS MUST BE INSPECTED BY THE CITY AT LEAST 24 HOURS PRIOR TO POURING CONCRETE. REQUEST INSPECTION FROM THE CITY A MINIMUM OF 48 HOURS PRIOR TO NEEDING THE INSPECTION.
- SECONDARY WATER INFRASTRUCTURE SHOULD BE INSTALLED PER DAVIS AND WEBER COUNTIES CANAL COMPANY STANDARDS AND SPECIFICATIONS. REFER TO DETAILS ON SHEET C-506.

**STANDARD SPECIFICATIONS:**

- WEST POINT CITY CORPORATION DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS AND SPECIFICATIONS.
- STORM WATER SPECIFICATIONS ARE PER THE EPA NATIONAL MENU OF STORMWATER BEST MANAGEMENT PRACTICES UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) AND THE UTAH DEPARTMENT OF WATER QUALITY STORMWATER MANAGEMENT PROGRAM.
- THE SPECIFICATIONS MENTIONED IN ITEMS ONE AND TWO SHALL SUPERSEDE ANY CONFLICTING SPECIFICATIONS CONTAINED WITHIN THESE PLANS.

**STANDARD DRAWINGS:**

- AMERICAN PUBLIC WORKS ASSOCIATION 2017 STANDARD DRAWINGS W/ WEST POINT AMENDMENTS.

**WEST POINT CITY ENGINEERING DEPARTMENT APPROVAL:**

THE IMPROVEMENT FOR THIS SUBDIVISION HAVE BEEN REVIEWED BY THE CITY ENGINEER FOR GENERAL CONFORMANCE WITH THE REQUIREMENTS OF THE CITY SUBDIVISION ORDINANCE. THIS SET OF CITY-APPROVED DRAWINGS SHALL BE USED FOR CONSTRUCTION OF THE REQUIRED SUBDIVISION IMPROVEMENTS. THE DEVELOPER'S ENGINEER, WHOSE STAMP IS ON THESE DRAWINGS, IS RESPONSIBLE FOR THE ENGINEERING DESIGN, DRAFTING, AND RELATED FIELD INFORMATION. THE CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS OR HER WORK WITH THAT OF ALL OTHER TRADES; AND THE SATISFACTORY PERFORMANCES OF HIS OR HER WORK.

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

**GENERAL NOTES:**

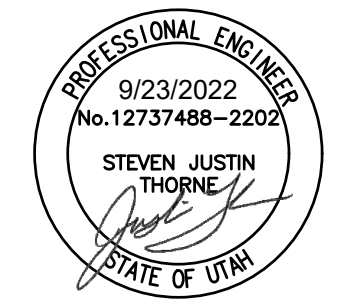
- CURRENT ZONE: R-2 WITH R-PUD OVERLAY
- SETBACKS: PER CITY CODE
- ALL EXPENSES INVOLVING THE NECESSARY IMPROVEMENTS OR EXTENSIONS FOR A CULINARY WATER SYSTEM, SANITARY SEWER SYSTEM, GAS SERVICE, ELECTRICAL SERVICE, TELEPHONE SERVICE, GRADING AND LANDSCAPING, STORM DRAINAGE, STREET LIGHTING AND OTHER IMPROVEMENTS SHALL BE PAID FOR BY THE DEVELOPER.
- ELEVATIONS SHOWN ARE TIED TO NATIONAL GEODETIC SURVEY BENCHMARK #MR-0450 WITH ELEVATION 4783.47, NAVD83 DATUM.
- WEST POINT CITY MONUMENT KNOWN ELEVATION=4543.58. MEASURED ELEVATION = 4543.30.

**PROJECT CONTACTS:**

- DEVELOPER:  
TRAVIS TAYLOR  
TTAYLOR@WESTCOLLC.COM
- CIVIL ENGINEER:  
CIVIL SOLUTIONS GROUP  
JUSTIN THORNE  
540 WEST GOLF COURSE ROAD SUITE B1  
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E. JTHORNE@CIVILSOLUTIONSGROUP.NET
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PROVO, UT 84601  
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- WEST POINT CITY ENGINEER:  
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3200 W 300 N  
WEST POINT, UT 84015  
BDAVIS@WESTPOINTCITY.ORG  
P. 801.614.5353
- WEST POINT CITY PUBLIC WORKS DIRECTOR:  
PAUL ROCHELL  
3200 W 300 N  
WEST POINT, UT 84015  
P. 801.776.0970
- NORTH DAVIS FIRE DISTRICT:  
381 N 3150 W  
West Point, UT 84015  
P. 801-525-2850
- UTAH STORM WATER PERMIT:  
UTAH DEPARTMENT OF WATER QUALITY  
P.O. BOX 144870  
SALT LAKE CITY, UTAH 84114-4870  
P. 801.538.6146  
<http://www.waterquality.utah.gov/JPDES/stormwater.htm>

MARK	DATE	DESCRIPTION

PROJECT #: 22-047  
DRAWN BY: J. THORNE  
PROJECT MANAGER: M. TAYLOR  
ISSUED: 9/23/2022



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INDEX

C001

LEGEND EXISTING

- PROPERTY BOUNDARY
- STORM DRAIN LINE
- WATER LINE
- IRRIGATION LINE
- PRESSURE IRRIGATION LINE
- SEWER LINE
- BURIED POWER LINE
- AERIAL POWER LINE
- COMMUNICATION LINE
- CONTOUR MINOR
- CONTOUR MAJOR
- ASPHALT
- OPEN FACE CURB AND GUTTER
- FENCE
- CONCRETE
- EXISTING TO BE REMOVED
- WATER VALVE
- FIRE HYDRANT
- STORMDRAIN BOX
- WATER METER
- SEWER MANHOLE

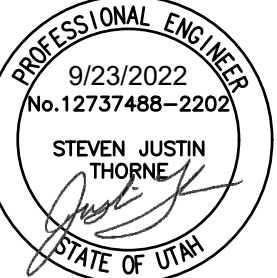
LEGEND PROPOSED

- WATER LINE (SIZE SHOWN ON PLAN)
- STORM DRAIN LINE (SIZE SHOWN ON PLAN)
- IRRIGATION LINE (SIZE SHOWN ON PLAN)
- PRESSURE IRRIGATION LINE(SIZE SHOWN ON PLAN)
- GAS LINE
- SANITARY SEWER LINE (SIZE SHOWN ON PLAN)
- BURIED POWER LINE
- BURIED COMMUNICATION LINE
- CONTOUR MAJOR
- CONTOUR MINOR
- ASPHALT
- OPEN FACE CURB AND GUTTER
- CLOSED FACE CURB AND GUTTER
- CONCRETE SIDEWALK.
- BUILDING SETBACK
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE
- WATER METER
- STORMDRAIN BOX
- STORM WATER CATCH BASIN

MARK	DATE	DESCRIPTION

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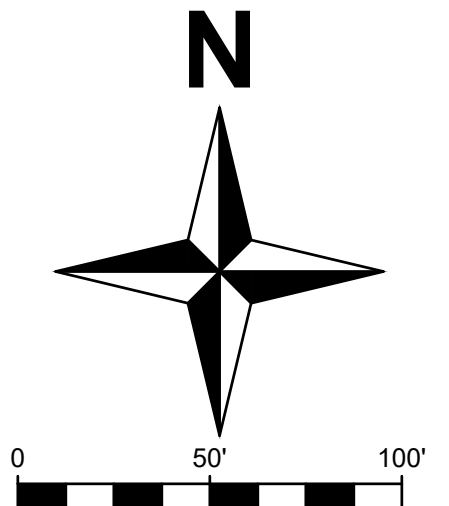
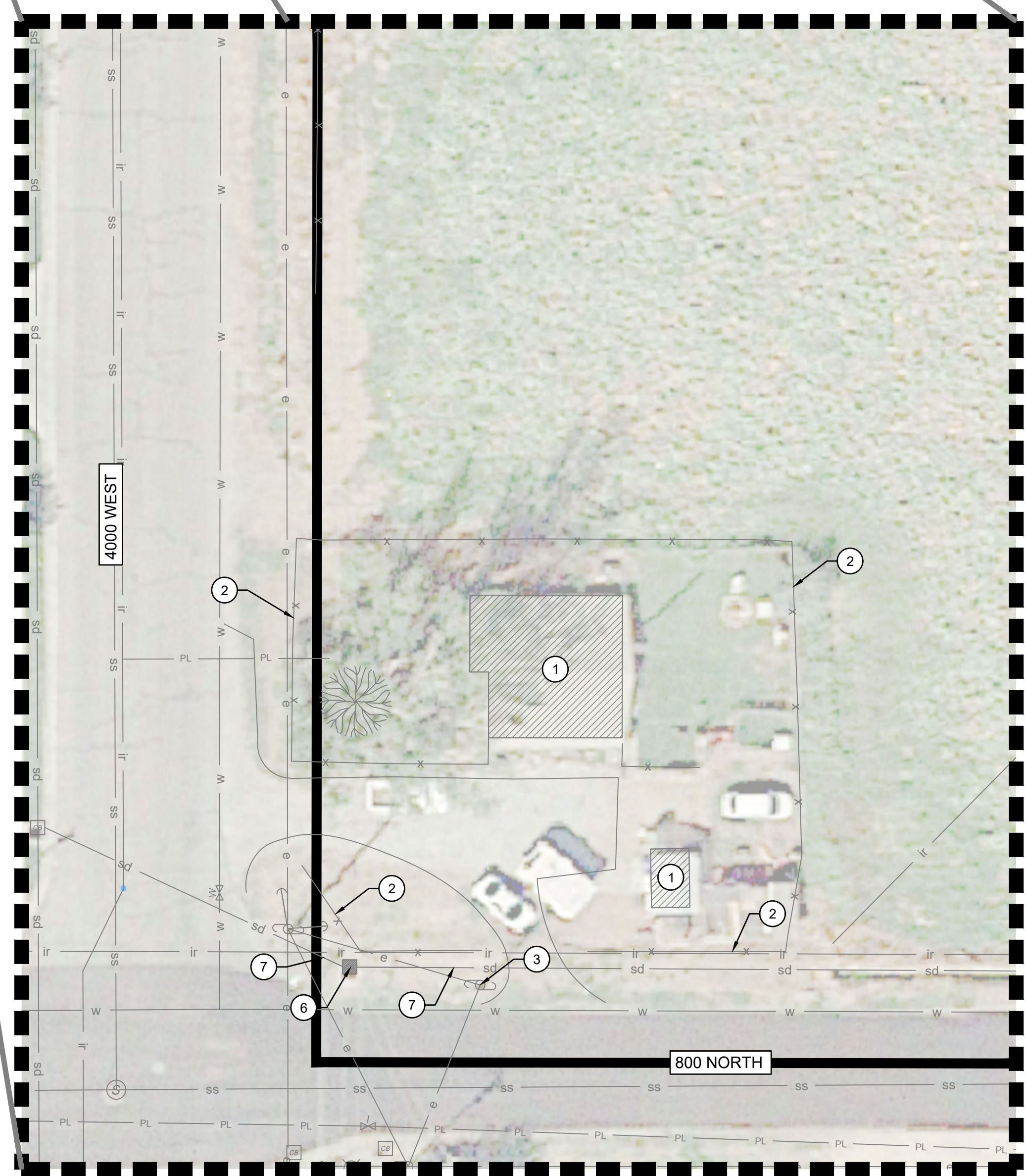
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LEGEND

C002

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**1 DEMOLITION PLAN KEY NOTES:**

1. REMOVE EXISTING STRUCTURE
2. REMOVE EXISTING FENCE
3. REMOVE EXISTING POWER POLE IN COORDINATION WITH ROCKY MOUNTAIN POWER (IF REQUIRED)
4. REMOVE IRRIGATION STRUCTURE
5. FILL IN AND ABANDON EXISTING DITCH
6. REMOVE EXISTING STORM DRAIN BOX
7. SAWCUT AND REMOVE EXISTING RCP PIPE TO LOCATION OF PROPOSED PIPE COLLAR AS SEEN ON SHEET C301
8. SAWCUT AND CAP EXISTING IRRIGATION PIPE AND MAIN. CONTRACTOR SHALL VERIFY THE LOCATION OF THE EXISTING PIPE.
9. CONTRACTOR SHALL REMOVE THE PIPE ACROSS THE ROAD AND SAWCUT, REMOVE AND REPLACE PAVEMENT AS REQUIRED FOR REMOVALS.
10. REMOVE EXISTING CONCRETE IRRIGATION CHANNEL.
11. SAWCUT AND REMOVE EXISTING IRRIGATION PIPE AS REQUIRED FOR CONSTRUCTION OF NEW DIVERSION BOX.
12. SAWCUT AND REMOVE PIPE AS REQUIRED FOR REMOVAL OF EXISTING DIVERSION BOX.

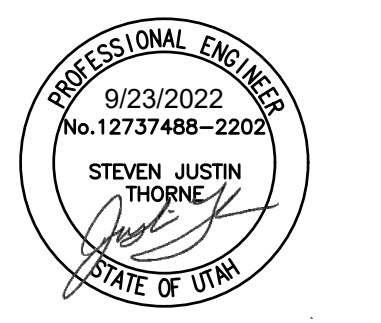
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**WEST FIELDS SUBDIVISION**  
 800 NORTH 4000 WEST  
 WEST POINT, UTAH

MARK:	DATE:	DESCRIPTION:

PROJECT #: 22-047  
 DRAWN BY: J. THORNE  
 PROJECT MANAGER: M. TAYLOR  
 ISSUED: 9/23/2022



**DEMOLITION PLAN**

**C101**

**civilsolutionsgroup inc.**  
 CACHE VALLEY | P: 435.213.3762  
 SALT LAKE | P: 801.216.3192  
 UTAH VALLEY | P: 801.874.1432  
 info@civilsolutionsgroup.net  
 www.civilsolutionsgroup.net





**1 EROSION CONTROL KEY NOTES:**  
 PROVIDE, INSTALL, AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

1. VEHICLE TRACK OUT PAD
2. MATERIAL STAGING AREA
3. PORTABLE TOILET
4. CONCRETE WASHOUT FACILITY
5. GRAVEL SOCK
6. SILT FENCE / BERM / SWALE
7. CONSTRUCT CONCRETE PIPE COLLAR
8. CONNECT TO EXISTING WITH CONCRETE PIPE COLLAR. CONTRACTOR SHALL VERIFY PIPE LOCATION AND ELEVATION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES
9. INSTALL DRY WELL (2/C507)
10. INSTALL 3' WIDE CURB CUT

**LEGEND:**

STORMDRAIN CURB BOX

**GENERAL NOTES:**

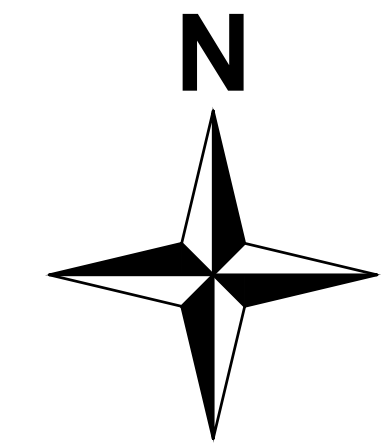
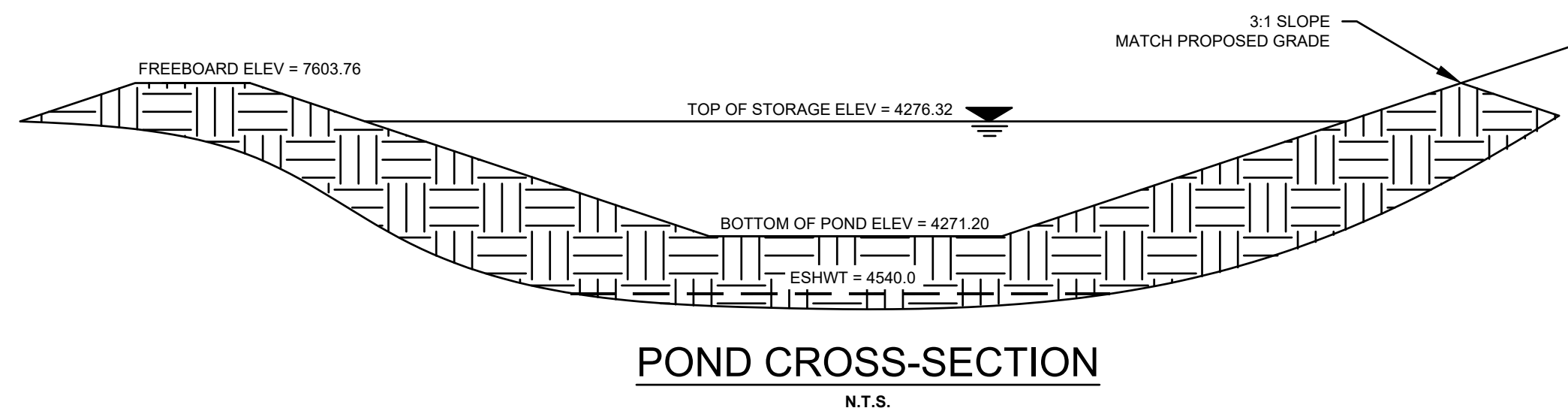
1. ALL STORM DRAIN PIPE SHALL BE OF REINFORCED CONCRETE PIPE MATERIAL WITH SMOOTH INTERIOR AND WATER TIGHT JOINTS UNLESS OTHERWISE NOTED.
2. ALL DOWNSTREAM STORM DRAIN INLETS AND CATCH BASINS WITHIN 100-FT OF THE PROJECT SHALL HAVE GRAVEL SOCKS INSTALLED PER DETAIL IN SWPPP. (OR AS NOTED ON UPDATED PLANS OR AS WORK PROGRESSES)
3. ALL STORM DRAIN BOXES SHALL BE INSTALLED WITH GRATE, NOT LID, UNLESS OTHERWISE NOTED.
4. SEE DETAIL (1/C503) FOR ALL PIPE INSTALLATION
5. INSTALL FLARED HDPE END SECTION WITH TRASH GUARD AT OPEN END OF ALL STORM DRAIN LINES
6. ALL EROSION CONTROL ITEMS TO BE INSTALLED PER DETAILS IN THE SWPPP OR AS NOTED ON UPDATED PLANS AS WORK PROGRESSES.
7. ALL PIPE OUTLETS NOT CONNECTED TO STORMWATER STRUCTURE IS TO BE INSTALLED WITH A FLARED-END SECTION. (2/C504)
8. FOOTING DRAINS AND SUMPS WILL BE REQUIRED ON EACH HOUSE.
9. RESTORE AN RELOCATE EXISTING UNDERGROUND FIELD DRAIN PIPE IF ENCOUNTERED

**STORMWATER NARRATIVE:**

THIS SITE WILL RETAIN ALL OF THE 10-YEAR STORM WITHOUT DETENTION AS DIRECTED BY WEST POINT CITY. RETENTION CALCULATIONS WERE BE BASED ON A 10-YEAR STORM WITHOUT DETENTION, A 50-YEAR STORM WITH MINOR DETENTION, AND A 100-YEAR STORM WITH MAJOR DETENTION PER THE WEST POINT CITY CODE. THE MODIFIED RATIONAL BASED FAH METHOD WAS USED TO CALCULATE REQUIRED DETENTION. SEE SHEETS C202 FOR STORMWATER CALCULATIONS.

ALL STORM RUNOFF WILL BE COLLECTED AND CONVEYED TO THE ONE STORMWATER POND ON THE WEST OF LOTS #88. STORMWATER RUNOFF WILL BE RELEASED FROM THE STORMWATER POND AT 1.04 CFS. THE STORMWATER RELEASE RATE WILL BE CONTROLLED BY AN ORIFICE IN STORMWATER POND.

REQUIRED DETENTION STORAGE: 20,403 CF  
 PROVIDED DETENTION STORAGE: 20,438 CF  
 REQUIRED RETENTION STORAGE: 14,294 CF  
 PROVIDED RETENTION STORAGE: 14,468 CF



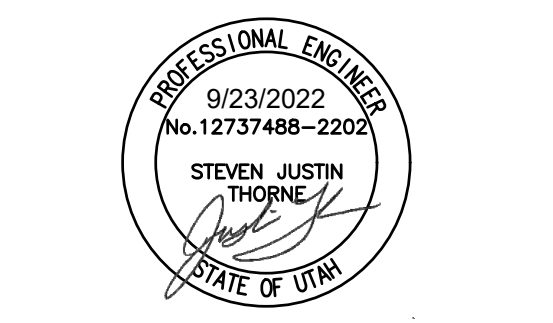
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**WEST FIELDS SUBDIVISION**  
 800 NORTH 4000 WEST  
 WEST POINT, UTAH

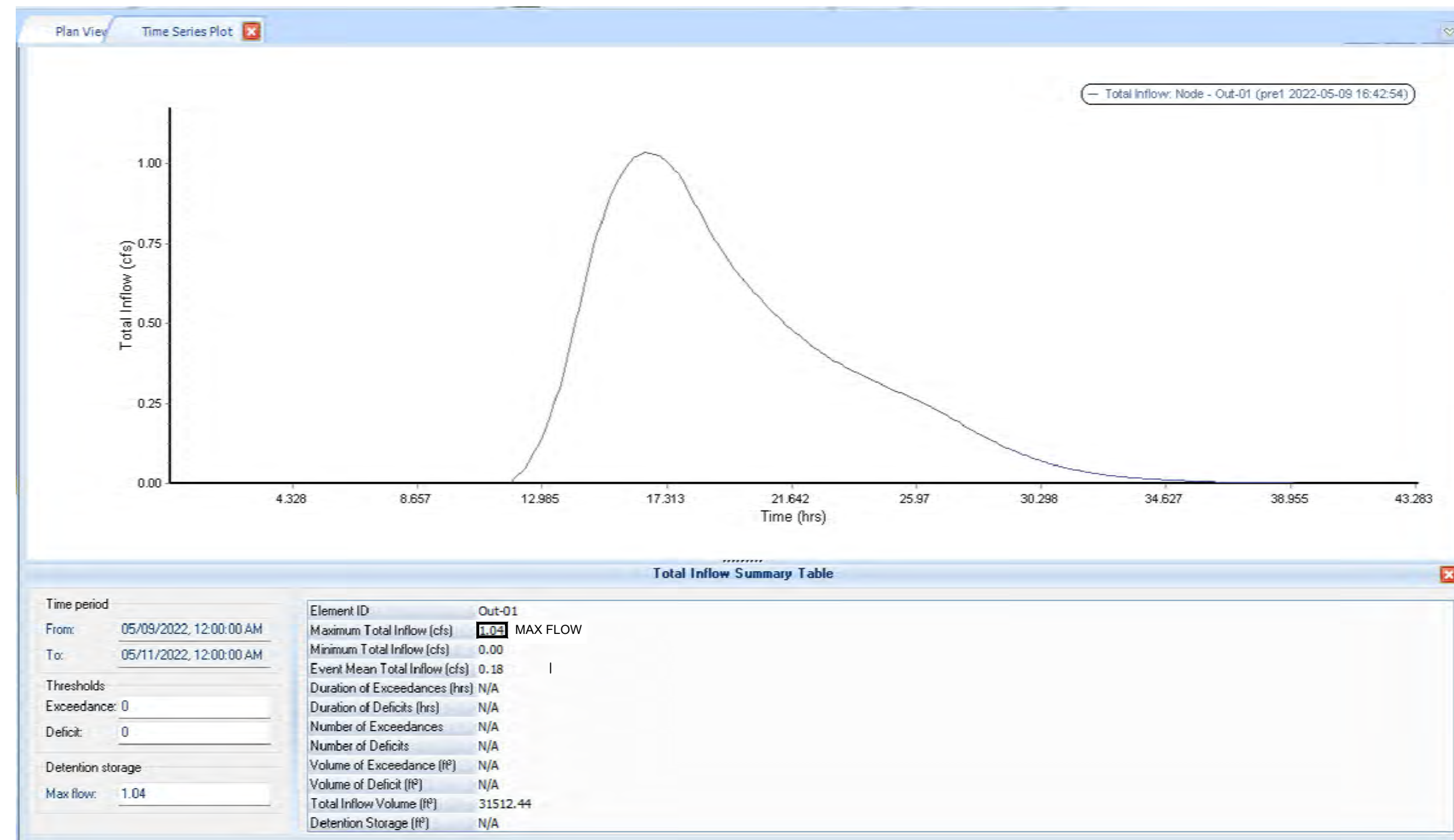
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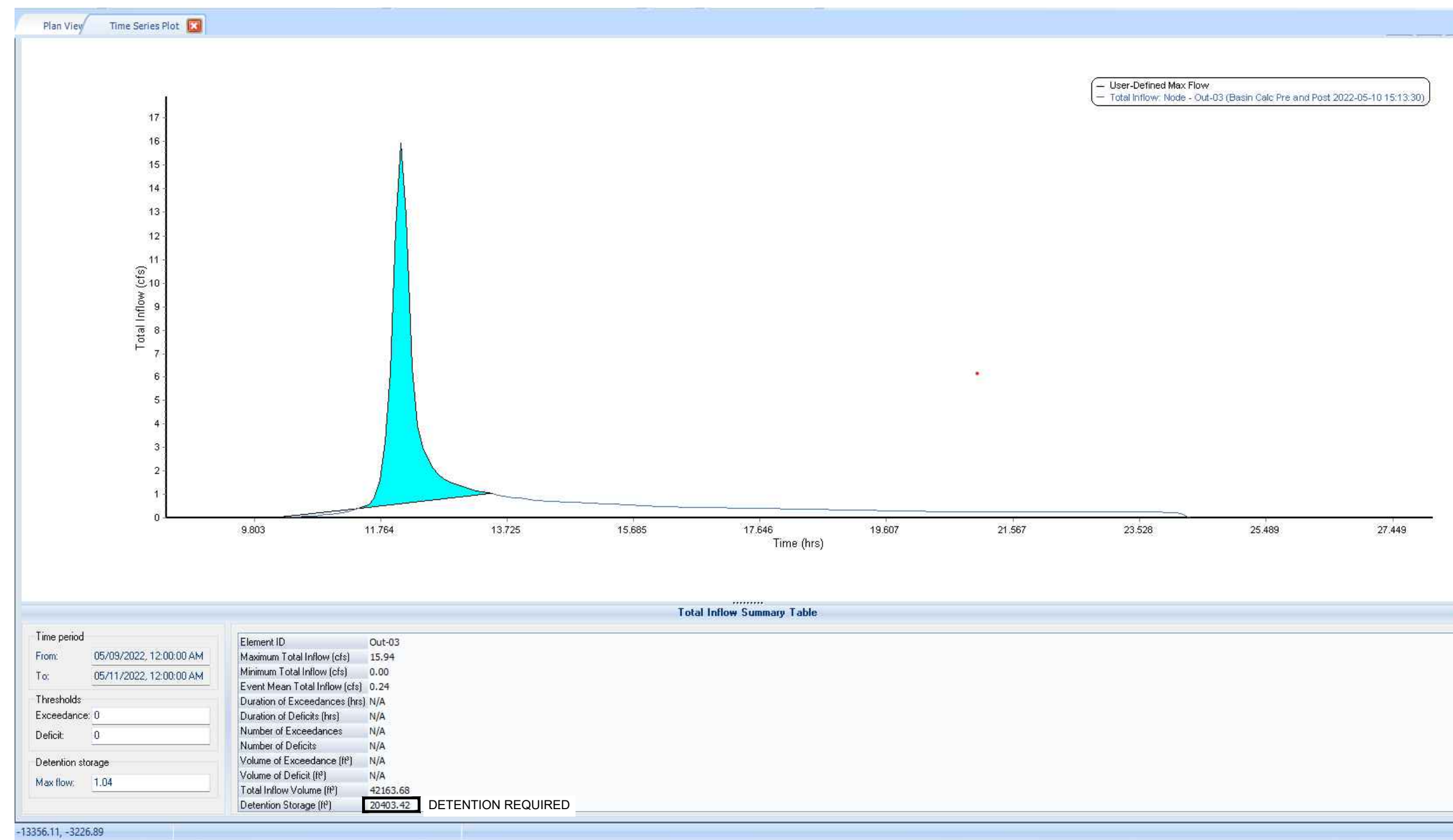


**STORM WATER & EC PLAN**  
**C201**

**PRE DEVELOPMENT**  
(SCS TR-55/CURVE NUMBER)



**POST DEVELOPMENT**  
(SCS TR-55/CURVE NUMBER)



**ORIFICE CALCS**

H = Head = W.S.E. - INV. =	0.97 ft
P.Q. = Peak Allowable Discharge =	1.04 cfs
Orifice Diameter in inches = $6.12 * \sqrt{P.Q. / (H * (1/2))} * (1/2) =$	6.29 inches

