



**CITY OF WELDON SPRING
BOARD OF ALDERMEN REGULAR MEETING
ON THURSDAY, MAY 26, 2022, AT 7:30 P.M.
WELDON SPRING CITY HALL
5401 INDEPENDENCE ROAD
WELDON SPRING, MISSOURI 63304**

******TENTATIVE AGENDA******

A NOTICE IS HEREBY GIVEN that the Regular Board of Aldermen Meeting will be in person at 5401 Independence Road Weldon Spring, Missouri, 63304. Also, the public can attend virtually by video-conference and/or audio-conference call, you may attend the meeting on a desktop, laptop, mobile device, or telephone by following the highlighted instructions below.

Link to join Zoom Video-Conference Meeting:

<https://us02web.zoom.us/j/82815272336?pwd=a2laSDIXUFpuUnluSkhGMVI5ZXJHdz09>

**Meeting ID: 828 1527 2336
Password: WS.BOA**

Or by telephone dial: 1-312-626-6799

**Meeting ID: 828 1527 2336
Password: 858096**



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This notice was posted at 5401 Independence Road on 5-25-22 at 4:40pm by Tom C. Stankus

****AGENDA****

1. **CALL TO ORDER**
2. **PLEDGE OF ALLEGIANCE**
3. **ROLL CALL and DETERMINATION OF A QUORUM**
4. **CITIZENS COMMENTS**
5. **APPROVAL OF MINUTES**
 - A. May 10, 2022 – Regular Board Meeting Minutes
6. **CITY TREASURER REPORT**
 - A. Paid Bills (May 4, 2022 – May 20, 2022)
7. **UNFINISHED BUSINESS**
8. **NEW BUSINESS**
 - A. 2022 Liquor License Renewals – **City Clerk**
 - B. Strategic Planning & Prioritization: Review of Goals/Objectives – **City Administrator**
 - C. Policing Services: Expanded Scope & Options Discussion – **City Administrator**
 - D. Back Wolfrum Rd. Culvert Pipe Report & Summary from City Engineer – **City Administrator**
 - E. Walking Trail Maintenance: Bid Results & Award – **City Administrator**
9. **REPORTS & COMMITTEES**
 - A. Planning & Zoning Commission – **Alderman Martiszus**
 - B. ARC – **Alderman Clutter**
 1. Chairman Reappointment
 - C. PRAC – **Alderman Martiszus**
 1. Appointment (Mike Bauer)
 - D. City Administrator Report – **City Administrator**
10. **RECEIPTS & COMMUNICATIONS**
11. **ADJOURNMENT**



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This notice was posted at 5401 Independence Road on 5-25-22 at 4:42pm by Tom C. Clutter

CITY OF WELDON SPRING
REGULAR MEETING OF THE BOARD OF ALDERMEN
MAY 10, 2022

CALL TO ORDER: The regular meeting of the Board of Aldermen of the City of Weldon Spring was held on Tuesday, May 10, 2022, at approximately 7:30 PM. The meeting was held at the Weldon Spring City Hall, which is located at 5401 Independence Road. Mayor Donald Licklider called the meeting to order at 7:30 PM.

PLEDGE OF ALLEGIANCE: The Pledge of Allegiance was recited.

ROLL CALL AND DETERMINATION OF QUORUM: On a roll call, the following members were present:

Ward 1:	Alderman Clutter	Alderman Yeager*
Ward 2:	Alderman Conley	Alderman Kolb
Ward 3:	Alderman Martiszus	Alderman Baker

Note: Aldermen Yeager joined the meeting as a video conferencing participant via Zoom.

A quorum was declared.

Alderman Baker made a motion to amend the agenda to add a funding discussion about the emergency culvert pipe repair on Wolfrum Road, which was approved by the Board on April 12, 2022. The **motion failed** for lack of second to Alderman Baker's motion.

PUBLIC COMMENTS

There were no public comments at this time.

PUBLIC HEARING:

Consideration of a Conditional Use Permit & Area Plan for "New Perspective of Weldon Spring for the purpose of allowing a "Nursing & Residential Care Facility" at 400 Siedentop: Mayor Licklider opened the Public Hearing. There were no public comments. Mayor Licklider closed the Public Hearing.

MINUTES

April 28, 2022, Board Minutes - Alderman Martiszus moved to approve the minutes from April 28, 2022, regular meeting as written. The motion was seconded by Alderman Baker. **Motion carried** with 5 ayes. Alderman Clutter abstained from voting.

TREASURER'S REPORT

Alderman Baker made a motion to accept the Treasurer's packet of paid bills from April 22, 2022, to May 3, 2022. The motion was seconded by Alderman Martiszus. The **motion carried** with 6 ayes.

UNFINISHED BUSINESS:

Board Liaisons to Committees: Aldermen Clutter nominated Alderman Martiszus to serve as the Board Liaison to the Parks and Recreation Advisory Committee (PRAC). **Motion carried** with 6 ayes.

Alderman Clutter and Alderman Yeager stayed on the Finance Committee.

Aldermen Clutter volunteered to serve as an “ex officio” member to the Architectural Review Commission (ARC). **Motion carried** with 6 ayes.

NEW BUSINESS:

Budget Adjustment for Facilities Needs Assessment Study: There was no discussion on this topic.

REPORTS AND COMMITTEES:

P & Z Commission: Alderman Martiszus summarized the presentation given to the Planning & Zoning Commission on May 2nd on the proposed Nursing & Residential Care Facility at 400 Siedentop Road by the Boldt Company and New Perspective. Alderman Martiszus added that the Conditional Use Permit and Area Plan recommendations were tabled until the meeting on June 6th.

