

**CITY OF WASHINGTON
PUBLIC WORKS COMMITTEE
MONDAY, OCTOBER 3, 2016
5:00 P.M.**

**CITY HALL CONFERENCE ROOM
301 WALNUT STREET**

AGENDA

- 1. ALDERMAN WISHING TO BE HEARD ON NON-AGENDA ITEM**
- 2. CITIZENS WISHING TO BE HEARD ON NON-AGENDA ITEM**
- 3. APPROVAL OF MINUTES** – August 1st & September 6th, 2016 regular & August 8, 2016 special meetings
- 4. BUSINESS ITEMS**
 - A. Wilmor Road/Jefferson Street Traffic Signals Discussion
 - B. WTP #1 Upgrades FY 17-18, Engineering FY 16-17
- 5. STAFF UPDATES**
- 6. OTHER BUSINESS**
- 7. ADJOURNMENT**

DRAFT

City of Washington
Public Work Committee
Tuesday, September 6, 2016 – **Minutes**

CITY HALL CONFERENCE ROOM
301 WALNUT STREET

Present: Aldermen Bob Brucks, Dave Dingledine, and Jim Gee

Also Present: Ed Andrews, Public Works Director; Jim Culotta, City Administrator; Jon Oliphant, Planning & Development Director; Kevin Schone, Public Works Supervisor.

Alderman Jim Gee called the meeting to order at 5:00 p.m.

1. Alderman Wishing to be Heard on Non-Agenda Item: Alderman Brucks said that he recently received an email thanking the City for repairs done to East Street. Alderman Brucks also said that it may be beneficial to have a discussion in the near future about the possible permanent placement of stoplights at the Jefferson/Wilmor and/or Jefferson/N. Main intersections.
2. Citizens Wishing to be Heard on Non-Agenda Item: Residents of the Oak Creek subdivision inquired about the future buildout of the subdivision. A preliminary plat was approved by the City Council in January for Section 7. It increases the number of lots by five. The same layout would be kept, as both Rustic Oak and Autumn Ridge would eventually connect with Sycamore. The residents asked about the enforcement of any restrictive covenants that were previously recorded. Such enforcement would be the responsibility of the developer and/or home owner's association. It was recommended that the residents reach out to the developer of Section 7 to see if the lots could be widened.
3. Approval of Minutes – The minutes from the August 1, 2016, and August 8, 2016, meetings will be on the agenda for approval at the next meeting.
4. Business Items:
 - A. IPWMAN Update: Mobile Emergency Command – A command trailer is currently housed in Stephenson County. The City has been asked about the possibility of housing a trailer in Washington. It would be located at the Legion public works facility and would use one parking space. No City insurance coverage is needed for it. The Committee was accepting of this request.
 - B. Terra Engineering
 1. W. Cruger Road Phase 2 Multi-use Path – Hutchison Engineering is currently doing plans for Phase 1, which will be constructed from the Methodist Medical facility to Nofsinger Road. Phase 2 will be constructed from Nofsinger to connect with the existing trail at Washington Middle School. Phase 1 construction is scheduled for the Spring of 2017. Terra Engineering has submitted a proposal for the complete engineering of Phase 2 at a not-to-exceed cost of \$57,007.99. The Committee recommended that this be

approved. It will be scheduled for discussion at the September 12 Committee of the Whole meeting.