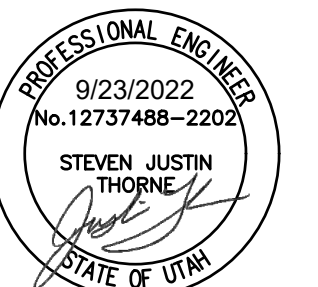
**STORMWATER CALCULATIONS**

Description	Area (sq ft)	Area (ac)	CN (Group B)	(SubArea / TotalArea)*CN
Asphalt	50,477	1.16	98	12
Concrete Pavement	21,497	0.49	98	5
Grassed Open Space (Grass Cover>75%)	44,984	1.03	61	7
Residential Lots, 1/4 acre to 1/2 acre)	281,939	6.47	75	53
<b>Total Area After R/W Dedication:</b>	<b>398,898</b>	<b>9.16</b>	<b>78</b>	
<b>Pre Development (Pasture, grassland, or range; good. Soil Group B):</b>				
	398,898	9.16	61	
<b>80th-Percentile Storm Volume (0.43-inches):</b>	<b>14,294</b>	<b>cu-ft</b>	<b>REQUIRED RETENTION VOLUME</b>	
Initial Abstraction		0.58	inches	
for pre dev		1.28	inches	
Precipitation (10 Yr)	24 hour storm	2.04	inches	
Precipitation (25 Yr)	24 hour storm	2.41	inches	
Precipitation (100 Yr)	24 hour storm	3.02	inches	
Direct Runoff (10 Yr)	24 hour storm	0.49	total runoff depth	
for pre dev (10 Yr)	24 hour storm	0.08	total runoff depth	
Direct Runoff (25 Yr)	24 hour storm	0.71	total runoff depth	
for pre dev (25 Yr)	24 hour storm	0.17	total runoff depth	
Direct Runoff (100 Yr)	24 hour storm	1.12	total runoff depth	
for pre dev (100 Yr)	24 hour storm	0.37	total runoff depth	
<b>Post Development</b>				
10-Year Direct Runoff	0.37	acre-ft	16,316	ft3
25-Year Direct Runoff	0.54	acre-ft	23,614	ft3
100-Year Direct Runoff	0.85	acre-ft	37,161	ft3
<b>Pre-Development</b>				
10-Year Direct Runoff	0.06	acre-ft	2,693	ft3
25-Year Direct Runoff	0.13	acre-ft	5,654	ft3
100-Year Direct Runoff	0.28	acre-ft	12,390	ft3



MARK	DATE	DESCRIPTION

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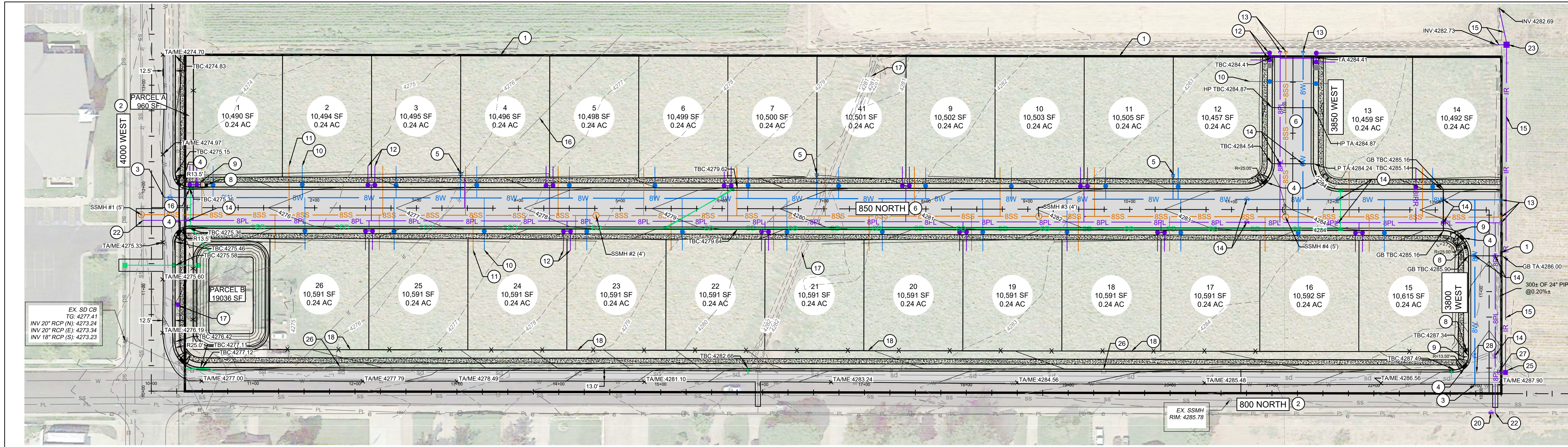


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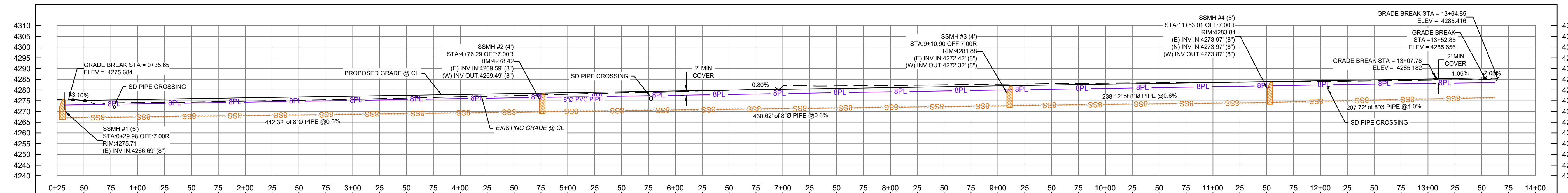
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**STORMWATER CALCS**

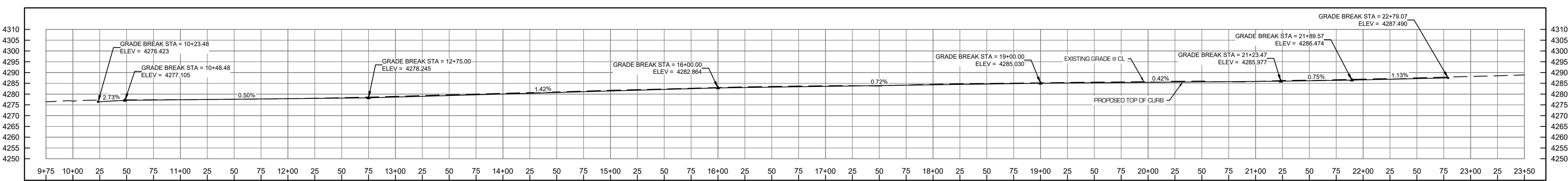
**C202**



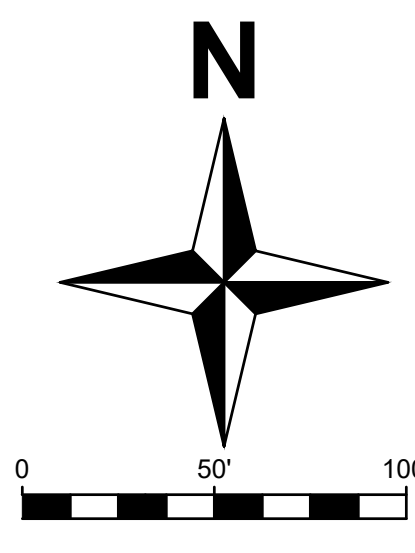
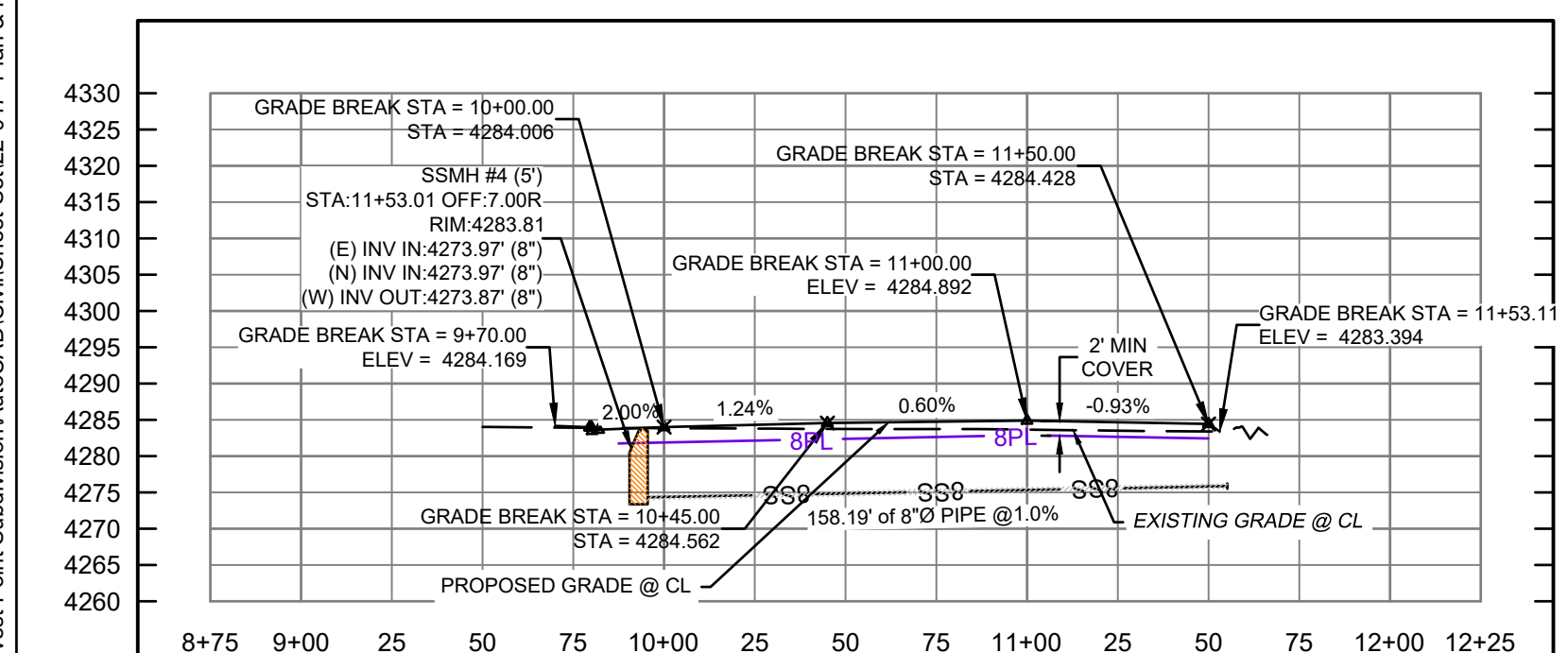
**850 NORTH PROFILE**



**800 NORTH PROFILE**



**3850 WEST PROFILE**



**GENERAL NOTES:**

- CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND CONTACT ENGINEER IF DIFFERENT FROM LOCATIONS DISPLAYED ON THESE PLANS.
- MINIMUM 18" OF VERTICAL SEPARATION REQUIRED BETWEEN WATER MAIN AND SEWER MAIN WHERE LINES INTERSECT.
- MINIMUM OF 10' FROM OUTSIDE-OF-PIPE TO OUTSIDE-OF-PIPE REQUIRED BETWEEN CULINARY WATER LINE AND ALL OTHER WET UTILITIES.
- ALL SEWER, IRRIGATION, STORM DRAIN AND CULINARY WATER LINES SHALL BE INSTALLED PER UTILITY TRENCHING DETAIL FOUND IN STANDARD DRAWING 04 ON SHEET C-502.
- ALL CULINARY WATER AND IRRIGATION LINES SHALL BE AWWA C900 DR14. ALL WATER MAINS SHALL BE INSTALLED WITH A MINIMUM OF 5' OF COVER, AND IRRIGATION LINES WITH A MINIMUM OF 2' OF COVER.
- ALL SEWER AND WATER SERVICES SHALL BE INSTALLED IN FRONT CENTER OF LOT UNLESS OTHERWISE NOTED. PROVIDE 11-FIT HORIZONTAL SEPARATION BETWEEN CENTERLINES OF WATER & SEWER, 6-FT HORIZONTAL SEPARATION BETWEEN SECONDARY IRRIGATION AND SEWER.
- ALL WATER SERVICES SHALL BE INSTALLED PER STANDARD DETAIL 1 ON SHEET C504 WATER SERVICES SHALL BE MIN 3/4" CTS CLASS 200 POLY WITH 24" "WHITE" BARRELS. THE CITY WILL PROVIDE AND SET THE METERS. ALL OTHER PARTS (SERVICE LATERAL, PIPING, SETTERS, BARRELS, ETC.) SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. PRIOR TO INSTALLATION OF BARRELS, LOCATIONS SHALL BE DETERMINED USING CONSTRUCTION STAKING METHODS.
- ALL SEWER SERVICES SHALL BE INSTALLED PER STANDARD DETAIL 2 ON SHEET C-503.
- ALL SEWER LINES SHALL BE CONSTRUCTED OF PVC SDR-35 MATERIAL.
- ALL SEWER MANHOLES SHALL BE INSTALLED PER STANDARD DETAIL 1 ON SHEET C-503.
- ALL SECONDARY IRRIGATION SERVICES SHALL BE INSTALLED PER STANDARD DETAIL 1 ON SHEET C-506.
- ALL IRRIGATION MAIN PIPE SHALL BE "PURPLE PIPE" FOR USE WITH RECLAIMED WATER SYSTEMS AS IS REQUIRED BY STATE REGULATIONS.
- CONTRACTOR SHALL PLACE CONCRETE THRUST BLOCKS ON ALL TEES, WYES, BENDS, ANGLES, ETC ON ALL WATER AND IRRIGATION LINES AS SHOWN IN DETAIL 04 ON SHEET C-503.
- POWER - CONTRACTOR SHALL COORDINATE WITH OWNER AND ROCKY MOUNTAIN POWER TO DETERMINE PRECISE LOCATION AND LAYOUT OF POWER LINES THROUGH DEVELOPMENT. CONTRACTOR SHALL BE RESPONSIBLE TO TRENCH, BED, INSTALL AND FILL IN THE POWER TRENCH AND PROVIDE THE REQUIRED PVC SCHEDULE 40 CONDUIT.
- TELEPHONE AND CABLE - CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR LOCATION OF CONDUIT CROSSINGS AND SHALL INSTALL ALL CONDUITS.
- GAS - CONTRACTOR SHALL COORDINATE INSTALLATION OF GAS WITH QUESTAR GAS.
- CONTRACTOR SHALL INSTALL WIRING JUNCTION FOR STREET LIGHTS AT LOCATIONS PER CITY REQUIREMENTS AND ROCKY MOUNTAIN POWER. STREET LIGHTS SHALL BE INSTALLED BY ROCKY MOUNTAIN POWER AND WEST POINT CITY.
- CONTRACTOR SHALL NOT EXCAVATE ROAD SIDE SWALES UNTIL ALL UTILITIES HAVE BEEN INSTALLED.

**SHEET KEY NOTES:**

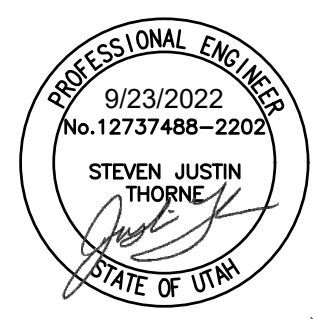
- PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS.
  - PROPOSED 6' CHAIN LINK FENCE TO BE INSTALLED ALONG THE NORTH BOUNDARY PRIOR TO OCCUPANCY OF ANY HOME UNLESS WAIVED BY ADJACENT PROPERTY OWNER.
  - STANDARD DUTY ASPHALT PAVT. SAWCUT MIN OF 1" (8/C501)
  - CONNECT TO EXISTING WATERLINE WITH WET TAP & VALVE ON NEW LINE.
  - INSTALL ADA RAMP (1/C502)
  - FIRE HYDRANT ASSEMBLY & GATE VALVE (1/C505)
  - INSTALL WEST POINT CITY 60" CROSS SECTION (1/C501) (PROJECT SIDE ONLY)
  - INSTALL WEST POINT CITY 66" CROSS SECTION (1/C501) (PROJECT SIDE ONLY)
  - INSTALL STREET LIGHTS (COORDINATE EXACT LOCATIONS W/ ROCKY MOUNTAIN POWER) (2/C505)
  - STOP SIGN AND ROAD SIGN (3/C505 & 4/C505)
  - UTILITY STUB FOR FUTURE PHASE. GAP AND MARK END OF LINE. BLOCK IF PRESSURIZED.
  - INSTALL 8" GATE VALVE (7/C503)
  - PIPE EXISTING IRRIGATION CANAL WITH 24" RCP
  - EX LAND DRAIN. CONTRACTOR TO VERIFY, RELOCATE AND RECONNECT AS NEEDED.
  - RELOCATE IRRIGATION METER TO THE PARK STRIP AND ADJUST TO GRADE. IF THE LATERAL NEEDS TO BE LONGER, A NEW LATERAL PIPE WILL NEED TO BE INSTALLED FROM THE MAIN TO THE SERVICE SO THERE ARE NO FITTINGS ON THAT SERVICE LATERAL.
  - PROPOSED 6' PRIVACY FENCE. FENCE HEIGHT TO BE REDUCED TO 2' AS REQUIRED NEAR INTERSECTIONS/DRIVEWAYS PER CITY CODE. ONLY ALONG 4000 WEST AND 800 NORTH.
  - INSTALL CURB & GUTTER (3/C501)
  - INSTALL 10" GATE VALVE. (7/C503)
  - CONNECT TO THE EXISTING IRRIGATION BOX
  - CONNECT TO EXISTING WATERLINE WITH TEE & VALVE ON NEW LINE. THE TEES AND VALVES TO CONNECT TO EXISTING WILL NEED TO BE INSTALLED WITH NO WATER IN THE SYSTEM.
  - CONSTRUCT A NEW DIVERSION BOX AT THE NORTH END OF THE NEW LINE WITH TWO "WATERMAN" TYPE SCREW OPERATED HEAD GATES TO THE WEST AND NORTH. TOP=4287.23, INV(S)=4282.90, INV(W)=4282.80, INV(N)=4282.80.
  - BOTTOM=4281.80
  - ADJUST MANHOLE TO GRADE.
  - CONSTRUCT A NEW DIVERSION BOX 2' NORTH OF PROPOSED PAVEMENT WITH TWO "WATERMAN" TYPE SCREW OPERATED HEAD GATES TO THE WEST AND NORTH. TOP=4290.30, INV(W)=4283.20, INV(S)=4283.20, INV(N)=4283.30. BOTTOM=4282.30.
  - ADJUST EXISTING IRRIGATION MANHOLE TO GRADE.
  - INSTALL 24" RCP. CONNECT TO EXISTING PIPE WITH A PIPE COLLAR.
  - CONTRACTOR TO ENSURE 1' OF COVER OVER EXIST PIPE.

DESIGNING OUR FUTURE

MARK:	DATE:	DESCRIPTION:

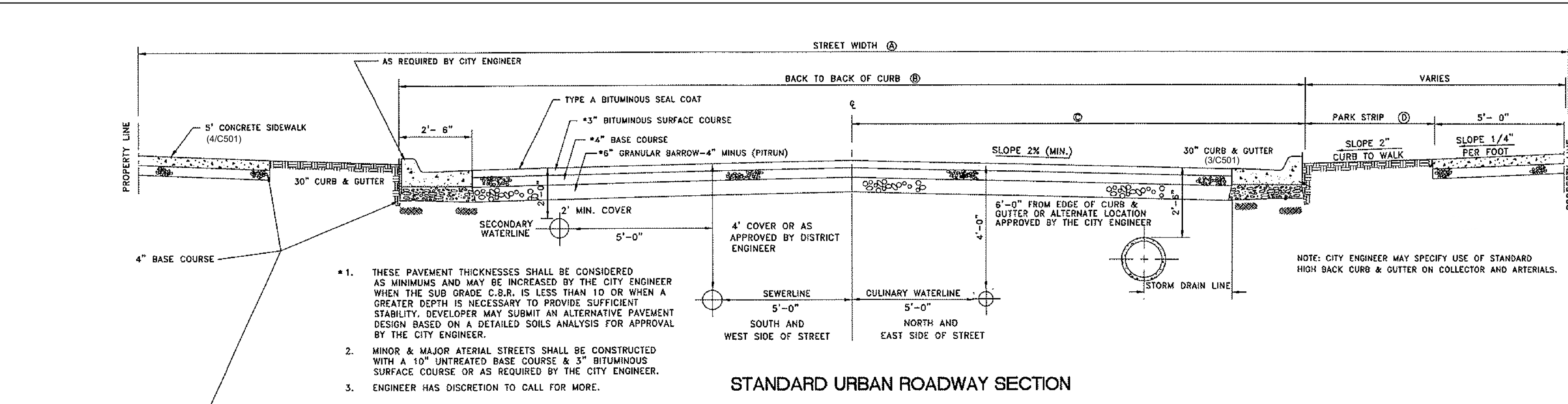
PROJECT #: 22-047  
 DRAWN BY: J. THORNE  
 PROJECT MANAGER: M. TAYLOR  
 ISSUED: 9/23/2022

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**PLAN & PROFILE**

**C301**



**1 STANDARD ROADWAY SECTION FOR COLLECTOR AND RESIDENTIAL STREET**  
C501  
NOT TO SCALE

STREET DESIGNATION	R.O.W. WIDTH	SURFACE COURSE WIDTH	SHOULDER WIDTH WITH 30" CURB (-5' OF SHOULDER WIDTH)
MINOR AND /OR PRIVATE ROADWAYS	50'	32'	6.5'
STANDARD RESIDENTIAL	60'	32'	11.5'
COLLECTOR	66'	36'	12.5'
② MINOR ARTERIAL	84'	44'	15.5'
② MAJOR ARTERIAL	106'	(CONSULT CITY ENGINEER FOR SPECIFIC REQUIREMENTS)	

- MINOR STREET PERMITTED UPON SPECIAL PERMISSION BY THE CITY PLANNING COMMISSION. WHERE SIDEWALK IS NECESSARY, MUST HAVE 60' R.O.W.
- CITY ENGINEER SHALL PROVIDE PAVEMENT DESIGN ON ARTERIAL STREETS - WIDTH MAY VARY PER CO. ENGINEER.
- REFER TO INDIVIDUAL WATER DISTRICT STANDARDS FOR SPECIFIC MIN. SIZE AND MATERIAL STANDARD.
- INCREASE SIZE WHEN DIRECTED BY THE CITY ENGINEER AS NECESSARY FOR HYDRAULIC CAPACITY

**MINIMUM UTILITY STANDARDS**

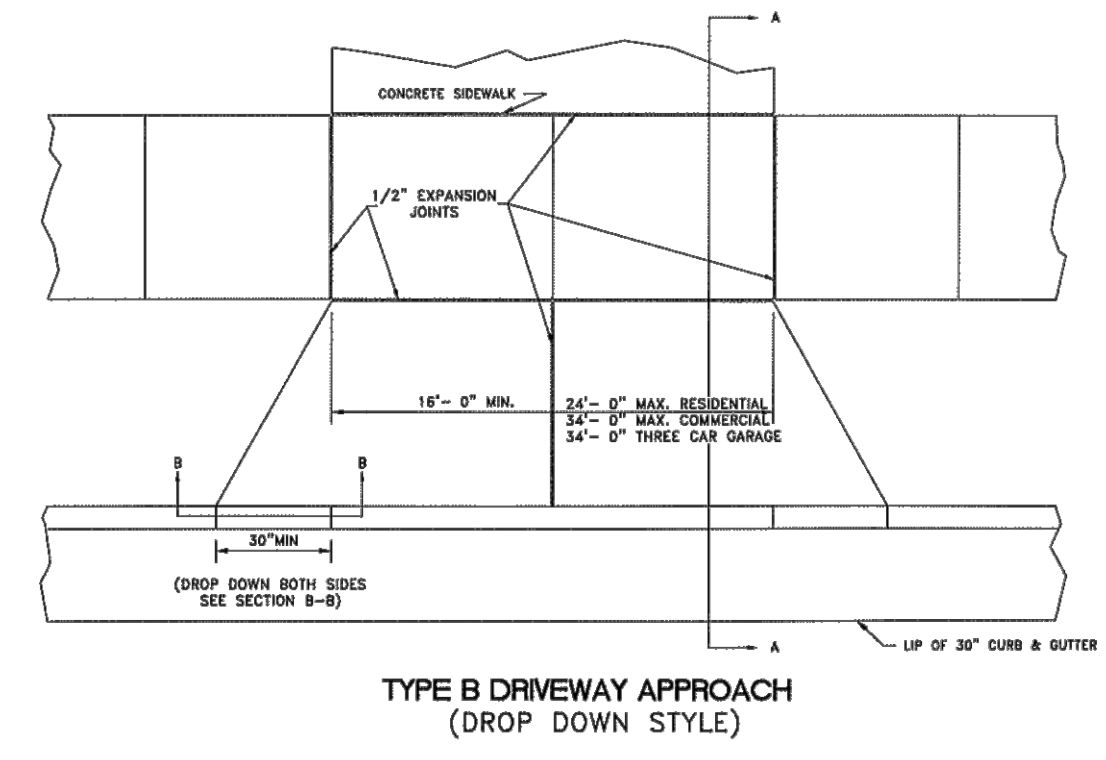
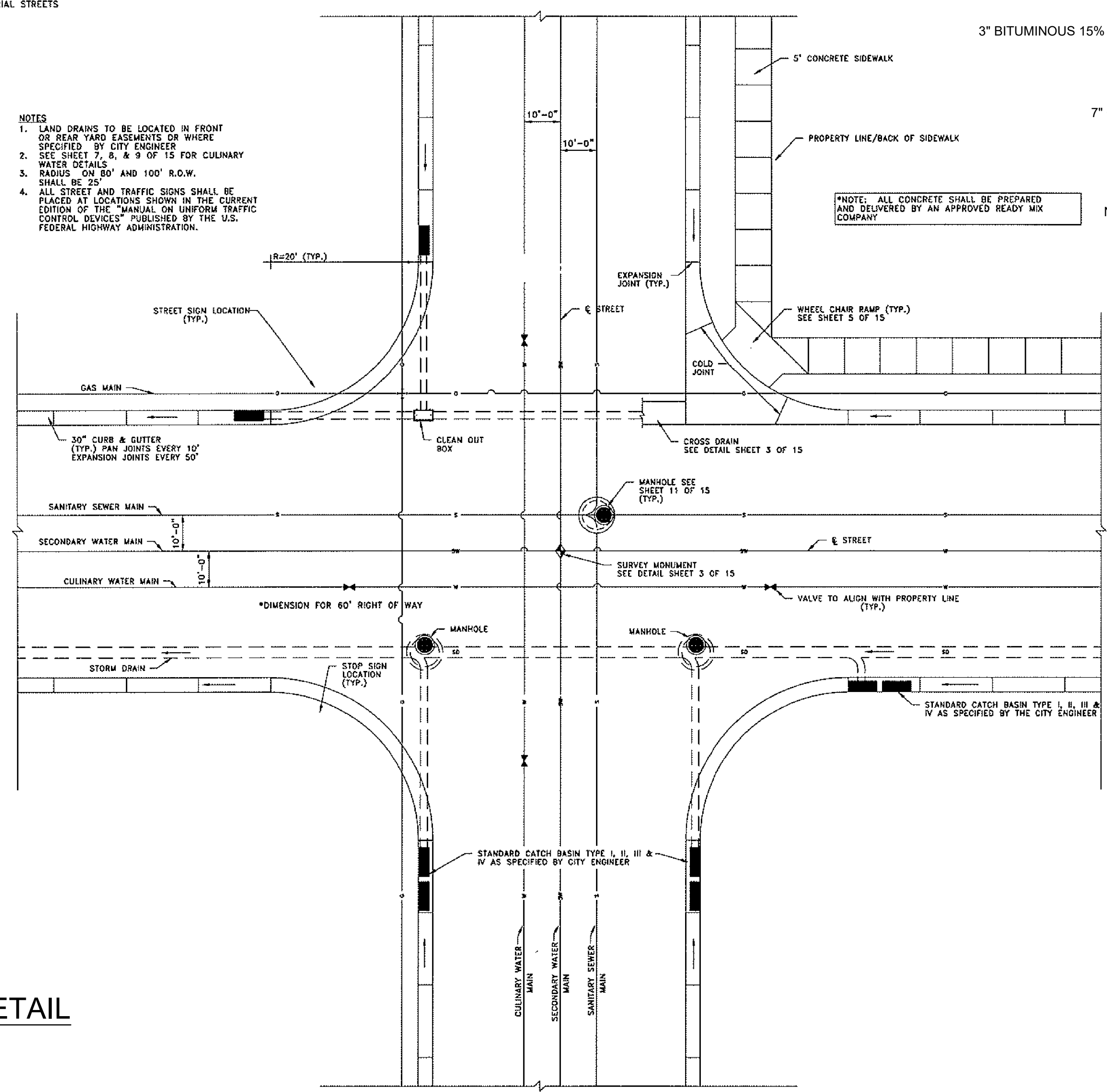
SYSTEM	MIN. DIA.	STANDARD MATERIAL
CULINARY WATER	SEE SHEET 7, 8, & 9 OF 15	
SANITARY SEWER	8"	CONCRETE PIPE (C-140 OR P.V.C. A.S.T.M. D-3034 SDR 35)
STORM DRAINS	15"	REINFORCED CONC. PIPE CLASS 3 (A.S.T.M. C-76)
DRIVEWAY CROSSING	15" ④	REINFORCED CONC. PIPE CLASS 3 (A.S.T.M. C-76)
SECONDARY WATER	4" ③	P.V.C. 900 OR CLASS 150