RECEIPTS & COMMUNICATIONS:

Alderman Yeager stated that the Park Master Plan draft was presented to the Parks & Recreation Advisory Committee at their meeting on May 9, 2022. The consultants have asked for any comments on the plan to be submitted within a week so they can continue the process.

Alderman Baker asked about the broken fence on Weldon Spring Parkway and replacing trees on Weldon Spring Parkway. Mr. Padella (City Administrator) stated the fence has been ordered but hasn't been fix because of supply chain issues. Mr. Padella added that some trees have not been replaced on Weldon Spring Parkway because of budget cuts to the 2022 Budget. A brief discussion took place.

Mayor Lickliger stated that he has scheduled a Work Session for May 24, 2022, at 6:30 PM. He requested that each Alderman send him a couple discussion items so they can be placed on the agenda.

ADJOURNMENT:

Alderman Kolb moved to adjourn the meeting at 8:05 PM and Alderman Clutter seconded the motion. **Motion carried** with 6 ayes.

Respectfully submitted,

William C. Hanks
City Clerk

**PAID BILLS TO BE APPROVED
MAY 4, 2022 -- MAY 20, 2022**

EXCEPT FOR THE ITEMS NOTED, THE ATTACHED LIST IS APPROVED BY THE BOARD OF ALDERMAN FOR PAYMENT. APPROVED THIS
26TH DAY OF MAY, 2022 _____, MAYOR

5/4/2022 THRU 5/20/2022

ACCOUNTS PAYABLE CLAIMS REPORT

<u>VENDOR</u>	<u>REFERENCE</u>	<u>GL ACCT NO.</u>	<u>AMOUNT</u>	<u>CHECK #</u>	<u>CHECK DATE</u>
ALL INCLUSIVE REC LLC	PLAYGROUND EQUIP REPAIRS	20-20-5237	113.10	16571	5/10/2022
BUILDINGSTARS OPERATIONS INC	MONTHLY HOUSEKEEPING	20-20-5244	240.00	51129356	5/6/2022
CENTRAL BANK OF ST LOUIS	ANALYSIS FEE APR 22	10-10-5216	424.77	51129355	5/10/2022
COTTLVILLE/WELDON SPRING	LICKLIDER & YEAGER	10-10-5201	40.00	9451	5/6/2022
CUIVRE RIVER ELECTRIC	MONTHLY ELECTRIC	20-20-5253	244.59	51129357	5/6/2022
CUIVRE RIVER ELECTRIC	MONTHLY ELECTRIC	20-20-5253	201.40	51129358	5/6/2022
CUIVRE RIVER ELECTRIC	MONTHLY ELECTRIC	20-20-5253	31.85	51129359	5/6/2022
CUIVRE RIVER ELECTRIC	MONTHLY ELECTRIC	20-20-5253	27.00	51129360	5/6/2022
DIV OF EMPLOYMENT SECURITY	QTR PAYROLL TAX	10-10-5126	176.82	51129353	5/4/2022
DIV OF EMPLOYMENT SECURITY	QTR PAYROLL TAX	20-20-5126	44.20	51129353	5/4/2022
DUCKETT CREEK SANITARY DISTRICT	QTR SEWER FEE	20-20-5250	65.25	51129354	5/10/2022
FRISELLA NURSERY	PARK LANDSCAPING	20-20-5550	449.39	9462	5/13/2022
FRISELLA NURSERY	ROW LANDSCAPING	22-22-5264	2,023.56	9462	5/13/2022
INSURANCE STORE INC	TREASURER BOND RENEWAL	10-10-5208	463.00	9461	5/13/2022
KEVIN CARROLL	BRUSH HOGGING/SIEDENTOP	20-20-5450	400.00	9452	5/6/2022
LASHLY & BAER, P.C.	MUNI PROSEC ATTY FEB 2022	10-10-5304	680.00	9459	5/10/2022
MISSOURI DEPT OF REVENUE	CRIME VICTIM	10-02-2511	14.26	16574	5/20/2022
MISSOURI LAWYERS MEDIA	PUBLIC NOTICES	10-10-5214	173.30	9453	5/6/2022
MISSOURI LAWYERS MEDIA	PUBLIC NOTICES P&Z	10-10-5214	146.20	9458	5/6/2022
MISSOURI LAWYERS MEDIA	REPAIR WALKING TRAIL BIDS	10-10-5214	34.00	9460	5/13/2022
MO DEPT OF PUBLIC SAFETY	P.O.S.T.	10-02-2521	2.00	16575	5/20/2022
MOCFOA EASTERN DIV	LUNCHEON MEETINGS	10-10-5201	16.00	16572	5/19/2022
PURITAN SPRING WATER	BOTTLE WATER	20-20-5255	35.91	51129361	5/6/2022
ROBERT WOHLER	LEGAL FEES	10-10-5301	400.00	9457	5/6/2022
ST CHARLES IT	IT SERVICES	10-10-5325	637.50	9454	5/10/2022
UNITED HEALTHCARE	EMPLOYEE HEALTH INS	10-02-2110	666.72	9463	5/19/2022
UNITED HEALTHCARE	EMPLOYEE HEALTH INS	10-10-5132	2,957.72	9463	5/19/2022
WEBER FIRE AND SAFETY	FIRE EXTINGUISHERS CHECKED	20-20-5241	82.00	9455	5/6/2022
WEX BANK	FLEET GAS CARD	20-20-5237	258.86	9456	5/6/2022
WILLIAM C HANKS	EXPENSE REIMB	10-10-5202	75.29	16573	5/19/2022

