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6B

DATE April 8, 2019

ORDERING CONSTRUCTION OF NEAR WEST SIDE SEWER SEPARATION PHASE 3 AND FIXING A DATE FOR RECEIVING OF BIDS ON APRIL23, 2019 AND PUBLIC HEARING ON MAY 6, 2019 ENGINEER'S ESTIMATE IS \$6,800,000.00

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DES MOINES, IOWA: That the attached communication recommending construction of the following improvement and the method of financing; and also including the recommendation of the Des Moines City Engineer, as the Engineer, submitting plans, specifications, form of contract documents, and Engineer's estimate of cost for the construction of the following improvement:

Near West Side Sewer Separation Phase 3, 07-2019-001

The improvement includes Reinforced Concrete Pipe (RCP) storm sewer 12-inch to 36-inch, subdrain, sanitary service replacements, water service replacements, water main alterations, fire hydrant relocations, manholes, intakes, Hot Mix Asphalt (HMA) pavement, Portland Cement Concrete (PCC) pavement, curb and gutter, sidewalks, driveways, associated grading, traffic signalization, pavement markings, surface restoration, and other incidental items; all in accordance with the contract documents, including Plan File Nos. 610-001/156, located on University Avenue from Martin Luther King Jr. Parkway to 21st Street, University Avenue from 25th Street to 31st Street, 25th Street from Drake Park Avenue to University Avenue, 24th Street from Drake Park Avenue from 21st Street to 24th Street, 21st Street from Atkins Street to Drake Park Avenue, Atkins Street from Martin Luther King Jr. Parkway to 21st Street, Carpenter Avenue from 24th Street to 25th Street, Forest Avenue from 23rd Street to 25th Street, and 24th Street from Carpenter Avenue to Forest Avenue all in Des Moines, Iowa

be and the same are hereby approved and accepted. The estimated construction cost for said improvement is \$6,800,000.00. The proposed plans, specifications, and form of contract documents are available for public inspection in the Des Moines City Engineer's Office.

BE IT FURTHER RESOLVED: That this Council hereby determines that it is necessary and advisable to construct said improvement in the manner set forth in the plans, specifications, and form of contract documents submitted by the Engineer; and that payment for the cost of said improvement shall be paid from the funding source identified below.

BE IT FURTHER RESOLVED: That a public hearing on said plans, specifications, form of contract documents, and Engineer's estimate of construction cost for said improvement be held in the City Council Chambers, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, at 5:00 p.m. on May 6, 2019, at which time this Council will consider any objections offered thereto or to the making of said improvement.

4	Roll	Call	Num	ber
X	11011	Oun	Hulli	DCI

Agenda Item Number

DATE April 8, 2019

BE IT FURTHER RESOLVED: That proposals will be received by the City of Des Moines, at the office of the Des Moines City Clerk until 11:00 a.m. on April 23, 2019, for the construction of said improvement, and the taking of bids in the manner required by law. Proposals received will be opened at a public meeting presided over by the Engineer in the City Council Chambers, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, at 11:00 a.m. on April 23, 2019, after which the bids together with a bid tabulation and recommendation of the Engineer will be presented to the City Council at its next meeting for action thereon.

BE IT FURTHER RESOLVED: That an appropriate Notice to Bidders for said improvement be posted, and Notice of Public Hearing for said improvement be published in the Des Moines Register, all as provided and directed by Chapter 26 and/or 314, Code of Iowa.

(City Council Communication Number 19-159 Moved by to adopt. FUNDS AVAILABI FORM APPROVED: Robert L. Fagen Kathleen Vanderpool Des Moines Finance Director Deputy City Attorney

Funding Source: 2019-2020 CIP, Page Sanitary – 7, Near West Side Sewer Separation, SS132, Being: \$6,601,000 in SRF funding issued; and the remaining \$199,000 from Des Moines Water Works

COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT
COWNIE				
BOESEN				
COLEMAN				
GATTO				
GRAY				
MANDELBAUM				
WESTERGAARD				
TOTAL				
MOTION CARRIED				APPROVED

I, Diane Rauh, City Clerk of said City Council, hereby certify that at a meeting of the City Council, held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year first above written.