**5 ROADWAY UTILITY DETAIL**  
C501  
NOT TO SCALE

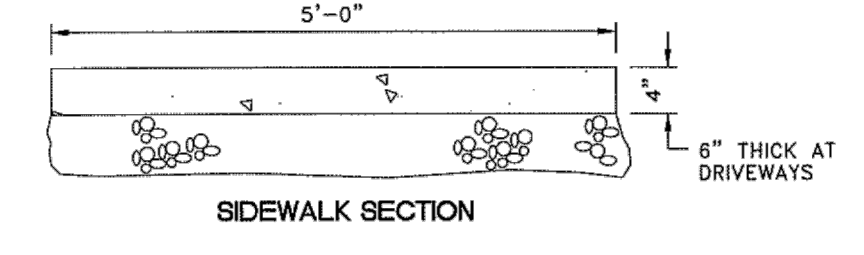
STREET DESIGNATION	R.O.W. WIDTH (A)	T.B.C. TO T.B.C. (B)	C TO T.B.C. (C)	PARK STRIP (D)
MINOR (PRIVATE)	50'	32'	16.0'	4.0'
STANDARD RESIDENTIAL	60'	41'	20.5'	4.5'
COLLECTOR	66'	47'	23.5'	4.5'
MINOR ARTERIAL ▲	84'	65'	32.5'	4.5'
MAJOR ARTERIAL ▲	106'	82'	43.5'	4.5'

- NOTE: 1. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN CURB ON OPPOSITE SIDE OF STREET SHALL NOT EXCEED 1'-0"
- ▲ 2. ON ARTERIAL STREETS THE CITY ENGINEER WILL PROVIDE A PAVEMENT DESIGN, LOCATION OF SIDEWALK AND ROLLED CURB & GUTTER MAY VARY ON INDIVIDUAL ARTERIAL STREETS PER DIRECTION OF THE CITY ENGINEER

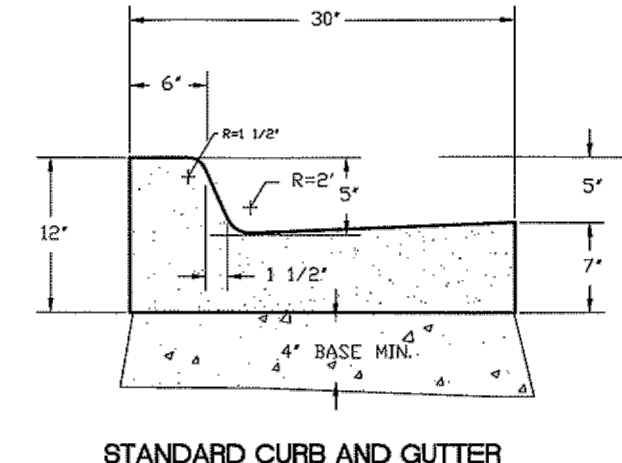
**STANDARD INTERSECTION DETAILS + UTILITY LOCATIONS**



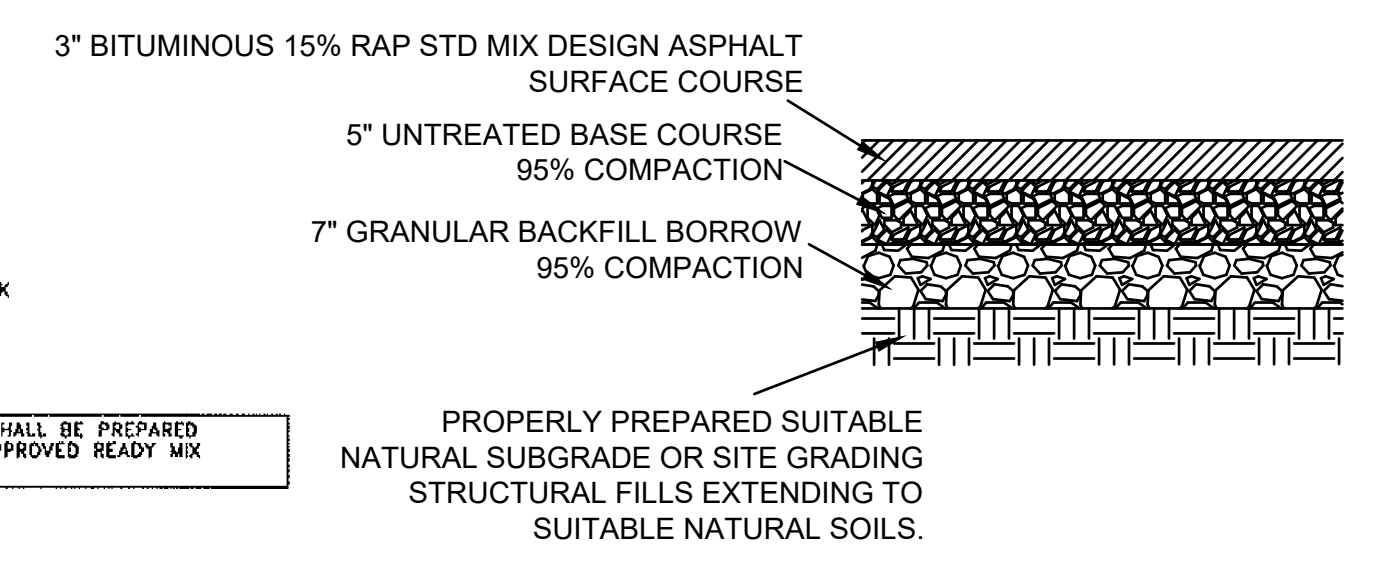
**2 DRIVEWAY APPROACH**  
C501  
NOT TO SCALE



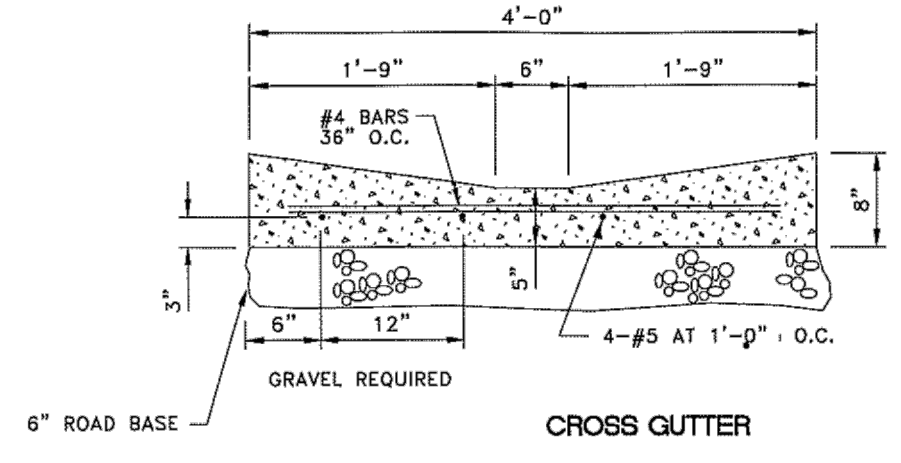
**4 SIDEWALK DETAIL**  
C501  
NOT TO SCALE



**3 STANDARD CURB & GUTTER**  
C501  
NOT TO SCALE



**8 STANDARD DUTY ASPHALT**  
C501  
NOT TO SCALE



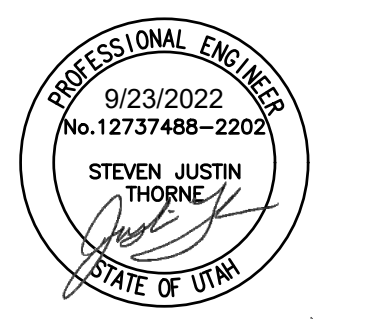
**6 CROSS GUTTER**  
C501  
NOT TO SCALE

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SALT LAKE | P: 801.216.3192  
UTAH VALLEY | P: 801.874.1432  
info@civilsolutionsgroup.net  
www.civilsolutionsgroup.net

**WEST FIELDS SUBDIVISION**  
800 NORTH 4000 WEST  
WEST POINT, UTAH

MARK	DATE	DESCRIPTION

PROJECT #: 22-047  
DRAWN BY: J. THORNE  
PROJECT MANAGER: M. TAYLOR  
ISSUED: 9/23/2022



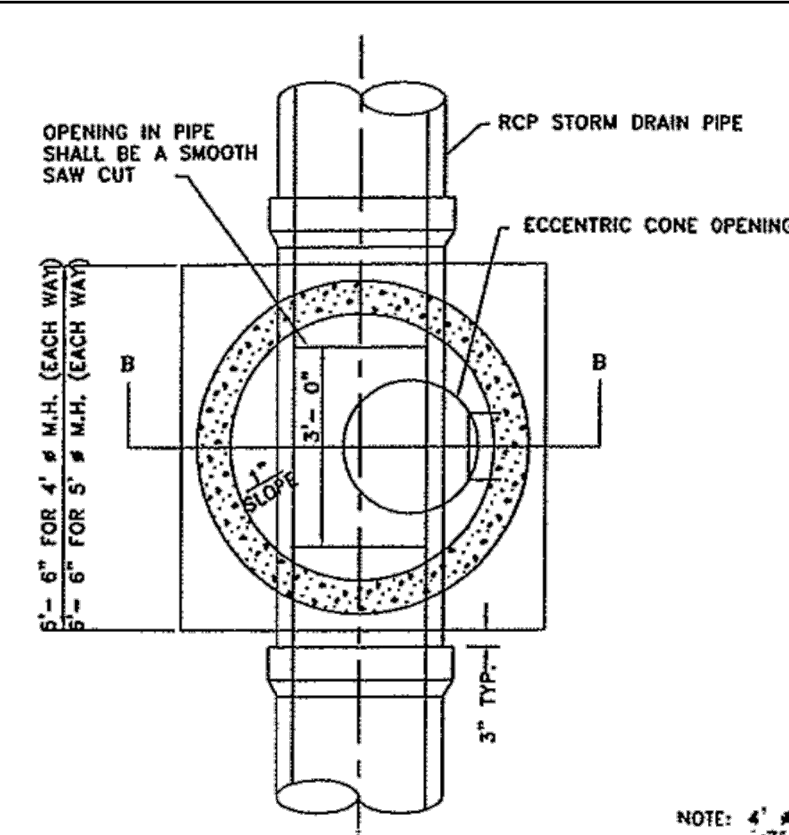
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**DETAILS**

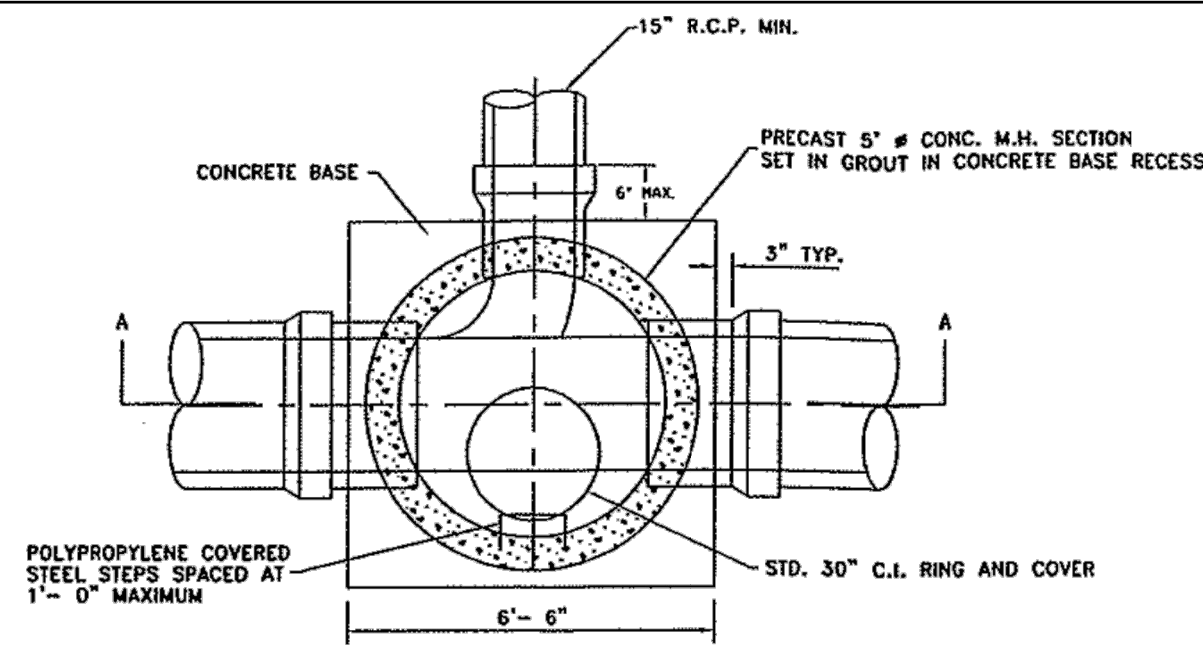
**C501**





TYPICAL LINE MANHOLE PLAN

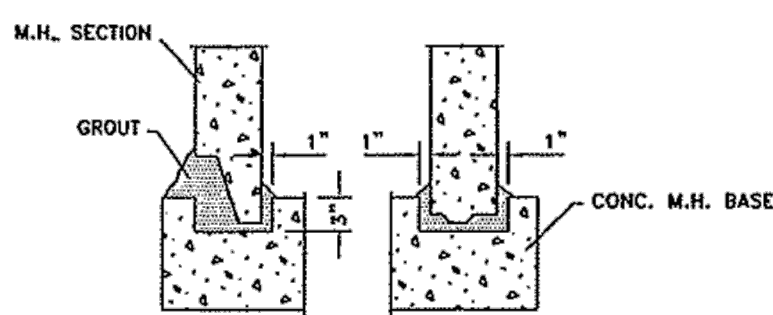
NOTE: 4" # M.H. REQUIRED WHERE LINE SIZE IS 15" OR SMALLER  
5" # M.H. REQUIRED WHERE LINE SIZE IS 18" OR LARGER



JUNCTION MANHOLE PLAN

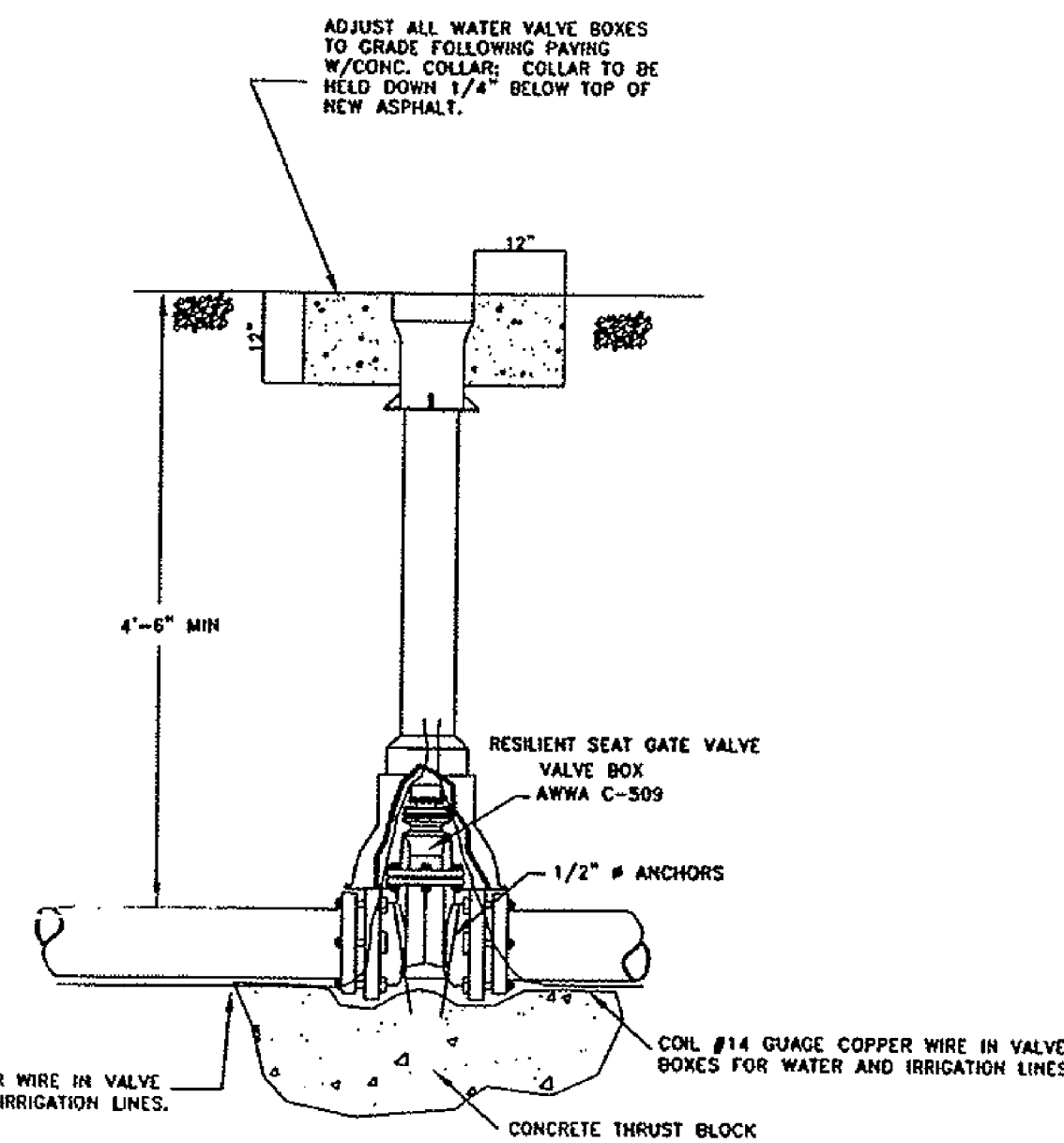
NOTES:

- STORM DRAIN TO BE FLUSHED AND VIDEOED AT DEVELOPERS EXPENSE.
- NO FLAT RING AND LIDS ARE REQUIRED
- CAST IN PLACE MANHOLE SHOWN PRECAST REINFORCED MANHOLE ACCEPTABLE



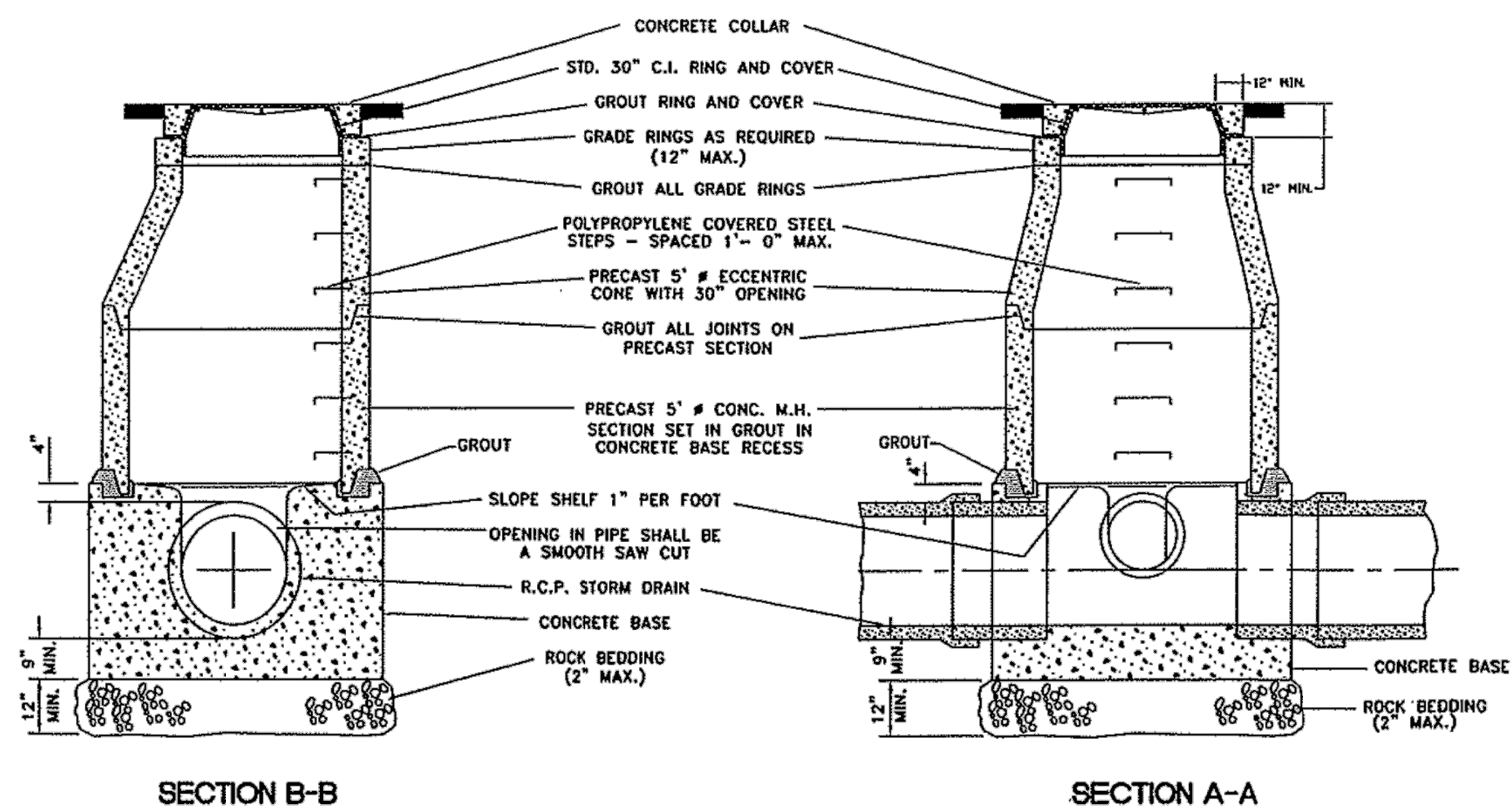
CONC. BASE GROUT RECESS DETAILS

MINIMUM LAND DRAIN PIPE STANDARDS	
PIPE MATERIAL	SPECIFICATION
CONCRETE (B & S LUG TYPE)	A.S.T.M. C-14
CONCRETE (PERFORATED)	A.S.T.M. C-444
P.V.C. (PERFORATED)	A.S.T.M. D-1784

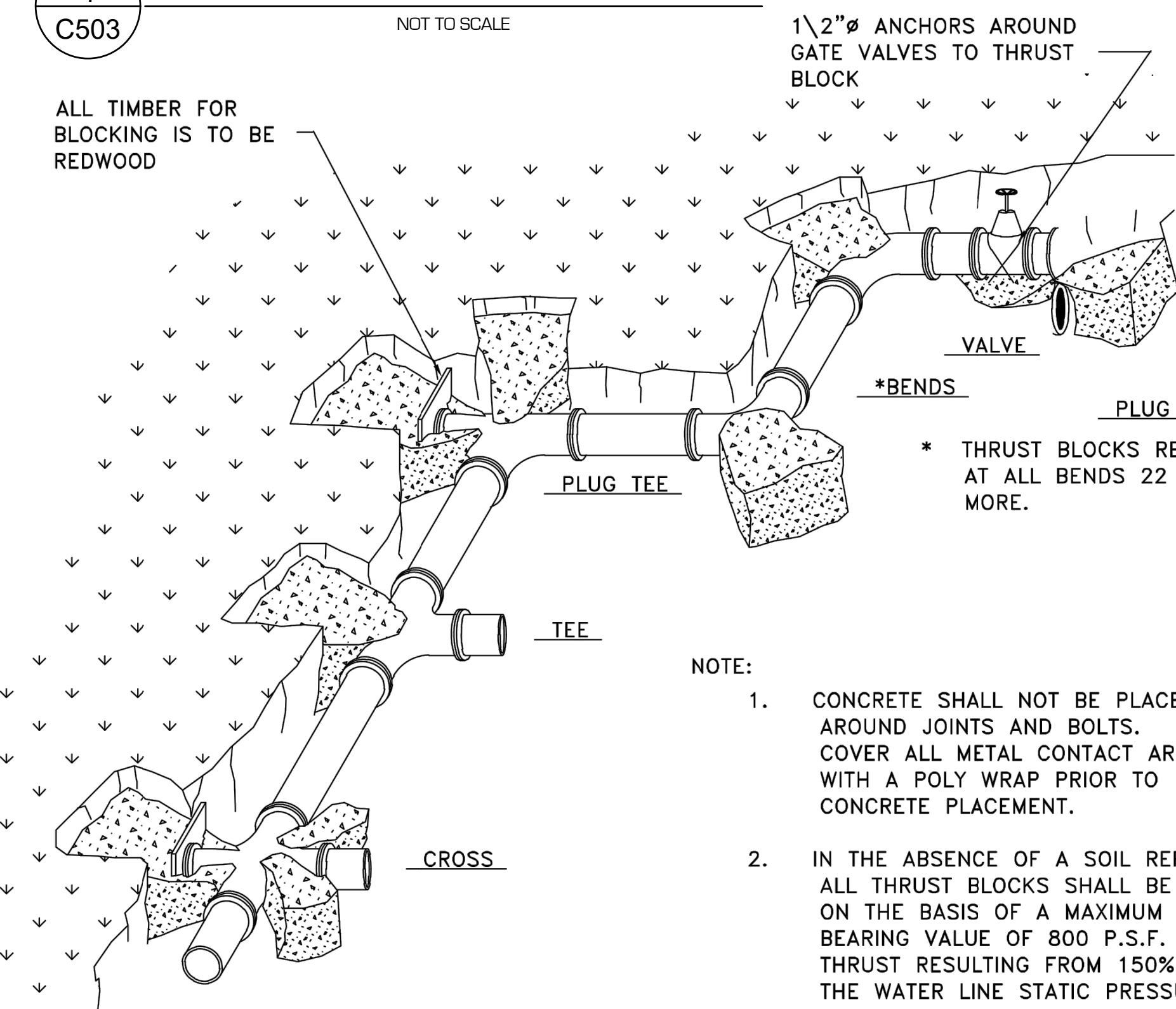


TYPICAL VALVE DETAIL

3 TYPICAL VALVE DETAIL  
C503 NOT TO SCALE



1 STANDARD MANHOLE DETAIL  
C503 NOT TO SCALE



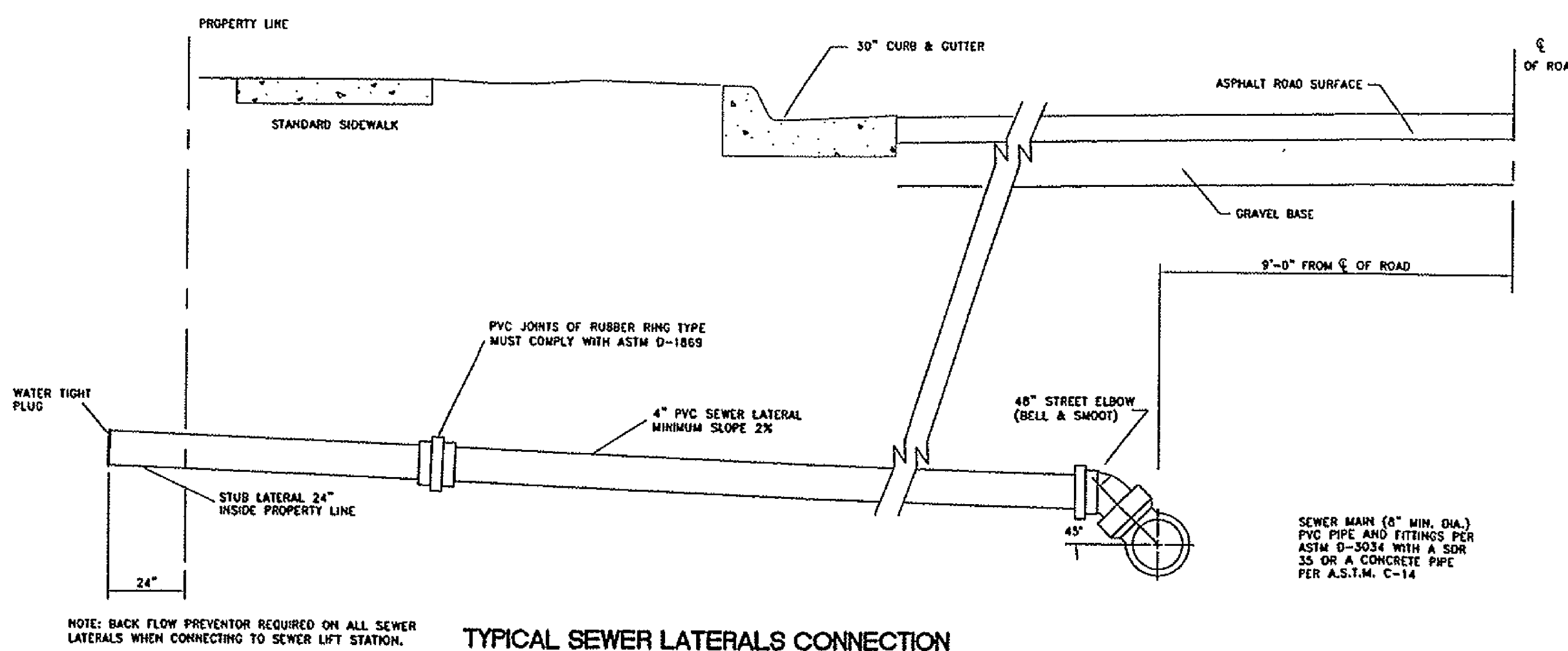
THRUST BLOCKING

4 THRUST BLOCK DETAIL  
C503 NOT TO SCALE

NOTE:

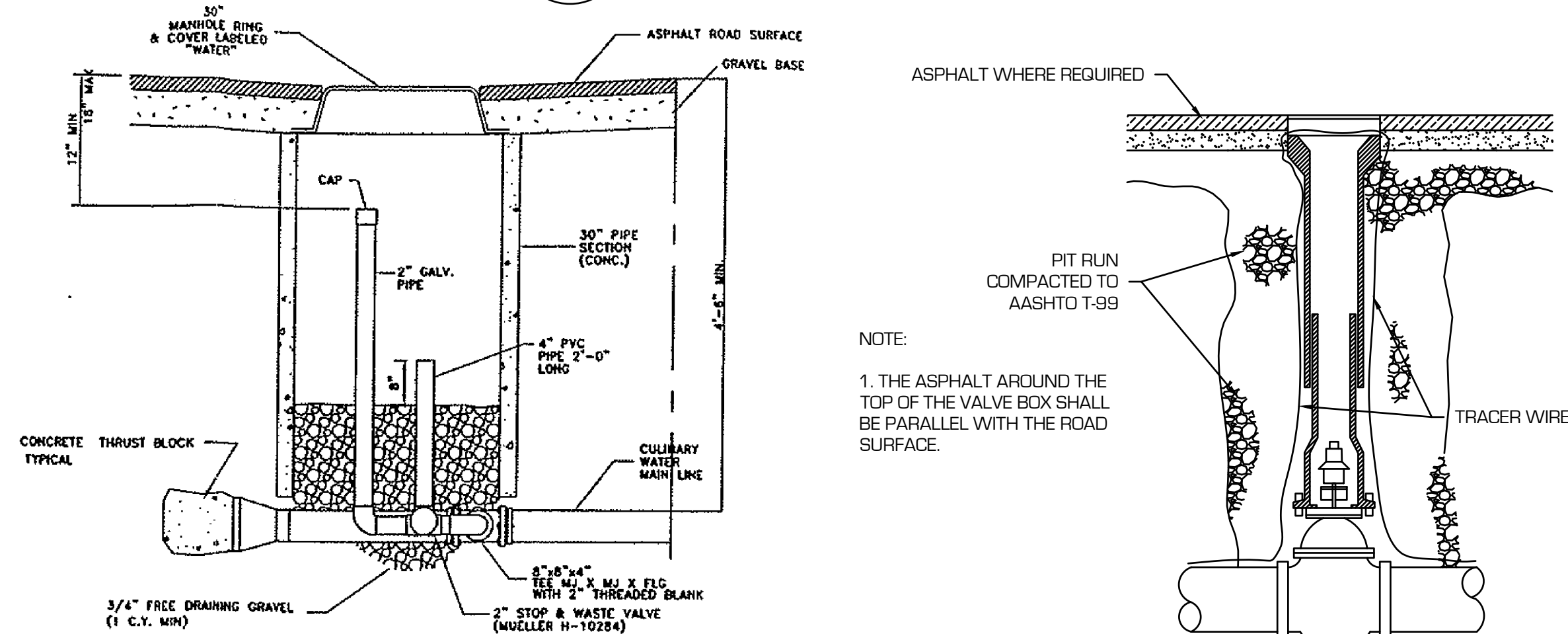
- CONCRETE SHALL NOT BE PLACED AROUND JOINTS AND BOLTS. COVER ALL METAL CONTACT AREAS WITH A POLY WRAP PRIOR TO CONCRETE PLACEMENT.
- IN THE ABSENCE OF A SOIL REPORT, ALL THRUST BLOCKS SHALL BE SIZED ON THE BASIS OF A MAXIMUM LATERAL BEARING VALUE OF 800 P.S.F. AND A THRUST RESULTING FROM 150% OF THE WATER LINE STATIC PRESSURE.
- MEGA LUGS REQUIRED AT ALL FITTINGS WHERE THRUST BLOCKS ARE REQUIRED.

2 STANDARD CAST-IN-PLACE MANHOLE BASE  
C503 NOT TO SCALE



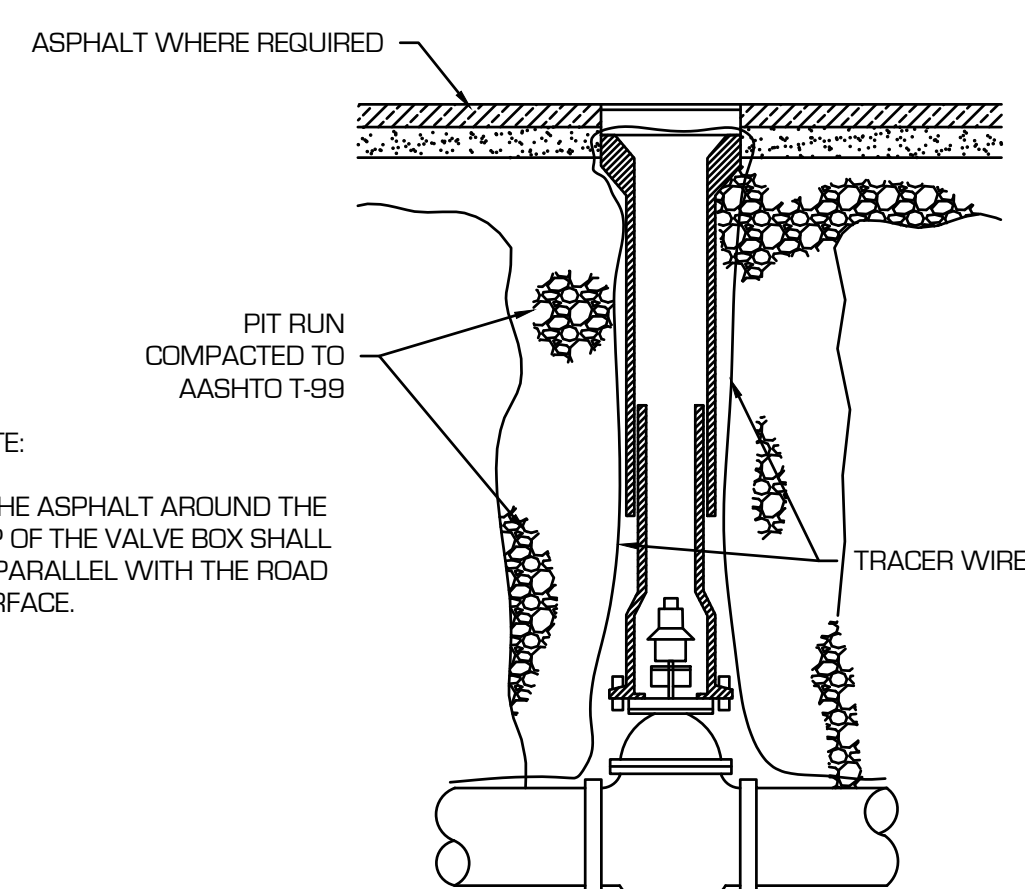
TYPICAL SEWER LATERALS CONNECTION

5 SEWER CONNECTION DETAIL  
C503 NOT TO SCALE



BLOW OFF VALVE IN STREET

6 BLOW OFF VALVE DETAIL  
C503 NOT TO SCALE



7 GATE VALVE DETAIL  
C503 NOT TO SCALE

NOTE:  
WHEN CONNECTION IS MADE INTO EXISTING CONCRETE WYE, THE WYE MUST BE ROTATED TO A MINIMUM OF 10° AND A MAXIMUM OF 45° FROM THE HORIZONTAL AS SHOWN

NOTE: SEWER TO BE FLUSHED AND T.V. AT DEVELOPERS EXPENSE.

PVC PIPE FITTINGS ASTM D-3034 WITH A S.D.R. 35

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MARK	DATE	DESCRIPTION

PROJECT #: 22-047  
DRAWN BY: J. THORNE  
PROJECT MANAGER: M. TAYLOR  
ISSUED: 9/23/2022

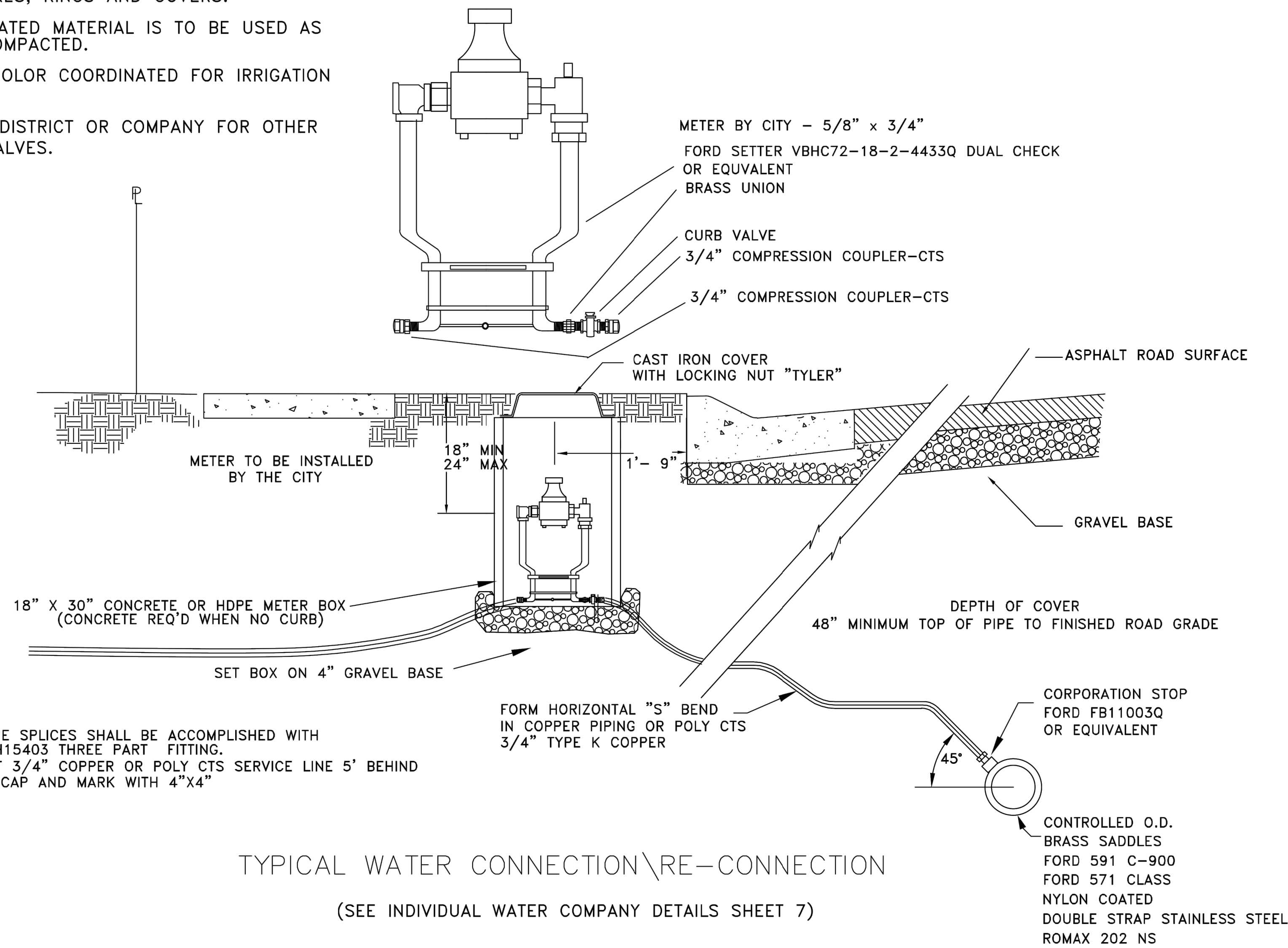
PROFESSIONAL ENGINEER  
9/23/2022  
No. 12737488-2202  
STEVEN JUSTIN THORNE  
STATE OF UTAH

DETAILS

C503

WATER LINE CONNECTION NOTES

1. CONTRACTOR MAY REUSE METER BOXES, RING AND COVER, AND METERS WHEN MOVING METERS TO WITHIN ONE FOOT OF BACK OF CURB. CONTRACTOR MUST REPLACE ANY DAMAGED METER BOXES, RINGS AND COVERS.
2. ALL SUITABLE EXCAVATED MATERIAL IS TO BE USED AS BACK FILL AND RECOMPACTED.
3. PAINT VALVES ARE COLOR COORDINATED FOR IRRIGATION AND CULINARY.
4. CHECK WITH WATER DISTRICT OR COMPANY FOR OTHER REQUIREMENTS OR VALVES.



NOTE: ALL PIPE SPLICES SHALL BE ACCOMPLISHED WITH A MUELLER H15403 THREE PART FITTING. EXTEND END OF 3/4\"/>

TYPICAL WATER CONNECTION \RE-CONNECTION

(SEE INDIVIDUAL WATER COMPANY DETAILS SHEET 7)

1 TYPICAL WATER CONNECTION DETAIL  
C504 NOT TO SCALE

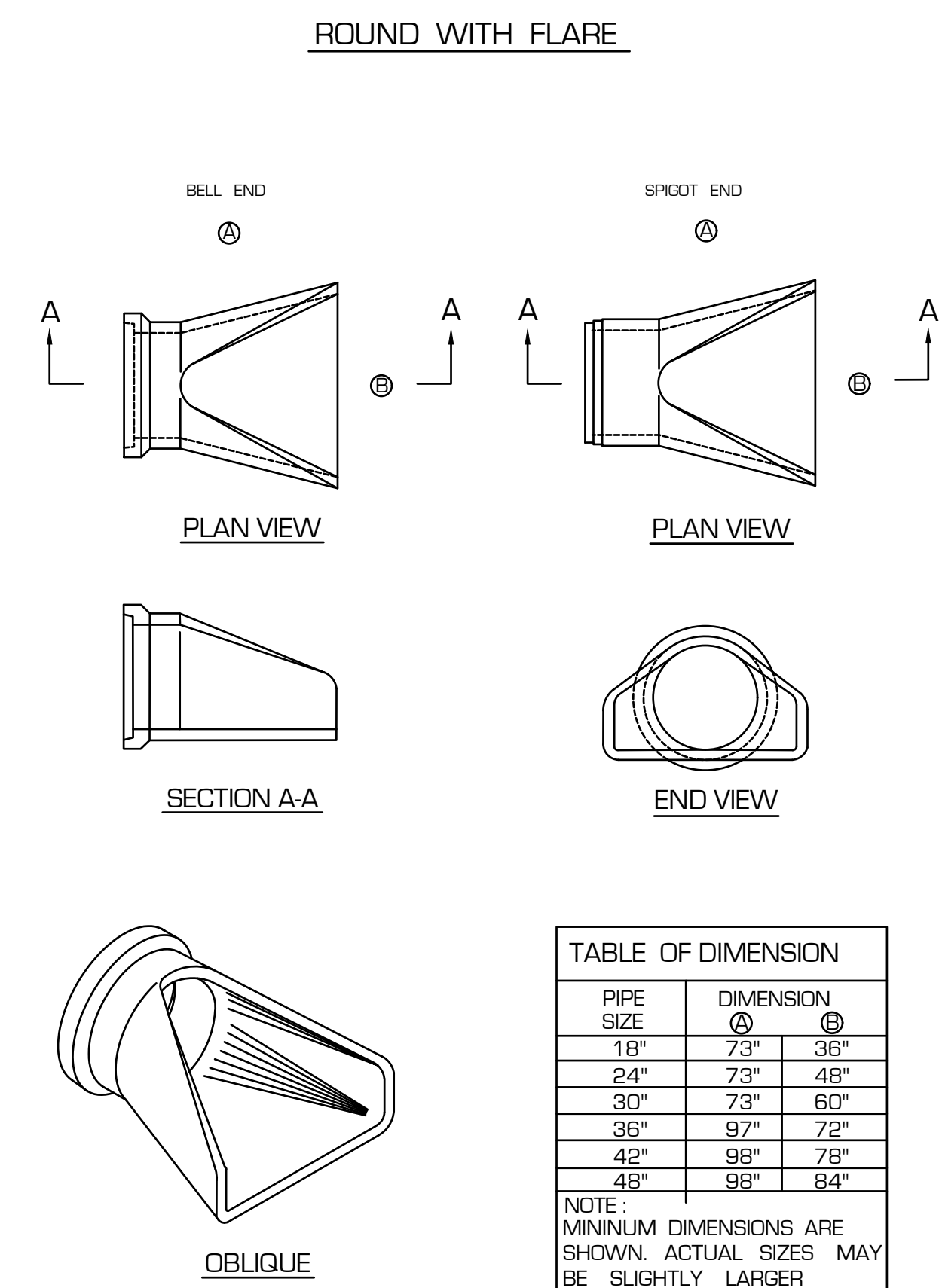
SUMMARY

WEST POINT CITY CULINARY WATER STANDARDS

WATER DISTRICT OR WATER COMPANY NAME	1 MIN. SIZE WATER MAIN	2 STANDARD MAIN MATERIAL AND CLASS	3 MIN. LATERAL WATER MAIN	4 STANDARD LATERAL MATERIAL AND CLASS	5 LOCATION OF MAIN FROM CENTER LINE	6 LOCATION OF WATER METER FROM PROPERTY	7 WATER VALVE LOCATION AT INTERSECTION	8 FIRE HYDRANT FROM PROP. LINE	9 FIRE HYDRANT MIN. SIZE & PREPARED BRAND (S)	10 FIRE HYDRANT MAXIMUM SPACING	11 MIN. COVER ON WATER MAINS	12 WATER METER BOX SIZE AND MATERIAL	13 WATER METER COVER MAT.	14 LOCATION FIRE HYDRANT ALEX. VALVE	15 TRENCH COMP. REQUIRED UNDER PAVEMENT	16 TRENCH COMP. REQUIRED OUTSIDE OF PAVEMENT
WEST POINT CITY CULINARY WATER	8" MIN.	AWWA C-900 P.V.C. CL 150	3/4"	TYPE K COPPER OR CLASS 200 POLY C.T.S.	10'-0"	PARK STRIP OR ROAD SIDE OF PROPERTY	IN LINE WITH PROP. LINE	7'-0"	5" MUELLER CENTURION CLOW MED. WATEROUS	500' AS SPECIFIED BY COMPANY FIRE DEPT. 250' ROD	42"	18" X 30" CONCRETE 1" - 24-36	18-2 CAST IRON WITH 2" HOLE FOR TOUCH READ	ON MAIN LINE FLANGED TEE	96% OF AASHTO C-99	90% OF AASHTO T-99
HOOPER WATER DIST. IMPROVEMENT DISTRICT	8"	P.V.C. 200 P.S.I.	1"	C.T.S. POLY	10'-0"	PARK STRIP OUTSIDE PROP. LINE	IN LINE WITH PROP. LINE	6'-0"	5" WATEROUS	500' AS SPECIFIED BY COMPANY FIRE DEPT. 250' ROD	42"	18" X 30" CONCRETE	CAST IRON W/ 2" HOLE FOR TOUCH READ	ON MAIN LINE FLANGED TEE	96% OF AASHTO T-99	90% OF AASHTO T-99

NOTE: THIS TABLE IS A GENERAL SUMMARY OF THE APPLICABLE WATER DISTRICT/ WATER COMPANY STANDARDS FOR THE MAJOR WATER SUPPLY UTILITIES IN WEST POINT CITY. INDIVIDUAL DISTRICT/ COMPANY STANDARDS SUPERSEDE THE WEST HAVEN CITY STANDARD. IN DEVELOPMENT AREAS WHERE NO STANDARDS EXISTS, CONSULT WITH THE WATER DISTRICT OR COMPANY FOR CONSTRUCTION DETAILS. ALL CULINARY WATER FACILITIES, SHALL BE CONSTRUCTED TO THE CITY STANDARD.

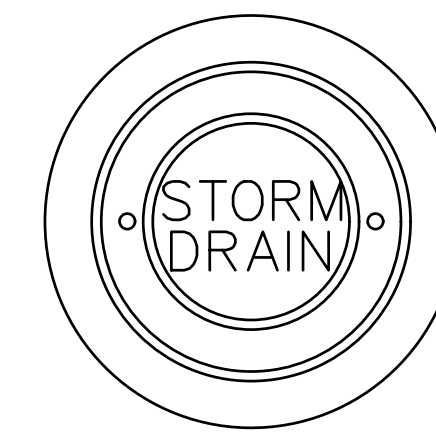
3 CULINARY WATER STANDARDS  
C504 NOT TO SCALE



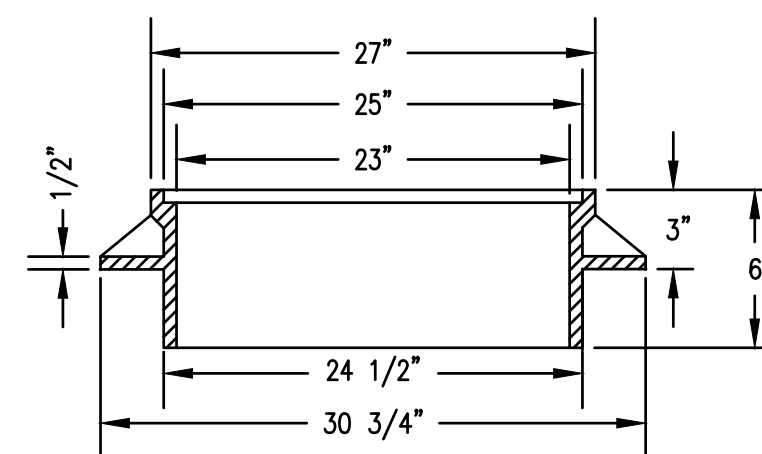
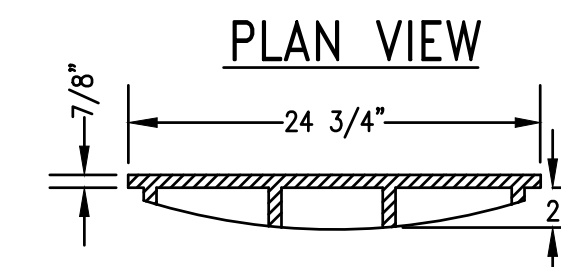
PIPE SIZE	DIMENSION ①	DIMENSION ②
18"	73"	36"
24"	73"	48"
30"	73"	60"
36"	97"	72"
42"	98"	78"
48"	98"	84"

NOTE: MINIMUM DIMENSIONS ARE SHOWN. ACTUAL SIZES MAY BE SLIGHTLY LARGER

2 ADS FLARED-END SECTION  
C504 NOT TO SCALE



STANDARD COVER



4 STORM DRAIN LID  
C504 NOT TO SCALE

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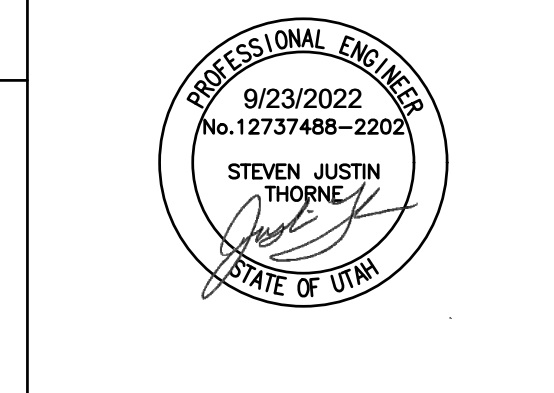
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PROFESSIONAL ENGINEER  
9/23/2022  
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STATE OF UTAH

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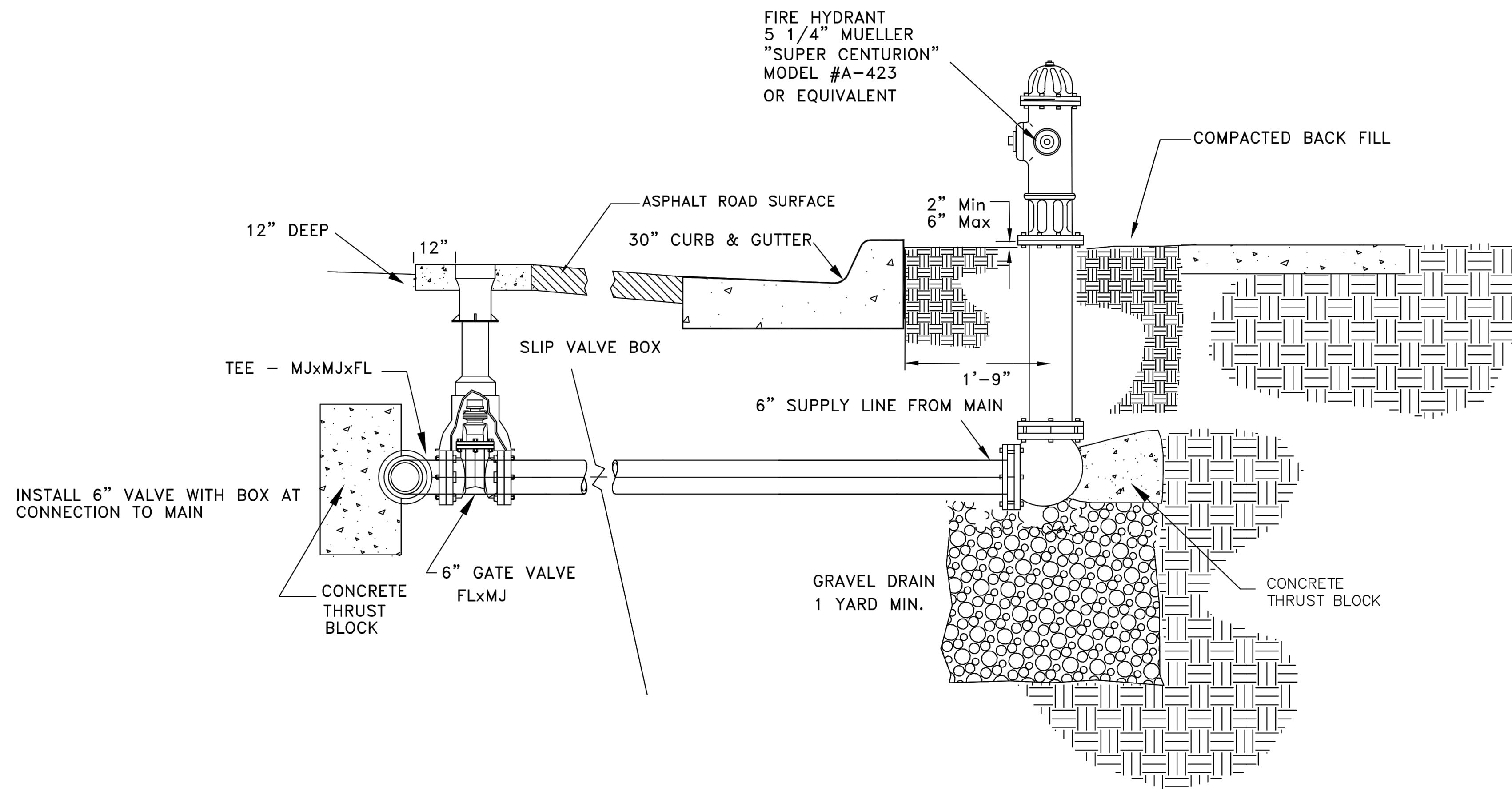
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ISSUED: 9/23/2022