Accounts Payable Total

11,124.69

ID #: Focus:	Goal/Objective:	No/ Low	2022	2023	2024	2025	2026	Estimated Cost:	Comments:
1	Capital Improvement Projects for Public Streets								
1.a	"Back" Wolfrum Safety Improvements - Engineering Study & EWG Funding Application (Study/application only).	2		3	1			\$ 22,000	
1.b.	Minor arterial streets intersection/Pedestrian Crossing Traffic Study/Analysis for potential safety enhancements.	1	4		1			\$ 16,000	
1.c.	Pursue SCC Road Board grant to conduct FHA Access study for westbound I-64 connection from Wolfrum/Technology Dr.	2	2	1	1			\$ 22,500	
1.d.	Research feasibility for EWG grant to enhance Meadows Parkway by adding walking trail and removing gate.	1	4		1			Staff time	Talk to FHSD
1.e.	Research feasibility for EWG grant to enhance Westwood Dr. from Breeze Park to O'Fallon Rd. adding walking trail.	2		3		1		\$ 22,000	Engineering study & EWG application
2	Improve/Extend Access to Public Sewer Systems								
2.a.	Engineering Study focused on HTO Corridor for sewer capacity & access - apply for matching grants.	3			1	2		\$ 24,500	Could this be part of the market analysis RFP?
3	Improve/Extend Access to Public Water Systems								
3.a.	Engineering Study focused on extending public water to City Hall/Park - apply for matching grants.	4					2	\$ 12,000	
4	Improve Broadband/High Speed Internet Services								
4.a.	Partner with SCC Gov't to extend fiber to City Hall/Park with 50% cost-sharing grant.	2	2	1				\$ 11,000	Ask AT&T; contingent on grant
5	Pursue a single residential trash hauler on a city-wide basis								
5.a.	Survey neighborhoods/HOA to learn which have a single trash hauler and satisfaction level.		4	1			1	Staff time	And hold annual HOA meetings
6	Add Amenities to Existing Weldon Spring City Park								
6.a.	Stack facility projects together: Large Pavilion & Restrooms with Amphitheater next to Lake.		2	3	1			\$400-575K	
6.b.	Outdoor sport/game activity/field (bocce ball, disc golf, pickleball court)	1		2	3			\$75-100K	See Dardenne Prairie for pickleball example
6.c.	Forebay/Lake - dredging, add rock, to bank, fishing dock, & fountain.	2		3	1			\$250-300K	
6.d.	Wildflower Meadow development in parks.	2		2	1	1		\$50-\$75K	
6.e.	Screened Maintenance Work Area - Parks Dept.	1		1	1		3	\$20-30K	
6.f.	Playground - Capital equipment replacement.	1		2				\$500-750K	

ID #:	Focus:	Goal/Objective:	No/ Low	2022	2023	2024	2025	2026	Estimated Cost:	Comments:
6.g.		Additional Paths/trails - abandon Nancy Lane but use as internal trail.			1			5	\$ 150-200K	Pave in a few years; expand path north of Park
7	Increase/enhance the number and quality of City Festivals/Special Events	Restructure and/or increase staffing to facilitate adding events/activities for public.								
7.a.			1	2	1			2	TBD	6 annual events now
8	Identify and Purchase New Park Property									
8.a.		Open to park/greenway land acquisition opportunities should they arise.	4		1			1	Open	John Weldon's spring area
9	Develop existing park land currently unimproved									
9.a.		Develop Lot C - 2.4 acre pocket park along Siedentop Rd.		5	1				\$ 20,000	Final community engagement and site design
9.a.1.		Lot C to include: Parking lot, pickleball, shelter, trail, meadow, restroom, and open space, see Parks Master Plan.		1	5				\$118-185K	Bid/Construct
9.b.		Add amenities to WSP 1 acre pocket park.	2		1		1	2	\$ 10,000	
10	Develop New and Inter-connected Walking/Biking Trail Systems									
		Select multiple short trail connections and prepare engineer site/construction plans.								
10.a.			1	2	1	2			\$ 50,000	Design
10.a.1.		Bid and construct multiple short trail connections throughout city.	1	2	3				\$ 500,000	Bid/Construct
		Refer to Parks & Greenways Master Plan for future trail expansion and connections (pages 42-44).								
10.b.			1			1	2	2	TBD	Identify & Pursue Grants
10.c.		Research feasibility/cost of walking trail lighting additions.	1			1	4		TBD	1st along streets (check solar options)
11	Maintain & Restore/Protect Historic Sites & Resources									
11.a.		Develop a concept plan for the "John Weldon Spring" site/area.		1	5				\$ 15,000	
11.b.		Reconstruct log cabin in storage or dispose of materials.	2	2	2				Staff time	Dispose
11.c.		Identify preservation opportunities for the Francis Howell School House.	5	1					Staff time	Check w/ FHSD
12	Beautify Public Areas such as ROW, major entry points, etc.									
		Pursue feasibility and concept design of two entry point "welcome" monuments.								
12.a.		Refer to 23.a. for city identity and image enhancements.	2		1			3	TBD	
13	Partner with nearby cities for access to their parks & recreation programs									
		Pursue opportunities to partner with neighboring communities to offer resident rate pricing and programs to WS residents.								
13.a.			2	2	1	1			Staff time	
14	Pursue a Facility Condition and Needs Assessment (FCNA) for City Hall									
		Complete the FCNA study for City Hall and/or opportunities for expanded facility amenities.								
14.a.			2	1	2	1			\$ 24,500	

