



MEMO

Date March 3, 2022

BY: Logan McInnis, Deputy Director of Public Works for Utilities

RE: Methodology for Proposed Mullan BUILD Water and Sewer Special Development Fees

OVERVIEW

This memo discusses how the costs of water and sewer mains and service stubs installed in conjunction with the Mullan BUILD project will be financed initially by the City's water and wastewater utilities but will be paid back over time by property owners benefitting from the utility installation. The Water and Sewer Special Development Fees (WSSDF's) adopted by City Council will be charged to each property benefitting directly from the utilities. The City will collect the WSSDF's when a property is developed and connects to the infrastructure installed as part of the Mullan BUILD project.

The standard practice in Missoula is for developers requiring water and sewer main extensions to pay for those extensions as part of their development project. The developer typically hires an engineer to design the main extension and a contractor to install the extensions. The Mullan BUILD project will follow a slightly different path in that the County, in partnership with the City, will hire and pay the engineers and contractors to design and install the infrastructure. The cost for this work will then be charged to the properties through which the various segments of water and sewer main run, as a latecomer's fee through WSSDF's.

In some instances, these costs also include the portions of main that run across adjacent rights-of-way to tie-in to existing mains. In two locations, the City will be paying the cost difference to upsize from the 12-inch main size required by a particular development to a 16-inch main that can provide transmission capacity required for future well sites. The City will not collect WSSDF's until the property owner develops their property and requires connection to the system. This method offers two advantages as compared to the standard development process. First, by constructing the main extensions ahead of development, the City can avoid piecemeal construction, reduce overall costs, and provide better predictability for development. Second, individual property owners do not have to finance the cost of extending sewer and water mains to get these mains to their property, and the cost of financing main extensions through their property is deferred until they need to connect.

Exhibit 1 shows the segments of water main to be installed as part of the Mullan BUILD project. Generally, the project will install 12-inch mains in order to accommodate future commercial and multifamily developments as required by Missoula Water's specifications. In Mary Jane Boulevard south, Missoula Water desired a larger 16-inch main that could better accommodate flows from future wells anticipated to be drilled in the area. Missoula Water will pay the cost difference between a 16-inch and 12-inch main. Smaller mains will be installed in the following instances:

- Mary Jane South from Station 0+00 to 2+50 will be 8-inch main tying into an existing 8-inch main
- A segment of existing 10-inch main in Mary Jane North will be replaced with 10-inch main

Exhibit 1 also outlines each parcel that is subject to the Water Special Development Fee (Water SDF). For brevity, the parcels were given a name and number based on the BUILD Grant road that the property faces. For example, the parcels fronting George Elmer Drive that will have a Water SDF are labeled GE1, GE4 and GE5. The property owners are also listed on Exhibit 1.



Exhibit 2 shows the segments of sewer main to be installed. Eight-inch mains are generally adequate; but the sewer segment in George Elmer North required an 18-inch pipe in order to utilize the shallower slope allowed for that pipe size. The City will pay the upsize cost difference to upsize from an 8-inch pipe to an 18-inch pipe.

Exhibit 2 also outlines each parcel that is subject to the Sewer Special Development Fee (Sewer SDF). For brevity, the parcels were given a name and number based on the BUILD grant street that the property faces. For example, the parcels fronting George Elmer Drive that will have a Sewer SDF are labeled GE1, GE4 and GE5. The property owners are also listed on Exhibit 2.

PROPOSED APPROACH

The calculation of WSSDF's for each parcel started with a detailed review of the BUILD Project Released for Construction (RFC) plan set and DJ&A's "Bid Schedule A-Funding Split Table" dated 2/18/22, based on the Contractor's (Kiewit's) Guaranteed Maximum Price. Public Works staff assembled quantities for each water or sewer bid item, including service line stubs, associated with a particular road segment and parcel. The detailed quantities and cost of water and sewer bid items by road segment and parcel are shown in Exhibits 1A and 1B. The road segments are numbered from (1) through (14).

For example, Exhibit 3A shows that the portion of George Elmer north running through the parcel labeled as GE4 on Exhibit A-2 is called road segment (2). Parcel GE4 is responsible for the water infrastructure on Sheet K2 from Station 6+80 to 8+00 and Sheet K3 from Station 8+00 to 13+75 and the sewer infrastructure on Sheet L4, Line C, Station 4+17 to 11+00.

In some instances, a particular segment of main runs in between two different parcels (ex. a portion of England Boulevard runs in between parcels EB2 and EB3). In those instances, the cost of those water or sewer bid items were split equally between the two parcels.

DJ&A developed unit prices for each item based on Kiewit's unit cost for the item, plus the portion of Kiewit's general project costs that were not included in bid items (Risk Contingencies, Construction Management fees, etc.) attributable to the water and sewer installations. Water facilities comprise 12.45% of the total construction bid items and sewer facilities comprise 5.96% of the total construction bid items. Those same percentages were used to distribute Kiewit's general project costs to each water and sewer bid item.

City staff modified DJ&A's unit prices to develop a "loaded unit price" for each water and sewer bid item to include the portions of the following general bid items that are attributable to water and sewer:

- Mobilization (12.45% to water, 5.96% to sewer)
- Contractor Quality Control and Assurance (12.45% to water, 5.96% to sewer)
- Existing water valves to adjust (100% to water)
- Flowable Fill (100% to water)
- Import Trench Backfill (50% to water, 50% to sewer)

The loaded unit prices for each bid item are shown in Exhibits 3A and 3B.

The "extended price" of each item was calculated by multiplying the bid item quantity attributed to the particular parcel by the loaded unit price of the item. In the case of items being upsized, the loaded unit price was the lower loaded unit price for the size attributable to the parcel (ex. the unit price for the 16-inch water main running through parcel MJ1 was replaced with the unit price of a 12-inch water main). The upsize cost to be paid by the City was then calculated by multiplying the quantity of the item being upsized by the difference in loaded unit price between the actual size installed



(16-inch in the example above) and the size attributable to the parcel (12-inch in the example above). Included in the City's portion of the project costs are minor quantity differences that occurred between the City's calculation of quantities by parcel as compared to the total quantities reflected in Kiewit's cost estimate.