Mayor

City Clerk

CONSTRUCTION ESTIMATE

DEPARTMENT OF ENGINEERING CITY OF DES MOINES, IOWA

Activity ID 07-2019-001 IDOT Project No: None

Date: 3/21/2019

PROJECT: NEAR WEST SIDE SEWER SEPARATION PHASE 3

		E	D UNITS	AMOUNT	
NO.	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
1 *	Clearing and Grubbing	UNITS	527	\$80.00	\$42,160.00
2 *	Topsoil, Offsite	CY	1500	\$40.00	\$60,000.00
3 *	Below Grade Excavation (Core Out)	CY	1900	\$15.00	\$28,500.00
4 *	Subgrade Preparation	SY	21800	\$6,00	\$130,800.00
5 *	Subgrade Treatment, Geogrid, Type 2	SY	5400	\$5.00	\$27,000.00
6 *	Subbase, Modified, 6"	SY	5800	\$10.00	\$58,000.00
7 *	Subbase, Modified, 8"	SY	3900	\$11.00	\$42,900.00
8 *	Subbase, Modified, 12"	SY	11600	\$13.00	\$150,800.00
9 *	Class A Roadstone	TON	350	\$35.00	\$12,250.00
10 *	Trench Foundation	TON	300	\$40.00	\$12,000.00
11 *	Imported Granular Backfill	TON	7400	\$25.00	\$185,000.00
12 *	Special Pipe Support	EA	22	\$1,500.00	\$33,000.00
13	Sanitary Sewer Service Replacement	EA	26	\$4,500.00	\$117,000.00
14	Storm Sewer, Trenched, DIP, 3"	LF	37	\$60.00	\$2,220.00
15	Storm Sewer, Trenched, DIP, 4"	LF	22	\$80.00	\$1,760.00
16	Storm Sewer, Trenched, DIP, 6"	LF	29	\$100.00	\$2,900.00
17	Storm Sewer, Trenched, RCP, 12"	LF	7	\$140.00	\$980.00
18	Storm Sewer, Trenched, RCP, 15"	LF	1933	\$140.00	\$270,620.00
19	Storm Sewer, Trenched, RCP, 18"	LF	2570	\$165.00	\$424,050.00
20	Storm Sewer, Trenched, RCAP, 18"	LF	49	\$225.00	\$11,025.00
21	Storm Sewer, Trenched, RCP, 24"	LF	2357	\$180.00	\$424,260.00
22	Storm Sewer, Trenched, RCP, 30"	LF	834	\$200.00	\$166,800.00
23	Storm Sewer, Trenched, RCP, 36"	LF	14	\$220.00	\$3,080.00
24 *	Removal of Storm Sewer, Less Than or Equal To 30"	LF	770	\$25.00	\$19,250.00
25	Subdrain, Type 1, 6"	LF	5332	\$20.00	\$106,640.00