ID #: Focus:	Goal/Objective:	No/ Low	2022	2023	2024	2025	2026	Estimated Cost:	Comments:
14.a.1.	Identify specific City Hall improvements and pursue implementation.	2		3	1			TBD	Tied to FCNA Study
15	Enhance Police Protection Services								
15.a.	Exploring opportunities to enhance and expand policing services.		5	1				\$227-454K	Assumes 10, 16, or 24 hours of dedicated patrol
15.b.	Exploring opportunities to outsource municipal court operations.		5	1				\$0-42K	
16	Utilize technology/automated devices to enhance public safety								
16.a.	Research and pursue deployment of "Flock" camera system.	1	1	3	1			\$5.5-11K	Assumes 2-4 camera units
16.b.	Research and pursue deployment of digital speed limit signs that capture traffic data.	1		5				\$8-16K	Study 2022 Implement 2023
16.c.	Refer to 1.b. for pedestrian crossing review and potential enhancements.	1		5				TBD	Study 2022 Implement 2023
16.d.	Refer to 1.b. for justification to install LED lit/blinking stop/yield signs.	1		5				TBD	Study 2022 Implement 2023
17	Enhance & engage Citizenry through available communication mediums								
17.a.	Refer to 7.a. for consideration of restructuring of certain staff duties and/or hiring of additional staff.	2		3	1			TBD	
18	Retain & Recruit a Qualified City Work Force								
18.a.	Due to inflation and recruitment issues review current pay scale ranges and employee benefit offerings to remain competitive.	1	1	3	1			Staff time	
19	Research and pursue technology to enhance City services								
19.a.	Open to opportunities to improve operations through software and technology enhancements.	4		1	1			TBD	As needed
20	Review current staff duties/levels to ensure core duties are achieved								
20.a.	Refer to 7.a. and 17.a. for staffing analysis and potential changes to duties and roles.	4		1	1			Staff time	As needed
21	Foster Healthy Community Development Strategies/Policies								
21.a.	Review and update the City's P&Z Comprehensive Plan, last updated in May 2015.	1		1	1	3		\$20-26K	
21.b.	Refer to 22.d. for development of targeted strategies for specific sites/areas of the city.	3		1	1	2		ED Work Session	Tied to other actions
22	Retain/Attract Businesses Utilizing Economic Development (ED) Strategies								
22.a.	Re-review the staff prepared ED Incentive Policy intended to attract new commercial investment and create quality jobs.	1		1	3	1		ED Work Session	



CITY OF WELDON SPRING

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MEMORANDUM

To: Mayor Lickliger & Board of Aldermen

Date: 05/20/22

From: Michael Padella, City Administrator

Subject: Police Services – Draft Scope of Services with Enhancements & Increased Police Patrol Options

Cc: Bill Hanks, City Clerk

Our current three-year Intergovernmental Agreement with St. Charles County for Policing Services is set to expire on December 31, 2023, however, with 90 days written notice prior to December 31st of each year the agreement may be terminated early with no penalties.

The current term began on January 1, 2021. The annual cost for policing services with SCC is based upon actual costs to SCC on a per officer basis, and in order to satisfy the scope of the services it requires the equivalent of two full time officers. Below is the summary of annual expenses per the terms of the current Agreement:

- Year 1 (2021) \$210,546
- Year 2 (2022) \$213,031
- Year 3 (2023) \$227,386

Summary of current or “Base Policing Services’ Scope” provided by St. Charles County Police Department (SCCPD):

1. Provide municipal law enforcement patrol and crime response services to City for 70 hours per week (usually 10 hours per day)
2. 24/7 emergency response and coverage
3. Enforcement of City Codes
4. Provide Support Services such as:
 - a. Criminal investigations/detective work,
 - b. Forensic science and laboratory services
 - c. Dispatching Services
 - i. Dispatching of officers to 9-1-1 calls;
 - ii. Dispatching of officers to calls received from seven-digit dialing;

- iii. Regional Justice Information Systems (REJIS) transactions;
 - iv. Missouri Uniform Law Enforcement System (MULES) transactions;
 - v. Status checks;
 - vi. Criminal history checks;
 - vii. Dispatching service calls (non-emergency); and
 - viii. Other dispatching services as may be required from time to time
- d. Special Operations Services such as:
 - i. Canine
 - ii. Bomb Disposal
 - iii. Tactical Response Team (SWAT) Services
 - iv. Mobile radar unit deployment
 - e. Administrative Services such as:
 - i. Standard Operating Procedures and other operational/procedural manuals for SCCPD personnel
 - ii. Vehicle Maintenance and Repair
5. Police Officers write violations of the law referencing violations of existing Ordinances of the City of Weldon Spring. If no such ordinance exists, then to State law or County ordinance
 - a. Police Officers are available to testify as necessary at the Weldon Spring Municipal Court
 6. SCC Department of Emergency Communications provides law enforcement warrant entries and maintenance of Municipality's warrant file and copies of reports on arrests to the Weldon Spring Municipal Court
 7. Indemnification – City is not responsible for defense of claims against the SCCPD or other personnel providing services under the Agreement
 8. SCCPD provides all necessary training and certification(s) to Police Officers
 9. SCCPD has the right and duty to direct, supervise and control the day-to-day operation of law enforcement patrol and response services
 10. SCCPD promptly notifies the City of extraordinary incidents, or accidents involving serious injury or death
 11. SCCPD designee available to meet with City at least quarterly
 12. Provide regular police activities reporting to the City
 13. Patrol services are conducted with a SCCPD patrol vehicle with Police Dept. markings, carrying the designation "City of Weldon Spring" insignia as a permanent decal or temporary magnet
 14. Back-up and support of the Police Department is available to the designated Officer working the Weldon Spring contract, including but not limited to, Support Services
 15. Respond to concerns/issues provided by the City to SCCPD
 16. Vacation/out-of-town home checks