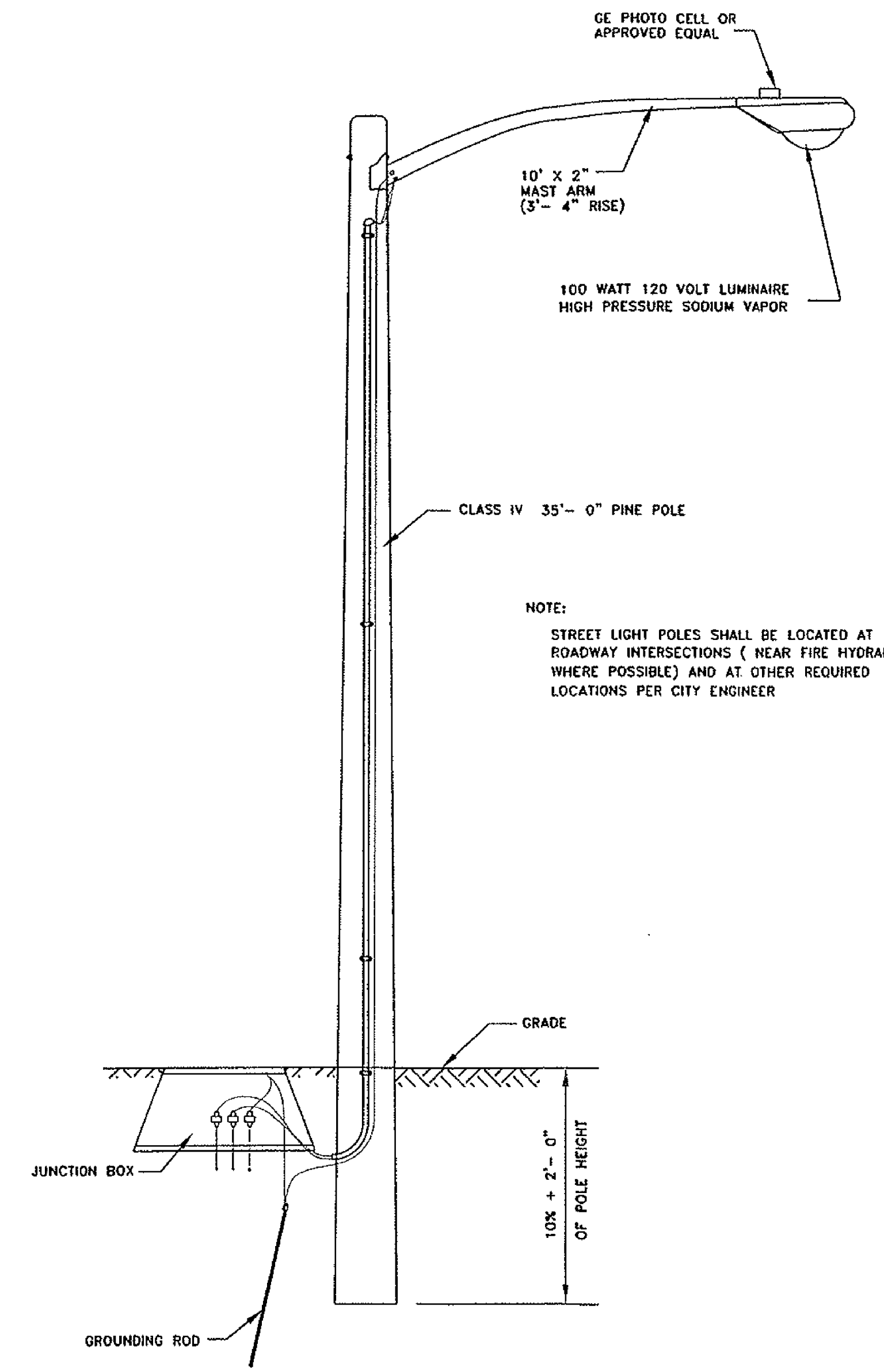
DETAILS

C504

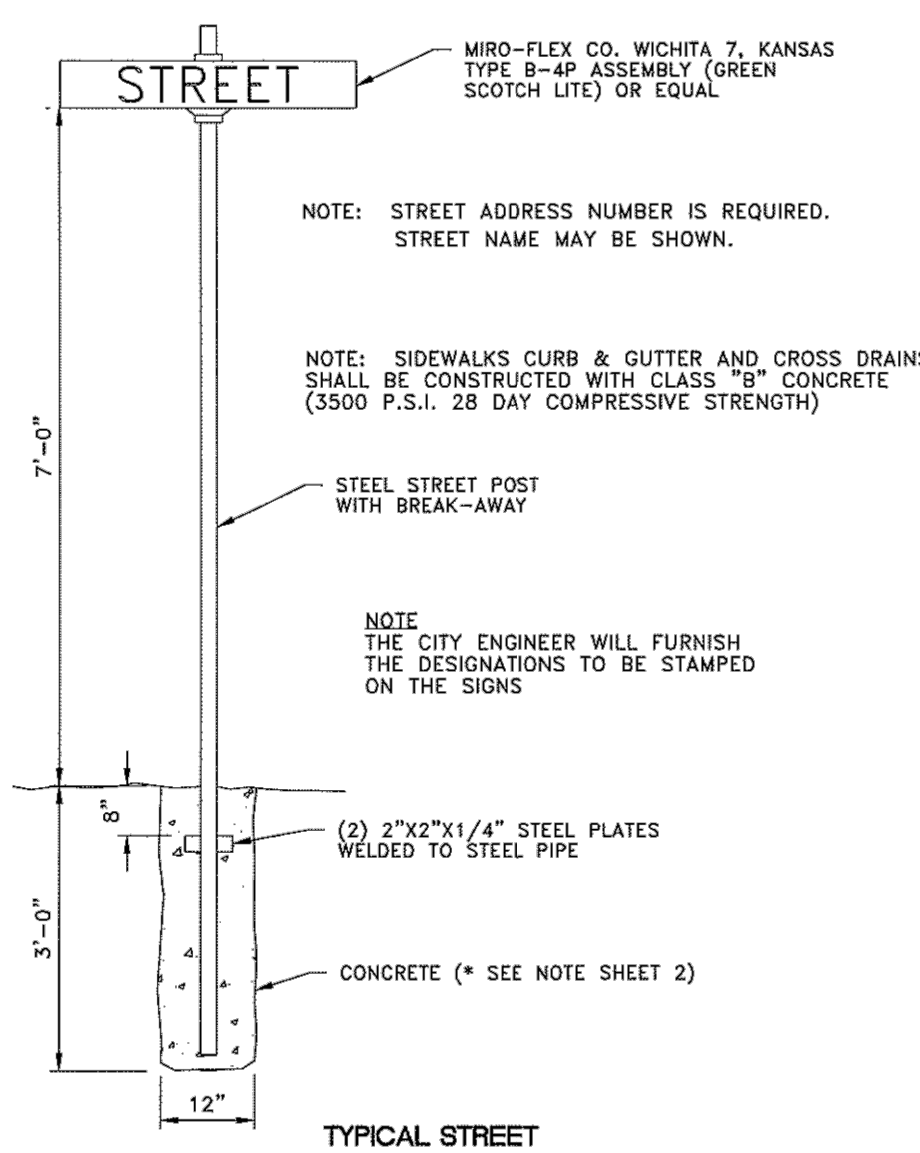


TYPICAL FIRE HYDRANT CONNECTION  
(SEE INDIVIDUAL WATER COMPANY DETAILS SHEET 7)

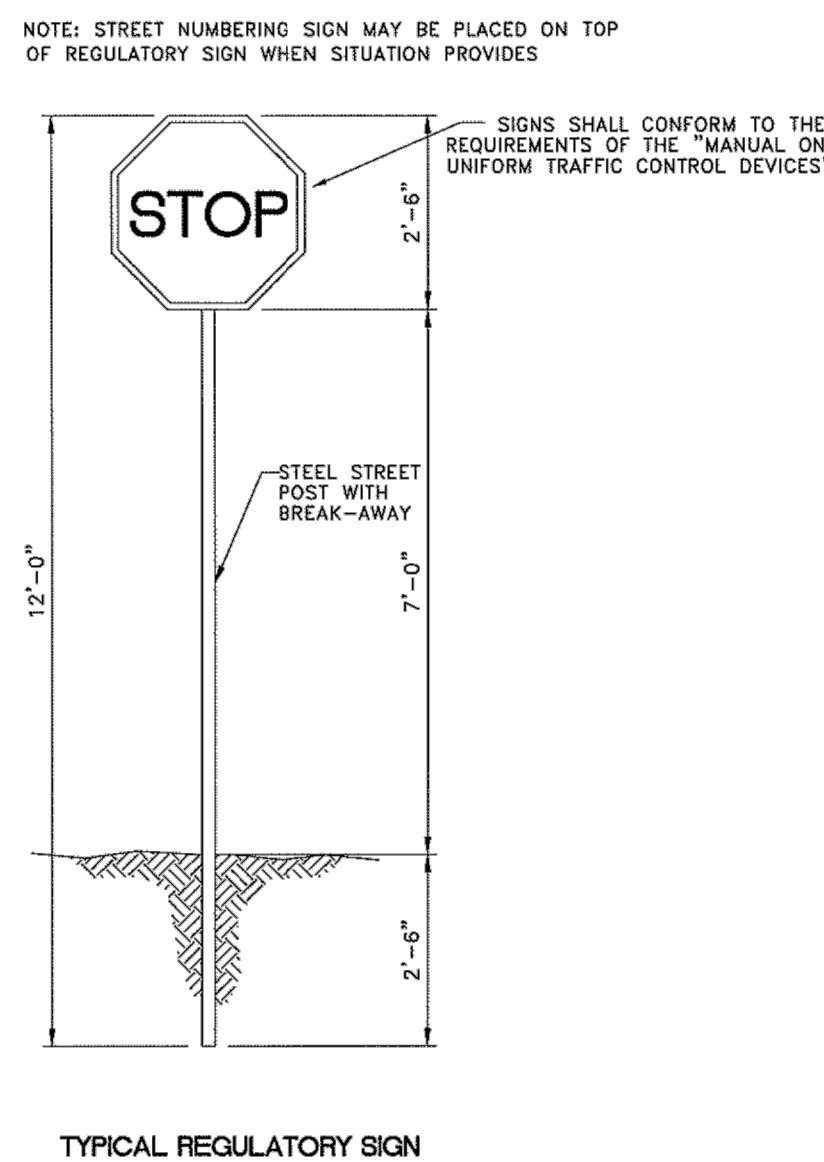
1 TYPICAL FIRE HYDRANT CONNECTION DETAIL  
C505 NOT TO SCALE



2 STREET LIGHT POLE DETAIL  
C505 NOT TO SCALE



3 TYPICAL STREET NUMBERING SIGN  
C505 NOT TO SCALE



4 TYPICAL REGULATORY SIGN  
C505 NOT TO SCALE



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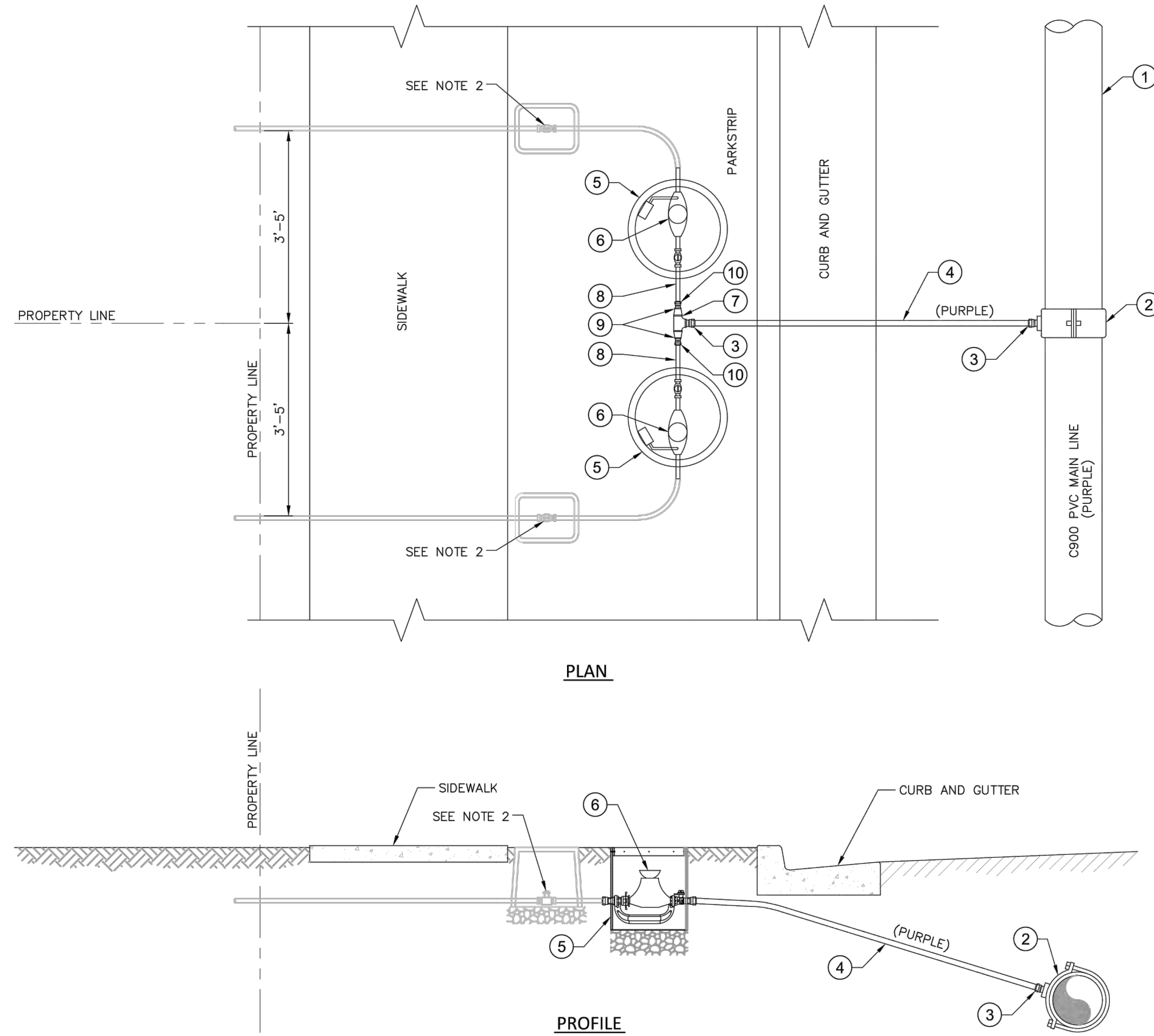
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DETAILS

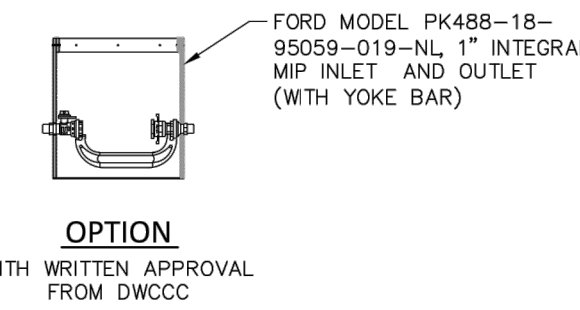
C505

**DAVIS AND WEBER COUNTIES CANAL COMPANY  
PRESSURE IRRIGATION STANDARDS**



- ① MAIN LINE (PURPLE IN COLOR) 4-12" C-900 DR 14 - ANYTHING ABOVE 12" TO BE APPROVED BY DWC IN WRITING.
- ② 4-12" PIPE SIZES - INSTALL OD CONTROL SADDLE / 12" AND UP - INSTALL DOUBLE STRAP BRASS SADDLE
- ③ 1-1/2" COMPRESSION FITTING - MUELLER H-15428
- ④ 1-1/2" CTS POLY (PURPLE IN COLOR) - NOTE: SLOPE FROM SERVICE BACK TO MAIN.
- ⑤ FORD METER BOX ASSEMBLY - PART# PK444-18-95059-018-NL  
OPTION: WITH WRITTEN APPROVAL FROM DWCC. METER BOX LID POWDER COATED PURPLE FINISH - MODEL M1518AL-DWC. ASK FOR DWG LID W/ 2" KNOCKOUT. INSTALL MIN. OF 6" OF WASHED ROCK TO SUPPORT BOX AND METER.
- ⑥ METER: SENSUS 1" IPERL 10.75 LL 1 GAL TR/PL 2-WIRE TRPL W/6FT CABLE 1 GAL. CONFIG# 14-S-1GB-XX (2 GASKETS PER METER.  
AM: SENSUS 520-M SINGLE PORT.  
NOTE: METER, AM, WILL BE PAID FOR AS PART OF A METER FEE DURING THE APPLICATION AND APPROVAL PROCESS BY THE DEVELOPER. DAVIS & WEBER COUNTIES CANAL WILL SUPPLY AND INSTALL METER AND AM. NO JUMPERS ALLOWED!!!
- ⑦ 1-1/2" FIP THREAD BRASS TEE
- ⑧ 1" X 8" CTS POLY
- ⑨ 1-1/2" X 1" BRASS BUSHINGS
- ⑩ 1" COMPRESSION FITTING H-15428

- NOTES:
- 1. INSTALL TRACING WIRE ON ALL PIPE. RUN WIRE UP THE OUTSIDE OF BOTTOM OF VALVE BOX THEN THROUGH THE INSIDE OF THE TOP PORTION OF THE BOX WITH TWO FEET OF WIRE EXTENDING ABOVE FINISHED GRADE. ALL SPLICES MADE WITH WATER PROOF CONNECTIONS.
  - 2. HOMEOWNER IS REQUIRED TO INSTALL OWN VALVE. HOMEOWNER IS RESPONSIBLE FROM THE DWCC PIT CONNECTION TO HOMEOWNER'S PROPERTY AND REMAINING SYSTEM. DWCC RECOMMENDS A FILTER AFTER HOMEOWNER'S VALVE.
  - 3. METER, AM & AMI CABLE TO BE INSTALLED BY DAVIS & WEBER COUNTIES CANAL. NO JUMPERS ALLOWED!!!!
  - 4. REFER TO DWCC WRITTEN SPECS FOR SYSTEM PRESSURE TESTING PROCEDURES.
  - 5. METER PIT TO BE INSPECTED BY DWCC. CONTACT SUPERVISOR  
☎ 801-564-3538 OR LEADMAN  
☎ 801-837-8068.



**1 TYPICAL DOUBLE SERVICE CONNECTION DETAIL**  
C506 NOT TO SCALE

**civilsolutionsgroup inc.**



CACHE VALLEY | P: 435.213.3762  
SALT LAKE | P: 801.216.3192  
UTAH VALLEY | P: 801.874.1432  
info@civilsolutionsgroup.net  
www.civilsolutionsgroup.net

**WEST FIELDS SUBDIVISION**  
800 NORTH 4000 WEST  
WEST POINT, UTAH

MARK	DATE	DESCRIPTION

PROJECT #: 22-047  
DRAWN BY: J. THORNE  
PROJECT MANAGER: M. TAYLOR  
ISSUED: 9/23/2022

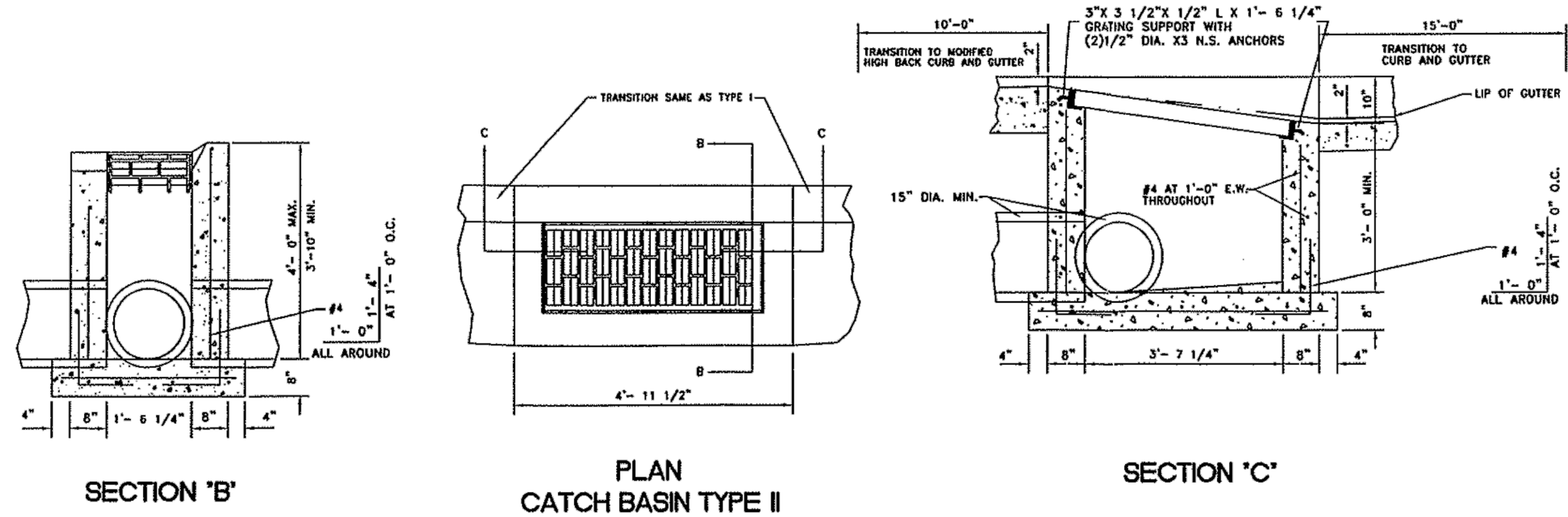


**DETAILS**

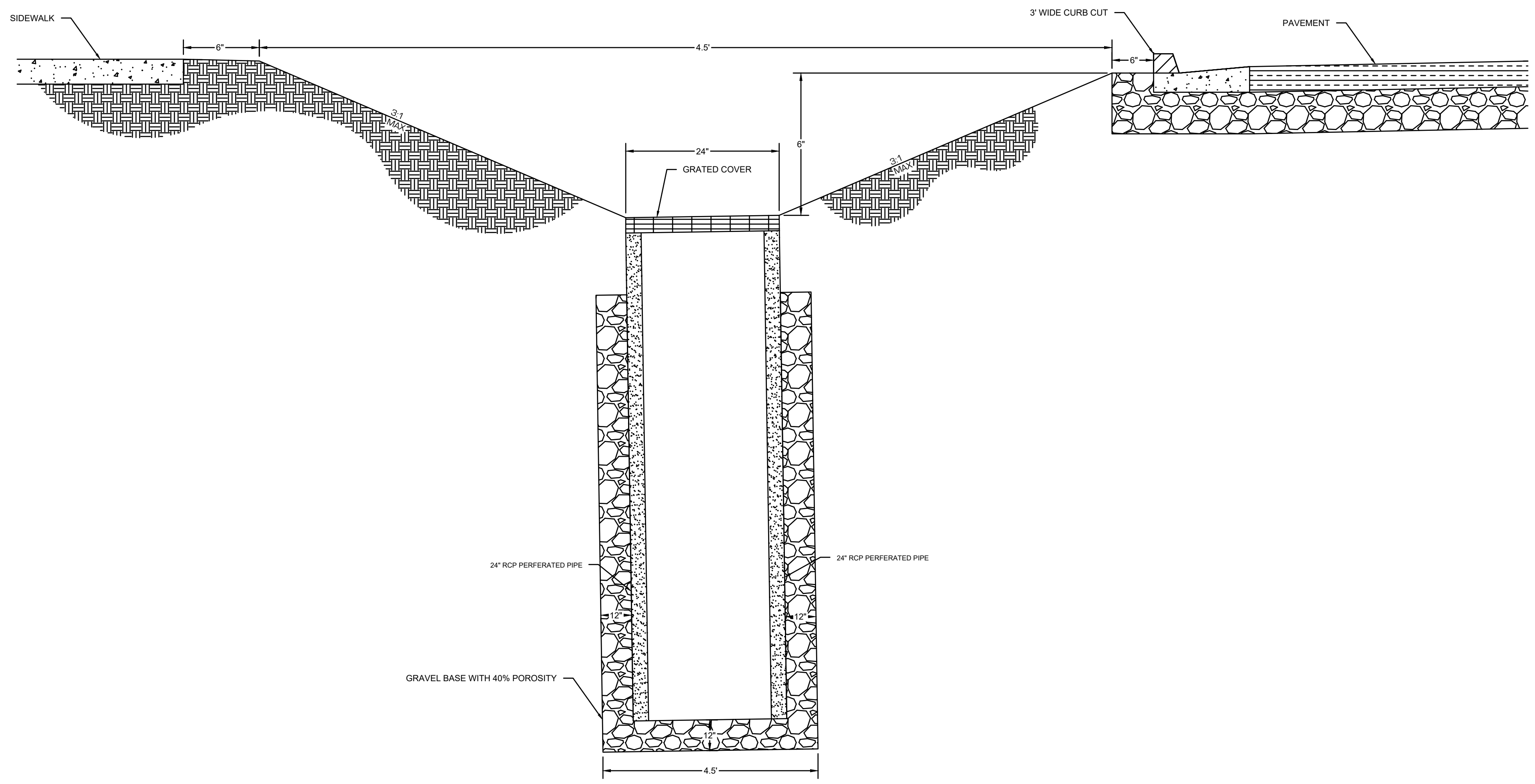
**C506**

**Know what's below. 811**  
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**1** TYPICAL CATCH BASIN DETAIL  
C507 NOT TO SCALE



**2** TYPICAL DRY WELL  
C507 NOT TO SCALE

MARK	DATE	DESCRIPTION

PROJECT #: 22-047  
 DRAWN BY: J. THORNE  
 PROJECT MANAGER: M. TAYLOR  
 ISSUED: 9/23/2022

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 UTILITY NOTIFICATION CENTER, INC.  
 www.bluestakes.org  
 1-800-662-4111

PROFESSIONAL ENGINEER  
 9/23/2022  
 No. 12737488-2202  
 STEVEN JUSTIN THORNE  
 STATE OF UTAH

**DETAILS**

**C507**

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# CITY COUNCIL STAFF REPORT



**Subject:** Engineering Contract – Sewer Expansion Project  
**Author:** Boyd Davis  
**Department:** Engineering  
**Meeting Date:** October 18, 2022

## **Background**

The City Council recently approved an agreement with Davis County as the recipient of a \$2M grant from CSLFRF funds for the expansion of the sewer system. The County Commission will formally accept the agreement at their upcoming Commission Meeting and West Point City is now able to move forward and approve an engineering contract for the design of the sewer system.

## **Analysis**

Bowen Collins and Associates, who completed the sewer feasibility study, has teamed up with JUB Engineers to do the design of the system. They have been selected to do the design work for the sewer expansion. Staff has been working with them over the past several weeks to prepare a detailed scope of work for the project. The scope of work is attached to this report, and you can see the detail that is included in each task. Below is a summary of the main tasks:

**WORK PLAN TASKS**

Task	Description	Primary Components
Task 1	Preliminary Design	<ul style="list-style-type: none"> <li>• Prepare and Maintain and Overall Project Schedule and Budget</li> <li>• Coordinate with the City and ARPA Consultant</li> <li>• Develop service agreement with NDSD</li> <li>• Review the Existing Master Plan</li> <li>• Perform density sensitivity analysis</li> <li>• Identify Properties or ROW Needed for the Project</li> <li>• Provide Prelim Public Information and Outreach Services</li> </ul>
Task 2	Pipeline Design (Projects 1, 2, 3 and 4)	<ul style="list-style-type: none"> <li>• Prepare Detailed Design Drawings and Calculations</li> <li>• Obtain Agency Approvals</li> </ul>
Task 3	Sewer Lift Station Design (Projects 5, 6, 7 and 8)	<ul style="list-style-type: none"> <li>• Prepare Detailed Design Drawings and Calculations</li> <li>• Obtain Agency Approvals</li> </ul>
Task 4	Bidding Services	<ul style="list-style-type: none"> <li>• Prepared Bidding Documents and Advertise for Bid each project</li> </ul>
Task 5	Construction Services (Projects 1, 2 and 5)	<ul style="list-style-type: none"> <li>• Provide Construction Services for specific projects being scoped at this time</li> </ul>

Also included in the document is a cost proposal:

<b>Project and Task Summary</b>				
<b>Task #</b>	<b>Task Description</b>	<b>Bid Project #</b>	<b>Description</b>	<b>Fee Total</b>
1	Preliminary Design	-	Preliminary Design Services	\$780,743
2A	Final Design	1	Gravity Sewer for Areas 4, 5, and 6	\$200,050
2B	Final Design	2	Pipelines: Gravity and Forcemains Area 2	\$132,615
2B	Final Design	3	Pipelines: Gravity and Forcemains Area 7&8	\$108,880
2B	Final Design	4	Pipelines: Gravity and Forcemains Area 1	\$129,750
3	Final Design LS	5	Lift Station 2	\$206,320
3	Final Design LS	6	Lift Station 4	\$141,328
3	Final Design LS	7	Lift Station 3 and Forcemain Area 3	\$156,993
3	Final Design LS	8	Lift Station 1	\$141,328
4	Bidding	-	Bidding in each respective project	-
<b>Design Subtotal</b>				<b>\$ 1,998,007</b>
5.1	Eng. Serv. During Construction	1	Construction Services for Project 1	\$200,328
5.2	Eng. Serv. During Construction	2	Construction Services for Project 2	\$170,664
5.3	Eng. Serv. During Construction	5	Construction Services for Project 5	\$378,924
<b>ESDC Subtotal</b>				<b>\$ 749,916</b>
<b>Total</b>				<b>\$ 2,747,923</b>

The last three items, tasks 5.1-5.3, will not be part of this contract. They will be part of the construction contracts that will come later. The total contract price will be \$1,988,007 and is a maximum not-to-exceed price. The City will only pay actual costs.

