

INTERGOVERNMENTAL AGREEMENT

This Intergovernmental Agreement (IGA) is entered into by and between the City of Portland (“City”) acting by and through its Bureau of Environmental Services (“BES”), and Multnomah County (“County”).

This IGA is authorized pursuant to ORS 190.110 and becomes effective upon full execution of this document.

PURPOSE

City and County desire to work together to include needed City sewer repair work in County’s construction work for the proposed Multnomah County Courthouse (MCC).

By this IGA, County agrees to complete sewer rehabilitation work as part of the Multnomah County Courthouse construction project as described in Exhibit A: Statement of Work, and City agrees to reimburse County for costs associated with the provision of these services as described in this IGA and in accordance with Exhibit B: Project Budget. The MCC public works job is being built under permit number EP269, and building permit number: 16-188612-MG. The BES Capital Improvement Project number is: E10860.C14.

GENERAL PROVISIONS

1. Effective Date and Duration. This IGA is effective upon execution by all parties. Unless earlier terminated or extended, this IGA shall expire when County’s completed performance has been accepted by City or on September 1, 2017, whichever date occurs first.
2. Statement of Work. The statement of work, (the “Work”) including the delivery schedule and budget for the Work, is contained in Exhibits A and B. County agrees to perform the Work in accordance with the terms and conditions of this IGA.
3. Consideration. City agrees to pay County for the cost of the Work as agreed and not to exceed \$300,000 as allocated in Exhibit B. Budget up to an additional 25% will be made available with approval by BES Director or designee. Any necessary funds above-and-beyond the 25% contingency will require an amendment to this IGA and City Council approval.
4. Project Representatives. Each party has designated a project manager to be the formal representative for this Work. All reports, notices, and other communications required under or relating to this IGA shall be directed to the appropriate individual.

City

Design Manager:	Colleen Harold
Organization:	City of Portland
Address:	1120 SW Fifth Ave., Suite 1000 Portland, OR 97204
Phone:	(503) 823-5227
Email:	colleen.harold@portlandoregon.gov
Construction Manager:	Ray Lions
Organization:	City of Portland
Address:	1120 SW Fifth Ave., Suite 1000 Portland, OR 97204
Phone:	(503) 823-7128
Email:	ray.lions@portlandoregon.gov

County

Project Manager:	JD Deschamps, PE
Organization:	Multnomah County
Address:	401 N Dixon Portland, OR 97227
Phone:	(503) 988-4615
Email:	jd.deschamps@multco.us
CM/GC	Josh Durham
Organization:	Hoffman Construction Co. of Oregon
Address:	805 SW Broadway, Suite 2100 Portland, OR 97205
Phone:	503-221-8811
Email:	Josh-Durham@hoffmancorp.com

5. Contractor and Designer Selection Oversight, Payment. County has selected Hoffman Construction as Construction Manager/General Contractor (“CM/GC”) and SRG Partnership as Architecture & Engineering firm (“A&E”) and will manage and enforce provisions of the CM/GC and A&E contracts, and make payments to the CM/GC and A&E. County shall secure in all such construction service contracts for the Work that the contractor shall (1) name City as an additional insured; (2) indemnify City, its officers, employees and agents on the same terms the contractor agrees to indemnify County; and (3) name City as an additional insured on the contractor’s insurance on the same terms the

contractor agrees to name County as an additional insured. County shall furnish City with evidence of said insurance. The City Project Manager shall have the opportunity to review and comment on all Work procurement and contract documents prior to issuance by County. Hoffman will provide a schedule of values for the work to City prior to notice to proceed. Hoffman will endeavor to meet or exceed City equity in contracting and workforce goals for Oregon State certified disadvantaged, minority, women and emerging small businesses (DMWESBs) for the Work in accordance with Hoffman's CM/GC contract with County.

6. Amendments. The terms of this IGA shall not be waived, altered, modified, supplemented, or amended, in any manner whatsoever, except by written instrument signed by both parties.

7. Reimbursement.

A. County shall submit itemized invoices to City for reimbursement of services performed; noting the Work and City contract number and the allocation of costs in accordance with the budget line items identified in Exhibit B.

B. Non-itemized or incomplete billings shall be detained for payment processing until County or the contractor has supplied correct information to City. This will cause a new invoice date.

C. County shall submit to City an invoice at least quarterly for costs incurred during the preceding performance period no later than (thirty) 30 days following the end of that performance period. City shall not be liable for reimbursement of costs after that date.