In addition to paying the cost of upsizing, the Water Utility will pay the full cost of extending the 16-inch water main across Mullan Road at the Mary Jane Boulevard Roundabout. The City's Master Plan calls for that main to be extended further east in the future to connect to a future water supply well planned at the Clouse property acquired by the City for that purpose. These costs are not included in the WSSDF's.

The costs described previously and shown in Exhibits 3A and 3B are solely contractor-related costs. There are additional project-related costs including engineering design and construction management, City permits and financing costs that also need to be attributed to the water and sewer construction. Those total costs are summarized in Exhibit 4.

The total WWSDf by road segment and parcel is included in Exhibit 5. These totals include the total construction costs as well as the relevant portions of engineering, permitting and financing costs from Exhibit 4. The total WWSDf's are summarized for each parcel in Exhibit 6. These WWSDf's will be collected for a particular parcel when the developer or their contractor obtains permits to connect to the utilities, either when a new distribution main is tied into the BUILD main or when the first service line is connected. The Water Special Development Fees will be included in the first water connection or excavation permit for a main or service is issued on that parcel and the Sewer Special Development Fees will be included in the first sewer connection or excavation permit issued on that parcel.

A separate Exhibit has been prepared for each parcel that will have a Water SDF or Sewer SDF. These exhibits are named by the parcel number with a "W" suffix for Water SDF's or a "S" suffix for Sewer SDF's. For example, the Exhibit showing the Water SDF for parcel GE4 is called GE4-W. These exhibits show the boundary of the subject parcel as well as indicate the water main(s) or sewer main that the parcel is responsible for and provide a legal description for the parcel. They also provide a total cost of the WWSDf's associated with the parcel. These exhibits will be recorded in the Missoula County property records for each property to make any future purchaser aware of the WWSDf's. The Mullan BUILD WWSDf's are to be paid in full upon the first connection made within the parcels shown on the attached exhibits; subsequent division of these parcels does not change the fee structure, and no pro rata division of the fee will be made.

NOTE: ID numbers (1) through (14) are used in Exhibits 1A, 1B, 3 and 4 attached to the March 3, 2022 staff memo that describes the approach to the Mullan BUILD Water and Sewer Special Development fees. The purpose of the ID numbers is to identify which utility segments a particular parcel is responsible for.

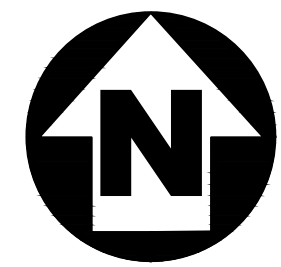
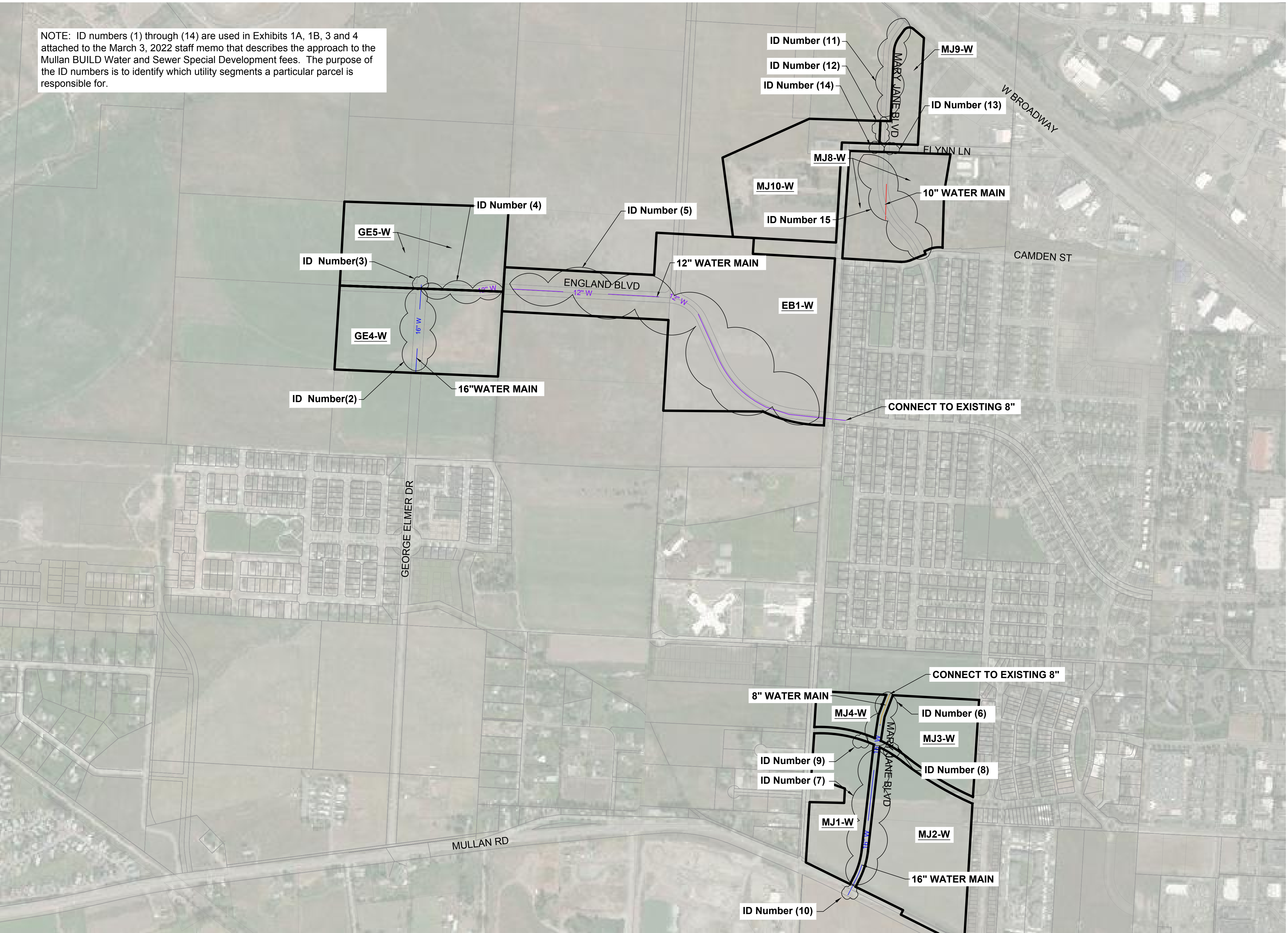


