

# ATTACHMENT A SCOPE OF SERVICES

## SEDALIA STORM DRAINAGE IMPROVEMENTS Project Area 28

### **Task 1 – Topographic and Utility Survey**

#### **1.1 Property Research**

Perform a field search to recover existing monumentation (existing front property corners and right-of-way markers). Review the subdivision plats and field research to develop the existing property lines and establish the existing right-of-way. This work task is not intended to be a property survey.

#### **1.2 Horizontal and Vertical Control**

Set three (3) control points at each project area. The control will be tied to Missouri State Plane – Central Zone (NAD 83) & NAVD 88 Vertical Datum.

#### **1.3 Utility Survey**

Locate marked utilities at each project area including, but not limited to, water, sewer, gas, power, telephone, cable TV, and fiber optics. Buried utility companies will be contacted through the Missouri One-Call system and as supplemented by the City for those utilities not associated with the One-Call system. Utilities will be horizontally field located according to the field marks made by the utility companies or the One-Call locator. The inflow/outflow elevations for storm and sanitary sewer structures will be located along with the size and type of structure and the size and type of the conduit entering and leaving the structure.

#### **1.4 Topographic Survey**

Perform field surveys to obtain sufficient detail for the project design. The field information shall include topographic information to clearly identify breaklines, slopes, and terrain issues including paving, sidewalks, entrances & utilities.

#### **1.5 Documentation**

Prepare a CADD drawing of the property lines, right-of-way, existing utilities, existing topographic features, and spot elevations that will be used to supplement the City GIS/Lidar data. This drawing will be used as the basemap for the design and plan preparation.

## **Task 2 – Plan Preparation**

### **2.1 Preliminary Plan Preparation (60% Plans)**

Based on the Wilson & Company Stormwater Master Plan – Priority Projects Memorandum dated April 12, 2018; plans will be prepared for the Project Area 28 – Alternative #1.

Plan sheets will be developed as required to convey sufficient detail for construction. The following sheets will be prepared for the Preliminary Plan submittal:

- Title Sheet
- General Layout Sheet
- Plan & Profile Sheets
- Erosion Control Sheets
- Traffic Control Sheets

The Preliminary Plans and Engineer’s Opinion of Probable Construction Cost will be submitted to the City for review. City comments will be addressed and written responses will be prepared and submitted with Final Plans.

### **2.2 Final Plans and Project Manual Preparation (100% Plans)**

Based on comments received during the Preliminary Plan review, Final Plans will be revised. A written list of comments from the Preliminary Plan review will be assembled into a single document and responses to each comment will be provided. A Project Manual will be developed using the City’s standard front end documents and technical specifications.

The Final Plans, Project Manual and Engineer’s Opinion of Probable Construction Cost will be submitted to the City for review. City comments will be addressed and written responses will be prepared prior to advertising the project for Bid.

### **2.3 Post Design Services**

The following post design services will be provided:

- Submit Final Plans and Project Manual documents in PDF format for bidding the project by the City.
- Answer questions and issue addendums, if required, during the project advertisement period.
- Review shop drawings
- Address contractor RFIs during construction

## **Items Not Included in the Scope of Services**

1. Any work requested by the City that is not included in the basic services will be classified as supplemental services. Supplementary services shall include, but are not limited to the following:
  - a. Changes in the scope, extent, or character of the project.
  - b. Revisions to the plans when inconsistent with previous approvals or instructions by the City.
  - c. Updating plans to reflect development that has occurred after the Final Plans are complete.
2. Utility coordination except as specifically stated in Task 1.3.
3. Obtaining Ownership & Encumbrance or Title Reports for the adjacent properties.
4. Public Involvement or meetings with the adjacent property owners.
5. Design of sidewalks or handicap ramps.
6. Full property survey or setting of new property corners if they are missing is not required.
7. Environmental permitting.
8. Construction Phase Services:
  - a. Construction inspection or testing.
  - b. Substantial and Final completion inspections.
  - c. Preparation of record drawings.