Staff has reviewed the scope of work document and the price proposal and recommends that it be approved. This scope of work document will be an attachment to the actual contract that is still being prepared. The contract document will be added to this report once it is received.

**Recommendation**

Staff recommends approval of Resolution 10-18-2022A

**Significant Impacts**

None

**Attachments**

Resolution 10-18-2022A  
Scope of Work

**RESOLUTION NO. 10-18-2022A**

**A RESOLUTION APPROVING A CONTRACT FOR PROFESSIONAL SERVICES FOR THE ENGINEERING DESIGN OF THE SEWER EXPANISON PROJECT 2022**

**WHEREAS**, West Point City plans to expand the sanitary sewer system into the area northwest of the current city boundary; and

**WHEREAS**, West Point City has been awarded funds from Davis County as part of the Coronavirus State and Local Fiscal Recovery Funds program; and

**WHEREAS**, West Point City has solicited proposals from qualified engineering firms for the design of said system; and

**WHEREAS**, West Point City has recommended that Bowen Collins and Associates be selected as the firm to design the system.

**NOW, THEREFORE, BE IT RESOLVED, FOUND AND ORDERED**, by the City Council of West Point City as follows:

1. The contract for professional services, attached hereto and incorporated by this reference, is hereby approved.
2. The Mayor is hereby authorized to sign and execute said agreement.

**PASSED AND ADOPTED** this 18<sup>th</sup> day of October, 2022.

**WEST POINT CITY,**  
A Municipal Corporation

By: \_\_\_\_\_  
Brian Vincent, Mayor

**ATTEST:**

\_\_\_\_\_  
Casey Arnold, City Recorder

**SEWER EXPANSION PROJECT  
SCOPE OF SERVICES  
WEST POINT CITY**

**WORK PLAN  
SEPTEMBER 16, 2022**

***PROJECT UNDERSTANDING***

West Point City is retaining the services of an engineering team to design sewer improvements to serve a large area of land within and adjacent to the City’s boundaries. This includes up to 4 lift stations, approximately 21,000 LF of gravity sewer pipeline, and approximately 17,000 LF of sewer force mains. In order to secure the funds for the design effort, the City is entering into agreements with Davis County for ARPA grant funds to design system level sewer improvements for currently un-serviced areas of West Point City and Davis County.

***WORK PLAN***

To accomplish the objectives of this project, we propose the following detailed work plan. The work plan has been divided into the following tasks.

**WORK PLAN TASKS**

<b>Task</b>	<b>Description</b>	<b>Primary Components</b>
Task 1	Preliminary Design	<ul style="list-style-type: none"> <li>• Prepare and Maintain and Overall Project Schedule and Budget</li> <li>• Coordinate with the City and ARPA Consultant</li> <li>• Develop service agreement with NDSD</li> <li>• Review the Existing Master Plan</li> <li>• Perform density sensitivity analysis</li> <li>• Identify Properties or ROW Needed for the Project</li> <li>• Provide Prelim Public Information and Outreach Services</li> </ul>
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Task 5	Construction Services (Projects 1, 2 and 5)	<ul style="list-style-type: none"> <li>• Provide Construction Services for specific projects being scoped at this time</li> </ul>

The following sections detail the work plan for each of these tasks.

## **TASK 1A - OVERALL PRE-DESIGN SERVICES**

---

**Objective:** Define final project design criteria and key elements for the pipeline and lift station projects (Projects 1 to 8) including: property and easement acquisition, pipeline hydraulic review for sewer lines, verification of pipeline size, depth and location, agency coordination and permitting requirements, utility requirements, construction constraints (constructability issues in high groundwater, public impact considerations, construction schedule constraints, etc.), and all other issues to be incorporated into the drawings and specifications.

**Deliverables:** Pre-design Memorandum documenting master plan review, density analysis, data collection, NDSO agreement, pipeline design criteria, survey, and geotechnical reports. Work with City staff and Resource Consultants to prepare for the design phase.

### **Tasks:**

**1A-1 Project Management, Contract Administration and Coordination:** Provide overall project management and contract administration services. This will include regular internal coordination and progress meetings with team members and subconsultants to ensure project deliverables are on schedule and complete.

**1A-2 Review and Confirm Existing Master Plan Information:** Building upon the success of the recently completed master plan, BC&A/J-U-B will perform a review of the existing pipeline and lift station planning.

- a. Hydraulic review for pipeline capacity, velocity, head loss, slope, etc. as applicable for gravity and force main piping.
- b. J-U-B and BC&A cross review. J-U-B to provide fresh prospective on hydraulic calculations, pipe sizes, locations, slopes, and design criteria used in Master Plan.
- c. Confirm service area boundaries.
- d. Confirm pipe sizes, locations and profiles to be used in the final design phase.
- e. Prepare documentation of findings for inclusion in the pre-design memo.

**1A-3 Data Collection and Agency Coordination:** Gather existing utility information for study of potential challenges, conflicts or related constructability issues. This will include:

- a. Contact utility companies to obtain data on existing utility locations, sizes, depths, etc.
- b. Where necessary, request "design" Blue Staking to assist in identifying utility locations
- c. In challenging area, arrange for potholing of utilities for more significant utility locating.
- d. Prepare written documentation of findings in the pre-design memo.

**1A-4 NDSO Coordination and Agreement:** Our team will coordinate with NDSO regarding their ongoing master plan update to determine available capacity within their existing trunklines and treatment plant that will be available to service West Point City and future annexation areas. We will work with the City and NDSO to develop a service agreement that will document the capacity NDSO has available for future flows from the City.

**1A-5 Density Sensitivity Analysis:** A density sensitivity analysis will be performed to evaluate the effects of varying assumed development densities on proposed gravity sewer pipeline, lift station, and force main sizing. An evaluation will be performed to determine maximum densities for development for various key system capacity restrictions at locations listed below:

- a. North Davis Sewer District (NDSO) existing trunk line capacities
- b. Gravity sewer bridge or culvert crossing at the Howard Slough and 5000 W
- c. Proposed 5000 W gravity trunkline sizing

Pipe sizing alternatives based on key density assumptions will be developed for City consideration of the impacts of potential upsizing of sewer infrastructure to accommodate potential future density increases. The results will be incorporated in the preliminary design technical memo.

**1A-6 ROW Acquisition:** ROW acquisition and public outreach for properties that will need easements or acquisition will consist of the following:

Based on the information from the pre-design memo and 30% designs, write legal descriptions of perpetual sewer

easements and temporary construction easements with exhibits and provide acquisition assistance to the City.

- a. Primary activities associated with right-of-way and easement acquisition include the following tasks:
  - i. Make initial contact with affected property owners communicating the City's request to obtain the rights-of-way and easements for the project. (Assumes 7 property owners for potential lift station sites and 8 property owners for sewer line.)
  - ii. Draft and acquire written permission from affected property owners for the surveyors and geotechnical engineers to access their property as needed. (Assumes 7 property owners for potential lift station sites and 8 property owners for sewer line.)
  - iii. Meet with property owners to discuss critical issues that may affect pipeline routing and lift station location and any property negotiation. (Assumes 7 property owners for potential lift station sites and 8 property owners for sewer line.)
  - iv. Provide regular updates to the City and the Team with feedback from property owners to and to determine best negotiated alternatives for each property. (Assumes 2 hours per week)
  - v. Appraisals for acquisitions greater than \$10,000 and compensation estimates for acquisitions less than \$10,000. (Assumes 4 appraisals and 8 compensation estimates)
  - vi. Prepare and deliver right-of-way and easement agreements signed by the City to property owner. (Assumes 4 property owners for lift station sites and 8 property owners for sewer line.)
  - vii. Maintain communication with the property owners and negotiate acquisition of necessary rights-of-way and easements.
  - viii. Provide West Point City with executed copies of right-of-way and easement agreements. City to file easement and right-of-way deeds with the County.

**1A-7 Public Outreach:** Public outreach activities will consist of the following:

- i. Provide and maintain a project dedicated hotline phone number and email for stakeholders to call or message at any time (24/7 availability) during the pre-design and design of the project.
  - ii. Prepare a flyer to be distributed to 57 residents along the new sewer line and for City to distribute on their website and social media. (One flyer / project information sheet)
  - iii. Public open house, provide advertisement for city to distribute, create information boards and material, and facilitate open house. (Assumes one open house)
1. Maintain and track stakeholder database with stakeholder contact information and interactions (Assume 10 hours of data entry and reporting per month)
  2. Create content for a project webpage on the City's website for the public to obtain information about the project and any updates.
  3. Meeting with 57 homes owners to locate future sewer lateral. (Assumes 1 meeting and 1 follow up call per home for an average of 2 hours per home to locate sewer lateral and deliver locations to project team)
    4. Communicate regularly with property owners who are directly impacted and the public that interested in the project. Meet with residents on the project site as needed.
    5. Attend project bi-weekly meeting (assumes 70% virtual meeting)

**1A-8 Survey:** Provide survey services to complete the following items:

- a. Provide Drone LIDAR survey of the following sewer corridors:
  - i. Project 1 (Areas 4, 5, and 6)
  - ii. Projects 2, 3, and 4 (Areas 2, 7 & 8 and 1 respectively)
  - iii. Projects 5 to 8 (Lift Stations 2, 4, 3, and 1 respectively)
  - iv. Survey of private property depends on approval from property owners.
- b. Survey deliverable will include AutoCAD drawing showing the topography, aerial photography of the respective areas, and invert elevations of critical features such as culverts, sloughs, existing sewer connections, etc.

**1A-9 Geotechnical Investigation:** In coordination with subconsultant we will provide the following geotechnical engineering services:

- a. Background Review and Field Studies Plan
  - i. Obtain and review existing geologic and geotechnical maps, studies, borings logs, and reports for past projects in the project vicinity.

- ii. Prepare field study plan for Phase I and Phase II geotechnical reports addressing any revisions and/or updates to the sewer plans.
- b. Field Studies and Laboratory Testing
  - iii. Drill 14 test hole or cone penetration soundings to depths of 15 to 30 feet for the forced main and gravity pipelines.
  - iv. Install up to 8 temporary monitoring wells to define existing groundwater levels and potential fluctuation of groundwater.
  - v. Laboratory testing on soil samples collected in GCI laboratory. Tests envisioned index testing (moisture content, Atterberg limits, and grain-size distributions), some strength testing, and up to four (4) suites of soil corrosion/degradation potential assessment tests.
- c. Analyses, Recommendations and Reporting
  - vi. Present and discuss field data and results from previous tasks, including subsurface logs together with a map showing field study locations, and laboratory test results.
  - vii. Describe the geologic setting and interpreted subsurface conditions.
  - viii. Characterize site conditions and define construction related issues including areas with very soft surface soils
  - ix. Discuss geotechnical data, tests, analyses, findings and recommendations to mitigate the high groundwater, excavation challenges, slope stability and dewatering concerns.
  - x. Provide shallow reinforced foundation design recommendations.
  - xi. Provide evaluation of dewatering, pumpstation constructability, and pipeline and structure design parameters. Evaluate the potential for use of native soils for trench backfill.
  - xii. Submit draft reports for review, address review comments, and finalize TM's.
    - I. Phase I report tailored towards 5000 W gravity pipeline and pipe bridge included in Project 1. This phase excludes pump stations.
    - II. Phase II report covers associated pipelines and pump stations within Projects 2-8.

**1A-10 Establish Pipeline Design Criteria:** Pipeline sizing criteria, slopes, material, and connections will be standardized as part of this task to ensure a uniform system throughout each project.

**1A-11 Utility Potholing:** Utilities identified within the preliminary design task through data collection and survey will be potholed as needed. It is assumed that a total of 10 potholes will be performed.

**1A-12 Project Sequencing and Critical Path Scheduling:** A detailed schedule will be developed identifying the critical path items and required sequencing that will be needed to maximize the City's ability to use the available ARPA funds and determine the best sequency and bidding and construction sequency of each respective project.

**1A-13 Opinion of Probable Cost:** An Opinion of Probable Cost will be developed for each project. This will assist the City in determining approximate construction funding required and the timing for each proposed project.

**1A-14 Kickoff, progress meetings, and ARPA coordination:** To include one kickoff meeting and coordination meetings every two-weeks throughout the one-year design period meeting to include the City, ARPA consultant and members of the design Team as required (26 total coordination meetings). It is assumed 70% of the meeting will be virtual, with in person meetings periodically as required.

**1A-15 Overall Predesign Technical Memorandum:** Results from the Pre-design Services Task will be summarized in a Technical Memorandum that will be presented to the City to document the key assumptions for Projects 1-8. Drafts of the pre-design memo will be submitted to the City and Resource Consultants for review and comment prior to finalizing the memo and proceeding with the final design phases of each project.

### ***TASK 1B – LIFT STATIONS PRELIMINARY DESIGN (PROJECTS 5-8)***

---

**Objectives:** Define sewer lift station design criteria for Projects 5 to 8 including wet well sizing, pump sizing and selection, SCADA and controls, architectural and structural elements, and offsite utility needs.

**Deliverables:** A technical memorandum will be prepared to document the key assumptions, hydraulic design, wet well sizing, pump sizing, SCADA and control plan, 30% design drawings, and 30% engineer's estimate of probable

costs for the lift stations.

**Tasks:**

**1B-1 Design Workshop and Progress Meetings:** We will conduct a design workshop with the lift station design team and the City public works staff to discuss lift station equipment, maintenance, operation, and functionality preferences. We will also conduct up to 12 progress meetings to review design progress and to receive 30% design review comments from the City.

**1B-2 Preliminary Hydraulic Analysis:** We will prepare a preliminary hydraulic analysis to size the force mains and pumps for each of the four lift stations. This analysis will be finalized during the final design for each lift station after the specific locations for each station have been determined.

**1B-3 Preliminary Wet Well Sizing, Pump Sizing and Selection:** We will perform a preliminary analysis to size wet wells, pumps, and motors for each of the four lift stations. We will coordinate with up to three different pump manufacturers to identify the appropriate flooded suction pumps to meet the hydraulic requirements of the force main and comply with UDEQ pump station requirements.

**1B-4 30% Arch, Struct, Mech Design Drawings and Engineer's Estimate of Probable Costs:** We will prepare 30% architectural, structural, and mechanical drawings that will be used as a lift station template for each of the four lift stations. The design will reflect the outcome of the design workshop and progress meetings described above. We will also analyze and identify how to obtain 3-phase power, water, and natural gas (if available) for all four project sites. An overall offsite utility sheet will be prepared for all four lift station sites documenting the results of the offsite utility analysis. A 30% engineer's estimate of probable costs for each lift station will also be prepared.

**1B-5 SCADA and Controls Predesign Memo:** BC&A will subcontract with SKM, who provides controls and SCADA consulting services to the City, to prepare a SCADA and Controls predesign memo. The memo will include a bill of materials for a typical lift station SCADA control panel that closely matches what the City currently has at other sites, as well as take advantage of the latest available technologies. This will be used to assist in the programming of each lift station, which will also be performed by SKM during the design phase of the project.

**1B-6 Lift Station Preliminary Design Technical Memorandum:** One pre-design memo will be prepared for Projects 5-8 summarizing the results of the tasks described above, including a record of decisions made during the design workshop and progress meetings. The 30% engineer's estimate of probable costs for each lift station will be included in the memo. A draft of the memo will be submitted to the City and Resource Consultants for review and comment prior to finalizing the memo and proceeding with the design phases of each project.

## ***TASK 1C – PRE-DESIGN SERVICES GRAVITY SEWER & FORCE MAIN DESIGN (PROJECTS 1-4)***

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**Objective:** For Each respective pipeline project define final project design criteria and key elements for the pipeline projects (Projects 1 to 4) including: property and easement acquisition, pipeline hydraulic review for sewer lines, verification of pipeline size, depth and location, agency coordination and permitting requirements, utility requirements, construction constraints (constructability issues in high groundwater, public impact considerations, construction schedule constraints, etc.), and all other issues to be incorporated into the drawings and specifications.

**Deliverables:** A technical memorandum will be prepared to document the key assumptions needed for the pipeline projects including a geotechnical report and 30% design plans and 30% engineer's estimate of probable costs.

Tasks:

**1C-1 Project Management, Contract Administration and Coordination:** Provide overall project management and contract administration services. This will include regular internal coordination and progress meetings.

**1C-2 Data Collection and Agency Coordination:** Gather existing utility information for study of potential challenges, conflicts or related constructability issues. This will include:

- a. Contact utility companies to obtain data on existing utility locations, sizes, depths, etc.
- b. Where necessary, request "design" Blue Staking to assist in identifying utility locations
- c. In challenging area, arrange for potholing of utilities for more significant utility locating.
- d. Prepare written documentation of findings in the pre-design memo.

**1C-3 ROW Acquisition and Public Outreach:** Engineers to provide information to public involvement facilitators and ROW acquisition agents for ROW acquisition and ongoing public outreach activities. ROW acquisition may be required for the Howard Slough crossing if the crossing is unable to remain in the public ROW.

**1C-4 Utility Search and Base Mapping:** Creating AutoCAD design file base maps of project area for sewer lines and creating maps with utility information.

**1C-5 Prepare 30% Plan and Profile of Gravity Sewer Design:** Prepare 30% plan and profile drawings of the gravity sewer pipelines for Projects 1, 2, 3 and 4. We will use the collected information described in the tasks above to develop the preliminary plan and profiles. Sewer depths will be confirmed based upon the gravity piping's ability to serve each service area for each project. The location of the pipe will be determined based on decisions made from utility research, meetings with City staff and affected agencies, and pre-design constructability reviews.

**1C-5a Howard Slough Crossing Alternative Analysis:** As part of Project 1 an evaluation of potential alternatives for the gravity sewer pipeline crossing at the Howard Slough and 5000 W will be performed. We will coordinate closely with UDOT to keep the crossing within the public ROW. At a minimum, we will evaluate the following 2 options:

- a. Gravity Sewer Bridge
- b. Box Culvert Extension and Gravity Sewer Culvert

**1C-6 Progress Meetings:** Regular meetings will be held with the City and Resource Consultants to discuss progress being made for each project and to make key decisions to ensure the design is achieving the City's project objectives. The meetings are described as follows:

- a. Kick-off Meeting: The focus of this meeting will be to coordinate the project team's design approach with the City, identify any additional data needs from the City, and to identify key stakeholders that need to be contacted to learn about major concerns and issues regarding the projects and their property.
- b. Progress Meetings: Each progress meeting will be focused on predesign progress, key decisions that need to be made, and the plan moving forward to complete the projects on time meeting the City's objectives. These meetings will include coordination with Resource Consultants.
- c. Plan Review Meeting: This meeting will focus on discussing the City's plan review comments from the 30% design drawings and comments from the predesign memos described below.

**1C-7 Pre-design Memos:** A pre-design memo will be prepared for Projects 1 - 4 summarizing the results of the tasks described above, including a record of decisions made during the progress meetings. Drafts of the pre-design memo(s) will be submitted to the City and Resource Consultants for review and comment prior to finalizing the memo and proceeding with the final design phase of this project.

## ***TASK 2 – PIPELINE FINAL DESIGN SERVICES (PROJECTS 1-4)***

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**Objective:** Prepare final sewer line design drawings and specifications to be used for bidding documents for the sewer lines in Projects 1 to 4 that meet the requirements of 2 CFR 200.

**Deliverables:** Design drawings and cost estimates at 60%, 90%, and 100% completion, specifications at 90% and 100% completion, and final Engineers Construction Cost Estimate and bid documents for bid phase.

### **Tasks:**

**2-1 Prepare 60% Pipeline Design:** Prepare the pipeline design for Project 1-4 that include the following:

- a. Prepare base drawings for the chosen alignments based on the pre-design memo and 30% design.
- b. Incorporate existing utility data into the drawings.
- c. Show approximate property lines based on County parcel maps, street right-of-way, and sewer, temporary construction, and temporary access easements needed for the project.
- d. Identify potential utility conflicts on the drawings and proposed pothole locations.
- e. Prepare 60% plan drawings showing sewer pipe and manhole locations, connection points, and major crossings.
- f. Submit a draft copy of the 60% Design to the City for review and comment.
- g. Incorporate City comments in the 60% Design.
- h. Prepare and submit 60% cost estimate to the City for review and comment.
- i. Incorporate City comments in the 90% Design.

**2-2 Prepare 90% Pipeline Design:**

- a. Prepare 90% plan drawings showing plan, profile and design details of final sewer alignment.
- b. Submit a draft copy of the 90% design including draft technical specifications to the City for review and comment.
- c. Prepare and submit 90% cost estimate to the City for review and comment.
- d. Prepare and submit 90% specifications to the City for review and comment.
- e. Incorporate City comments in the 100% Design.

**2-3 Final Bid Documents and Specifications:**

- a. Complete the technical specifications for the project including civil, earth work, and pipeline specifications. Add the bidding documents, contractual documents, and conditions of the contract. We will use West Point City's front-end documents.
- b. Prepare an updated engineer construction cost estimate of probable costs based on the final construction drawings.

**2-4 Final Design Meetings:**

- a. The final design meetings will include reviewing the design progress of each project at 60%, 90% and 100% completion, permitting issues, and City review comments.

**2-5 Agency Coordination and Review:**

- a. Submit plans to agencies such as West Point City, UDOT, Davis County Public Works Department, the Army Corps of Engineers, as required for final permitting and approval.
- b. Incorporate comments from the agencies into the final set of bid documents.

## **TASK 3 – SEWER LIFT STATION DESIGN SERVICES (PROJECT 5-8)**

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**Objective:** Prepare final sewer lift station design drawings and specifications to be used for bidding documents for Projects 5 to 8 (Lift Stations 1 to 4) that meet the requirements of 2 CFR 200.

**Deliverables:** Design drawings and cost estimates at 60%, 90%, and 100% completion, specifications at 90% and 100% completion, and Final Engineers Estimate of Probable Costs and bid documents for bid phase.

### **Tasks:**

**3-1 Prepare a Final Hydraulic Analysis of the Pumps and Force Main:** We will prepare a final hydraulic analysis of the pumps and force main for each sewer lift station site. We will coordinate with up to three different pump manufacturers to identify the appropriate flooded suction pumps to meet the hydraulic requirements of the force main and comply with UDEQ pump station requirements.

**3-2 Prepare 60% Sewer Lift Station:** Prepare the 60% sewer lift station design that includes the following:

- a. Perform a utility search of existing utilities that may be located on each of the lift station sites. Show said utilities on the utility plan.
- b. Prepare a 60% site plan, site utility plan, grading plan, architectural plan and elevation views, structural building plan and elevation views, mechanical building plan and section views, electrical site plan, power, lighting and instrumentation plan, power one-line diagram, instrumentation P&ID following the concept identified in the City's master plan.
- c. Prepare 60% engineer's estimate of probable costs.
- d. Submit a draft copy of the 60% Design to the City for review and comment.
- e. Incorporate City comments in the 90% Design.

#### **3.2a Prepare 60% Force Main Design (Project 7 only):**

- a. Prepare a 60% sewer force main plan and profile design for Project 7 (Lift Station 3) that extends from the lift station to 5000 West located in 1300 North, approximately 1400 linear feet in length.
- b. Perform a utility search of existing utilities that may be located in the new pipeline corridor within 1300 North.
- c. Prepare 60% force main engineer's estimate of probable costs.
- d. Submit a draft copy of the 60% Design to the City for review and comment.
- e. Incorporate City comments in the 90% Design.

**3-3 Prepare 90% Sewer Lift Station Design:** Prepare the 90% sewer lift station design for each lift station that includes the following:

- a. Prepare a 90% site plan, site utility plan, grading plan, architectural plan and elevation views, structural building plan and elevation views, mechanical building plan and section views, electrical site plan, power, lighting and instrumentation plan, power one-line diagram, instrumentation P&ID sheets, and detail sheets for all disciplines of lift station.
- b. Submit a draft copy of the 90% Design to the City for review and comment.
- c. Incorporate City comments in the 100% Design.

#### **3.3a Prepare 90% Force Main Design (Project 7 only)**

- a. Prepare a 90% sewer force main plan and profile design for Project 7 (Lift Station 3) including necessary project notes and details for the force main.
- b. Submit a draft copy of the 90% Design to the City for review and comment.
- c. Incorporate City comments in the 100% Design.

**3-4 Final Bid Documents and Specifications:**

- a. Complete the technical specifications for the project including civil, architectural, structural, mechanical, and electrical specifications.

- b. Add the bidding documents, contractual documents, and conditions of the contract, ensure all bidding documents meet applicable federal rules.
- c. Prepare an updated engineer estimate of probable construction costs based on the final construction drawings.

### **3-5 Final Design Meetings and Work Shop:**

- a. It is anticipated that 8 meetings will be held with the City during the final design phases of the project. This will include meetings to review the design progress of the project at 60%, 90% and 100% completion, including meetings for control strategies, permitting, monthly progress or other issues. A workshop meeting will also be held with the City public works staff to address specific design questions regarding the lift station layout, functionality, and equipment preferences.

### **3-6 Agency Coordination and Review:**

- a. Submit plans to agencies such as West Point City Engineering Department and to the Utah Department of Environmental Quality (UDEQ). Incorporate comments from the agencies into the final set of plans.

## ***TASK 4 – BIDDING PROCESS***

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**Objective:** Assist the City with the bidding process including the recommendation of the lowest responsible and responsive bidder.

**Deliverables:** Any needed addendums to contractors, bid opening report, award recommendation letter and construction contract documents.

Our project approach of phasing the work into 8 different projects will provide the City with flexibility to combine multiple projects together for bidding and construction in various combinations or to bid and construct them separately. In any case, the bidding scope will include the following:

### **Tasks:**

#### **4-1 Specifications and Bid Document Addendums:**

- a. Prepare and issue addendums as needed to answer questions from bidders regarding the design drawings and specifications.

#### **4-2 Bidding Assistance:**

- a. Assist the City with advertising the project by preparing a bid advertisement and contacting preferred contractors regarding the project, following City procurement standards.
- b. Attend and conduct the pre-bid meeting, prepare and distribute meeting minutes to attendees.

#### **4-3 Bid Opening and Recommendations:**

- a. Review bids and prepare award recommendation letter to the City.

#### **4-4 Conformed Contract Documents:**

- a. Prepare construction contracts in accordance with federal requirements.
- b. Incorporate bid addendums into the design drawings and specifications.

## **TASK 5 – CONSTRUCTION SERVICES (CURRENTLY ONLY SCOPED FOR PROJECTS 1, 2, AND 5)**

Construction Period Services is currently scoped as an optional task phase that can be added at a later date if desired. Only construction period services for projects 1, 2 and 5 have been included in the attached fee estimate tables at this time.

**Objective:** Assist the City with the construction process including part time construction management services as detailed by project assumptions, assistance through any changes to the contract requirements, and record drawing documentation.

**Deliverables:** Record drawings, construction contract documents, and other documentation related to changes during construction.

**5-1 Pre-Construction Meeting:** Engineer will prepare an agenda, schedule, attend and document a pre-construction meeting with the successful contractor.

**5-2 Services during construction (submittals, payments, claims, and CO):** We will provide engineering services during construction of the project. Services will include shop drawing, submittal and schedule reviews, response to RFI's, evaluation of field changes and change orders, and review of contractor pay requests. We will provide a cloud-based construction management software (VPO) for administration of the construction contract to allow efficient coordination between the City, design team, and contractor.