EXHIBIT INDEX

EXHIBIT NUMBER	PROPERTY OWNER
GE4-W	FLYNN FAMILY LP
GE5-W	FLYNN FAMILY LP
EB1-W	DOUGHERTY RANCH, LLC
MJ1-W	FLYNN FAMILY LP
MJ2-W	MULLAN LAND HOLDING LLC
MJ3-W	HEH LLC
MJ4-W	HEH LLC
MJ8-W	LUIKART SHANNON R
MJ9-W	EDGE 1 LLC
MJ10-W	JAMES DOUGHERTY FAMILY LLC

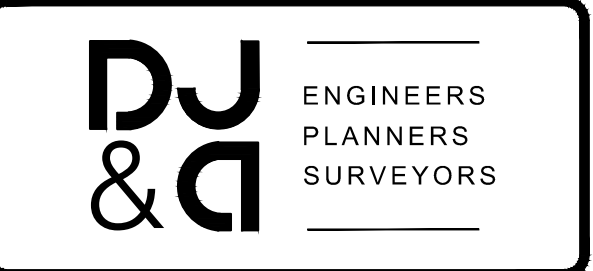
LEGEND

	8" W		8" WATER
	10" W		10" WATER
	12" W		12" WATER
	16" W		16" WATER
	20" W		20" WATER
			PROPERTY LINE
			SUBJECT PROPERTY



REVISION	DATE	DESCRIPTION

DESIGNER		PROJ. NO.	
DRAWN		DATE	
CHECKED		SURVEYED	DJ&A, P.C.



MULLAN BUILD

WATER SYSTEM IMPROVEMENTS
EXHIBIT 1

SHEET	OF
1	1

NOTE: ID numbers (1) through (14) are used in Exhibits 1A, 1B, 3 and 4 attached to the March 3, 2022 staff memo that describes the approach to the Mullan BUILD Water and Sewer Special Development fees. The purpose of the ID numbers is to identify which utility segments a particular parcel is responsible for.

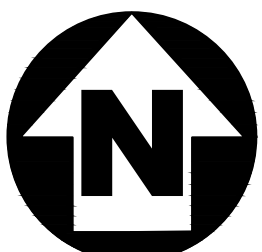
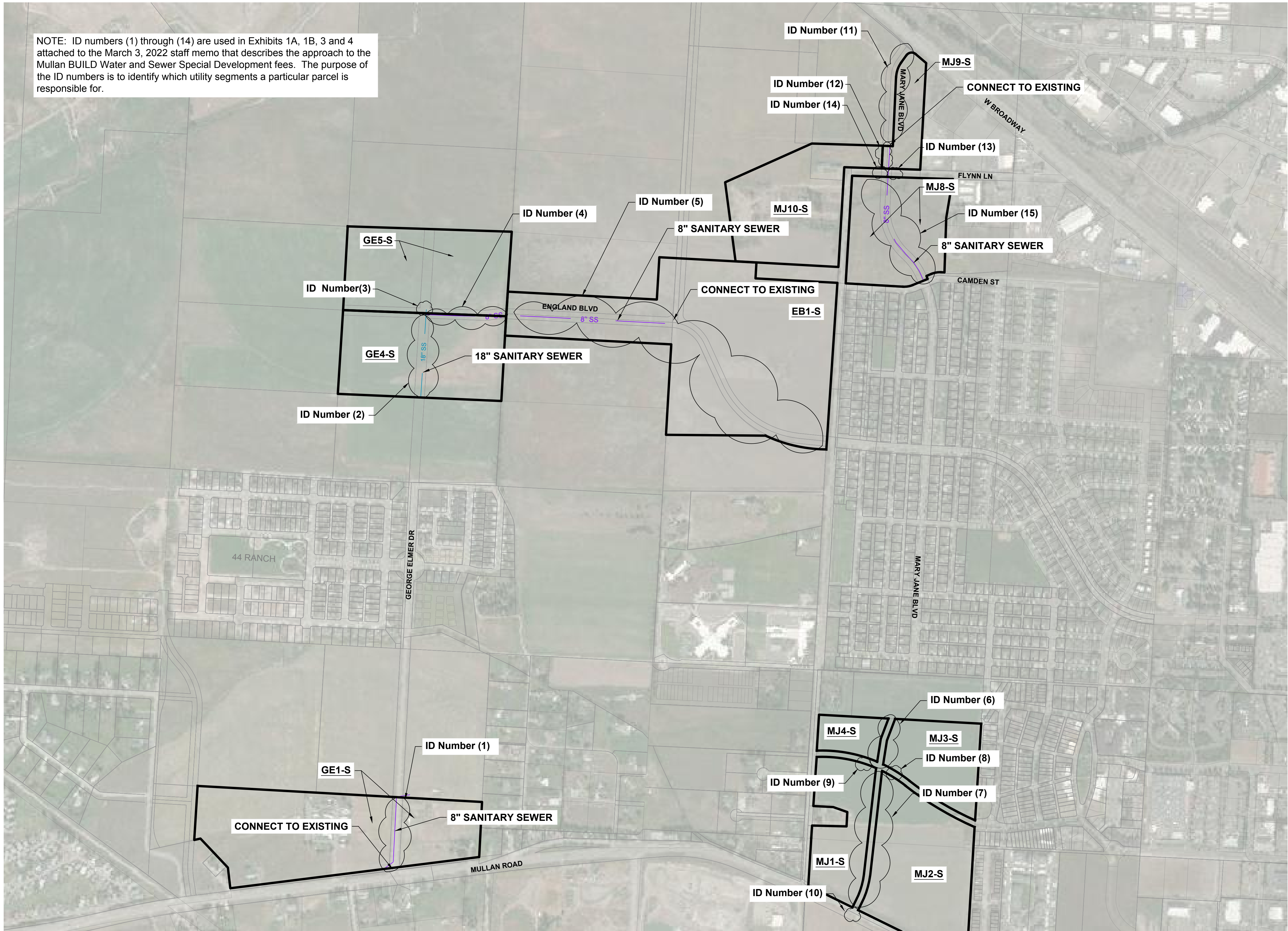
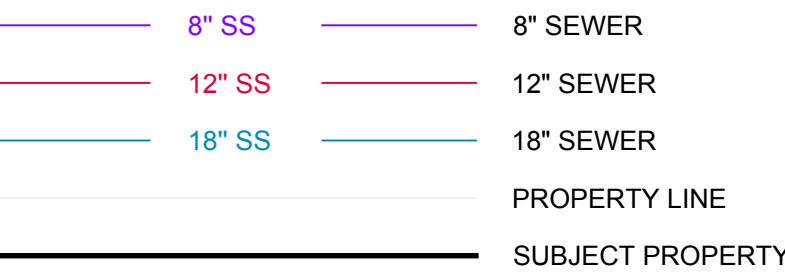