“No Cost” Option 1 – Enhancements to be added to the “Base Policing Services’ Scope”:

- Provide a dedicated and fully insignia police patrol vehicle assigned to officers assigned to work the Weldon Spring contract on a regular and consistent basis. This assumes inclusion for two to three police vehicles.
 - Provide full routine maintenance for Weldon Spring patrol vehicle and backup vehicle(s) for/when in the shop
- Special Operations:
 - “Golf cart patrols” or alternative modes (bicycle, walking, etc.) of patrol in neighborhoods and during special events
 - Regular motorcycle patrols
 - Periodic traffic enforcement units focusing within WS city limits
- Integration of “Flock Camera” system (or comparable) with Dispatching Services for monitoring and notification to law enforcement officials
- Law Enforcement Activity and Crime Reporting and Statistical Analysis
 - Segregate Weldon Spring law enforcement activity and crime data, trends, and statistics and provide reporting/data to the City and FBI (if feasible)
 - Provide to the City monthly reports and summary/analysis of the information
 - Meet with City designee at least monthly to discuss informally
 - Upon request by City, ability to provide and review patrolling activities through a robust GPS tracking/mapping system for patrol vehicles (accountability)
 - Attend Board of Aldermen meeting and provide summary and analysis for activities and crime reports on a quarterly basis.
 - On an annual basis provide WS city elected officials the opportunity to tour police facilities and meet with police department personnel
- Police Department Communications
 - Provide a quarterly article for the City’s Newsletter with tips, trends, etc. unique or pertinent to the Weldon Spring community
 - Provide a profile or “up-close-look” article on a police officer assigned to Weldon Spring for social media and newsletter distribution by the City
- Community Engagement
 - Coordinate with the City a list of public festivals/special events for the coming year and ensure a Police Department representative participates
 - Upon request (by the City of a HOA) send a Police Department representative to attend subdivision HOA annual meetings to listen to concerns and answer questions
 - When planned, invite the Weldon Spring community to tour the police facilities and equipment and meet with police officers and personnel

Option 2 - Enhancement to “Base Policing Services’ Scope” including Option 1 enhancements above:

- Provide municipal law enforcement dedicated patrol and crime response services to the City for a minimum of 112 hours per week (usually 16 hours per day)

Option 3 – Enhancement to “Base Policing Services’ Scope” including Option 1 enhancements above:

- Provide municipal law enforcement dedicated patrol and crime response services to the City for a minimum of 168 hours per week (24 hours per day)
 - This option may deploy two patrol officers in two patrol vehicles simultaneously at certain times of the day to obtain the 24 hours of patrolling
 - This option would require an additional fully insignia police patrol vehicle assigned to Weldon Spring

In Summary...

During preliminary discussions with St. Charles County Police Department (SCCPD) and the City of O’Fallon Police Dept. (OPD) the process to seek the above outlined enhanced and possible expanded patrol services will entail utilizing a Memorandum of Understanding (MOU) process. A MOU process is appropriate because any potential agreement struck between the City would be between two governmental agencies in partnership with one another. This is opposed to a Request for Proposal (RFP) process which tends to pit bidding parties against one another and is not a typical process used for development of an intergovernmental agreement.

I am seeking input and feedback from the elected officials regarding the above outlined scope of services so I may proceed with seeking the MOU from interested governmental entities adjacent to Weldon Spring.

City of Weldon Spring
Wolfrum Road Failing (CMP) Culverts
Solution Options
City Engineer Report

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Existing Conditions

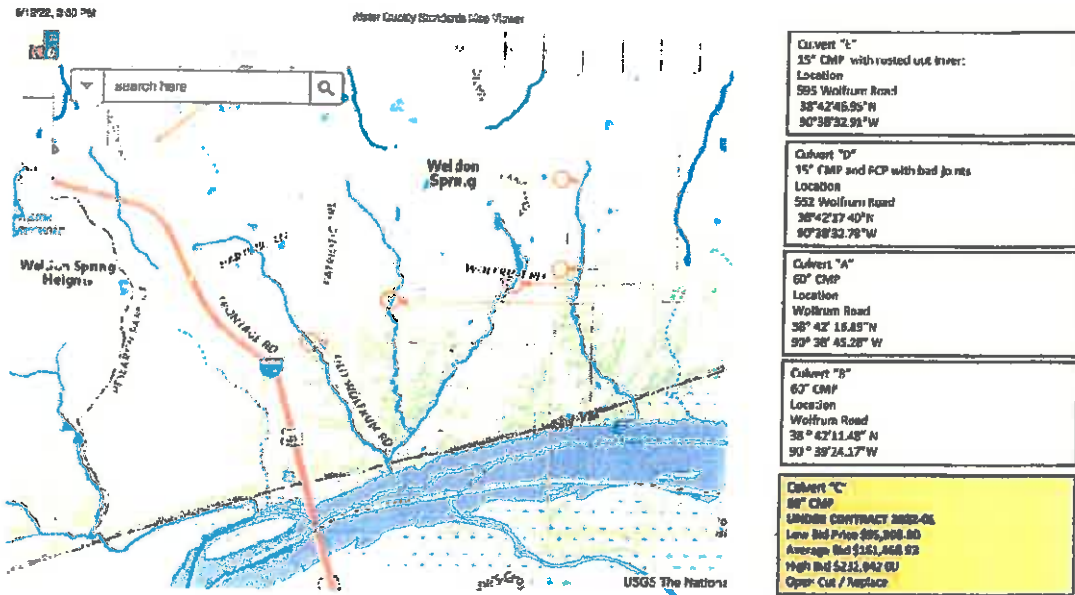
The City of Weldon Spring currently has three 60” and one 15” corrugated metal pipe (CMP) storm water culverts under Wolfrum Road which are in various stages of failure.