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		[STIMATE	AMOUNT	
NO.	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
26	Subdrain, Cleanout, Type A-1, 6"	EA	1	\$500.00	\$500.00
27	Subdrain Outlet and Connections, 6"	EA	43	\$500.00	\$21,500.00
28 *	Plug Existing Sewer	EA	38	\$600.00	\$22,800.00
29	Water Service Replacement, Less Than or Equal to 2"	EA	17	\$3,500.00	\$59,500.00
30	Water Service Replacement, Greater Than or Equal to 4"	EA	1	\$5,000.00	\$5,000.00
31	Water Service Tap	EA	18	\$1,200.00	\$21,600.00
32	Water Main Alteration, Type 1, 8"	EA	2	\$15,000.00	\$30,000.00
33	Water Main Alteration, Type 3, 8"	EA	1	\$15,000.00	\$15,000.00
34	Water Main Alteration, Type 1, 12", Night	EA	4	\$18,000.00	\$72,000.00
35	Remove and Replace Hydrant, 8" Water Main	EA	1	\$10,000.00	\$10,000.00
36	Remove and Replace Hydrant, 12" Water Main, Night	EA	1	\$15,000.00	\$15,000.00
37	Remove and Relocate Hydrant, 8" Water Main	EA	3	\$10,000.00	\$30,000.00
38	Remove and Relocate Hydrant, 8" Water Main, Night	EA	1	\$12,000.00	\$12,000.00
39	Remove and Relocate Hydrant, 12" Water Main, Night	EA	1	\$15,000.00	\$15,000.00
40	Manhole Type SW-401, 48"	EA	17	\$5,000.00	\$85,000.00
41	Manhole Type SW-401, 60"	EA	3	\$10,000.00	\$30,000.00
42	Manhole Type SW-401, 96"	EA	1	\$20,000.00	\$20,000.00
43	Manhole, Type SW-406, 5'x5'	EA	3	\$10,000.00	\$30,000.00
44	Intake Type SW-505	EA	30	\$5,200.00	\$156,000.00
45	Intake Type SW-507	EA	1	\$6,500.00	\$6,500.00
46	Intake Type SW-509	EA	17	\$8,000.00	\$136,000.00
47	Intake, Type SW-510	EA	1	\$8,500.00	\$8,500.00
48	Intake, Type SW-541	EA	1	\$4,500.00	\$4,500.00
49	Intake Type SW-541 with SW-542 Extension	EA	6	\$7,000.00	\$42,000.00
50 *	Manhole Adjustment, Minor	EA	18	\$1,500.00	\$27,000.00
51	Connection to Existing	EA	7	\$2,500.00	\$17,500.00
52 *	Remove Sewer Structure	EA	33	\$800.00	\$26,400.00
53	Pavement, PCC, 6"	SY	540	\$75.00	\$40,500.00

			ESTIMATE	D UNITS	AMOUNT
NO.	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
54	Pavement, PCC, 9"	SY	1515	\$85.00	\$128,775.00
55	Curb and Gutter, 2.5', 6"	LF	4035	\$45.00	\$181,575.00
56	Beam Curb, 6" Width	LF	450	\$45.00	\$20,250.00
57	Beam Curb, 12" Width	LF	420	\$65.00	\$27,300.00
58	Pavement, HMA HT Base, 1" Mix, PG 58-28 S	TON	2122	\$110.00	\$233,420.00
59	Pavement, HMA ST Base, 3/4" Mix, PG 58-28 S	TON	1057	\$110.00	\$116,270.00
60	Pavement, HMA HT Intermediate, 3/4" Mix, PG 58-28 S	TON	1073	\$110.00	\$118,030.00
61	Pavement, HMA HT Surface, 1/2" Mix, No Fric., PG 58-28 V	TON	1627	\$115.00	\$187,105.00
62	Pavement, HMA ST Surface, 1/2" Mix, No Fric., PG 58-28 S	TON	1320	\$115.00	\$151,800.00
63 *	HMA Pavement Samples and Testing	LS	1	\$5,000.00	\$5,000.00
64 *	Removal of Sidewalk	SY	3863	\$12.00	\$46,356.00
65 *	Removal of Driveway	SY	1050	\$12.00	\$12,600.00
66	Sidewalk, PCC, 4"	SY	652	\$55.00	\$35,860.00
67	Sidewalk, PCC, 5"	SY	2401	\$60.00	\$144,060.00
68	Sidewalk, PCC, 6"	SY	529	\$75.00	\$39,675.00
69	Bus Shelter Pad, PCC, 6"	SY	19	\$85.00	\$1,615.00
70	Detectable Warning	SF	990	\$50.00	\$49,500.00
71	Driveway, Paved, PCC, 7"	SY	540	\$70.00	\$37,800.00
72	Full Depth Patch, PCC	SY	155	\$125.00	\$19,375.00
73	Full Depth Patch, Composite	SY	170	\$300.00	\$51,000.00
74 *	Milling	SY	4000	\$12.00	\$48,000.00
75 *	Pavement Removal	SY	19037	\$14.00	\$266,518.00
76 *	Steel Rail Track Removal	LF	3200	\$45.00	\$144,000.00
77 *	Traffic Signalization	LS	1	\$500,000.00	\$500,000.00
78 *	Painted Pavement Markings, Solvent/Waterborne	STA	282.1	\$100.00	\$28,210.00
.79 *	Temporary Painted Pavement Markings, Solvent/Waterborne	STA	141.3	\$100.00	\$14,130.00
80 *	Precut Symbols and Legends	EA	47	\$400.00	\$18,800.00
81 *	Pavement Markings Removed	STA	139.5	\$100.00	\$13,950.00