EXHIBIT INDEX

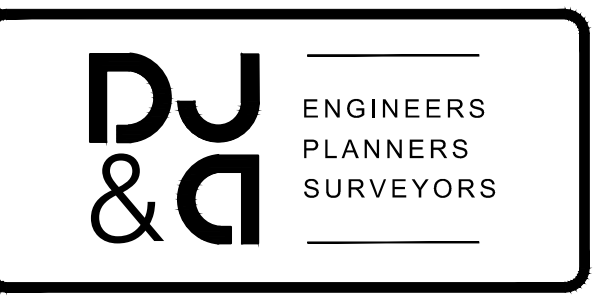
EXHIBIT NUMBER	PROPERTY OWNER
GE1-S	KATHRYN FLYNN FAMILY LTD
GE4-S	FLYNN FAMILY LP
GE5-S	FLYNN FAMILY LP
EB1-S	DOUGHERTY RANCH, LLC
MJ1-S	FLYNN FAMILY LP
MJ2-S	MULLAN LAND HOLDING LLC
MJ3-S	HEH LLC
MJ4-S	HEH LLC
MJ2-S	FLYNN FAMILY LP
MJ8-S	LUIKART SHANNON R
MJ9-S	EDGELL 1 LLC
MJ10-S	JAMES DOUGHERTY FAMILY LLC

LEGEND



REVISION	DATE	DESCRIPTION

DESIGNER		PROJ. NO.	
DRAWN		DATE	
CHECKED		SURVEYED	DJ&A, P.C.