2. **Cruger/Dallas Roundabout** – The City has budgeted for 50% of the anticipated cost of the realigned Nofsinger Road. Federal/IDOT funding would likely cover the entire cost of the intersection reconstruction. There likely would not be any federal or state funding for the Dallas/Nofsinger intersection. Staff feels that it would be best to have initial discussions with IDOT about the possibility of a roundabout at this intersection as soon as possible in order to get an understanding about the feasibility of that construction. The Committee was accepting of staff beginning those conversations.
- C. **Street Right-of-Way Vacation: Park Blvd.** – The Park District would like to replace its existing maintenance building on the north side within Washington Park with a new building on the same footprint. Staff has discovered that the 1974 building is about 13-14 feet into the Park Boulevard right-of-way. There appears to be an assumption that the ROW was going to be vacated or already was vacated in 1974. However, staff has not found any documentation of that and it appears that the ROW is still in place. There are no known city utilities within the ROW and the city does not maintain it. The Committee recommended that Park Boulevard be vacated in order to accommodate the construction of the new building. The Park District would be responsible for completing a vacation plat as part of this request. This will be scheduled for discussion at the September 12 Committee of the Whole meeting.
5. **Other Business:**
 - A. Staff received a request to place neighborhood watch signs in the Brentwood neighborhood. They would be placed on the back of stop signs and speed limit signs. The city would install approximately 10-11 signs and the neighborhood residents would pay for them. The Committee approved this request.
 - B. The annual band competition will be held all day on Saturday.
 - C. The reconstruction of the viaduct is on time and scheduled to be completed by September 23. Pouring of the concrete will occur soon and two business entrances will be repaired following the viaduct work before the road reopens.
 - D. The paving of the Zinser/N. Main parking lot is tentatively scheduled for Wednesday, weather permitting.
 - E. Staff will look to include N. Cummings with the annual sealcoat program.
 - F. A privacy fence will be installed around the City Hall generator and garbage/recycling containers.

Motion to adjourn at approximately 6:18 p.m.



Memo

TO: Public Works Committee
FROM: Ed Andrews, Public Works Director
SUBJECT: Maurer Stutz
Wilmor & Jefferson Traffic Signals
DATE: September 30, 2016

In follow up to the last Public Safety Meeting, a review of the requirements for assistance with the establishment of permanent traffic control was requested. Attached is draft scope of work supporting a possible project approach(es). Rick Anderson of Maurer Stutz is scheduled to be at the meeting with a graphical exhibit and more specific narrative to discuss.

This matter is being presented to the Public Works Committee on October 3rd for review and consideration.

cc: File

Proposal for Preliminary Engineering Services for Improvements to the Intersection of Wilmor Road and Jefferson Street in Washington

Narrative – The Public Safety Committee is studying the possibility of installing a permanent traffic signal at the Wilmor Rd/Jefferson St intersection. Maurer-Stutz proposes to assist City staff with this study. After an initial scoping meeting and subsequent discussions with Ed Andrews, our staff met internally to discuss the project. We would like to share the following observations:

- All traffic control signal needs should be analyzed via an engineering study of traffic conditions, pedestrian characteristics and physical characteristics of the particular location to determine if the traffic control signal is justified.
- The study should consider not only existing traffic movements but also the effect of future developments adjacent to and in the vicinity of the intersection.
- There are some specific characteristics of this location that need to be included in a comprehensive study that would look at not only a traffic signal installation but general vehicle and pedestrian safety throughout the area in and around the vicinity of the intersection. It is our belief that a study of the intersection should also address the following observations.
 - Five Points Washington Community Center along the north leg of Wilmor Rd is a sizeable vehicle and pedestrian generator.
 - Five Points and Washington High School share parking lots which creates the need for mid-block crossings at various locations along Wilmor Rd.
 - To make the crossings safer, improvements to the mid-block crossings should be studied.
 - Washington Community High School is located on the east leg of the intersection and is also a significant contributor to vehicle and pedestrian volumes.
 - Vehicle and pedestrian traffic patterns around the high school create additional safety concerns.
 - The high school parking lots to the north of the school create the need for mid-block crossings along Jefferson St.
 - To make the crossings safer, improvements to the mid block crossings should be studied.
 - The pavement on Jefferson is in very poor condition and needs reconstructed between Tiezzi Ln and Wilmor Rd.
 - Some of the sidewalk ramps are not ADA/PROWAG compliant.
 - Varying traffic patterns on Bondurant St may be contributing to motorist and pedestrian confusion.
 - The Washington Fire Department - Station No. 1 is located on the west leg of the intersection.
 - Special geometric considerations are generally associated with fire-fighting equipment.