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			D UNITS	AMOUNT	
NO.	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
82 *	Symbols and Legends Removed	EA	6	\$200.00	\$1,200.00 -
83 *	Temporary Traffic Control	LS	1	\$75,000.00	\$75,000.00
84 *	Hydraulic Seeding, Seeding, Fertilizing, and Mulching	AC	1.5	\$8,500.00	\$12,750.00
85 *	Stormwater Pollution Prevention	LS	1	\$10,000.00	\$10,000.00
86 *	Erosion Control Mulching, Hydromulching	AC	1.5	\$5,000.00	\$7,500.00
87 *	Inlet Protection Device	EA	90	\$180.00	\$16,200.00
88 *	Inlet Protection Device, Maintenance	EA	90	\$25.00	\$2,250.00
89 *	Linear Erosion Control	LF	900	\$3.00	\$2,700.00
90 *	Linear Erosion Control, Removal	LF	900	\$0.50	\$450.00
91 *	Tree Protection Fence	LF	2500	\$4.00	\$10,000.00
92 *	Tree Trimming	EA	18	\$750.00	\$13,500.00
93 *	Mobilization .	LS	1	\$690,951.00	\$690,951.00
94 *	Maintenance of Postal Service	LS	1	\$4,000.00	\$4,000.00
95 *	Maintenance of Solid Waste Collection	LS	1	\$7,500.00	\$7,500.00
96 *	Concrete Washout	LS	1	\$3,000.00	\$3,000.00
97 *	Conduit, PVC, 2"	LF	95	\$6.00	\$570.00
98 *	Conduit, PVC, 4"	LF	370	\$8.00	\$2,960.00
99 *	Permanent Traffic Sign	EA	19	\$300,00	\$5,700.00
 Prepare	ed By: Crajg Bouska /				
Checke	ed By: Wystyle full	TOTAL	CONSTRU	ICTION COST	\$6,800,000.00

^{*} Item does not have to be included in 4-year maintenance bond, but shall be covered by a 1-year maintenance bond.

* Estimate Total= \$2,841,655.00

Agei	nda	Item	Num	ber
rie vi	144	ILVIII	7 / 66 177	

6C

DATE April 8, 2019

ORDERING CONSTRUCTION OF MAQUOKETA DRIVE STORM SEWER BOX REPLACEMENT AND FIXING A DATE FOR RECEIVING OF BIDS ON APRIL23, 2019 AND PUBLIC HEARING ON MAY 20, 2019 ENGINEER'S ESTIMATE IS \$7,500,000.00

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DES MOINES, IOWA: That the attached communication recommending construction of the following improvement and the method of financing; and also including the recommendation of the Des Moines City Engineer, as the Engineer, submitting plans, specifications, form of contract documents, and Engineer's estimate of cost for the construction of the following improvement:

Maquoketa Drive Storm Sewer Box Replacement, 08-2017-009

The improvement includes constructing new Reinforced Concrete Box (RCB) storm sewer sizes 4 feet x 4 feet and 12 feet x 4 feet, Reinforced Concrete Pipe (RCP) storm sewer sizes 15-inches to 84-inches, precast manholes, cast-in-place manholes and intakes, Ductile Iron (DI) sanitary sewer sizes 8-inches to 12-inches, Poly Vinyl Chloride (PVC) sanitary sewer, High Density Polyethylene (HDPE) storm sewer, DI water main, 4-inch and 6-inch Portland Cement Concrete (PCC) pavement, Hot-Mix Asphalt (HMA) paving, PCC curb and gutter, traffic signalization, earthwork and grading, erosion control, restoration, and other associated and incidental items; all in accordance with contract documents, including Plan File Nos. 609-159/257, located on College Avenue, 41st Street, Germania Drive, and Maquoketa Drive, between 41st Place and Beaver Avenue, Des Moines, Iowa

be and the same are hereby approved and accepted. The estimated construction cost for said improvement is \$7,500,000.00. The proposed plans, specifications, and form of contract documents are available for public inspection in the Des Moines City Engineer's Office.