D. Invoices shall be submitted in duplicate, identifying the City IGA number to:

Ray Lions, Construction Manager
City of Portland, BES
1120 SW Fifth Avenue, Room 1000
Portland, OR 97204

City's Construction Manager will review and approve the invoice and submit the invoice to BES Accounting with all proper cost objects, account code, contract number and signature for timely processing. City shall pay all approved invoices within 30 days from the invoice date.

8. Changes to the Work.

A. Because of the complexity of the Work and the potential unknowns that could be discovered in the field, City and County recognize and acknowledge that there may be a significant number of changes required to the plans and specifications during construction.

B. County and City agree to make timely responses as appropriate and required to keep the Work progressing.

C. County will handle any claims by the CM/GC for change orders. Each party will pay for additional costs incurred during construction as determined by the scope for each party's Work. County will provide City with any change order requests for City work and City will have ten (10) business days to review and approve or reject such change orders.

9. Termination.

A. The parties may agree to an immediate termination of this IGA or at a time certain upon mutual written consent.

B. Either party may terminate this IGA effective not less than thirty (30) days from delivery of written notice.

C. Either party may terminate this IGA effective not less than ten (10) days from written notice or at such other date as may be established by both parties under any of the following conditions:

1) If funding is not obtained and continued at levels sufficient to allow for purchase of the specified services. When possible, and when agreed upon, the IGA may be modified to accommodate a reduction in funds.

2) If federal or state regulations or guidelines are modified, changed or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this IGA, or are no longer eligible for the funding proposed for payments authorized by this IGA.

D. Either party may terminate this IGA in the event of a breach by the other party. Prior to such termination, however, the party seeking termination shall give the other party written notice of the party's intent to terminate. If the party has not cured the breach within ten (10) days or a longer period as granted in the cure notice, the party seeking compliance may terminate this IGA.

10. Funds Available and Authorized. Both parties certify that at the time the IGA is written that sufficient funds are available and authorized for expenditure to finance the costs of this IGA within either party's current appropriation and limitation. Both parties understand and agree that payment of amounts under this IGA attributable to work performed after the last date of the current budget period is contingent on either party receiving appropriations, limitations, or other expenditure authority.
11. Captions. The captions or headings in this IGA are for convenience only and in no way define, limit or describe the scope or intent of any provisions of this IGA.
12. Choice of Venue. Oregon law shall govern this IGA and all rights, obligations and disputes arising out of the IGA. Venue for all disputes and litigation shall be in Multnomah County, Oregon.
13. Severability/Survival. If any of the provisions contained in this IGA are held unconstitutional or unenforceable, the enforceability of the remaining provisions shall not be impaired. All provisions concerning the limitation of liability, indemnity and conflicts of interest shall survive the termination of this IGA for any cause.
14. Ownership of Work Product. All work products, including reports, research data in hard copy or electronic form that result from this IGA, are the joint property of City and County and shall be considered a public record.
15. Access to Records. Both parties and their duly authorized representatives shall have access to the other party's books, documents, papers, and records which are directly pertinent to this IGA, for the purpose of making audits, examinations, excerpts, and transcripts.
16. Compliance with Applicable Law. Both parties shall comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the Work under this IGA.
17. No Third Party Beneficiary. City and County are the only parties to this IGA and, as such, are the only parties entitled to enforce its terms. Nothing contained in this IGA gives or shall be construed to give or provide any benefit, direct, indirect, or otherwise to third parties unless third persons are expressly described as intended to be beneficiaries of its terms.
18. Indemnification. To the extent allowed under the Oregon Constitution and within the limits of the Oregon Tort Claims Act, codified at ORS 30.260 through 30.300, each party agrees to indemnify and defend the other and its officers, employees, agents and representatives from and against all claims, demands, penalties and causes of action arising from this IGA or arising out of or resulting from the acts or omissions of the indemnitor, its employees, agents, subcontractors or representatives.
19. Merger Clause. This IGA constitutes the entire agreement between the parties pertaining to the subject matter hereof. No waiver, consent, modification or change of terms of this IGA shall bind either party unless in writing and signed by both parties. Such waiver, consent, modification or change, if made, shall be effective only in the specific instance and for the specific purpose given. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this IGA.