- Special timing and preemption considerations for emergency vehicles would need to be included and coordinated if signals were installed.
- Jefferson St to the west of the intersection dead-ends at the end of the Fire Station property.
 - Special coordination will be needed to determine the impacts if Jefferson St is extended to Eagle St.
- The south leg of the intersection has some geometric deficiencies.
 - There are several large trees too close to the roadway causing sight distance issues.
 - The vertical curve on Wilmor Rd may be sub-standard for a traffic signal installation and will need to be studied.
- There are numerous utilities in and around the intersection of Wilmor Rd and Jefferson St.
 - Fire hydrants and power poles are too close to the pavement edge.
 - Overhead wires may be in the way of traffic signal mast arms.
- There is an extensive recreational path/sidewalk/trail system in the vicinity of the intersection.
- There appears to be a need for a more systematic approach to the street lighting throughout the area.

With these observations in mind, we have prepared our proposal split into three parts.

Part 1 would be the minimum study required to determine the feasibility for traffic signals, turn lanes and overall geometric improvements to the intersection only. While the study would consider generic traffic growth projections, it would not take into consideration any of the elements outside the immediate vicinity of the intersection.

Part 2 would include Part 1 and extend the study limits to include Jefferson St from Tiezzi Ln to Wilmor Rd, along with a look at possible treatments along Bondurant St. from Bus 24 to Jefferson St.

Part 3 would include Parts 1 and 2 and extend the study limits to include the planned extension of Jefferson St to Eagle Ave.

Our proposal includes estimated fees for each study option. Please take into consideration that as we enter in to a study phase, there are typically unknown issues that are discovered during the study that may lead to variations in the anticipated scope and level of coordination required.

We have offered estimates for the design phase for a simple signal installation for the City to use for budgeting purposes but we want everyone to understand that it is too early in the process to be able to apply an accurate number to the overall intersection designs until the study has been completed. The level of our design efforts will be directly related to need for any geometric improvements including possible turn lanes, retaining walls, additional ROW needs, lighting needs, etc.

We would also offer that it is our opinion that all studies and design be prepared utilizing all IDOT BLR guidelines. There are two reasons for our line of thinking:

1. Both Jefferson St and Wilmor Rd are classified as Major Collectors and as such are eligible for federal funds. We would not want to jeopardize the eligibility by not following the appropriate study process*.
2. A traffic signal design at this location will need to be interconnected to the signals at Bus 24 and Wilmor Rd and therefore will be subject to IDOT review.

*We have seen projects (all or a portion thereof) similar to this one funded by the following:

1. HSIP (Highway Safety Improvement Program)
2. ITEP (Illinois Transportation Enhancement Program)
3. STP (Surface Transportation Program)
4. TAP (Tourism Attraction Development Grant Program (TAP))



Memo

TO: Public Works Committee
FROM: Ed Andrews, Public Works Director
SUBJECT: Water Treatment Plant #1 Items w/ CMT
DATE: September 30, 2016

In follow up to the recently completed plant evaluation study, consideration of a larger project for both brine tank(s) (2 instead of 1) and new chlorine room (rather than short term separating the existing room into two smaller ones) was recommended and discussed with Committee. A summary of the main scope changes for these two items follows below:

- Through the planning process (which has been completed) the need for a stilling well was analyzed and added to the project. Also, the need for two tanks was verified by the 10 state standards. The construction phasing will and the stilling well will require the two tanks to be constructed as separate tanks with no adjoining walls.
- Building expansion versus dividing the existing room in half. The building expansion creates additional effort for the Architectural and Structural design. This also created the need for additional field surveying in the expansion area.
- Geotechnical Investigation was added to the project scope.

This has translated into a scope increase with an updated overall fee of \$39,000, however we apply \$19,000 of unused budget - \$13,000 from the original chlorine/Fluoride project and \$6,000 from the original brine tank, for a net increase of **\$20,000**, see attached for additional detail.