BE IT FURTHER RESOLVED: That this Council hereby determines that it is necessary and advisable to construct said improvement in the manner set forth in the plans, specifications, and form of contract documents submitted by the Engineer; and that payment for the cost of said improvement shall be paid from the funding source identified below.

BE IT FURTHER RESOLVED: That a public hearing on said plans, specifications, form of contract documents, and Engineer's estimate of construction cost for said improvement be held in the City Council Chambers, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, at 5:00 p.m. on May 20, 2019, at which time this Council will consider any objections offered thereto or to the making of said improvement.

BE IT FURTHER RESOLVED: That proposals will be received by the City of Des Moines, at the office of the Des Moines City Clerk until 11:00 a.m. on April 23, 2019, for the construction of said improvement, and the taking of bids in the manner required by law. Proposals received will be opened at a public meeting presided over by the Engineer in the City Council Chambers, 2nd Floor, City Hall, 400 Robert D. Ray Drive, Des Moines, Iowa, at 11:00 a.m. on April 23, 2019, after which the bids together with a bid tabulation and recommendation of the Engineer will be presented to the City Council at its next meeting for action thereon.

Roll Call Num	ıber				Agenda Item Number
DATE April 8, 20)19				
BE IT FURTHER Notice of Public H directed by Chapter	earing f	or said	improve	ement be p	e Notice to Bidders for said improvement be posted, and ublished in the Des Moines Register, all as provided and
	(City	Counci	l Comm	unication N	Number 19-157 attached.)
Moved by				<u> </u>	to adopt.
FORM APPROVE);				FUNDS AVAILABLE
Kathleen Vanderpo		. -			Robert L. Fagen Des Moines Finance Director
\$4,026,700 of Storn	nwater (Jtility Bo	onds Iss	ued; \$3,000	ses Creek Watershed Improvements, SM068, Being: 0,000 Stormwater Utility Bonds to be issued; \$90,000 in \$383,300 from Des Moines Water Works
COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT	I, Diane Rauh, City Clerk of said City Council, hereby
COWNIE				 	certify that at a meeting of the City Council, held on the
BOESEN COLEMAN				 	above date, among other proceedings the above was adopted.
GATTO	<u> </u>				adopted.
GRAY					IN WITNESS WHEREOF, I have hereunto set my hand
MANDELBAUM					and affixed my seal the day and year first above
WESTERGAARD				ļ <u> </u>	written.
TOTAL		<u> </u>			
MOTION CARRIED				APPROVED	