### **5-3 Project Observation and Special Inspections:**

We will provide a part time construction manager for the projects. The onsite representative will observe construction activities, will coordinate with the City and will coordinate field issues. Our CM document regular construction progress and meetings. Specific tasks include:

- Complete weekly reports summarizing the work completed discussions with the Contractor and City personnel.
- Meet monthly with Contractor to review progress and critical path tasks
- Meet weekly with the Contractor to coordinate work efforts for the week and identify monitoring and testing needs on the project
- Provide field observations during the course of construction to assist in assessing compliance with the contract documents.
- Review and prepare monthly pay requests to assess accuracy. Make recommendations to the Project Manager for action on the pay requests.
- Meet with the Contractor to complete a final review and walk-through of the project
- Prepare final punch lists for the Contractor with items that must be completed, repaired, replaced or modified prior to formal project completion.
- Prepare monthly progress reports including summary of work performed, photographs and history of progress payments.
- Meet weekly with contractor, City, Design team and others as necessary to coordinate construction
- Complete Rebar and Concrete special inspection for Project 5, lift station 2.

### **Assumptions:**

- **Project 1** – ½ time project observation (20 hours per week) is assumed for a project duration of 28 weeks.
- **Project 2** – ½ time project observation (20 hours per week) is assumed for a project duration of 24 weeks.
- **Project 5** – ½ time project observation (20 hours per week) is assumed for a project duration of 60 weeks.
- Part-time, 20 hours per week, on-site observation by TEAM's Construction Manager has been included in the budget for the project durations assumed. Based upon our previous experience with projects of similar size and scope, part time observation is often sufficient, but it is highly variable depending upon the skill, experience, responsiveness and effectiveness of the contractor and ultimately upon overall construction duration of the project. The Team will work with the City to adjust our level of effort for this task as needed to reflect the changing needs of each construction project.

- Special inspections are assumed to be limited to rebar and concrete.

**5-4 SCADA Integration Programming:** For project 5 (lift station 2) includes sub-consulting with SKM for the West Point City's preferred SCADA integration programming provider. See exclusions below for items not able to be accurately estimated prior to completion of final design or for items SKM preferred to be subcontracted under the contractor, for contractor coordination purposes.

**5-5 Construction Staking:** Construction staking for the projects will be done by our licensed surveyors. The construction staking done in the following manner.

- Construction staking notification 7 days in advance.
- Gravity Sewer Lines: One offset stake for each manhole and one stake 100' out of manhole. Manholes and 100' alignment stake will only be staked one time.
- Force Mains: one offset stake to center line with flow line grade every 500'. Force main to be staked one time.
- Lift Stations: Staking of offsets to corners of building. Lift station to be staked twice.

**5-6 Public Involvement – Construction Phase.** TLG will keep the public informed during the construction process. Public messages and flyers will be delivered to residents and potential business owners that may be impacted throughout the construction phase of the project.

1. Coordinate with contractor at bi-weekly meetings
2. Design, create, and distribute informational fliers and door hangers to provide stakeholders with knowledge of upcoming events or tasks. (One flyer per construction project)
3. Distribute weekly project status email updates to the affected and surrounding public, agencies and utility companies.
4. Provide and maintain a project dedicated hotline phone number and email for stakeholders to call or message at any time (24/7 availability) during the pre-design and design of the project.
5. Create content for a project webpage on the City's website for the public to obtain information about the project and any updates.
6. Communicate regularly with property owners who are directly impacted and the public that interested in the project. Meet with residents on the project site as needed.

**5-7 Project Documentation:** We will produce final record drawings for the project. Redlines from the contractor, the City, as well as our on-site representatives redlines will be incorporated in the final record drawings. Record drawings will be delivered in PDF format.

## **EXCLUSIONS**

The following items are not currently included in our work plan. If these additional services are later desired by the City, BC&A/JUB has the staff and qualified subconsultants to complete these additional tasks.

1. **Aerial Photography:** We have able to design most recent projects using aerial photography provided free of charge by UTAH's AGRC. No additional scope or fee has been included for project specific acquired aerial photography but could be added if it is determined that higher resolution aerial photography is needed or desired during the design process.
2. **Equipment or Material Pre-Purchase Documents:** This scope of services assumes that adequate schedule will be available for design and construction of the project without the need to accelerate material or equipment delivery by pre-purchase. Development of pre-purchase documents can be added to the project at a later time if determined to be necessary.
3. **Traffic Control Plans.** Our typical approach to design is to delegate the preparation of all traffic control plans to the contractor. This is because the plans are highly dependent on the means and methods of construction which are under the direction of the contractor. However, traffic authorities at the governing agency or UDOT may request some traffic control plans as part of design. If this is the case, these services will need to be added to the scope and fee.

4. **Subsurface Potholing Investigation.** Due to current uncertainty as to how many potholes may be required, A total of 10 potholes have been included in the budget. Additional potholes or other subsurface utility investigations may be added, if they are found to be needed during the final design effort.
5. **Coordination Services Required for Alternative Project Delivery Method:** This scope of services assumes a traditional Design-Bid-Build approach. If it is determined during design that a CMGC delivery method or alternative delivery methods will be better suited for the project, BC&A will work with the City adjust our services accordingly.
6. **Prequalification of contractors.** Contractor qualification requirements will be included with the bid packages. If separate contractor pre-qualification packages are found to be needed, they may be added to the project.
7. **Bid Alternatives.** Budgets do not assume design and competitive bidding of multiple pipe materials.
8. **Materials Testing Services.** Materials testing services and compaction testing services are assumed to be paid for by the contractor, by the City, or be added to the consultant contract during the construction phases of the work.
9. **SCADA Panel and Commissioning:** SKM provided SCADA integration programming is included in the construction phases for the projects above, but the following services available to be provided by SKM subconsultant are currently planned to be added under a construction contract. Without completion of final design, the details are not yet available to provide detailed fee of these items, but they can be added to either the construction contract or the consultant contract during construction as needed:
  - a. Provide Fabricated UL listed PLC control panel with record drawings
  - b. Provide instruments per engineer spec and instrument schedule including loop drawings
  - c. Provide PLC and operator interface programming per existing West Point system standards
  - d. Provide start-up and commissioning services and include West Point operator training

Project and Task Summary				
Task #	Task Description	Bid Project #	Description	Fee Total
1	Preliminary Design	-	Preliminary Design Services	\$780,743
2A	Final Design	1	Gravity Sewer for Areas 4, 5, and 6	\$200,050
2B	Final Design	2	Pipelines: Gravity and Forcemains Area 2	\$132,615
2B	Final Design	3	Pipelines: Gravity and Forcemains Area 7&8	\$108,880
2B	Final Design	4	Pipelines: Gravity and Forcemains Area 1	\$129,750
3	Final Design LS	5	Lift Station 2	\$206,320
3	Final Design LS	6	Lift Station 4	\$141,328
3	Final Design LS	7	Lift Station 3 and Forcemain Area 3	\$156,993
3	Final Design LS	8	Lift Station 1	\$141,328
4	Bidding	-	Bidding in each respective project	-
<b>Design Subtotal</b>				<b>\$ 1,998,007</b>
5.1	Eng. Serv. During Construction	1	Construction Services for Project 1	\$200,328
5.2	Eng. Serv. During Construction	2	Construction Services for Project 2	\$170,664
5.3	Eng. Serv. During Construction	5	Construction Services for Project 5	\$378,924
<b>ESDC Subtotal</b>				<b>\$ 749,916</b>
<b>Total</b>				<b>\$ 2,747,923</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

Revised 9/16/2022

**Overall Preliminary Design**

Bowen Collins																	
OFFICE STAFF		ENGINEERS AND TECHNICIANS															
LABOR	Tech Writer III	Tech I	Tech II	Tech V	Tech VI	Eng I	Eng III	Eng VI	Struct II	Struct VI	Elec II	Elec VI	Eng IV	Eng VI	Eng VIII	Eng IX	Eng X
Hourly Rate	M. Hilbert	M. Washburn	T. Tanner	S. Riggs	T. Anderson	J. Ward	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	T. Seamons	Cris. Nelson	B. Wyatt	B. Packer	K. Larson
	\$101.00	\$84.00	\$95.00	\$126.00	\$137.00	\$118.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$145.00	\$160.00	\$183.00	\$197.00	\$206.00
<b>Preliminary Design</b>																	
<b>Task 1A - Overall Preliminary Design Services</b>	<b>30</b>	<b>35</b>	<b>0</b>	<b>3</b>	<b>5</b>	<b>122</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>5</b>	<b>327</b>	<b>384</b>	<b>22</b>	<b>174</b>	<b>108</b>
1-1 Project Management, Contract Administration and Coordination	12			3	5	8		5		5		5	100	180	4	50	60
1-2 Review and Confirm Existing Master Plan Information						12							12	1	1	2	2
1-3 Data Collection and Agency Coordination						12							15	5			4
1-4 NDSD Coordination and Agreement	2					30							20	12	1	2	4
1-5 Density Sensitivity - Sizing Alternatives Analysis		15											15	20		40	
1-6 ROW Acquisition													15	30		10	
1-7 Public Outreach		20											6	4		20	
1-8 Survey						6							8	8	1	12	1
1-9 Geotechnical Investigation						2							12	4	1	1	1
1-10 Establish Pipeline Design Criteria						4							4	4			
1-11 Utility Potholing						2							4	4		1	
1-12 Project Sequencing and Critical Path Scheduling	1					6							15	15		5	5
1-13 Opinion of Probable Construction Cost	1					10							15	5	1	1	1
1-14 Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)	2					10	5						50	75	8	25	25
1-15 Overall Pre-design Technical Memorandum	12					20							30	15	5	5	5
<b>Task 1B - Lift Stations Preliminary Design</b>	<b>5</b>	<b>0</b>	<b>4</b>	<b>64</b>	<b>0</b>	<b>0</b>	<b>178</b>	<b>88</b>	<b>14</b>	<b>8</b>	<b>6</b>	<b>23</b>	<b>27</b>	<b>31</b>	<b>23</b>	<b>120</b>	<b>18</b>
1B-1 Design Workshops (1) and Progress Meetings (12)							8	8	14	8	6	23	10	15	4	30	4
1B-2 Preliminary Hydraulic Analysis							30						2	2	2	10	6
1B-3 Preliminary Wet Well Sizing, Pump Sizing and Selection							40						5	2	4	10	2
1B-4 30% Arch, Struct, Mech Design Drawings and Engineer's Estimate of Probable Costs			4	64			80	60	14	8	6	15	5	5	6	20	
1B-5 SCADA and Controls Pre-design Memo												4		2	1	10	
1B-6 Lift Station Preliminary Design Tech Memo	5						20	20					5	5	6	40	6
<b>Subtotals</b>	<b>35</b>	<b>35</b>	<b>4</b>	<b>67</b>	<b>5</b>	<b>122</b>	<b>183</b>	<b>93</b>	<b>14</b>	<b>13</b>	<b>6</b>	<b>28</b>	<b>354</b>	<b>415</b>	<b>45</b>	<b>294</b>	<b>126</b>

J-U-B Engineers																			
OFFICE STAFF		ENGINEERS AND TECHNICIANS																	
LABOR	Survey Tech	Proj Eng 1	PLS	PI Practitioner	PI Assistant	Survey Lead	Row Specialist	PI Specialist	Pipeline Eng.	Pipeline Lead	Sen. Review	Pro. Manager							
Hourly Rate	\$87.00	\$161.00	\$146.00	\$132.00	\$92.00	\$198.00	\$141.00	\$208.00	\$168.00	\$215.00	\$190.00	\$225.00							
<b>Preliminary Design</b>																			
<b>Task 1A - Overall Preliminary Design Services</b>	<b>115</b>	<b>30</b>	<b>115</b>	<b>390</b>	<b>419</b>	<b>130</b>	<b>150</b>	<b>257</b>	<b>76</b>	<b>58</b>	<b>38</b>	<b>172</b>	<b>3180</b>	<b>\$487,378</b>	<b>\$153,533</b>	<b>\$640,911</b>			
1-1 Project Management, Contract Administration and Coordination									4	4	20	80	537	\$94,549					
1-2 Review and Confirm Existing Master Plan Information									30	30	8	20	117	\$21,853					
1-3 Data Collection and Agency Coordination									4	4		2	35	\$5,298					
1-4 NDSD Coordination and Agreement													38	\$5,417					
1-5 Density Sensitivity - Sizing Alternatives Analysis													84	\$11,021					
1-6 ROW Acquisition				150	59		150	115				20	569	\$88,053					
1-7 Public Outreach				240	360			142				20	837	\$109,461					
1-8 Survey	115		115			130							396	\$58,693					
1-9 Geotechnical Investigation									8	4	2	4	50	\$8,913					
1-10 Establish Pipeline Design Criteria									8	4	2	6	43	\$7,372					
1-11 Utility Potholing									8	4		2	25	\$4,307					
1-12 Project Sequencing and Critical Path Scheduling													47	\$7,399					
1-13 Opinion of Probable Construction Cost		30							10	4	2	4	84	\$13,492					
1-14 Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)									4	4		10	218	\$36,638					
1-15 Overall Pre-design Technical Memorandum											4	4	100	\$14,912					
<b>Task 1B - Lift Stations Preliminary Design</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>609</b>	<b>\$96,347</b>	<b>\$23,055</b>	<b>\$119,402</b>			
1B-1 Design Workshops (1) and Progress Meetings (12)													83	\$14,428					
1B-2 Preliminary Hydraulic Analysis													52	\$8,292					
1B-3 Preliminary Wet Well Sizing, Pump Sizing and Selection													63	\$9,639					
1B-4 30% Arch, Struct, Mech Design Drawings and Engineer's Estimate of Probable Costs													287	\$42,595					
1B-5 SCADA and Controls Pre-design Memo													17	\$3,209					
1B-6 Lift Station Preliminary Design Tech Memo													107	\$18,184					
<b>Subtotals</b>	<b>115</b>	<b>30</b>	<b>115</b>	<b>390</b>	<b>419</b>	<b>130</b>	<b>150</b>	<b>257</b>	<b>76</b>	<b>58</b>	<b>38</b>	<b>172</b>	<b>3789</b>	<b>\$583,725</b>	<b>\$176,588</b>	<b>\$760,313</b>			

Expenses include:  
Mileage reimbursement at \$0.625/mile  
10% Markup on Outside Services  
5% Markup on JUB Teaming subconsultant services  
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$583,725</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$10,170</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$10,260</b>
<b>EXPENSES</b>	<b>\$176,588</b>
<b>TOTAL COST</b>	<b>\$780,743</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

Revised 9/16/2022

**Project 1**

	BC&A		J-U-B Engineers							SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL
	ENGINEERS		OFFICE STAFF			ENGINEERS AND TECHNICIANS							
LABOR	Eng IV	Eng VI	Admin Assist.	Cad Tech	Cad Senior	Pipeline Eng	Pipeline Lead	Senior Review	Proj Manager				
	T. Seamons	C. Nelson				A. Nielson	J. Frazier	T. Allen	B. Wilcox				
Hourly Rate	\$145.00	\$160.00	\$53.00	\$125.00	\$152.00	\$168.00	\$215.00	\$190.00	\$225.00				
<b>Project 1 - Gravity Sewer for Areas 4, 5 and 6</b>													
<b>Task 1C - Pre-design Services</b>													
	5	10	8	92	58	174	94	18	84	543	\$94,827	\$4,950	\$99,777
1-1	Project Management, Contract Administration and Coordination												
	5	10	4			20	10	4	30	83	\$15,557		
1-2	Data Collection and Agency Coordination												
				12	12	30	10	2	8	74	\$12,694		
1-3	ROW Acquisition and Public Outreach												
						24	10	2	8	44	\$8,362		
1-4	Utility Search and Base Mapping												
				20	10	10	6	0	2	48	\$7,440		
1-5	Prepare 30% Pipeline Design												
				48	24	30	16	2	4	124	\$19,408		
1-5a	Alternative Analysis - Howard Slough crossing (Bridge / Culvert)												
				12	12	24	16	2	8	74	\$12,976		
1-6	Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)												
						16	10	4	16	46	\$9,198		
1-7	Pre-design Memo												
			4			20	16	2	8	50	\$9,192		
<b>Task 2A - Final Design Services</b>													
	0	0	8	108	68	138	72	18	40	452	\$75,344	\$3,767	\$79,111
2-1	Prepare 60% Pipeline Design												
				60	30	48	24	2	8	172	\$27,464		
2-2	Prepare 90% Pipeline Design												
				40	30	32	16	2	8	128	\$20,556		
2-3	Final Bid Documents and Specifications												
			8	8	8	20	8	2	4	58	\$9,000		
2-4	Final Design Meetings												
						8	8	8	8	32	\$6,384		
2-5	Agency Coordination and Review												
						30	16	4	12	62	\$11,940		
<b>Task 4 - Bidding Services</b>													
	0	0	0	12	8	34	14	6	14	88	\$15,728	\$786	\$16,514
4-1	Specifications and Bid Document Addendums												
				4	4	16	8	2	4	38	\$6,796		
4-2	Bidding Assistance												
						8	2		4	14	\$2,674		
4-3	Bid Opening and Recommendations												
						4	2	2	2	10	\$1,932		
4-4	Conformed Contract Documents												
				8	4	6	2	2	4	26	\$4,326		
<b>Subtotals</b>	5	10	16	212	134	346	180	42	138	1083	\$185,899	\$9,504	\$195,403

<b>Expenses include:</b>
Mileage reimbursement at \$0.625/mile
10% Markup on Outside Services
5% Markup on JUB Teaming subconsultant services
Billing rates updated annually

<b>TOTAL LABOR COST</b>	\$185,899
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	\$58
<b>J-U-B 2023 Labor Rate Adjustment</b>	\$4,589
<b>EXPENSES</b>	\$9,504
<b>TOTAL COST</b>	<b>\$200,050</b>

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**Project 2**

	BC&A		J-U-B Engineers							SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL
	ENGINEERS		OFFICE STAFF	ENGINEERS AND TECHNICIANS									
LABOR	Eng IV	Eng VI	Admin Assist.	Eng 1	Cad Tech	Cad Designer	Pipeline Lead	Senior Review	Proj Manager	HOURS	COST	EXPENSES	COST
Hourly Rate	T. Seamons	C. Nelson					J. Frazier	T. Allen	B. Wilcox				
	\$145.00	\$160.00	\$53.00	\$161.00	\$103.00	\$125.00	\$215.00	\$190.00	\$225.00				
<b>Project 2 - Gravity and Force mains Area 2</b>													
<b>Task 1C - Pre-design Services</b>													
	5	10	8	88	48	38	56	12	44	309	\$50,831	\$2,675	\$53,506
1-1	Project Management, Contract Administration and Coordination												
	5	10	4	20			16	2	12	69	\$12,277		
1-2	Data Collection and Agency Coordination												
				8	8	8	4	2	6	36	\$5,702		
1-3	ROW Acquisition and Public Outreach												
				6			4	2	4	16	\$3,106		
1-4	Utility Search and Base Mapping												
				10	16	10	4	0	2	42	\$5,818		
1-5	Prepare 30% Pipeline Design												
				24	24	20	12	2	4	86	\$12,696		
1-6	Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)												
				8			8	2	8	26	\$5,188		
1-7	Pre-design Memo												
			4	12			8	2	8	34	\$6,044		
<b>Task 2B - Final Design Services</b>													
	0	0	8	116	44	52	68	10	34	332	\$54,302	\$2,715	\$57,017
2-1	Prepare 60% Pipeline Design												
				40	20	24	16	2	8	110	\$17,120		
2-2	Prepare 90% Pipeline Design												
				30	16	20	16	2	8	92	\$14,598		
2-3	Final Bid Documents and Specifications												
			8	24	8	8	16	2	4	70	\$10,832		
2-4	Final Design Meetings												
				6			4	2	6	18	\$3,556		
2-5	Agency Coordination and Review												
				16			16	2	8	42	\$8,196		
<b>Task 4 - Bidding Services</b>													
	0	0	0	34	0	4	26	6	14	84	\$15,854	\$793	\$16,647
4-1	Specifications and Bid Document Addendums												
				16		4	8	2	4	34	\$6,076		
4-2	Bidding Assistance												
				8			8		4	20	\$3,908		
4-3	Bid Opening and Recommendations												
				4			4	2	2	12	\$2,334		
4-4	Conformed Contract Documents												
				6			6	2	4	18	\$3,536		
	<b>Subtotals</b>	<b>5</b>	<b>10</b>	<b>16</b>	<b>238</b>	<b>92</b>	<b>94</b>	<b>150</b>	<b>28</b>	<b>92</b>	<b>\$120,987</b>	<b>\$6,183</b>	<b>\$127,170</b>

Expenses include:  
 Mileage reimbursement at \$0.625/mile  
 10% Markup on Outside Services  
 5% Markup on JUB Teaming subconsultant services  
 Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$120,987</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$105</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$5,340</b>
<b>EXPENSES</b>	<b>\$6,183</b>
<b>TOTAL COST</b>	<b>\$132,615</b>

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**Project 3**

Bowen Collins and Associates														
OFFICE STAFF			ENGINEERS AND TECHNICIANS											
	Editor	Tech Writer III	Tech 1	Tech VI	Eng I	Eng III	Eng V	Eng VI	Eng VIII	Eng X	SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL
LABOR	G. Johnson	M. Hilbert	M. Washburn	T. Anderson	J. Ward	N. Rogers	B. Romrell	C. Nelson	B. Wyatt	K. Larson	HOURS	COST	EXPENSES	COST
Hourly Rate	\$74	\$101	\$84	\$137	\$118	\$137	\$153	\$160	\$183	\$206				
<b>Project 3 - Gravity and Forcemains Area 7&amp;8</b>														
<b>Task 1C - Predesign Services</b>	<b>4</b>	<b>0</b>	<b>42</b>	<b>17</b>	<b>38</b>	<b>46</b>	<b>86</b>	<b>40</b>	<b>12</b>	<b>17</b>	<b>302</b>	<b>\$42,195</b>	<b>\$466</b>	<b>\$42,661</b>
1-1 Project Management, Contract Administration and Coordination							20	10		15	45	\$7,750		
1-2 Data Collection and Agency Coordination					4	6	10	5			25	\$3,624		
1-3 ROW Acquisition and Public Outreach					5		8	5			18	\$2,614		
1-4 Utility Search and Base Mapping			12	2	8	8	5	2			37	\$4,407		
1-5 Prepare 30% Pipeline Design			30	15	8	14	15	5	4		91	\$11,264		
1-6 Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)					5	6	18	8	4		41	\$6,178		
1-7 Predesign Memo	4				8	12	10	5	4	2	45	\$6,358		
<b>Task 2B - Final Design Services</b>	<b>2</b>	<b>6</b>	<b>100</b>	<b>45</b>	<b>43</b>	<b>67</b>	<b>87</b>	<b>32</b>	<b>6</b>	<b>0</b>	<b>388</b>	<b>\$49,101</b>	<b>\$188</b>	<b>\$49,289</b>
2-1 Prepare 60% Pipeline Design			50	15	8	25	35	6			139	\$16,939		
2-2 Prepare 90% Pipeline Design			50	30	15	20	20	8			143	\$17,160		
2-3 Final Bid Documents and Specifications	2	6			8	10	20	8	6		60	\$8,506		
2-4 Final Design Meetings					4	8	12	6			30	\$4,364		
2-5 Agency Coordination and Review					8	4		4			16	\$2,132		
<b>Task 4 - Bidding Services</b>	<b>2</b>	<b>0</b>	<b>22</b>	<b>9</b>	<b>17</b>	<b>0</b>	<b>32</b>	<b>13</b>	<b>0</b>	<b>0</b>	<b>95</b>	<b>\$12,211</b>	<b>\$63</b>	<b>\$12,274</b>
4-1 Specifications and Bid Document Addendums			10	5	5		12	5			37	\$4,751		
4-2 Bidding Assistance					8		12	5			25	\$3,580		
4-3 Bid Opening and Recommendations					2		6	1			9	\$1,314		
4-4 Conformed Contract Documents	2		12	4	2		2	2			24	\$2,566		
<b>Subtotals</b>	<b>8</b>	<b>6</b>	<b>164</b>	<b>71</b>	<b>98</b>	<b>113</b>	<b>205</b>	<b>85</b>	<b>18</b>	<b>17</b>	<b>785</b>	<b>\$103,507</b>	<b>\$716</b>	<b>\$104,223</b>

Expenses include:
Mileage reimbursement at \$0.625/mile
10% Markup on Outside Services
5% Markup on JUB Teaming subconsultant services
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$103,507</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$4,658</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$0</b>
<b>EXPENSES</b>	<b>\$716</b>
<b>TOTAL COST</b>	<b>\$108,880</b>

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**Project 4**

	BC&A		J-U-B Engineers							SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL
	ENGINEERS		ENGINEERS AND TECHNICIANS										
LABOR	Eng IV	Eng VI	Admin Assist.	Cad Designer	Cad Senior	Pipeline Eng.	Pipeline Lead	Senior Review	Project Manager	HOURS	COST	EXPENSES	COST
	T. Seamons	C. Nelson				A. Nielson	J. Frazier	T. Allen	B. Wilcox				
Hourly Rate	\$145.00	\$160.00	\$53.00	\$125.00	\$152.00	\$168.00	\$215.00	\$190.00	\$225.00				
<b>Project 4 - Gravity and Forcemain Area 1</b>													
<b>Task 1C - Predesign Services</b>	<b>5</b>	<b>10</b>	<b>8</b>	<b>48</b>	<b>48</b>	<b>82</b>	<b>36</b>	<b>12</b>	<b>40</b>	<b>289</b>	<b>\$48,841</b>	<b>\$2,576</b>	<b>\$51,417</b>
1-1 Project Management, Contract Administration and Coordination	5	10	4			20	10	2	12	63	\$11,127		
1-2 Data Collection and Agency Coordination				8	8	8	4	2	6	36	\$6,150		
1-3 ROW Acquisition and Public Outreach						8	4	2	8	22	\$4,384		
1-4 Utility Search and Base Mapping				20	10	10	4	0	2	46	\$7,010		
1-5 Prepare 30% Pipeline Design				20	30	24	8	2	4	88	\$14,092		
1-6 Kickoff, Progress Meetings, and ARPA Coordination (Resource Consultants)						4	2	2	4	12	\$2,382		
1-7 Predesign Memo			4			8	4	2	4	22	\$3,696		
<b>Task 2B - Final Design Services</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>64</b>	<b>54</b>	<b>120</b>	<b>56</b>	<b>10</b>	<b>30</b>	<b>342</b>	<b>\$57,482</b>	<b>\$2,874</b>	<b>\$60,356</b>
2-1 Prepare 60% Pipeline Design				40	30	40	16	2	8	136	\$21,900		
2-2 Prepare 90% Pipeline Design				16	16	30	10	2	4	78	\$12,902		
2-3 Final Bid Documents and Specifications			8	8	8	24	16	2	4	70	\$11,392		
2-4 Final Design Meetings						6	4	2	6	18	\$3,598		
2-5 Agency Coordination and Review						20	10	2	8	40	\$7,690		
<b>Task 4 - Bidding Services</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>30</b>	<b>14</b>	<b>6</b>	<b>10</b>	<b>64</b>	<b>\$12,048</b>	<b>\$602</b>	<b>\$12,650</b>
4-1 Specifications and Bid Document Addendums					4	16	8	2	4	34	\$6,296		
4-2 Bidding Assistance						4	2			6	\$1,102		
4-3 Bid Opening and Recommendations						4	2	2	2	10	\$1,932		
4-4 Conformed Contract Documents						6	2	2	4	14	\$2,718		
<b>Subtotals</b>	<b>5</b>	<b>10</b>	<b>16</b>	<b>112</b>	<b>106</b>	<b>232</b>	<b>106</b>	<b>28</b>	<b>80</b>	<b>695</b>	<b>\$118,371</b>	<b>\$6,052</b>	<b>\$124,423</b>

Expenses include:  
Mileage reimbursement at \$0.625/mile  
10% Markup on Outside Services  
5% Markup on JUB Teaming subconsultant services  
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$118,371</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$105</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$5,222</b>
<b>EXPENSES</b>	<b>\$6,052</b>
<b>TOTAL COST</b>	<b>\$129,750</b>