The City of Weldon Spring operates a Municipal Separate Storm Sewer System (MS4) under a General State Operating Permit MORO4C070.

Wolfrum Road has a functional classification as a minor collector by the region’s planning organization, East-West Gateway Council of Governments. This is in the City of Weldon Spring, St. Charles County, Missouri.

Tributaries to the Missouri River cross under Wolfrum Road in three locations. Each of these tributaries flow thru 60” corrugated metal pipes that were installed when the road was constructed back in the 1950’s. No plans of the original road construction can be found. These 60” CMP culverts (A,B & C – see attached map) and smaller CMP culverts along Wolfrum Road have been systematically failing. When

replacing culverts, the common choice is between digging up and replacing the pipe or finding a way to rehabilitate the existing pipe.



Map of Failing CMP Culverts – Weldon Spring, St. Charles County, Missouri

Culvert A – 60" CMP

This culvert is immediately downstream from the Kolb Lake and captures drainage from the northern side of Camelot. The bottom of the CMP has rusted out in many locations and the deterioration is spreading. While the age of this culvert is unknown, its deteriorated condition suggests that structural failure is likely without mitigation. Once the invert of the pipe rusts out, it allows storm water to flow under the culvert, which leads to loss of backfill material and ultimately the collapse of the pipe. This culvert is an ideal candidate for a pipe liner and grouting or another alternate repair method.



Rusting Out CMP Invert

Culvert B – 60” CMP

Culvert B is located further south on Wolfrum Road and drains the southern portion of Camelot and land off Patriotic Trail. The bottom of the culvert is rusting out like the other larger diameter culverts on Wolfrum (A & C). Once the invert of the pipe rusts out, it allows storm water to flow under the culvert, which leads to loss of backfill material and ultimately the collapse of the pipe. This culvert is another ideal candidate for a pipe liner and grouting or another alternate repair method prior to failure.



Rusted Out 60” CMP Invert

Culvert C – 60” CMP - UNDER CONTRACT 2022*

This culvert started collapsing and the damage was discovered fall 2021. Since rehabilitation of the culvert was no longer feasible, the City issued a Request for Bids to replace this culvert. The City received three (3) bids for this project. The average of all bids was \$161,468.93, the high bid was \$232,042.00 and the city awarded the contract to the low bidder at \$95,308.80. This pipe should be replaced during June 2022. Preventing collapse of the other two 60” CMP culverts is the goal to reduce costs, damage to other infrastructure, improved safety, and a more proactive approach.



Collapsed 60” CMP on Wolfrum – Spring 2022

Culvert D – 15" CMP

A 15" combination reinforced concrete pipe (RCP)/CMP is located at (Latitude 38°42'17.40"N Longitude 90°38'32.78"W) on Wolfrum Road, approximately 140' North of the intersection of Strathalbyn Farm Club Road / Old Wolfrum Road. The RCP culvert under the road has 15" CMP on both ends added. The joints are failing, and rock/gravel is infiltrating the pipe at the joints. The downstream end sits on a stone headwall that is collapsing. This culvert needs to be replaced and a concrete headwall need to replace the existing stone wall. Rock needs to be placed at the outfall to receive the storm water and minimize erosion. This culvert is approximately 3'-4' deep on the upstream side and 8-10' deep on the outfall side. This culvert can be replaced by St. Charles County crews when they have availability. This would be the most economical repair option.



Failing 15" RCP/CMP at Joints – Failing Headwall - Spring 2022
552 Wolfrum, just North of Strathalbyn

Culvert E – 15" CMP

Culvert E drains a small field on one side of Wolfrum Road, into the backyard at 1231 Grey Fox Run in Whitmoor. This culvert is located approximately 170' south of Willow Lakes Court. The invert has rusted out. The culvert is shallow (5'+/-) and has not yet failed. This culvert can be replaced by St. Charles County crews when they have availability. This would be the most economical repair method.



CMP Failure

According to the U.S. Corps of Engineers, corrugated metal pipe has a design life of up to 50 years, though the metal pipe industry recommends that a soil analysis be conducted prior to estimating the life cycle. across the country are routinely replacing failed CMP systems after only 25 to 40 years of service.¹ CMP culverts often fail catastrophically, resulting in significant property damage and risk to public welfare.

Normally as a CMP deteriorates the protective galvanized coating corrodes/erodes leaving the steel pipe, which over time rusts away. This commonly occurs at the pipe invert. As the invert deteriorates a phenomenon occurs where the surrounding soil pressure forces the pipe to turn inward at the invert and "close up". This is sometimes known as "buckling". This effectively reduces the pipe circumference.

These conditions have a negative impact on the pipe bedding material, which loses structural integrity as it erodes under the damaged invert and around the damaged pipe. Hydrostatic pressure at the upstream end of the culvert can also cause ground water to flow through the bedding. This can wash the bedding material out from around the culvert's circumference. These conditions can also occur at the pipe seams. Settlement will occur above the culvert as the bedding material erodes.

¹ American Concrete Pipe Association, "Heavy Rains Lead to Catastrophic Failure of CMP Culvert Near Buffalo, Texas." Resource #e-012, 2011.