City Clerk

Mayor



CONSTRUCTION ESTIMATE

DEPARTMENT OF ENGINEERING CITY OF DES MOINES, IOWA

Activity ID 08-2017-009

Date: 3/20/2019

PROJECT: MAQUOKETA DRIVE STORM SEWER BOX REPLACEMENT

LKOJE	CT: MAQUOKETA DRIVE STORM SEWER BOX		ESTIMATE	D UNITS	AMOUNT
NO.	DESCRIPTION	ŲNIT	TOTAL	UNIT PRICE	TOTAL_
1 *	Temporary Traffic Control	LS	1	\$25,000.00	\$25,000.00
2 *	Clearing & Grubbing	LS	1	\$70,000.00	\$70,000.00
3 *	Topsoil	CY	2400	\$25.00	\$60,000.00
4 *	Excavation, Class 10	CY	5000	\$25.00	\$125,000.00
5 *	Subgrade Treatment, Geogrid, Type 2	SY	6600	\$5.00	\$33,000.00
6 *	Subbase, Moddified Subbase, 6"	SY	6600	\$15.00	\$99,000.00
7 *	Sand	TONS	1200	\$30.00	\$36,000.00
8 *	Trench Foundation	TONS	500	\$35.00	\$17,500.00
9	Sanitary Sewer Service, Schedule 80 PVC, 4"	LF	90	\$250.00	\$22,500.00
10	Sanitary Sewer Service, Schedule 80 PVC, 6"	LF	150	\$250.00	\$37,500.00
11	Ductile Iron (D.I.) Sanitary Sewer, 8"	LF	40	\$300.00	\$12,000.00
12	Ductile Iron (D.I.) Sanitary Sewer, 10"	LF	20	\$300,00	\$6,000.00
13	Ductile Iron (D.I.) Sanitary Sewer, 12"	LF	10	\$500,00	\$5,000.00
14	Sanitary Sewer Service Relocation	EA	12	\$1,500.00	\$18,000.00
15	Storm Sewer, HDPE, 6"	LF	5	\$400.00	\$2,000.00
16	Storm Sewer, HDPE, 12"	LF	89	\$125.00	\$11,125.00
17	Storm Sewer, HDPE, 30"	LF	290	\$200.00	\$58,000.00
18	Reinforced Concrete Pipe (RCP), 15"	LF	14	\$250.00	\$3,500.00
19	Reinforced Concrete Pipe (RCP), 18"	LF	590	\$200.00	\$118,000.00
20	Reinforced Concrete Pipe (RCP), 24"	LF	74	\$250.00	\$18,500.00
21	Reinforced Concrete Pipe (RCP), 36"	LF	52	\$300.00	\$15,600.00
22	Reinforced Concrete Pipe (RCP), 48"	LF	93	\$300.00	\$27,900.00
23	Reinforced Concrete Pipe (RCP), 84" Trenched	LF	82	\$1,000.00	\$82,000.00
24	Reinforced Concrete Pipe (RCP), 84" Trenchless	LF	428	\$3,250.00	\$1,391,000.00
25	Reinforced Concrete Box (RCB) Culvert, 4'x4'	LF	28	\$750.00	\$21,000.00
26	Reinforced Concrete Box (RCB) Culvert, 12'x4'	LF	1273	\$1,250.00	\$1,591,250.00
27	Reinforced Concrete Box (RCB) Connection Collar	EA	3	\$35,000.00	\$105,000.00
28 *	Removal of Sewer, 8" to 12"	LF	118	\$15.00	\$1,770.00
29 *	Removal of Sewer, 15"	LF	369	\$15.00	\$5,535.00
30 *	Removal of Sewer, 18"	LF	70	\$25.00	\$1,750.00
31 4	Removal of Sewer, 24"	LF	120	\$25.00	\$3,000.00
32	Removal of Sewer, 30"	LF	25	\$25.00	\$625.00