MULLAN BUILD

SEWER SYSTEM IMPROVEMENTS
EXHIBIT 2

SHEET	OF
1	1

EXHIBIT 3A <div><div>Checked</div><div>DEP</div><div>Date</div></div> <div><div><div>MULLAN</div><div>SULLIVAN</div></div><div><div>ENGINEERS</div><div>PLANNERS</div><div>SURVEYORS</div></div></div>								Water and Sewer Main Street Segment Name and ID Number			George Elmer South		George Elmer North		George Elmer North		England Blvd		England Blvd		Mary Jane South		Mary Jane South		
								Parcels Resonible for Cost Share			GE1		GE4		GE5		GE4/GE5 Split		EB1		MJ3/MJ4 Split		MJ1/MJ2 Split		
								Sheet Number / Line / Station Range Used for Cost Share			L2 / n/a / 0+00 to 3+51		K2 / n/a / 6+80 to 8+00 K3 / n/a / 8+00 to 13+75 L4 / Line C / 4+17 to 11+00		K3 / n/a / 13+75 to 14+17 L4 / Line C / 11+00 to 11+17		K4 / n/a / 0+00 to 7+10 L5 / Line D / 0+00 to 6+40		K4 / n/a / 7+10 to 8+50 K5 / n/a / 8+50 to 16+50 K6 / n/a / 16+50 to 25+00 K7 / n/a / 25+00 to 32+50 K8 / n/a / 32+50 to 38+73 L5 / Line D / 6+40 to 8+00 L6 / n/a / 8+00 to 15+00		K9 / n/a / 0+00 to 5+73		K9 / n/a / 5+73 to 8+50 K10 / n/a / 8+50 to 15+00		
Note: Line only provided if more than one line is shown on the construction sheet																									
LINE ITEM NO.	PAY ITEM NO.	ITEM DESCRIPTION	Unit	Quantity	Unit Price	Total Item Cost	Percent of Total Water or Sewer Bid Items	Loaded Unit Price	Total Loaded Item Cost	Loaded Unit Price Excluding Upsize Cost	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price			
Water Utility Items																									
02660	530	2" WATER SERVICE STUB-OUT	EA	54	\$4,933.40	\$266,403.60	15.25%	\$5,589.00	\$301,805.75								20	\$111,779.91	4	\$22,355.98	2	\$11,177.99	3	\$16,766.99	
02661	540	2" FIRE SERVICE STUB-OUT	EA	9	\$4,933.40	\$44,400.60	2.54%	\$5,589.00	\$50,300.96																
02660	550	1" SERVICE LINE FOR IRRIGATION	LF	20	\$131.46	\$2,629.20	0.15%	\$148.93	\$2,978.59																
02660	560	2" WATER SERVICE LINE	LF	3,000	\$33.93	\$101,790.00	5.83%	\$38.44	\$115,316.79								1120	\$43,051.60	224	\$8,610.32	112	\$4,305.16	168	\$6,457.74	
02660	570	1" MANUAL ARV	EA	2	\$1,484.26	\$2,968.52	0.17%	\$1,681.50	\$3,363.00		1	\$1,681.50													
02660	580	2" WATER FIRE SERVICE LINE	LF	500	\$33.93	\$16,965.00	0.97%	\$38.44	\$19,219.46																
02660	590	3" BLOW-OFF ASSEMBLY	EA	9	\$3,357.26	\$30,215.34	1.73%	\$3,803.40	\$34,230.63										1	\$3,803.40	1	\$3,803.40	3	\$11,410.21	
02660	600	4" BLOW-OFF ASSEMBLY	EA	4	\$3,958.03	\$15,832.12	0.91%	\$4,484.01	\$17,936.04				1	\$4,484.01	1	\$4,484.01	1	\$4,484.01	1	\$4,484.01	0	\$0.00			
02660	610	6" CLASS 350 D.I.P. WATER MAIN	LF	215	\$117.33	\$25,225.95	1.44%	\$132.92	\$28,578.20		25	\$3,323.05			9	\$1,196.30	74	\$9,836.22	20	\$2,658.44	38	\$5,051.03			
02660	620	6" MJ X FLG GATE VALVE W/VALVE BOX AND RISER	EA	12	\$2,049.69	\$24,596.28	1.41%	\$2,322.07	\$27,864.86		1	\$2,322.07			1	\$2,322.07	6	\$13,932.43	1	\$2,322.07	2	\$4,644.14			
02660	630	8" CLASS 350 D.I.P. WATER MAIN	LF	432	\$94.71	\$40,914.72	2.34%	\$107.30	\$46,351.84												241	\$25,858.32	0	\$0.00	
02660	640	8" MJ CAP WITH THRUST RESTRAINT	EA	0	\$565.43	\$0.00	0.00%	\$0.00	\$0.00																
02660	650	8" GATE VALVE BOX AND RISER	EA	3	\$3,477.41	\$10,432.23	0.60%	\$3,939.52	\$11,818.56		1	\$3,939.52									0	\$0.00	2	\$7,879.04	
02660	660	8"x8" D.I. (MJ) TAPPING SLEEVE AND 8" TAPPING VALVE (FLxMJ)	EA	1	\$6,672.11	\$6,672.11	0.38%	\$7,558.76	\$7,558.76										1	\$7,558.76					
02660	670	8" 11.25" HORIZONTAL BEND (MJ)	EA	1	\$619.15	\$619.15	0.04%	\$701.43	\$701.43												1	\$701.43	0	\$0.00	
02660	680	10" CLASS 350 D.I.P. WATER MAIN	LF	238	\$144.19	\$34,317.22	1.96%	\$163.35	\$38,877.61																
02660	690	10" GATE VALVE BOX AND RISER	EA	3	\$4,876.86	\$14,630.58	0.84%	\$5,524.94	\$16,574.83																
02660	700	10"x10"x10" TEE (MJ)	EA	2	\$1,371.17	\$2,742.34	0.16%	\$1,553.38	\$3,106.77																
02660	710	10"x10"x6" SWIVEL TEE (MJ)	EA	1	\$2,220.74	\$2,220.74	0.13%	\$2,515.85	\$2,515.85																
02660	720	10" MJ CAP WITH THRUST RESTRAINT	EA	2	\$1,060.19	\$2,120.38	0.12%	\$1,201.08	\$2,402.16																
02660	730	10" 45 DEGREE BEND (MJ)	EA	6	\$1,258.09	\$7,548.54	0.43%	\$1,425.28	\$8,551.66																
02660	740	10" 11.25 DEGREE BEND (MJ)	EA	3	\$1,046.05	\$3,138.15	0.18%	\$1,185.06	\$3,555.18																
02660	750	10" 22.50 DEGREE BEND (MJ)	EA	1	\$1,215.68	\$1,215.68	0.07%	\$1,377.23	\$1,377.23																