Additionally, a preliminary scope of a flood protection levee for the plant has also been prepared and is attached herewith. There may be funding opportunities with the Corp of Engineers under their Section 205 program. Scott Desplinter of CMT is scheduled to be in attendance to further discuss with the Committee.

This matter is being presented to the Public Works Committee on October 3rd for review and consideration.

cc: File

EXHIBIT A
City of Washington, Illinois
Water Treatment Plant #1 Improvement Project

SCOPE OF SERVICES

The **Scope of the Improvements** for the **Water Treatment Plant #1 Improvement Project** includes the following items:

- The construction of a new 8-foot by 15-foot fluoride storage/feed room. Room will be located adjacent to the existing chlorine storage/feed room on the east side of the Water Treatment Plant #1.
- The construction of two new brine tanks (to provide approximately 30 days of storage per 10 state standards). Brine tanks will be located on the west side of the existing Water Treatment Plant #1.

The **Scope of Services** for **Design Phase** shall consist of the following tasks:

1. Field Survey of the building expansions area
2. Download field survey data and update the existing Brine Tank survey data (from 2014)
3. Geotechnical Investigation
4. Complete detailed design
 - a. Site Piping (Brine Tank)
 - b. Architectural (Building Expansion)
 - c. Structural (Brine Tank & Building Expansion Foundation)
 - d. HVAC (Building Expansion)
 - e. Mechanical (Fluoride Equipment Selection and Layout)
 - f. Electrical (Building Expansion)
5. Construction Plans
 - a. Cover Sheet
 - b. General Notes
 - c. Site Plan/Site Piping Plan
 - d. Grading Plan
 - e. Architectural Plan Sheets
 - f. Structural Plan Sheets
 - g. HVAC Plan Sheet
 - h. Mechanical Plan Sheets
 - i. Electrical Plan Sheets
 - j. Misc. Details
6. Bidding Documents, Contracting Documents, and Technical Specifications
7. IEPA Construction Permit Application
8. Develop a Preliminary Opinion of Project Costs
9. QA/QC Review

EXHIBIT A
City of Washington, Illinois
Water Treatment Plant #1 Improvement Project

SCOPE OF SERVICES

10. Project Management

- a. One Meeting with Public Works Supervisor and the Sewer Committee
- b. Project Management

Budgeted Cost and Estimated Schedule

The estimated completion for the construction plans and specifications is approximately 4 months after receipt of a signed Agreement for Engineering Services authorizing CMT to proceed on a time and expense basis for an amount not to exceed Thirty-Nine Thousand Dollars and No Cents (\$39,000.00).

Additional Services not included in the Upper Limit of Compensation

- Geotechnical Engineering Services (The City will contract with a Geotechnical Engineering Firm to complete two structural bores on the project site)
- Bidding phase services
- Construction phase services
- Easements Documents

CRAWFORD, MURPHY & TILLY, INC.
 CONTRACT ATTACHMENT - EXHIBIT A - 2016 PROFESSIONAL SERVICES COST ESTIMATE

CLIENT Washington, IL
 PROJECT NAME WTP #1 Improvement Project
 CMT JOB NO. _____