			ESTIMATED UNITS			
NO.	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL_	
+	Removal of Sewer, 36"	LF	212	\$30.00	\$6,360.00	
	Removal of Sewer, 65"x52" Arch Pipe	LF	30	\$40.00	\$1,200.00	
	Removal of Sewer, Wood Box Culvert	LF	842	\$50.00	\$42,100.00	
	Removal of Sewer, Reinforced Concrete Box Culvert	LF	245	\$200.00	\$49,000.00	
	Removal of CMP Apron, 65"x52"	EA	1	\$1,000.00	\$1,000.00	
	Culvert / Sewer Abandonment, Plug and Fill	CY	550	\$300.00	\$165,000.00	
39	Pipe Apron, 36" RCP	EA	1	\$5,000.00	\$5,000.00	
	Pipe Apron, 84" RCP	EA	1	\$15,000.00	\$15,000.00	
40	Footing for Concrete Pipe Apron, 36" RCP	EA	1	\$2,500.00	\$2,500.00	
41	Footing for Concrete Pipe Apron, 84" RCP	EA	1	\$2,500.00	\$2,500.00	
42	Pipe Apron Guard, 36" RCP	EA	1	\$1,000.00	\$1,000.00	
43	Pipe Apron Guard, 84" RCP	EA	1	\$2,500.00	\$2,500.00	
44		EA	1	\$10,000.00	\$10,000.00	
45	End Section, 4'x4' RCB	EA	1	\$20,000.00	\$20,000.00	
46	End Section, 12'x4' RCB	LF	140	\$30.00	\$4,200.00	
47	Subdrain, Type 1, 6"	EA	4	\$500.00	\$2,000.00	
48	Subdrain Cleanout. Type A-1, 6"	EA	4	\$500.00	\$2,000.00	
49	Subdrain Connection	- EA	4	\$7,500.00	\$30,000.00	
50	Manhole, SW-301, 48" ID	EA	+ 1	\$10,000.00	\$10,000.00	
51 	Manhole, SW-301, 72" ID		1 1	\$4,000.00	\$4,000.0	
52 	Manhole, SW-401, 48" ID	EA	+	\$6,000.00	\$24,000.0	
53	Manhole, SW-401, 60" ID	EA		\$10,000.00	\$10,000.0	
54 	Manhole, SW-401, 72" ID	EA	 	\$20,000.00	\$20,000.0	
55	Manhole, SW-401, 84" ID	EA	_	\$25,000.00	\$25,000.0	
56	Manhole, SW-401, 96" ID	EA	 	\$15,000.00	\$15,000.0	
57	Manhole, SW-403, 8'x4'	EA		\$5,000.00	\$25,000.0	
58	Manhole, SW-405 Mod.	EA		\$75,000.00	\$75,000.0	
59	Manhole, SW-404 Mod., 16'x4'	EA		\$85,000.00	\$85,000.0	
60	Manhole, SW-404 Mod., 12'x12'			\$5,000.00	\$5,000.0	
61	SW-501			\$7,500.00	\$112,500.0	
62	SW-505	EA		\$5,000.00	\$10,000.0	
63	SW-505, MOD.			\$10,000.00	\$50,000.0	
64	SW-509	E/		\$15,000.00	\$45,000.0	
65	SW-510			\$2,500.00	\$5,000.0	
66	Nyoplast Drain Basin, 12"	E/		\$4,500.00	\$4,500.0	
67	Nyoplast Drain Basin, 30"	E/	1	φ4,000.00	L	

			ESTIMATE	D UNITS	AMOUNT
	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
NO.		EA	1	\$2,500.00	\$2,500.00
68	Drop Connection Manhole Adjustment Minor, with PCC Boxout	ΕA	5	\$3,000.00	\$15,000.00
69	Remove Manhole or Intake	EA	24	\$1,000.00	\$24,000.00
70 *		SY	3540	\$70.00	\$247,800.00
71	Pavement, Jointed Reinforced PCC, 6"	LF	1760	\$50.00	\$88,000.00
72	Curb and Gutter, 2.5' Width, 6" Thickness	TON	600	\$130.00	\$78,000.00
73	HMA Standard Traffic (ST) Base, 3/4", PG 58-28S	TON	300	\$130.00	\$39,000.00
74 	HMA Standard Traffic (ST) Surface, 1/2", PG 58-28H	SY	450	\$175.00	\$78,750.00
75 	Composite Pavement	SY	60	\$30.00	\$1,800.00
76	* Removal of Paver Driveway	SY	250	\$60.00	\$15,000.00
77	PCC Sidewalk, 4"	SY	65	\$70.00	\$4,550.00
78	PCC Sidewalk, 6"	SF	85	\$50.00	\$4,250.00
79	Detectable Warnings	SY	960	\$70.00	\$67,200.00
80	PCC Driveway, 6"	TON	1000	\$35.00	\$35,000.00
81	* Granular Surfacing, Class A Crushed Stone	TON	1000	\$35.00	\$35,000.00
82	* Subbase Over-excavation, Modified Subbase	+	7028	\$15.00	\$105,420.00
83	* Pavement Removal	SY	60	\$100.00	\$6,000.00
84	Paver Driveway	SY	 	\$200.00	\$200,000.00
85	* Temporary Pavement, HMA	TON		\$40.00	\$40,000.00
86	* Temporary Pavement, Asphalt Millings	TON		\$90,000.00	\$90,000.0
87	Traffic Signalization	LS -	1		\$11,250.0
88	* Seeding, Fertilizing, Mulching for Hydraulic Seeding (Type 1)	ACR		\$7,500.00	\$11,250.0
89	* Seeding, Fertilizing, Mulching for Hydraulic Seeding (Type 4)	ACR		\$7,500.00	\$13,125.0
90	 Seeding, Fertilizing, Mulching for Hydraulic Seeding (Native Grass and Forbs) 	ACR		\$7,500.00	\$105,000.0
91	* Sod	SQ	700	\$150.00	
92	* Stormwater Pollution Prevention	LS	1	\$1,000.00	\$1,000.0
93	* Filter Socks	LF	2000	\$4.00	\$8,000.0
94	* Removal of Filter Socks	LF	2000	\$1.00	\$2,000.0
95	* Temporary Rolled Erosion Control Products (RECP), Type 4	SY	300	\$5.00	\$1,500.0
96	* Rip Rap, Class A	ТОІ	250	\$75,00	\$18,750.0
97	* Rip Rap, Class D	то	N 300	\$65.00	\$19,500.0
98	- Live February	то	N 500	\$40.00	\$20,000.0
99	Pandad Fiber Matrix	ACF	RE 2	\$5,000.00	\$10,000.0
100	1011	LF	65	\$40.00	
100		LF	65	\$20.00	
10	101-11	SI	118	\$45.00	\$5,310.