**EXHIBIT A  
FEE ESTIMATE WORKSHEET**

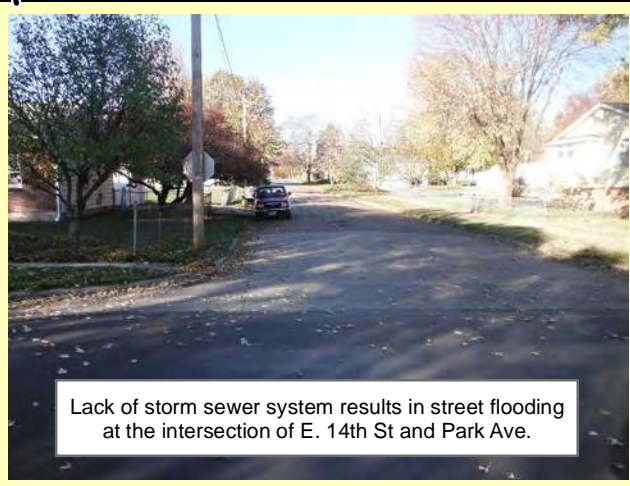
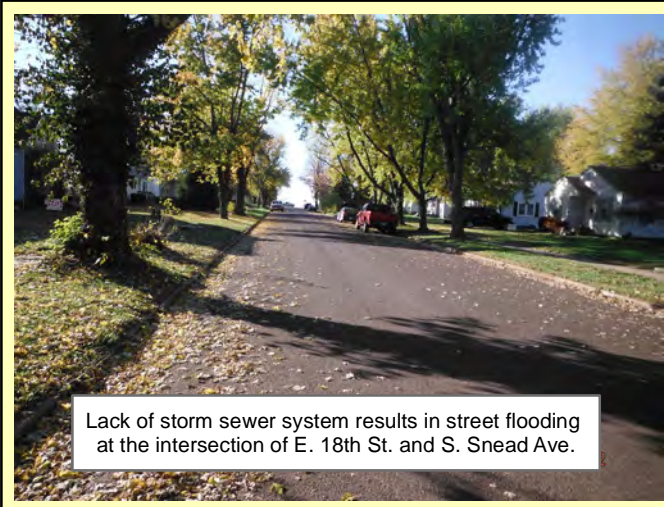
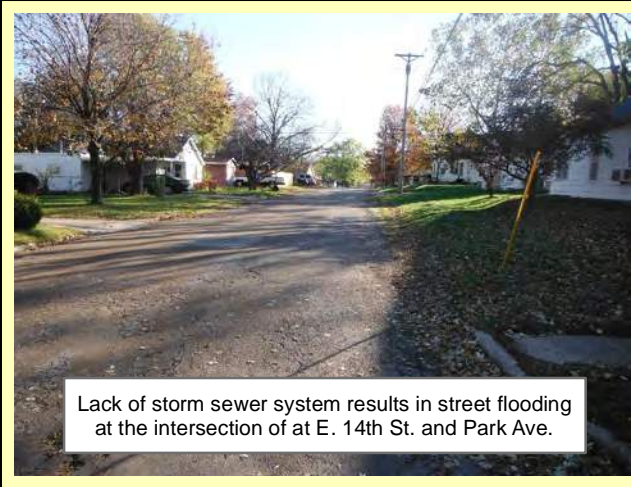
Proj.: Storm Drainage Improvements  
 By: GJLust  
 Date: October 28, 2021  
 Client: Sedalia, MO  
 Notes: Project Area 28

TASK I.D.	WORK TASK DESCRIPTION	TASK CODE WCI CLASS	ESTIMATED MANHOURS						TOTAL HOURS	LABOR EFFORT	EXPENSE EFFORT	TOTAL FEE
			P5 Project Manager	P3 Design Engineer	OD4 CADD Technician	FS6 Survey Manager	FS5 Chief Surveyor	FS4 Survey Tech				
<b>TASK 1 - RIGHT-OF-WAY and UTILITY SURVEY</b>												
1.1	Property Research				16	8			24.00	\$ 2,496.00	\$ -	\$ 2,496.00
1.2	Horizontal & Vertical Control						24	24	48.00	\$ 5,040.00	\$ 2,435.50	\$ 7,475.50
1.3	Utility Survey						40	40	80.00	\$ 8,400.00	\$ 1,287.00	\$ 9,687.00
1.4	Topographic Survey						56	56	112.00	\$ 11,760.00	\$ 3,052.50	\$ 14,812.50
1.5	Documentation			40	8				48.00	\$ 4,416.00	\$ -	\$ 4,416.00
	Subtotal		0	0	56	16	120	120	312.00	\$ 32,112.00	\$ 6,775.00	\$ 38,887.00
<b>TASK 2 - PLAN PREPARATION</b>												
2.1	60% Plans		100	360	280				740.00	\$ 80,500.00	\$ 809.00	\$ 81,309.00
2.2	Final Plans and Project Manual Preparation		40	200	120				360.00	\$ 39,280.00	\$ 220.00	\$ 39,500.00
2.3	Post Design Services		8	16					24.00	\$ 3,176.00	\$ 128.00	\$ 3,304.00
	Subtotal		148	576	400	0	0	0	1,124.00	\$ 122,956.00	\$ 1,157.00	\$ 124,113.00
<b>TOTALS</b>			<b>148</b>	<b>576</b>	<b>456</b>	<b>16</b>	<b>120</b>	<b>120</b>	<b>1,436.00</b>	<b>\$ 155,068.00</b>	<b>\$ 7,932.00</b>	<b>\$ 163,000.00</b>