This IGA may be signed in two (2) or more counterparts, each of which shall be deemed an original and which, when taken together, shall constitute one and the same agreement. The parties agree that City and County may conduct this transaction, including any contract amendments, by electronic means, including the use of electronic signatures.

CITY OF PORTLAND

MULTNOMAH COUNTY

By: _____
Michael Jordan, Director

By: _____

Date: _____

Name: _____

Title: _____

Date: _____

Approved as to form:

City Attorney

Approved as to form:
JENNY M. MADKOUR, COUNTY ATTORNEY
FOR MULTNOMAH COUNTY, OREGON

By _____
Kenneth M. Elliott, Assistant County Attorney

EXHIBIT A: STATEMENT OF WORK

BACKGROUND

1. County is planning to construct a new courthouse building (MCC) on the block bounded by SW Jefferson St., SW 1st Ave, SW Madison St. and SW Naito Parkway in downtown Portland. Portland, Block 8, Lots 1 - 8.
2. The MCC project will require removal of an existing BES combination sewer line crossing the project site that conveys flows from SW 1st and Madison to SW Naito Parkway, sewer nodes ABQ591 to ABQ594. County will reroute this line by intercepting flows at the intersection of SW 1st and Madison and constructing a new sewer line north on SW 1st to connect to an existing line at SW 1st and Main.
3. BES Capital Improvements identified a necessary sewer repair in the existing combination sewer line located in SW Madison Ave., sewer nodes ABQ588 to ABQ591. This sewer repair is immediately upstream of the proposed MCC sewer reroute. BES completed a design but was unable to complete construction during the planned capital improvement project due to unforeseen site constraints.
4. City is asking County to add the scope of work for the sewer repair and relocation to the planned County sewer project in order to capitalize on efficiencies of street closures, construction mobilization and other benefits.

WORK STATEMENT

County will include additional work in the construction contract for its project as described below and shown on the construction drawings included in this Exhibit:

1. Rehabilitation by cured-in-place lining of approximately 197 feet of 15 inch sewer from nodes ABQ588 to ABQ590
2. Construct new 48 inch manhole in SW Madison north of manhole ABQ590
3. Rehabilitate Manholes ABQ588 and ABQ590. Reconstruct manhole base in ABQ590.
4. Construction of approximately 80 feet of 16 inch sewer, using open cut method to connect to proposed County manhole in intersection of SW 1st Ave and SW Madison St.
5. Identify and reinstate all active laterals along the rehabilitated cured-in-place line from nodes ABQ588 to ABQ590
6. Abandonment, per COP specifications, of pipe run ABQ590 to ABQ591, located in SW Madison
7. All work to include, traffic control (including signs), disposal of contaminated media, mobilization, excavation, backfill and surface restoration.

The demarcation of the limits of work between County and City will be the City connection at the new manhole at the east side of the intersection of SW 1st Ave. and SW Madison St. labeled in the Public Works Permit EP269 drawings as PMH #2. County is responsible for construction of the manhole and City is responsible for the upstream pipe and connection. All other elements of the construction work including excavation, backfill and surface restoration will be divided at this point. The one exception is that City will take responsibility for abandonment of line ABQ590 to ABQ591. County will be responsible for abandonment of manhole ABQ591 and pipe ABQ591 to ABQ594.

City will provide the design, plans and specifications for the additional work required. This will include all sewer work that is driven by BES maintenance needs.

County will provide the design, plans and specifications for the work necessary to reroute the sewer to abandon manhole ABQ591 and pipe ABQ591 to ABQ594.

City will also reimburse County for additional design and consulting work performed by their CM/GC and A&E contractors required to coordinate this IGA and the associated work. Including completed and ongoing work.

EXHIBIT B: PROJECT BUDGET & WORK SCHEDULE

BES and County shall cooperate and exercise good faith efforts to provide documents, review, and comment, and resolve comments on plans and specifications so that the Project schedule milestones identified in Exhibit A are met. The Parties agree that, should the Project schedule be revised in the future, they shall make best efforts to comply with the updated schedule milestones.

PROJECT BUDGET

The project budget is based on information provided by County and their CM/GC and A&E contractors. The budget covers construction costs and additional coordination time from the CM/GC and A&E. The cost estimate summary is provided below. A detailed break-down of the construction cost estimate is attached to this exhibit.

<u>Type of Work</u>	<u>Cost Estimate</u>
Design coordination	\$7,410
Construction: pipe rehabilitation	\$54,258
Construction: open cut new pipe installation	\$228,461
Total	\$290,129

PROJECT SCHEDULE

The project schedule is based on information provided by County and their CM/GC and A&E contractors. It is attached to this exhibit.