6C

			ESTIMATED UNITS		
	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL
VO.	Limestone Retaining Wall	SF	186	\$60.00	\$11,160.00
	Steel Sheet Pile Wall	SF	585	\$55.00	\$32,175.00
104	Removal of Retaining Wall	LF	324	\$20.00	\$6,480.00
	Tree Protection Fence	LF	1500	\$5.00	\$7,500.00
		EA	5	\$2,500.00	\$12,500.00
	Subsurface Utility Pothole	LS	1	\$40,000.00	\$40,000.00
108 *	Vibration Monitoring	LS	1	\$678,615.00	\$678,615.00
109 *	Mobilization Co. (1) Consider	LS	1	\$5,000.00	\$5,000.00
	Maintenance of Postal Service	LS	1	\$5,000.00	\$5,000.00
111 *	Maintenance of each		695	\$90.00	\$62,550.00
112 '	8" CL 52 DIP	LF	815	\$80.00	\$65,200.00
113 '	* 8" C900 DR18 PVC Pipe	LF	65	\$150.00	\$9,750.00
114	* 16" PVC Casing Pipe	EA	5	\$1,000.00	\$5,000.00
115	* 8" Bend	EA	2	\$500.00	\$1,000.00
116	* 8" Solid Sleeve	EA	3	\$1,600.00	\$4,800.0
117	* 8" x 8" Tee	EA	2	\$1,000.00	\$2,000.0
118	* 8" Cap/Plug	EA	4	\$2,500.00	\$10,000.0
119	* 8" Valve	EA		\$6,000.00	\$36,000.0
120	* Hydrant Assembly	- EA	$\frac{1}{1}$	\$4,000.00	\$4,000.0
121	* Prepare Excavation for Tapping Sleeve & Valve		24	\$5,000.00	\$120,000.0
122	* New 1" Water Service (Opposite Side)	EA	5	\$5,000.00	\$25,000.0
123	* New 1" Water Service (Same Side)	EA	1 1	\$5,000.00	\$5,000.0
124	* Remove Tee/Tapping Sleeve	EA		\$15,000.00	\$15,000.0
125	* 8" Type 1 Water Main Alteration			\$10,000.00	\$10,000.0
126	* 8" Water Main - Remove & Replace	EA EA	- 	\$500.00	\$4,500.0°
127	* Magnesium Anode, 32-Pound	EA		\$35.00	\$1,750.0
128	* Foundation Rock	TOI		\$35.00	\$1,750.
129	* Manufactured Sand		1	+55.55	

^{*} Item does not have to be included in 4-year maintenance bond, but shall be covered by a 1-year maintenance bond.

* Estimate Total= \$2,547,730.00