02660	760	12" 11.25" HORIZONTAL BEND (MJ)	EA	3	\$1,301.91	\$3,905.73	0.22%	\$1,474.92	\$4,424.76								2	\$2,949.84	0	\$0.00	0	\$0.00	0	\$0.00	
02660	770	12" 22.50 DEGREE BEND (MJ)	EA	4	\$1,515.36	\$6,061.44	0.35%	\$1,716.73	\$6,866.94										4	\$6,866.94					
02660	780	12" BUTTERFLY VALVE (MJ), VALVE BOX AND RISER	EA	11	\$5,583.65	\$61,420.15	3.52%	\$6,325.66	\$69,582.22								1	\$6,325.66	7	\$44,279.60	1	\$6,325.66	0	\$0.00	
02660	790	12" CLASS 350 D.I.P. WATER MAIN	LF	4,032	\$114.50	\$461,664.00	26.42%	\$129.72	\$523,014.13								650	\$84,315.27	3207	\$415,998.59	55	\$7,134.37	0	\$0.00	
02660	800	12"x12"x12" TEE	EA	1	\$2,290.00	\$2,290.00	0.13%	\$2,594.32	\$2,594.32										1	\$2,594.32					
02660	810	12"x12"x6" SWIVEL TEE	EA	7	\$1,882.89	\$13,180.23	0.75%	\$2,133.11	\$14,931.74								1	\$2,133.11	6	\$12,798.63					
02660	820	12"x8" REDUCER (MJ)	EA	1	\$1,222.75	\$1,222.75	0.07%	\$1,385.24	\$1,385.24										1	\$1,385.24					
02660	830	12" MJ CAP WITH THRUST RESTRAINT	EA	3	\$1,229.82	\$3,689.46	0.21%	\$1,393.25	\$4,179.75										1	\$1,393.25	1	\$1,393.25	0	\$0.00	
02660	840	16" 11.25 DEGREE BEND (MJ)	EA	2	\$2,534.55	\$5,069.10	0.29%	\$2,871.36	\$5,742.73	\$0.00											0	\$0.00	0	\$0.00	
02660	850	16" CLASS 350 D.I.P. WATER MAIN	LF	2,245	\$166.80	\$374,466.00	21.43%	\$188.97	\$424,228.46	\$129.72	695	\$90,152.49	42	\$5,448.06	56	\$7,264.09	327	\$42,417.07	927	\$120,246.55					
02660	860	16" MJ x FLG BUTTERFLY VALVE W/VALVE BOX*	EA	8	\$4,784.97	\$38,279.76	2.19%	\$5,420.84	\$43,366.72	\$6,325.66	1	\$6,325.66	1	\$6,325.66	1	\$6,325.66	2	\$12,651.31	2	\$12,651.31					
02660	870	16"x16"x12"x12" CROSS (MJ)	EA	1	\$5,272.66	\$5,272.66	0.30%	\$5,973.34	\$5,973.34	\$4,015.27									1	\$4,015.27	0	\$0.00			
02660	880	16"x16"x16"x16" CROSS (MJ)	EA	2	\$6,559.02	\$13,118.04	0.75%	\$7,430.64	\$14,861.29	\$4,994.87	1	\$4,994.87							1	\$4,994.87	0	\$0.00			
02660	890	16"x16"x6" SWIVEL TEE (MJ)	EA	4	\$2,827.16	\$11,308.64	0.65%	\$3,202.86	\$12,811.44	\$2,133.11	1	\$2,133.11							1	\$2,133.11	2	\$4,266.21			
02660	900	16"x16"x8" TEE (MJ)	EA	1	\$3,406.73	\$3,406.73	0.19%	\$3,859.45	\$3,859.45	\$2,594.32									0	\$0.00	1	\$2,594.32			
02660	910	16"x16"x8"x8" CROSS (MJ)	EA	1	\$3,519.82	\$3,519.82	0.20%	\$3,987.57	\$3,987.57										0	\$0.00	1	\$3,987.57			
02660	920	16" X 1" SERVICE WITH TAP AND CURB BOX	EA	1	\$1,865.93	\$1,865.93	0.11%	\$2,113.89	\$2,113.89																
02660	930	16" X 4" CAP	EA	2	\$2,615.13	\$5,230.26	0.30%	\$2,962.65	\$5,925.30										1	\$2,962.65	0	\$0.00			
02660	940	16"x8" REDUCER (MJ)	EA	1	\$2,094.93	\$2,094.93	0.12%	\$2,373.32	\$2,373.32										1	\$2,373.32	0	\$0.00			
02660	950	16"x12" REDUCER (MJ)	EA	2	\$1,484.26	\$2,968.52	0.17%	\$1,681.50	\$3,363.00								1	\$1,681.50	1	\$1,681.50	0	\$0.00			
02660	960	FIRE HYDRANT (including Storz Adapter)	EA	12	\$5,795.69	\$69,548.28	3.98%	\$6,565.87	\$78,790.49		1	\$6,565.87			1	\$6,565.87	6	\$39,395.25	1	\$6,565.87	2	\$13,131.75			
			WATER BID ITEM SUBTOTAL:					\$1,747,180.88	100.00%	\$1,979,362.24		\$0.00		\$121,438.13		\$16,257.73		\$280,394.88		\$590,808.93		\$149,959.08		\$209,086.86	
Sanitary Sewer Utility Items																									
02730	0970	4" SEWER SERVICE STUB-OUT	EA	46	\$1,880.06	\$86,482.76	10.52%	\$2,176.85	\$100,135.01								20	\$43,536.96	2	\$4,353.70	10	\$21,768.48	10	\$21,768.48	
02730	0980	6" SEWER SERVICE STUB-OUT	EA	9	\$3,265.37	\$29,388.33	3.58%	\$3,780.84	\$34,027.60																
02730	0990	18" SANITARY SEWER MAIN	LF	701	\$158.32	\$110,982.32	13.50%	\$183.31	\$128,502.09	\$86.75			683	\$59,248.16	17	\$1,474.70									
02730	1000	8" SANITARY SEWER MAIN	LF	3,563	\$74.92	\$266,939.96	32.47%	\$86.75	\$309,079.35		346	\$30,014.44					640	\$55,518.04	1260	\$109,301.15					
02730	1010	4" SEWER SERVICE LINE	LF	1,973	\$42.41	\$83,674.93	10.18%	\$49.10	\$96,883.93								860	\$42,230.20	86	\$4,223.02	430	\$21,115.10	430	\$21,115.10	
02730	1020	6" SEWER SERVICE LINE	LF	386	\$62.20	\$24,009.20	2.92%	\$72.02	\$27,799.31																
02730	1030	48" MANHOLE, 5' DEPTH	EA	29	\$5,725.01	\$166,025.29	20.20%	\$6,628.77	\$192,234.20		3	\$19,886.30	2	\$13,257.53	1	\$6,628.77	3	\$19,886.30	4	\$26,515.06					
02730	1040	48" MANHOLE ADDITIONAL DEPTH	VF	166	\$318.06	\$52,797.96	6.42%	\$368.27	\$61,132.70		22	\$8,101.92	12	\$4,419.23	4	\$1,473.08	15	\$5,524.04	16						