<b>Cost Estimate</b>				
<u>Item Description</u>	<u>Quantity</u>	<u>Qty. Units</u>	<u>Unit Cost</u>	<u>Total Cost</u>
Pipe 21" and Smaller - Street	2819	LF	\$180	\$507,420
Pipe 21" and Larger - Street	2020	LF	\$210	\$424,200
			<b>Subtotal</b>	\$931,620
			<b>Utilities and Misc. Contingency (25%)</b>	\$232,905
			<b>Total</b>	\$1,164,525

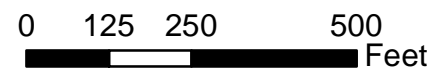
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### Legend

- Proposed Pipes
- StreetFlood
- Potential System Improvements
- Surface Water, Ground Water and Sanitary Sewer Backup
- Surface Flooding and Sanitary Sewer Backup
- ▲ Ground and Surface Water Flooding
- ◆ Surface Flooding
- ◆ Ground Water Flooding
- Ground Water Flooding and Sanitary Sewer Backup
- ◆ Sanitary Sewer Backup
- Returned Questionnaires with No Major Issues

### City of Sedalia, MO Potential System Improvements Project ID #28



# Memorandum

**To:** City of Sedalia, Missouri  
**From:** Wilson & Company, Inc., Engineers & Architects  
**CC:**  
**Date:** April 12, 2018      **File Number:** 14-100-509-00  
**Re:** Stormwater Master Plan Improvement Areas – No. 28

From the field investigation, it appears that the primary issue with this location is the lack of an enclosed system. The streets have existing curb and gutter in the area, but no enclosed system. This leads to street flooding in the area. Water flows from south to north from W 20<sup>th</sup> St. to W 11<sup>th</sup> St. along S Carr Ave., S Sneed Ave., and S Park Ave. and eventually drains into an existing open channel at the intersection of Park and 11<sup>th</sup>. The intersection of Sneed and W 16<sup>th</sup> St. in particular has flooding issues, as 16<sup>th</sup> is a main arterial. There is a low point in 16<sup>th</sup> St. at this location and with no inlets to capture the runoff, the water just ponds at the intersection.

Based on 2013 aerial imagery and 2011 LiDAR contours, the area of concern has a drainage area of approximately 56 acres. Based on rational method and drainage area parameters, the 1% design storm will yield a peak discharge of approximately 280 cfs.