BUILDING: MCCH Courthouse LOCATION: Portland, OR ARCH: SRG SUBJECT: City Sewer Modifications	Cost of Work Recap of Options	
		Price
	Rehab Work	\$ 54,258
	New Work	\$ 228,461
		Total Price

Acct	Description	Est Qty	Unit	Unit Price	Escalation		Revised	Total Price
							Unit price	
Rehabilitation by cured in place lining of a 197ft of 15" Sewer from nodes ABQ588 to ABQ590								44,625
Rehabilitate Manholes ABQ588 and ABQ590								
Div 2 - Site work								\$44,625
	Sewer Rehab Work							
	15" CIPP	197	LF	\$125.00			\$125.00	\$24,625
	Rehab MH - ABQ588	1	EA	\$10,000.00			\$10,000.00	\$10,000
	Rehab MH - ABQ590	1	EA	\$10,000.00			\$10,000.00	\$10,000
Div 3 - Concrete								
Div 4 - Masonry								
Div 5 - Metals								
Div 6 - Woods & Plastics								
Div 7 - Thermal & Moisture Protection								
Div 8 - Doors and Windows								
Div 9 - Finishes								
Div 10 - Specialties								
Div 11 - Equipment								
Div 12 - Furnishings								
Div 13 - Special Construction								
Div 14 - Conveying Systems								
Div 15 - Mechanical								
Div 16 - Electrical								
Misc. Scopes - Considerations								
Totals ECOW								\$44,625

Items not above in Estimated Cost of Work								
	LEED "Gold" Premium Costs: 1.5% of DCC		on	\$	44,625		\$44,625	
	Solar: 1.5% per State of Oregon		on	\$	54,258		\$54,258	
	Alternate Procurement		on	\$	44,625		\$44,625	
SUBTOTAL-ECOW w/ Leed, Solar, Alternate Procurement								\$44,625
	Design & Estimating Contingency	5.00%	on	\$48,585			\$48,585	\$2,429
	Construction Contingency	3.00%	on	\$51,014			\$51,014	\$1,530
	Escalation: To Midpoint Construction 2018		on	\$48,585			\$48,585	
	General Conditions Staff Per RFP		on	\$48,585			\$48,585	
	General Requirements/Temp Facilities	5.00%	on	\$48,585			\$48,585	\$2,429
Subtotal - ECOW, DCE, Cont, Esc, GC/GR								\$51,014
	Contractor: DB-Fee (Excludes A/E) Fees	1.95%	on	\$51,014			\$51,014	\$995
Sub Totals: w/Fee								\$52,009
	Insurance: G/L & WC	2.52%	on	\$54,258			\$54,258	\$1,367
	Insurance-Builders risk	0.15%	on	\$54,258			\$54,258	\$81
	Performance Bond	0.58%	on	\$54,258			\$54,258	\$315
	SubGuard Insurance Wrap Protection	1.00%	on	\$48,585			\$48,585	\$486
	PreConstruction Services		1	LS				
Total Construction Costs - With Adders								\$54,258