EXHIBIT 3B <div><div></div><div>Checked DEP Date</div></div>								Water and Sewer Main Street Segment Name and ID Number			Mary Jane South		Mary Jane South		Mary Jane South		Mary Jane North		Mary Jane North		Mary Jane North		Mary Jane North			
								Parcels Resonsible for Cost Share			MJ2/MJ3 Split		MJ1/MJ4 Split		ROW		MJ9		MJ9/MJ10 Split		MJ8/MJ9 Split		MJ8/MJ10 Split		MJ8	
								Sheet Number / Line / Station Range Used for Cost Share Note: Line only provided if more than one line is shown on the construction sheet			K9 / n/a / Stub east at 5+72		K9 / n/a / Stub west at 5+72		K10 / n/a / 15+00 to 16+51		K11 / n/a / 4+32 to 7+08 K12 / n/a / 8+00 to 8+45		K12 / n/a / 8+45 to 10+50 L8 / n/a / 5+57 to 7+75		L8 / n/a / 7+66 and Left		L8 / n/a / 7+66 and Right		K12 / n/a / 10+50 to 14+69 L8 / n/a / 7+75 to 8+50 L9 / n/a / 8+50 to 15+64	
LINE ITEM NO.	PAY ITEM NO.	ITEM DESCRIPTION	Unit	Quantity	Unit Price	Total Item Cost	Percent of Total Water or Sewer Bid Items	Loaded Unit Price	Total Loaded Item Cost	Loaded Unit Price Excluding Upsize Cost	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price	Quantity	Extended price		
Water Utility Items																										
02730	530	2" WATER SERVICE STUB-OUT	EA	54	\$4,933.40	\$266,403.60	15.25%	\$5,589.00	\$301,805.75		0	\$0.00	0	\$0.00			9	\$50,300.96					1	\$5,589.00		
02661	540	2" FIRE SERVICE STUB-OUT	EA	9	\$4,933.40	\$44,400.60	2.54%	\$5,589.00	\$50,300.96								9	\$50,300.96								
02660	550	1" SERVICE LINE FOR IRRIGATION	LF	20	\$131.46	\$2,629.20	0.15%	\$148.93	\$2,978.59					20	\$2,978.59											
02660	560	2" WATER SERVICE LINE	LF	3,000	\$33.93	\$101,790.00	5.83%	\$38.44	\$115,316.79		0	\$0.00	0	\$0.00			504	\$19,373.22					56	\$2,152.58		
02660	570	1" MANUAL ARV	EA	2	\$1,484.26	\$2,968.52	0.17%	\$1,681.50	\$3,363.00																	
02660	580	2" WATER FIRE SERVICE LINE	LF	500	\$33.93	\$16,965.00	0.97%	\$38.44	\$19,219.46								504	\$19,373.22								
02660	590	3" BLOW-OFF ASSEMBLY	EA	9	\$3,357.26	\$30,215.34	1.73%	\$3,803.40	\$34,230.63		1	\$3,803.40	1	\$3,803.40				0	\$0.00				2	\$7,606.81		
02660	600	4" BLOW-OFF ASSEMBLY	EA	4	\$3,958.03	\$15,832.12	0.91%	\$4,484.01	\$17,936.04		0	\$0.00	0	\$0.00	1	\$4,484.01										
02660	610	6" CLASS 350 D.I.P. WATER MAIN	LF	215	\$117.33	\$25,225.95	1.44%	\$132.92	\$28,578.20		0	\$0.00	0	\$0.00									25	\$3,323.05		
02660	620	6" MJ X FLG GATE VALVE W/VALVE BOX AND RISER	EA	12	\$2,049.69	\$24,596.28	1.41%	\$2,322.07	\$27,864.86		0	\$0.00	0	\$0.00									1	\$2,322.07		
02660	630	8" CLASS 350 D.I.P. WATER MAIN	LF	432	\$94.71	\$40,914.72	2.34%	\$107.30	\$46,351.84		178	\$19,098.68	0	\$0.00												
02660	640	8" MJ CAP WITH THRUST RESTRAINT	EA	0	\$565.43	\$0.00	0.00%	\$0.00	\$0.00																	
02660	650	8" GATE VALVE BOX AND RISER	EA	3	\$3,477.41	\$10,432.23	0.60%	\$3,939.52	\$11,818.56		0	\$0.00	0	\$0.00												
02660	660	8"x8" D.I. (MJ) TAPPING SLEEVE AND 8" TAPPING VALVE (FLxMJ)	EA	1	\$6,672.11	\$6,672.11	0.38%	\$7,558.76	\$7,558.76																	
02660	670	8" 11.25" HORIZONTAL BEND (MJ)	EA	1	\$619.15	\$619.15	0.04%	\$701.43	\$701.43		0	\$0.00	0	\$0.00												
02660	680	10" CLASS 350 D.I.P.WATER MAIN	LF	238	\$144.19	\$34,317.22	1.96%	\$163.35	\$38,877.61														238	\$38,877.61		
02660	690	10" GATE VALVE BOX AND RISER	EA	3	\$4,876.86	\$14,630.58	0.84%	\$5,524.94	\$16,574.83														3	\$16,574.83		
02660	700	10"x10"x10" TEE (MJ)	EA	2	\$1,371.17	\$2,742.34	0.16%	\$1,553.38	\$3,106.77														2	\$3,106.77		
02660	710	10"x10"x6" SWIVEL TEE (MJ)	EA	1	\$2,220.74	\$2,220.74	0.13%	\$2,515.85	\$2,515.85														1	\$2,515.85		
02660	720	10" MJ CAP WITH THRUST RESTRAINT	EA	2	\$1,060.19	\$2,120.38	0.12%	\$1,201.08	\$2,402.16														2	\$2,402.16		
02660	730	10" 45 DEGREE BEND (MJ)	EA	6	\$1,258.09	\$7,548.54	0.43%	\$1,425.28	\$8,551.66														6	\$8,551.66		
02660	740	10" 11.25 DEGREE BEND (MJ)	EA	3	\$1,046.05	\$3,138.15	0.18%	\$1,185.06	\$3,555.18														3	\$3,555.18		
02660	750	10" 22.50 DEGREE BEND (MJ)	EA	1	\$1,215.68	\$1,215.68	0.07%	\$1,377.23	\$1,377.23														1	\$1,377.23		
02660	760	12" 11.25" HORIZONTAL BEND (MJ)	EA	3	\$1,301.91	\$3,905.73	0.22%	\$1,474.92	\$4,424.76		1	\$1,474.92	0	\$0.00												
02660	770	12" 22.50 DEGREE BEND (MJ)	EA	4	\$1,515.36	\$6,061.44	0.35%	\$1,716.73	\$6,866.94																	
02660	780	12" BUTTERFLY VALVE (MJ), VALVE BOX AND RISER	EA	11	\$5,583.65	\$61,420.15	3.52%	\$6,325.66	\$69,582.22		1	\$6,325.66	1	\$6,325.66												
02660	790	12" CLASS 350 D.I.P. WATER MAIN	LF	4,032	\$114.50	\$461,664.00	26.42%	\$129.72	\$523,014.13		58	\$7,523.52	54	\$7,004.65												
02660	800	12"x12"x12" TEE	EA	1	\$2,290.00	\$2,290.00	0.13%	\$2,594.32	\$2,594.32																	
02660	810	12"x12"x6" SWIVEL TEE	EA	7	\$1,882.89	\$13,180.23	0.75%	\$2,133.11	\$14,931.74																	
02660	820	12"x8" REDUCER (MJ)	EA	1	\$1,222.75	\$1,222.75	0.07%	\$1,385.24	\$1,385.24																	
02660	830	12" MJ CAP WITH THRUST RESTRAINT	EA	3	\$1,229.82	\$3,689.46	0.21%	\$1,393.25	\$4,179.75		1	\$1,393.25	1	\$1,393.25												
02660	840	16" 11.25 DEGREE BEND (MJ)	EA	2	\$2,534.55	\$5,069.10	0.29%	\$2,871.36	\$5,742.73		0	\$0.00	0	\$0.00	2	\$5,742.73										
02660	850	16" CLASS 350 D.I.P. WATER MAIN	LF	2,245	\$166.80	\$374,466.00	21.43%	\$188.97	\$424,228.46	\$129.72	0	\$0.00	0	\$0.00	151	\$19,587.09										
02660	860	16" MJ x FLG BUTTERFLY VALVE W/VALVE BOX*	EA	8	\$4,784.97	\$38,279.76	2.19%	\$5,420.84	\$43,366.72	\$6,325.66	0	\$0.00	0	\$0.00	1	\$6,325.66										
02660	870	16"x16"x12"x12" CROSS (MJ)	EA	1	\$5,272.66	\$5,272.66	0.30%	\$5,973.34	\$5,973.34	\$4,015.27	0	\$0.00	0	\$0.00												
02660	880	16"x16"x16"x16" CROSS (MJ)	EA	2	\$6,559.02	\$13,118.04	0.75%	\$7,430.64	\$14,861.29	\$4,994.87	0	\$0.00	0	\$0.00												
02660	890	16"x16"x6" SWIVEL TEE (MJ)	EA	4	\$2,827.16	\$11,308.64	0.65%	\$3,202.86	\$12,811.44	\$2,133.11	0	\$0.00	0	\$0.00												
02660	900	16"x16"x8" TEE (MJ)	EA	1	\$3,406.73	\$3,406.73	0.19%	\$3,859.45	\$3,859.45	\$2,594.32	0	\$0.00	0	\$0.00												
02660	910	16"x16"x8"x8" CROSS (MJ)	EA	1	\$3,519.82	\$3,519.82	0.20%	\$3,987.57	\$3,987.57		0	\$0.00	0	\$0.00	0	\$0.00										
02660	920	16" X 1" SERVICE WITH TAP AND CURB BOX	EA	1	\$1,865.93	\$1,865.93	0.11%	\$2,113.89	\$2,113.89						1	\$2,113.89										
02660	930	16" X 4" CAP	EA	2	\$2,615.13	\$5,230.26	0.30%	\$2,962.65	\$5,925.30		0	\$0.00	0	\$0.00	1	\$2,962.65										