Solution Options

The City has explored several options for repair or replacement of these culverts. A combination of solutions and repair options (by contract or SCCO crews) is possible. Each option has advantages and disadvantages. When replacing culverts, the main options are between digging up and replacing the pipe or finding a way to rehabilitate the existing pipe.

For a failing corrugated metal pipe with a rusted pipe invert, several options were explored. The following options have been reviewed for practicality.

1. Replace - Open Cut/Dig & Replace
2. Rehabilitation - Cure in Place Pipe (CIPP)
3. Rehabilitation – HDPE Pipe Liner

Option 1: Replace – Open Cut / Dig and Replace

Removing and replacing the culverts with a polypropylene (ADS HP Storm Pipe or similar) culvert is the most typical repair method and would have the largest potential list of bidders. This requires no specialty equipment or crews which allows for more competitive bids. The road would have to be saw cut to remove and replace the culvert. The road would also have to be closed for approximately 1-2 weeks during construction. This is the method utilized on all the other culverts that failed on Wolfrum Road in the past 5 years.

Since four (4) other CMP culverts have already failed on Wolfrum Road in recent past, the City had no other choice than to open cut, remove, and replace these pipes. These four CMP culverts were replaced between 2017 and 2022. With a 60" CMP currently under construction, the City has reliable cost and bidding information for budgeting.

Option 2: Rehabilitation - Cure in Place (CIPP)

When culverts addressed proactively, prior to failure, alternate methods of repair are available. These methods can eliminate the need for open cut excavations but may still require removing trees and getting temporary easements for workspace at the ends of the culvert.

Proprietary culvert rehabilitation processes can install a new pipe inside of the existing pipes. Insituform has a nearby office in Chesterfield, Mo and has a patented cured-in-place pipe (CIPP) pipe rehabilitation process. Its name comes from the Latin phrase "in situ form," which means to "form in place." A CIPP system consists of a flexible felt or fiber-reinforced tube impregnated with resin. The tube is inserted into an existing pipeline by either inversion or via a pull-in method. It is then cured with steam or hot water, providing a new jointless pipe within a pipe.

While this process would work on the Wolfrum Road culverts, a CIPP rehabilitation process has higher estimated costs. This process has a higher unit cost and is more competitive on a higher volume road that can not be closed, or in urban locations where other methods are not practical.

The City of Weldon Spring contacted Insituform to review the location and practicality of this method.

Sorter segments (and Insituform considers 60' to be a short segment) is just as expensive for set up and manhours as a longer shot (500'+). The price in material is maybe 20% of the entire factor. The other issue is, to set up in the bottoms area of the upstream and downstream pipe would need some

easements. With these factors, Insituform recommended the CIPP solution would not be the best, most cost-effective solution.

Their estimated cost was between \$225,000 and \$250,000 to line the two sixty-inch segments. That did not include other costs such as easements, traffic control, clearing for equipment, site restoration, etc. For these reasons, the CIPP method has been ruled out.

Option 3: Rehabilitation – HDPE Pipe Liner

Lining – Lining is a trenchless rehabilitation method. The North American Society for Trenchless Technology defines lining as – “A rehabilitation process where a length of material is introduced to extend the life of the existing sewer. The lining may or may not utilize some structural strength from the existing sewer; and it may or may not function as a structural enhancement”.

Slip lining – Slip lining is a trenchless rehabilitation method. The North American Society for Trenchless Technology defines slip lining as – “A rehabilitation technique covering the insertion of one pipe inside an existing pipe.” When slip lining, the annular space between the old pipe and the new pipe will always be grouted. When a thick annular space grout is required, care must be taken to ensure that the new pipe does not float up in the host pipe. Care must also be taken to ensure that 1) the new pipe does not collapse under the pressure that is developed when grouting and 2) the heat of hydration of the grout does not cause deformation of the new slip lining pipe. As with lining, slip lining could reduce the flow capacity of the culvert depending on the liner utilized.

Historic Bid Costs – Open Cut / Dig & Replace

During Spring 2022, the City received bids to replace Culvert “C”, a 60” CMP on Wolfrum Rd. that collapsed. Removal and replacement of Culverts “A” and “The City received three bids with a wide range of prices. This is reflective of the current pandemic bidding environment.

	Contractor A	Contractor B	Contractor C
Mobilization	\$ 7,500.00	\$ 9,000.00	\$ 3,400.00
Traffic Control	\$ 25,000.00	\$ 6,000.00	\$ 1,850.00
Removal of Improvements	\$ 7,500.00	\$ 5,000.00	\$ 9,800.00
60" Poly. Pipe	\$ 100,000.00	\$ 55,000.00	\$ 30,000.00
60" FES and Headwall	\$ 45,000.00	\$ 10,000.00	\$ 7,463.00
2" Minus	\$ 15,820.00	\$ 7,797.00	\$ 10,396.00
1" Minus	\$ 4,860.00	\$ 38,880.00	\$ 3,240.00
Biaxial Geogrid	\$ 1,110.00	\$ 555.00	\$ 1,265.40
Rock Blanket	\$ 8,000.00	\$ 5,040.00	\$ 3,120.00
Seeding and Mulching	\$ 5,000.00	\$ 6,000.00	\$ 5,700.00
Type 1 or 5 Agg.	\$ 1,152.00	\$ 1,584.00	\$ 3,218.40
Type X Asphalt	\$ 6,400.00	\$ 7,680.00	\$ 8,448.00
Type C BP-1 Asphalt	\$ 3,200.00	\$ 3,520.00	\$ 6,208.00
Striping	\$ 1,500.00	\$ 1,000.00	\$ 1,200.00
Total Lump Sum	\$ 232,042.00	\$ 157,056.00	\$ 95,308.80

Average of all Bids
161,468.93

3rd Lowest Bid

2nd Lowest Bid

Low Bid - Awarded

In 2020, a 36" CMP failed on Wolfrum Road which the City replaced under contract. Plans were developed by St. Charles Engineering to remove and replace the culvert. The low bid was for \$50,693.68 (Kolb Grading) and a high bid of \$108,215.00 (Southern Ditching and Excavating). Five bids were received for this project.