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**Project 5**

Bowen Collins and Associates																		
OFFICE STAFF		ENGINEERS AND TECHNICIANS																
	Tech Writer III	Tech II	Tech V	Tech VI	Eng III	Eng VI	Struct II	Struct VI	Elec II	Elec VI	Elec VIII	Eng VIII	Eng IX	SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL	
LABOR	M. Hilbert	T. Tanner	S. Riggs	T. Anderson	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	D. Youngstrom	B. Wyatt	B. Packer	HOURS	COST	EXPENSES	COST	
Hourly Rate	\$101.00	\$95.00	\$126.00	\$137.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$205.00	\$183.00	\$197.00					
<b>Project 5 - Lift Station 2</b>																		
<b>Task 3 - Final Design Services</b>	<b>10</b>	<b>48</b>	<b>160</b>	<b>208</b>	<b>188</b>	<b>138</b>	<b>74</b>	<b>20</b>	<b>44</b>	<b>40</b>	<b>8</b>	<b>30</b>	<b>145</b>	<b>1113</b>	<b>\$164,967</b>	<b>\$23,422</b>	<b>\$188,389</b>	
3-1 Prepare Final Hydraulic Analysis of the Pumps and Force Main					10								5	15	\$2,355			
3-2 Prepare 60% Sewer Lift Station Design		20	60	78	40	30	14	8	18	16	2	10	30	326	\$47,408			
3-3 Prepare 90% Sewer Lift Station Design		20	100	120	80	50	52	8	18	16	2	10	30	506	\$72,012			
3-4 Final Bid Documents and Specifications	10	8		10	40	40	8	4	8	8	4	10	20	170	\$26,026			
3-5 Final Design Meetings (8) / Workshop (1)					8	8							30	46	\$8,286			
3-6 Agency Coordination and Review					10	10							30	50	\$8,880			
<b>Task 4 - Bidding Services</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>49</b>	<b>\$8,347</b>	<b>\$1,785</b>	<b>\$10,132</b>	
4-1 Specifications and Bid Document Addendums						5			4	2			5	16	\$2,693			
4-2 Bidding Assistance													8	8	\$1,576			
4-3 Bid Opening and Recommendations													4	4	\$788			
4-4 Conformed Contract Documents				5	5	5			1				5	21	\$3,290			
<b>Subtotals</b>	<b>10</b>	<b>48</b>	<b>160</b>	<b>213</b>	<b>193</b>	<b>148</b>	<b>74</b>	<b>20</b>	<b>49</b>	<b>42</b>	<b>8</b>	<b>30</b>	<b>167</b>	<b>1162</b>	<b>\$173,314</b>	<b>\$25,207</b>	<b>\$198,521</b>	

Expenses include:  
 Mileage reimbursement at \$0.625/mile  
 10% Markup on Outside Services  
 5% Markup on JUB Teaming subconsultant services  
 Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$173,314</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$7,799</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$0</b>
<b>EXPENSES</b>	<b>\$25,207</b>
<b>TOTAL COST</b>	<b>\$206,320</b>

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**Project 6**

**Bowen Collins and Associates**

LABOR	Bowen Collins and Associates														SUBTOTAL HOURS	SUBTOTAL COST	SUBTOTAL EXPENSES	TOTAL COST
	OFFICE STAFF	ENGINEERS AND TECHNICIANS																
	Tech Writer III	Tech II	Tech V	Tech VI	Eng III	Eng VI	Struct II	Struct VI	Elec II	Elec VI	Elec VIII	Eng VIII	Eng IX					
	M. Hilbert	T. Tanner	S. Riggs	T. Anderson	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	D. Youngstrom	B. Wyatt	B. Packer					
Hourly Rate	\$101.00	\$95.00	\$126.00	\$137.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$205.00	\$183.00	\$197.00					
<b>Project 6 - Lift Station 4</b>																		
<b>Task 3 - Final Design Services</b>	<b>10</b>	<b>24</b>	<b>160</b>	<b>105</b>	<b>126</b>	<b>116</b>	<b>37</b>	<b>10</b>	<b>22</b>	<b>20</b>	<b>4</b>	<b>15</b>	<b>110</b>	<b>759</b>	<b>\$112,497</b>	<b>\$13,261</b>	<b>\$125,758</b>	
3-1 Prepare Final Hydraulic Analysis of the Pumps and Force Main					10								5	15	\$2,355			
3-2 Prepare 60% Sewer Lift Station Design		10	60	40	30	30	7	4	9	8	1	5	20	224	\$32,376			
3-3 Prepare 90% Sewer Lift Station Design		10	100	60	30	40	26	4	9	8	1	5	20	313	\$44,321			
3-4 Final Bid Documents and Specifications	10	4		5	20	10	4	2	4	4	2	5	10	80	\$11,918			
3-5 Final Design Meetings (8) / Workshop (1)					16	16							15	47	\$7,707			
3-6 Agency Coordination and Review					20	20							40	80	\$13,820			
<b>Task 4 - Bidding Services</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>49</b>	<b>\$8,347</b>	<b>\$1,785</b>	<b>\$10,132</b>	
4-1 Specifications and Bid Document Addendums						5			4	2			5	16	\$2,693			
4-2 Bidding Assistance													8	8	\$1,576			
4-3 Bid Opening and Recommendations													4	4	\$788			
4-4 Conformed Contract Documents				5	5	5			1				5	21	\$3,290			
<b>Subtotals</b>	<b>10</b>	<b>24</b>	<b>160</b>	<b>110</b>	<b>131</b>	<b>126</b>	<b>37</b>	<b>10</b>	<b>27</b>	<b>22</b>	<b>4</b>	<b>15</b>	<b>132</b>	<b>808</b>	<b>\$120,844</b>	<b>\$15,046</b>	<b>\$135,890</b>	

Expenses include:  
 Mileage reimbursement at \$0.625/mile  
 10% Markup on Outside Services  
 5% Markup on JUB Teaming subconsultant services  
 Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$120,844</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$5,438</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$0</b>
<b>EXPENSES</b>	<b>\$15,046</b>
<b>TOTAL COST</b>	<b>\$141,328</b>

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**Project 7**

Bowen Collins and Associates																		
OFFICE STAFF		ENGINEERS AND TECHNICIANS																
LABOR	Tech Writer III	Tech II	Tech V	Tech VI	Project Eng III	Eng VI	Struct II	Struct VI	Elec II	Elec VI	Elec VIII	Principal Eng VIII	Principal Eng IX	SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL	
	M. Hilbert	T. Tanner	S. Riggs	T. Anderson	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	D. Youngstrom	B. Wyatt	B. Packer	HOURS	COST	EXPENSES	COST	
Hourly Rate	\$101.00	\$95.00	\$126.00	\$137.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$205.00	\$183.00	\$197.00					
<b>Project 7 - Lift Station 3 and Force Main</b>																		
<b>Task 3 - Final Design Services</b>	<b>10</b>	<b>24</b>	<b>196</b>	<b>108</b>	<b>162</b>	<b>116</b>	<b>37</b>	<b>10</b>	<b>19</b>	<b>20</b>	<b>4</b>	<b>15</b>	<b>138</b>	<b>859</b>	<b>\$127,487</b>	<b>\$13,261</b>	<b>\$140,748</b>	
3-1 Prepare Final Hydraulic Analysis of the Pumps and Force Main					10								5	15	\$2,355			
3-2 Prepare 60% Sewer Lift Station Design		10	60	40	30	30	7	4	9	8	1	5	20	224	\$32,376			
3-2a Prepare 60% Sewer Force Main Design			24		24								4	52	\$7,100			
3-3 Prepare 90% Sewer Lift Station Design		10	100	60	30	40	26	4	4	8	1	5	20	308	\$43,646			
3-3a Prepare 90% Sewer Force Main Design			12		12								4	28	\$3,944			
3-4 Final Bid Documents and Specifications	10	4		8	20	10	4	2	6	4	2	5	15	90	\$13,584			
3-5 Final Design Meetings (8) / Workshop (1)					16	16							30	62	\$10,662			
3-6 Agency Coordination and Review					20	20							40	80	\$13,820			
<b>Task 4 - Bidding Services</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>49</b>	<b>\$8,347</b>	<b>\$1,785</b>	<b>\$10,132</b>	
4-1 Specifications and Bid Document Addendums						5			4	2			5	16	\$2,693			
4-2 Bidding Assistance													8	8	\$1,576			
4-3 Bid Opening and Recommendations													4	4	\$788			
4-4 Conformed Contract Documents				5	5	5			1				5	21	\$3,290			
<b>Subtotals</b>	<b>10</b>	<b>24</b>	<b>196</b>	<b>113</b>	<b>167</b>	<b>126</b>	<b>37</b>	<b>10</b>	<b>24</b>	<b>22</b>	<b>4</b>	<b>15</b>	<b>160</b>	<b>908</b>	<b>\$135,834</b>	<b>\$15,046</b>	<b>\$150,880</b>	

Expenses include:  
Mileage reimbursement at \$0.625/mile  
10% Markup on Outside Services  
5% Markup on JUB Teaming subconsultant services  
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$135,834</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$6,113</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$0</b>
<b>EXPENSES</b>	<b>\$15,046</b>
<b>TOTAL COST</b>	<b>\$156,993</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

Revised 9/16/2022

**Project 8**

Bowen Collins and Associates																		
OFFICE STAFF		ENGINEERS AND TECHNICIANS																
LABOR	Tech Writer III	Tech II	Tech V	Tech VI	Project Eng III	Senior Eng VI	Struct II	Struct VI	Elec II	Elec VI	Elec VIII	Principal Eng VIII	Principal Eng IX	SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL	
	M. Hilbert	T. Tanner	S. Riggs	T. Anderson	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	D. Youngstrom	B. Wyatt	B. Packer	HOURS	COST	EXPENSES	COST	
Hourly Rate	\$101.00	\$95.00	\$126.00	\$137.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$205.00	\$183.00	\$197.00					
<b>Project 8 - Lift Station 1</b>																		
<b>Task 3 - Final Design Services</b>	<b>10</b>	<b>24</b>	<b>160</b>	<b>105</b>	<b>126</b>	<b>116</b>	<b>37</b>	<b>10</b>	<b>22</b>	<b>20</b>	<b>4</b>	<b>15</b>	<b>110</b>	<b>759</b>	<b>\$112,497</b>	<b>\$13,261</b>	<b>\$125,758</b>	
3-1 Prepare Final Hydraulic Analysis of the Pumps and Force Main					10								5	15	\$2,355			
3-2 Prepare 60% Sewer Lift Station Design		10	60	40	30	30	7	4	9	8	1	5	20	224	\$32,376			
3-3 Prepare 90% Sewer Lift Station Design		10	100	60	30	40	26	4	9	8	1	5	20	313	\$44,321			
3-4 Final Bid Documents and Specifications	10	4		5	20	10	4	2	4	4		5	10	80	\$11,918			
3-5 Final Design Meetings (8) / Workshop (1)					16	16							15	47	\$7,707			
3-6 Agency Coordination and Review					20	20							40	80	\$13,820			
<b>Task 4 - Bidding Services</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>22</b>	<b>49</b>	<b>\$8,347</b>	<b>\$1,785</b>	<b>\$10,132</b>	
4-1 Specifications and Bid Document Addendums						5			4	2			5	16	\$2,693			
4-2 Bidding Assistance													8	8	\$1,576			
4-3 Bid Opening and Recommendations													4	4	\$788			
4-4 Conformed Contract Documents				5	5	5			1				5	21	\$3,290			
<b>Subtotals</b>	<b>10</b>	<b>24</b>	<b>160</b>	<b>110</b>	<b>131</b>	<b>126</b>	<b>37</b>	<b>10</b>	<b>27</b>	<b>22</b>	<b>4</b>	<b>15</b>	<b>132</b>	<b>808</b>	<b>\$120,844</b>	<b>\$15,046</b>	<b>\$135,890</b>	

Expenses include:  
Mileage reimbursement at \$0.625/mile  
10% Markup on Outside Services  
5% Markup on JUB Teaming subconsultant services  
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$120,844</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$5,438</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$0</b>
<b>EXPENSES</b>	<b>\$15,046</b>
<b>TOTAL COST</b>	<b>\$141,328</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

Revised 9/16/2022

**Project 1 CM**

	Bowen Collins and Associates				J-U-B Engineers													SUBTOTAL HOURS	SUBTOTAL COST	SUBTOTAL EXPENSES	TOTAL COST				
	Eng IV	Eng VI	Eng IX	Eng X	Survey Tech	Constr. Grp. Lead	Constr. Observ.	PLS	PI Practitioner	PI Assistant	Survey Lead	Row Specialist	PI Specialist	Pipeline Eng.	Pipeline Lead	Senior Review	Project Manager								
LABOR	T. Seamons	C. Nelson	B. Packer	K. Larson							David Strong	T. Cunningham	J. King	A. Nielson	J. Frazier	T. Allen	B. Wilcox								
Hourly Rate	\$145.00	\$160.00	\$197.00	\$206.00	\$87.00	\$200.00	\$158.00	\$146.00	\$132.00	\$92.00	\$198.00	\$141.00	\$208.00	\$168.00	\$215.00	\$190.00	\$225.00								
<b>Project 1 - Gravity Sewer for Areas 4, 5 and 6 Construction Services</b>																									
<b>Task 5 - Construction Services</b>	5	19	10	10	16	22	560	16	58	277	8	8	12	70	50	4	58	1203	\$179,071	\$12,304	\$191,375				
5-1 Pre-Construction Meeting		4				4	4		4	4				4	4	4	4	36	\$6,160						
5-2 Services During Construction (Submittals, Payments, Claims, and CO)	5	15	10	10		18								42	30		36	166	\$32,361						
5-3 Project Observation and Special Inspections (1/2 time for 28 weeks)							556											556	\$87,848						
5-4 Construction Staking					16			16			8			8			2	50	\$7,106						
5-5 Public Involvement									54	273		8	12					347	\$35,868						
5-6 Project Documentation														16	16		16	48	\$9,728						
<b>Subtotals</b>	5	19	10	10	16	22	560	16	58	277	8	8	12	70	50	4	58	1203	\$179,071	\$12,304	\$191,375				

<b>Expenses include:</b>
Mileage reimbursement at \$0.625/mile
10% Markup on Outside Services
5% Markup on JUB Teaming subconsultant services
Billing rates updated annually

<b>TOTAL LABOR COST</b>	\$179,071
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	\$390
<b>J-U-B 2023 Labor Rate Adjustment</b>	\$8,564
<b>EXPENSES</b>	\$12,304
<b>TOTAL COST</b>	<b>\$200,328</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

Revised 9/16/2022

**Project 2 CM**

	Bowen Collins and Associates				J-U-B Engineers															
	ENGINEERS AND TECHNICIANS				ENGINEERS AND TECHNICIANS															
	Eng IV	Eng VI	Eng IX	Eng X	Survey Tech	Constr. Grp. Lead	Constr. Obsr	PLS	PI Practitioner	PI Assistant	Survey Lead	Row Specialist	PI Specialist	Pipeline Eng.	Pipeline Lead	Project Manager	SUBTOTAL	SUBTOTAL	SUBTOTAL	TOTAL
LABOR	T. Seamons	C. Nelson	B. Packer	K. Larson							David Strong	T. Cunningham	J. King	A. Nielson	J. Frazier	B. Wilcox	HOURS	COST	EXPENSES	COST
Hourly Rate	\$145.00	\$160.00	\$197.00	\$206.00	\$87.00	\$200.00	\$158.00	\$146.00	\$132.00	\$92.00	\$198.00	\$141.00	\$208.00	\$168.00	\$215.00	\$225.00				
<b>Project 2 - Gravity and Force mains Area 2 Construction Services</b>																				
<b>Task 5 - Construction Services</b>	5	19	10	10	16	20	480	16	50	238	8	8	10	64	40	50	1044	\$155,253	\$7,648	\$162,901
5-1 Pre-Construction Meeting		4				4	4		4	4				4	4	4	32	\$5,400		
5-2 Services During Construction (Submittals, Payments, Claims, and CO)	5	15	10	10		16								40	28	32	156	\$30,295		
5-3 Project Observation and Special Inspections (1/2 time for 24 weeks)							476										476	\$75,208		
5-4 Construction Staking					16			16			8			8		2	50	\$7,106		
5-5 Public Involvement									46	234		8	10				298	\$30,808		
5-6 Project Documentation														12	8	12	32	\$6,436		
<b>Subtotals</b>	5	19	10	10	16	20	480	16	50	238	8	8	10	64	40	50	1044	\$155,253	\$7,648	\$162,901

Expenses include:  
Mileage reimbursement at \$0.625/mile  
10% Markup on Outside Services  
5% Markup on JUB Teaming subconsultant services  
Billing rates updated annually

<b>TOTAL LABOR COST</b>	\$155,253
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	\$390
<b>J-U-B 2023 Labor Rate Adjustment</b>	\$7,373
<b>EXPENSES</b>	\$7,648
<b>TOTAL COST</b>	<b>\$170,664</b>

**West Point City  
Sewer System Expansion Project 2022  
Engineering Fee Estimate**

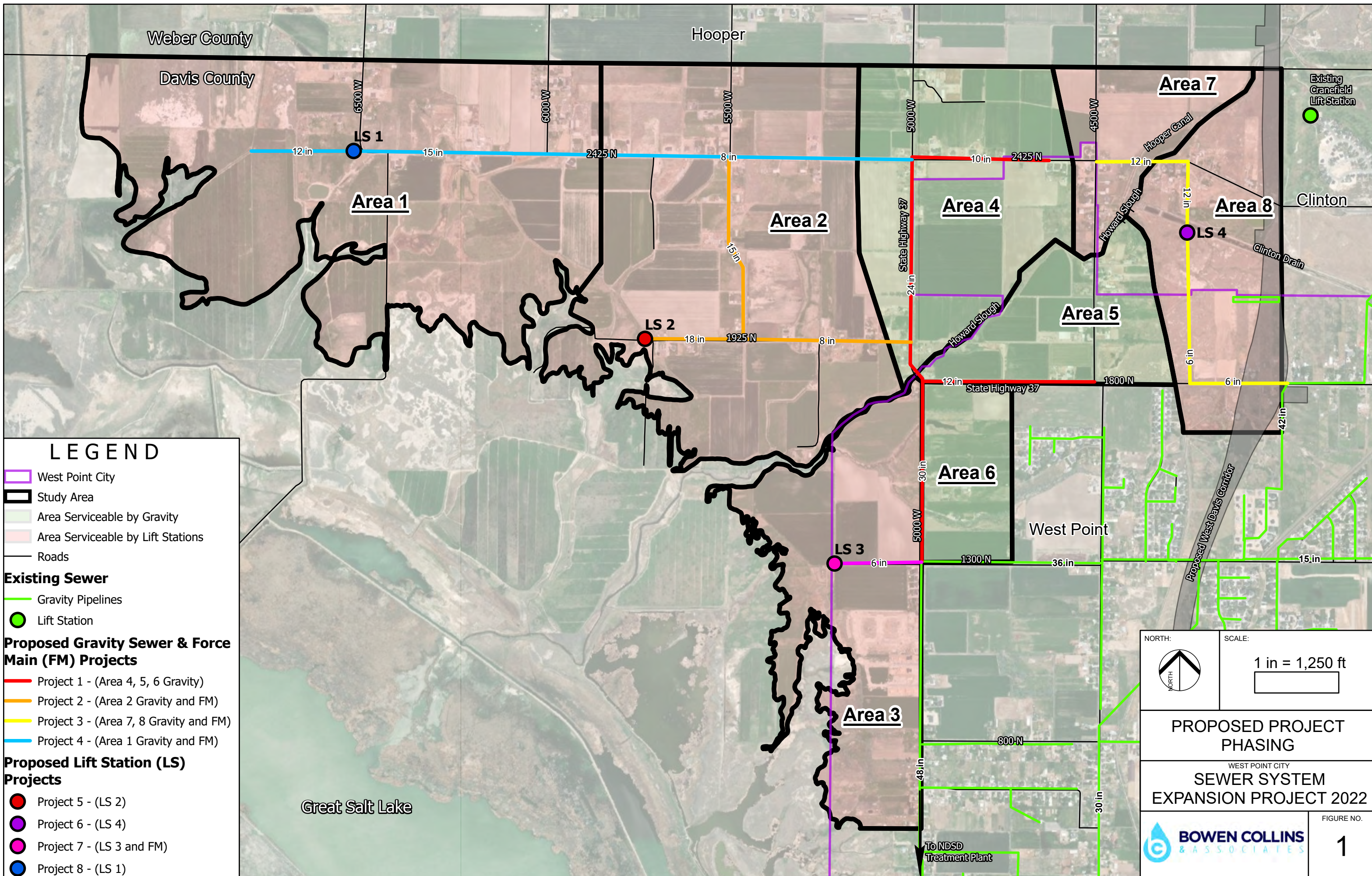
Revised 9/16/2022

**Project 5 CM**

LABOR	Bowen Collins and Associates												J-U-B Engineers						SUBTOTAL HOURS	SUBTOTAL COST	SUBTOTAL EXPENSES	TOTAL COST	
	ENGINEERS AND TECHNICIANS												ENGINEERS AND TECHNICIANS										
	Tech VI	Const Mngr	Eng III	Eng VI	Struct II	Struct VI	Elec II	Elec VI	Eng IV	Eng VI	Eng IX	Eng X	PLS	PI Practitioner	PI Assistant	Survey Lead	Row Specialist	PI Specialist					Project Manager
T. Anderson	C. Woodward	W. Andersen	S. Meyer	S. Pugh	S. Cohen	J. Lake	S. Cavanaugh	T. Seamons	C. Nelson	B. Packer	K. Larson				David Strong	T. Cunningham	J. King	B. Wilcox					
Hourly Rate	\$137.00	\$135.00	\$137.00	\$160.00	\$135.00	\$196.00	\$135.00	\$184.00	\$145.00	\$160.00	\$197.00	\$206.00	\$146.00	\$132.00	\$92.00	\$198.00	\$141.00	\$208.00	\$225.00				
<b>Project 5 - Lift Station 2 Construction Services</b>																							
<b>Task 5 - Construction Services</b>	<b>40</b>	<b>1200</b>	<b>30</b>	<b>256</b>	<b>40</b>	<b>30</b>	<b>50</b>	<b>40</b>	<b>5</b>	<b>34</b>	<b>140</b>	<b>13</b>	<b>16</b>	<b>56</b>	<b>180</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>2160</b>	<b>\$306,343</b>	<b>\$57,264</b>	<b>\$363,607</b>
5-1 Pre-Construction Meeting and Progress Meetings (29)				116						8	60	8								192	\$33,308		
5-2 Services During Construction (50 Submittals, Payments, Claims, and CO)			30	100	40	10	50	20	5	12	20	5								292	\$45,515		
5-3 Project Observation and Special Inspections (1/2 time for 14 months)		1200				20		20			40									1280	\$177,480		
5-4 SCADA Integration Programming											10									10	\$1,970		
5-5 Construction Staking										14			16			8				38	\$6,160		
5-6 Public Involvement														56	180		8	10	4	258	\$28,060		
5-7 Project Documentation	40			40							10									90	\$13,850		
<b>Subtotals</b>	<b>40</b>	<b>1200</b>	<b>30</b>	<b>256</b>	<b>40</b>	<b>30</b>	<b>50</b>	<b>40</b>	<b>5</b>	<b>34</b>	<b>140</b>	<b>13</b>	<b>16</b>	<b>56</b>	<b>180</b>	<b>8</b>	<b>8</b>	<b>10</b>	<b>4</b>	<b>2160</b>	<b>\$306,343</b>	<b>\$57,264</b>	<b>\$363,607</b>

<b>Expenses include:</b>
Mileage reimbursement at \$0.625/mile
10% Markup on Outside Services
5% Markup on JUB Teaming subconsultant services
Billing rates updated annually

<b>TOTAL LABOR COST</b>	<b>\$306,343</b>
<b>BC&amp;A 2023 Labor Rate Adjustment</b>	<b>\$13,718</b>
<b>J-U-B 2023 Labor Rate Adjustment</b>	<b>\$1,599</b>
<b>EXPENSES</b>	<b>\$57,264</b>
<b>TOTAL COST</b>	<b>\$378,924</b>



**LEGEND**

- West Point City
- Study Area
- Area Serviceable by Gravity
- Area Serviceable by Lift Stations
- Roads

**Existing Sewer**

- Gravity Pipelines
- Lift Station

**Proposed Gravity Sewer & Force Main (FM) Projects**

- Project 1 - (Area 4, 5, 6 Gravity)
- Project 2 - (Area 2 Gravity and FM)
- Project 3 - (Area 7, 8 Gravity and FM)
- Project 4 - (Area 1 Gravity and FM)

**Proposed Lift Station (LS) Projects**

- Project 5 - (LS 2)
- Project 6 - (LS 4)
- Project 7 - (LS 3 and FM)
- Project 8 - (LS 1)

NORTH:

SCALE: 1 in = 1,250 ft

**PROPOSED PROJECT PHASING**

WEST POINT CITY  
**SEWER SYSTEM EXPANSION PROJECT 2022**

**BOWEN COLLINS & ASSOCIATES**

FIGURE NO. **1**

# CITY COUNCIL STAFF REPORT



**Subject:** Transportation Master Plan  
**Author:** Boyd Davis  
**Department:** Engineering  
**Meeting Date:** October 18, 2022

## Background

Recently the City Council reviewed the new Transportation Master Plan and adopted the new Impact Fee. The master plan must also be adopted as part of the General Plan and there is a formal process for doing so. The Planning Commission recently held a public hearing and recommended approval of the master plan. Staff will now present the plan to the City Council for consideration of approval.

## Analysis

The Planning Commission approved the plan unanimously, however, it is important to note that there were several public comments made at the public hearing. Most of the comments were concerning growth related issues. Additionally, there were also several comments against the proposed main street concept. In the end, the Planning Commission recommended approval of the plan, but without the main street concept. They felt that it could be further discussed during the upcoming general plan revision.

The new master plan also includes several other elements including:

- Existing Conditions
- Future Conditions at both 2032 and 2050
- Recommended Future Road Projects
- Functional Classification of Roadways
- Access Management Recommendations
- Speed limit Recommendations and Traffic Calming Recommendations

All of these elements are very important, but the main purpose of the plan is to identify new road projects or the widening of existing roads that will be required to meet future demands. The Plan indicates that by 2050 the population of West Point City could grow by 85% to nearly 23,000 residents. This growth is expected to create 23,227 additional daily trips on the roads by 2032 and an additional 64,841 daily trips at buildout. All of those additional trips create a need for new or expanded roadways. The following table lists the recommended projects through 2032:

PROJECT #	LOCATION	PROJECT	COST
1	300 North; 2000 West to 4000 West	Re-Construct to 3-lane collector	\$9,000,000
2	Cold Springs Road; 200 South to 200 North	New 2-lane collector	\$5,153,316
3	Cold Springs Road; 450 South to 200 South	New 2-lane collector	\$1,894,858
4	200 South; 4500 West to Cold Springs Road	New 3-lane road	\$5,739,938
Intersection 1	300 North / 1500 West	Striping Improvements	\$3,380
Intersection 2	700 South / 4000 West	Roundabout	\$1,027,928
Intersection 6	SR-110 (4500 West) / 300 North	Roundabout	\$1,200,000
<b>Total</b>			<b>\$24,019,420</b>

**Recommendation**

Staff recommends approval of Ordinance 10-18-2020A adopting the Transportation Master Plan as part of the General Plan

**Significant Impacts**

None

**Attachments**

Ordinance 10-18-2022A

**ORDINANCE NO. 10-18-2022A**

**AN ORDINANCE AMENDING  
THE TRANSPORTATION ELEMENT OF  
THE WEST POINT CITY  
GENERAL PLAN**

**WHEREAS**, the West Point City Planning Commission has completed its recommendation for a proposed adoption of the Transportation Element of General Plan; and

**WHEREAS**, the Planning Commission duly noticed and held a public hearing according to state law and the interested parties were given an opportunity to be heard; and,

**WHEREAS**, the City Council has duly considered said amendments; and,

**WHEREAS**, the City Council, after due consideration of said amendments, has concluded that it is in the best interest of the City and the inhabitants thereof that said amendments be adopted;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF WEST POINT CITY, UTAH as follows:**

**Section One:            Adoption of the Transportation Master Plan as part of the General Plan**

The City Council hereby approves the Transportation Master Plan as part of the General Plan.

**Section Two:            Form of General Plan**

The Transportation Master Plan is hereby approved and adopted in the form attached hereto, adopted by reference, and by reference made a part hereof.

**Section Four:            Severability**

In the event that any provision of this Ordinance is declared invalid for any reason, the remaining provisions shall remain in effect.

**Section Four:            Effective Date**

This Ordinance shall take effect immediately upon passage and adoption and publication of a summary as required by law.

DATED this \_\_\_ day of \_\_\_\_\_, 20\_\_.

WEST POINT CITY, a Municipal Corporation

By: \_\_\_\_\_  
Brian Vincent  
Mayor

ATTEST:

\_\_\_\_\_  
Casey Arnold  
City Recorder