Prep By SLD
 DATE 09/30/16

Apprvd PROJ PNCL
 DATE 09/30/16

TASK NO.	TASKS \ CLASSIFICATIONS	PRINCIPAL	SENIOR PROJECT ENGINEER / MANAGER	PROJECT ARCHITECT	PROJECT MANAGER	SENIOR ENGINEER LAND SURVEYOR	SENIOR ARCHITECT	SENIOR TECHNICAL GIS SPECIALIST	ENGINEER ARCHITECT	SENIOR TECHNICIAN	TECHNICAL PLANNER	TECHNICIAN MGR	TECHNICIAN II	TECHNICIAN I	ADMIN ASSISTANT ACCOUNTANT	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2016 HOURLY RATES	\$195	\$185	\$155	\$130	\$120	\$110	\$110	\$115	\$80	\$95	\$75	\$50			TOTAL
1	Survey															
	Pickup Field Survey for building Expansion				1								8	8		17
	Update Brine Tank Topo Dwg with new survey data										2					2
	Geotechnical Investigation															
	Detailed Design															
	Site Piping			4					4							8
	Architectural				8											8
	Structural				16											16
	HVAC			4												4
	Mechanical (Fluoride Equipment)			4						8						12
	Electrical				8											8
	Construction Plans															
	Cover												1			1
	General Notes												4			6
	Site Plan/ Site Piping			2					8				4			14
	Grading Plan			4					8				4			16
	Architectural				8								8			16
	Structural				8								4			12
	HVAC			8									4			12
	Mechanical			4					8				8			20
	Electrical				8								8			16
	Misc Details								4				2			6
	Bidding Docs, Contract Docs, & Tech Specifications			16	16				8							40
	Opinion of Probable Construction Costs			4	4											12
	IEPA Permit Application								2							2
	Project Management/Coordination			8												8
	QA/QC Review			8												8
	TOTAL MAN HOURS			66	77				56	2		55	8			264
	SUBTOTAL - BASE LABOR EFFORT			\$10,230	\$10,010				\$6,160	\$230		\$5,225	\$600			\$32,455

	TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES										TOTAL EXPENSE	TOTAL FEE
			TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP		
1	Survey													
	Pickup Field Survey for building Expansion	\$1,490	\$150										\$150	\$1,640
	Update Brine Tank Topo Dwg with new survey data	\$230												\$230
	Geotechnical Investigation								\$2,350	\$235			\$2,585	\$2,585
	Detailed Design													
	Site Piping	\$1,060												\$1,060
	Architectural	\$1,040												\$1,040
	Structural	\$2,080												\$2,080
	HVAC	\$620												\$620
	Mechanical (Fluoride Equipment)	\$1,500												\$1,500
	Electrical	\$1,040												\$1,040
	Construction Plans													
	Cover	\$95												\$95
	General Notes	\$600												\$600
	Site Plan/ Site Piping	\$1,570												\$1,570
	Grading Plan	\$1,880												\$1,880
	Architectural	\$1,800												\$1,800
	Structural	\$1,420												\$1,420
	HVAC	\$1,620												\$1,620
	Mechanical	\$2,260												\$2,260
	Electrical	\$1,800												\$1,800
	Misc Details	\$630												\$630
	Bidding Docs, Contract Docs, & Tech Specifications	\$5,440												\$5,440
	Opinion of Probable Construction Costs	\$1,580												\$1,580
	IEPA Permit Application	\$220												\$220
	Project Management/Coordination	\$1,240	\$50										\$50	\$1,290
	QA/QC Review	\$1,240												\$1,240
	TOTALS	\$32,455	\$200						\$2,350	\$235			\$2,785	\$35,240
	TIME PERIOD OF PROJECT	2016	2017	2018	2019	TOTAL	EST % OF OT HRS INCLUDED ABOVE					5%	MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	100%				100%	AVERAGE OVERTIME RATE PREMIUM					15%	MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	1.0000				1.0000	OT ADJUSTMENT FACTOR					0.0075	1.0075	\$245
	ESTIMATED CONTINGENCY												10%	\$3,550
	ROUNDING													(\$35)
	TOTAL FEE		MATH CROSS CHECK IS OK											\$39,000

EXHIBIT A
City of Washington, Illinois

Water Treatment Plant #1 – Flood Protection

SCOPE OF SERVICES

The **Scope of the Services** for the **Water Treatment Plant #1 – Flood Protection Project, Phase 1** includes the following items:

1. **Field Surveys**
 - a. Topographic surveys of the area between the creek and the buildings, focusing on tie in points on the east side and SW side of the property.
 - b. Staking of geotechnical boring locations
 - c. Pickup of sanitary sewers, manholes, drainage structures, and any structures not already surveyed, including FFE's
2. **Geotech**
 - a. Coordinate with geotech firm to define scope and limits of soil borings and analysis to determine design values.
3. **Alternatives Analysis**
 - a. Conceptual plan for earthen embankment vs sheet pile cutoff wall to look at footprint and impacts to facilities and operations
 - b. Preliminary OPC for both alternatives
 - c. Preliminary design of storm and sanitary sewer modifications
 - d. Preliminary Coordination with IDNR to discuss the project and determine permit requirements. This task also includes discussions with the US Army corps of Engineers, Rock Island District about participation in the Section 205 program.
4. **Project Management**
 - a. Meetings, coordination, and QA/QC

CRAWFORD, MURPHY & TILLY, INC.
CONTRACT ATTACHMENT - EXHIBIT A - 2016 PROFESSIONAL SERVICES COST ESTIMATE

CLIENT City of Washington, IL
PROJECT NAME Flood Protection - Phase 1
CMT JOB NO. _____

Prep By PROJ MGR
DATE 09/30/16

Apprvd PROJ PNCL
DATE 09/30/16

TASK NO.	TASKS \ CLASSIFICATIONS	PRINCIPAL	SENIOR PROJECT ENGINEER / MANAGER	ARCHITECT PROJECT MANAGER	PROJECT ENGINEER LAND SURVEYOR	SENIOR ENGINEER SENIOR ARCHITECT	SENIOR ENGINEER MANAGER	SENIOR TECHNICAL GIS SPECIALIST	SENIOR PLANNER ARCHITECT	ENGINEER	SENIOR TECHNICIAN	TECHNICAL PLANNER	TECHNICIAN MGR	TECHNICIAN II	TECHNICIAN I	ADMIN ASSISTANT ACCOUNTANT	MAN HOURS & LABOR SUMMARY
	CURRENT YEAR 2016 HOURLY RATES	\$195	\$185	\$155	\$130	\$120	\$110	\$110	\$115	\$80	\$95	\$75	\$50	TOTAL			
1	Surveys			4	2									10	10		30
2	Geotech			8													12
3	Alternatives Analysis			40						4							100
4	Project Management			8						60							8
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	
15																	
	TOTAL MAN HOURS			60	2						64	4		10	10		150
	SUBTOTAL - BASE LABOR EFFORT			\$9,300	\$280						\$7,040	\$460		\$950	\$750		\$18,760

TASKS (CONTINUED)	TOTAL LABOR EFFORT	DIRECT EXPENSE & REIMBURSABLES											TOTAL EXPENSE	TOTAL FEE
		TRAVEL MILEAGE	MEALS & LODGING	PRINTING	EQUIP- MENT	MISC	SURVEY MTL	SUBS	SUBS ADMIN	OTHER EXP	OTHER EXP			
1	Surveys	\$3,040				\$350						\$350	\$3,390	
2	Geotech	\$1,680						\$5,300	\$530			\$5,830	\$7,510	
3	Alternatives Analysis	\$12,800	\$100									\$100	\$12,900	
4	Project Management	\$1,240											\$1,240	
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
	TOTALS	\$18,760	\$100			\$350		\$5,300	\$530			\$6,280	\$25,040	
	TIME PERIOD OF PROJECT	2016	2017	2018	2019	TOTAL	EST % OF OT HRS INCLUDED ABOVE					10%	MULTI-YEAR + OT	
	PERCENTAGE OF WORK TO BE PERFORMED BY YEAR	100%				100%	AVERAGE OVERTIME RATE PREMIUM					15%	MLTPLR & AMT	
	WEIGHTING FACTOR FOR 5% ANNUAL ADJUSTMENT	1.0000				1.0000	OT ADJUSTMENT FACTOR					0.0150	1.0150	
	ESTIMATED CONTINGENCY												\$280	
	ROUNDING												10%	
	TOTAL FEE	MATH CROSS CHECK IS OK												\$27,850