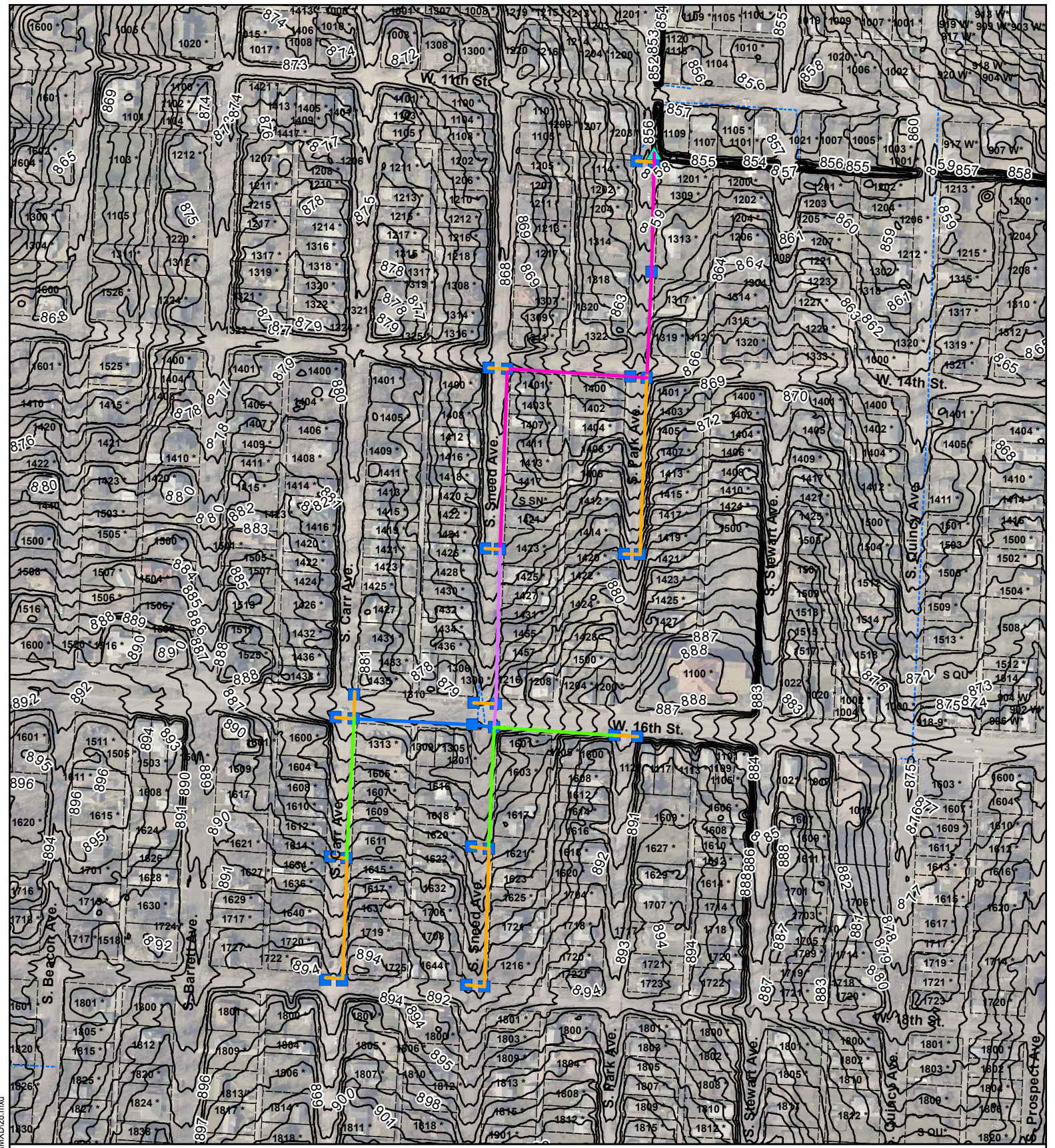
**Alternative #1:**

Alternative #1 includes adding an enclosed system to the area. The upstream end of the system will run along S Carr Ave., S Sneed Ave., and S Park Ave. It will also run along W 16<sup>th</sup> St. and connect at Sneed. It will then flow north along Sneed, then turn east at the intersection of W 14<sup>th</sup> St. and Sneed, turn north at the intersection of 14<sup>th</sup> and Park, and connect into the existing open channel near the intersection of W 11<sup>th</sup> St. and Park. New inlets, 18" RCP, 24" RCP, 30" RCP, 42" RCP, 48" RCP, and an end section will make up the new enclosed system. The street, alleys, and driveways will need to be patched. The new system will be located within the Right-of-Way, so no easements will be required.

**Alternative #1 Cost Estimate:**

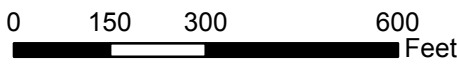
Item	Quantity	Unit	Unit Price	Total
Clearing and Grubbing	1	LS	\$ 20,000	\$ 20,000
Inlet	29	EA	\$ 6,000	\$ 174,000
Storm Sewer (18")	1350	LF	\$ 100	\$ 135,000
Storm Sewer (24")	950	LF	\$ 120	\$ 114,000
Storm Sewer (30")	350	LF	\$ 150	\$ 52,500
Storm Sewer (42")	500	LF	\$ 200	\$ 100,000
Storm Sewer (48")	1300	LF	\$ 250	\$ 325,000
End Section	1	EA	\$ 4,000	\$ 4,000
Street Patch	350	SY	\$ 120	\$ 42,000
Driveway Patch	300	SY	\$ 80	\$ 24,000
			Sub-Total	\$ 990,500
			Contingency (20%)	\$ 198,100
			<b>Total</b>	<b>\$ 1,188,600</b>





### Legend

- |         |                    |                |
|---------|--------------------|----------------|
| 18" RCP | Curb Inlet         | Parcel         |
| 24" RCP | End Section        | Contour - 1 ft |
| 30" RCP | Exist. Storm Sewer |                |
| 42" RCP | Corporate_limits   |                |
| 48" RCP |                    |                |



City of Sedalia, Missouri

Stormwater Master Plan Improvements

Improvement Area: 28

April 2018