Clarifications/Assumptions

					Cost of Work Recap of Options		
						Price	Variance From TVD Target
BUILDING: MCCH Courthouse LOCATION: Portland, OR ARCH: SRG SUBJECT: City Sewer Modifications							
					Rehab Work	\$ 54,258	
					New Work	\$ 228,461	
Acct	Description	Est Qty	Unit	Unit Price	Escalation	Revised Unit price	Total Price
Construct New 48" MH in Madison, East of Manhole ABQ590, 80lf of 18" Sewer							187,900
Identify and Reinstate all active Laterals along CIP rehab work							
Div 2 - Site work							\$187,900
New Sewer Work							
	Connect to MH - ABQ590	1	ls	\$ 18,000.00		\$18,000.00	\$18,000
	Install MH-1	1	ea	\$ 30,000.00		\$30,000.00	\$30,000
	Connect to MH (East Side of 1st Ave)	1	ea	\$ 10,000.00		\$10,000.00	\$10,000
	18in HDPE Storm Sewer (Across 1st Ave)	64	lf	\$ 750.00		\$750.00	\$48,000
	18in HDPE Storm Sewer (Madison St)	15	lf	\$ 1,000.00		\$1,000.00	\$15,000
	Hardscape Restoration	1	ls	\$ 10,000.00		\$10,000.00	\$10,000
	Abandon Existing Sewer	175	lf	\$ 200.00		\$200.00	\$35,000
	Rehab MH - ABQ591	1	ls	\$ -			
	Contaminated Media Offhaul	146	cy	\$ 150.00		\$150.00	\$21,900
Div 3 - Concrete							
Div 4 - Masonry							
Div 5 - Metals							
Div 6 - Woods & Plastics							
Div 7 - Thermal & Moisture Protection							
Div 8 - Doors and Windows							
Div 9 - Finishes							
Div 10 - Specialties							
Div 11 - Equipment							
Div 12 - Furnishings							
Div 13 - Special Construction							
Div 14 - Conveying Systems							
Div 15 - Mechanical							
Div 16 - Electrical							
Misc. Scopes - Considerations							
Totals ECOW							\$187,900
Items not above in Estimated Cost of Work							
	LEED "Gold" Premium Costs: 1.5% of DCC		on	\$ 187,900		\$187,900	
	Solar: 1.5% per State of Oregon		on	\$ 228,461		\$228,461	
	Alternate Procurement		on	\$ 187,900		\$187,900	
SUBTOTAL-ECOW w/ Leed, Solar, Alternate Procurement							\$187,900
	Design & Estimating Contingency	5.00%	on	\$204,573		\$204,573	\$10,229
	Construction Contingency	3.00%	on	\$214,801		\$214,801	\$6,444
	Escalation: To Midpoint Construction 2018		on	\$204,573		\$204,573	
	General Conditions Staff Per RFP		on	\$204,573		\$204,573	
	General Requirements/Temp Facilities	5.00%	on	\$204,573		\$204,573	\$10,229
Subtotal - ECOW, DCE, Cont, Esc, GC/GR							\$214,801
	Contractor: DB-Fee (Excludes A/E) Fees	1.95%	on	\$214,801		\$214,801	\$4,189
Sub Totals: w/Fee							\$218,990
	Insurance: G/L & WC	2.52%	on	\$228,461		\$228,461	\$5,757
	Insurance-Builders risk	0.15%	on	\$228,461		\$228,461	\$343
	Performance Bond	0.58%	on	\$228,461		\$228,461	\$1,325
	SubGuard Insurance Wrap Protection	1.00%	on	\$204,573		\$204,573	\$2,046
	PreConstruction Services		1 LS				
Total Construction Costs - With Adders							\$228,461
Clarifications/Assumptions							

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float	Predecessors	Successors	2016				2017			
									Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
									9	10	11	12	13	14	15	16

CONSTRUCTION

JEFFERSON STATION FOUNDATION

1000	Subcontract approval	1	1	14-Oct-16*	14-Oct-16	56		1010
1010	Mobilize equipment	1	1	17-Oct-16	17-Oct-16	56	1000	1020
1020	Remove trash enclosure/sidewalk	1	1	18-Oct-16	18-Oct-16	56	1010	1030
1030	Pothole using Vac Truck	3	3	19-Oct-16	21-Oct-16	56	1020	1040
1040	Observation/confirm foundation	1	1	24-Oct-16	24-Oct-16	56	1030	1050
1050	Continue JS foundation design	1	1	25-Oct-16	25-Oct-16	56	1040	

DEMO OF VQ / SITE CLEARING

1060	Demo / EC permit submitted	1	1	05-Oct-16*	05-Oct-16	41		1070
1070	Demo / EX permit approval	15	15	06-Oct-16	26-Oct-16	41	1060	1110, 1160, 1320
1080	Demo subcontract negotiations	5	5	10-Oct-16*	14-Oct-16	37		1090
1090	Demo subcontract approval	1	1	17-Oct-16	17-Oct-16	37	1080	1100
1100	Asbestos subcontract	3	3	18-Oct-16	20-Oct-16	37	1090	1120
1110	Set up perimeter fencing	2	2	24-Oct-16	25-Oct-16	41	1070	1150
1120	Removal of asbestos	2	2	21-Oct-16	24-Oct-16	37	1100	1130, 1150
1130	Safe off utilities at the VQ	2	2	25-Oct-16	26-Oct-16	37	1120	1140
1140	Clear all salvable items	3	3	27-Oct-16	31-Oct-16	37	1130	1150
1150	Demo structure	5	5	01-Nov-16	07-Nov-16	37	1120, 1140, 1110	1180
1160	Install erosion control	1	1	27-Oct-16	27-Oct-16	43	1070	1170
1170	Site approval for EC measures	1	1	28-Oct-16	28-Oct-16	43	1160	1180
1180	Clear/grub site	5	5	08-Nov-16	14-Nov-16	37	1150, 1170	1190
1190	Fabric/gravel site	5	5	15-Nov-16	21-Nov-16	37	1180	1200
1200	Ready for foundation work	0	0	22-Nov-16		37	1190	