In 2021, St. Charles County replaced a 48" CMP culvert by Cedar Junction for \$24,289.81. This was a shallower culvert 5'-8' deep. The lower costs charged by SCCO as compared to bid costs, shows the advantage of having SCCO replace culverts when they have crews available.

Bidding Environment

With a shortage of workers, materials and construction work still in high demand, the region has experienced fewer bids and prices 20%-50%+ higher than previous years. Estimating by utilizing these recent 2022 bids is helpful to determine more realistic prices in today's market.

Recommendation

The City should proceed to have St. Charles County replace the smaller culverts (D & E) when they have crews available. With work force concerns the county is not sure when this work can be performed, but there is no emergency condition at this time. While it would be advantageous to have culverts replaced before the planned 2022 thin asphalt overlay, it is not mandatory. The County is very reasonable and could schedule this work anytime in the next year when their crews are available. They have a harder time committing to replacing pipes on short notice when they fail. During 2021, the County replaced a 48" culvert of similar length for \$24,289.81. Replacing smaller diameter culverts (15") reduces the material costs, but most of the other costs (labor, equipment, traffic control) remains the same. Given market conditions and increased materials costs, it would be reasonable to budget replacing culverts (D&E) for approximately \$25,000 each.

The larger 60" CMP culverts cannot be replaced by the County and must be bid. If the repairs could commence ASAP, there may be more options than just removing and replacing. Some specialty contractors may be able to install a liner and then grout the annular space. This option may be less expensive but may also have a more limited number of contractors capable of performing the work. Since funding is not expected to be available in the next few months, alternate method may not be practical since the pipes continue to deteriorate and erode material with each rain. Planning and budgeting for pipe replacements, with a bid option to allow alternate proposals would allow for increased competition and innovation.

Culvert	Remove and Replace	HDPE Pipe Liner*	CIPP*	By Contract	By SCCO Crews
A 60" CMP	\$100,000-\$150,000+	\$75,000+	N/P \$150,000+	Recommended with Bid Alternates	N/A
B 60" CMP	\$100,000-150,000+	\$75,000+	N/P \$150,000+	Recommended with Bid Alternates	N/A
C 60" CMP	\$95,308.80 Low Bid \$161,468.93 Average of all bids	N/A	N/A	Under Contract 2022	N/A
D 15" CMP/RCP	\$25,000+	N/A	N/P	Option	Recommended
E 15" CMP	\$25,000+	N/A	N/P	Option	Recommended

N/A - Not Applicable N/P – Not Practical * Specialty Work = Fewer Potential Bidders

I recommend budgeting for the remove and replace option on the 60" CMP culverts (A & B). In the bidding documents, the City could allow for alternate bids (pipe liners, etc.) to encourage innovation. If specialty crews and alternate solutions are available, the City could realize a savings over replacing these culverts.

Funding Options

If the City continues to replace each culvert when they fail, the expected costs of the remaining culverts (A,B,D,E) is between \$200,000 to \$350,000 based on potential solutions and historical bidding data.

The City could also try to replace these by including in one of the available federal funding programs. There are various transportation and recovery funds available to municipalities. Applications are typically due on specific dates and there are many requirements with federal funding. Funds are typically awarded on a competitive basis. The sponsors who provide more match funding – typically score higher in the evaluations. The City may also be able to get St. Charles County Road Board funds.

If the City committed to a 50% funding (a very competitive proposal) and was successful, these culverts could be replaced at a cost to the City between \$100,000 to \$175,000. While the smaller culverts (D&E) may be just as economical for SCCO to replace, the two larger culverts (A&B) would be ideal candidates to compete. To compete for funding both design engineering and construction management can be included provided the rules and Quality Based Selection (QBS) of consultants is followed. Engineering and construction management would likely be in the range of (\$20,000-\$30,000). The larger culverts may also need temporary easements. Surveying may be needed to accurately determine the location of right of way lines and the need for construction easements. The costs can be more accurately estimated when more preliminary engineering is performed. An engineering consultant may also have alternate solutions the City has not explored yet. Applying for funding opportunities could also have a cost (\$5,000 - \$10,000+/-) for an on-call engineering firm.

In summary, competing for federal funding can be worthwhile and could reduce the overall costs to the City. All the remaining culverts could be replaced at one time – rather than replacing them on an individual basis when they fail. This would allow for better budgeting and minimizing the disruptions to the public.

	Estimated Quantity	Unit	Bidder 1 E. Meier Construction	Bidder 2 St. Louis Sealing and Striping
001	1	LS	\$ 1,750.00	\$ 250.00
002	1	LS	\$ 500.00	\$ 1,300.00
003	1	LS	\$ 4,775.00	\$ 4,350.00
004	1	LS	\$ 1,500.00	\$ 577.50
005	1	LS	\$ 3,000.00	\$ 1,924.50
			\$ 11,525.00	\$ 8,402.00
Insurance			Yes	Yes

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Portions of
 Independence Road and
 Weldon Spring Parkway
 Shared Use Paths