STORM & SEWER IMPROVEMENTS

1210	RFP of scope out for bid	1	1	25-Oct-16*	25-Oct-16	0		1220
1220	Estimating duration	15	15	26-Oct-16	15-Nov-16	0	1210	1230
1230	Bids due	1	1	16-Nov-16	16-Nov-16	0	1220	1240
1240	Bid review and recommendation	5	5	17-Nov-16	23-Nov-16	0	1230	1250
1250	Subcontractor negotiations	5	5	28-Nov-16	02-Dec-16	0	1240	1260
1260	Subcontract Finalized	1	1	05-Dec-16	05-Dec-16	0	1250	1270, 1320
1270	Submittals and shop drawings	10	10	06-Dec-16	19-Dec-16	0	1260	1280, 1290
1280	Submittal approval	5	5	20-Dec-16	27-Dec-16	0	1270	1290
1290	Manhole and piping procurement	10	10	28-Dec-16	11-Jan-17	0	1270, 1280	1360, 1390
1300	Complete/submit traffic control	1	1	10-Oct-16*	10-Oct-16	50		1310
1310	Traffic control plan approval	15	15	11-Oct-16	31-Oct-16	50	1300	1370
1320	Set up fencing at laydown area	2	2	06-Dec-16	07-Dec-16	20	1070, 1260	1330
1330	Install erosion control measures	1	1	08-Dec-16	08-Dec-16	20	1320	1340
1340	Fabric and gravel lot	5	5	09-Dec-16	15-Dec-16	20	1330	1350
1350	Ready for use by excavator	1	1	16-Dec-16	16-Dec-16	20	1340	
1360	Mobilize to site	2	2	12-Jan-17	13-Jan-17	0	1290	1370
1370	Install traffic control measures	1	1	16-Jan-17	16-Jan-17	0	1360, 1310	1380
1380	Survey/layout MH and trenches	1	1	17-Jan-17	17-Jan-17	0	1370	1390
1390	Off-site sewer work permit approval	0	0		09-Jan-17	0	1380, 1290	

- | Subcontract approval
- | Mobilize equipment
- | Remove trash enclosure/sidewalk
- | Pothole using Vac Truck
- | Observation/confirm foundation
- | Continue JS foundation design

- | Demo / EC permit submitted
- █ Demo / EX permit approval
- █ Demo subcontract negotiations
- | Demo subcontract approval
- █ Asbestos subcontract
- | Set up perimeter fencing
- █ Removal of asbestos
- █ Safe off utilities at the VQ
- █ Clear all salvable items
- █ Demo structure
- | Install erosion control
- | Site approval for EC measures
- █ Clear/grub site
- █ Fabric/gravel site
- ◆ Ready for foundation work

- | RFP of scope out for bid
- █ Estimating duration
- | Bids due
- █ Bid review and recommendation
- | Subcontractor negotiations
- | Subcontract Finalized
- █ Submittals and shop drawings
- █ Submittal approval
- █ Manhole and piping procurement
- | Complete/submit traffic control
- █ Traffic control plan approval
- | Set up fencing at laydown area
- | Install erosion control measures
- █ Fabric and gravel lot
- | Ready for use by excavator
- █ Mobilize to site
- | Install traffic control measures
- | Survey/layout MH and trenches
- ◆ Begin work

10	Install sewer and Manholes 3 & 4 at 1st & Main			16-Jan-17	30-Jan-17		
25	Install sewer from 1st & Main to 1st & Madison			30-Jan-17	6-March-17		
7	Install Manhole 2 and sewer in 1st & Madison			6-March-17	15-March-17		
15	Install sewer across 1st and Manhole 1			15-March-17	05-April-17		
15	Remediate pipe via CIPP from 1st & Madison to 2nd & Madison			05-April-17	26-May-17		

█ Actual Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work ◆ CRITICAL MILESTONE