EXHIBIT 4 Engineering, permitting and Financing Costs Attributable to Water and Sewer

Engineering and Permitting Costs		Total	Water Portion @ 12.45%	Sewer Portion @ 5.96%
Engineering		\$2,765,541.94	\$344,309.97	\$164,826.30
Construction Administration and Engineering		\$1,049,367.00	\$130,646.19	\$62,542.27
City Permits		\$117,000.00	\$14,566.50	\$6,973.20
Subtotal Engineering and Permitting Costs		\$3,931,908.94	\$489,522.66	\$234,341.77
Utility Financing Costs		Total	Water Portion	Sewer Portion
Deposit to Debt Service Reserve Fund (DSRF)			\$80,000.00	\$80,000.00
Costs of Issuance			\$60,000.00	\$60,000.00
Subtotal Financing Costs			\$140,000.00	\$140,000.00
Total Engineering, Permitting and Financing Costs to Add to Utility Fees			\$629,522.66	\$374,341.77

EXHIBIT 5: Total Water and Sewer Special Development Fees by Road Segment and Parcel

Water and Sewer Main Street Segment Name and ID Number	George Elmer South (1)	George Elmer North (2)	George Elmer North (3)	England Blvd (4)	England Blvd (5)	Mary Jane South (6)	Mary Jane South (7)
Parcel	GE1	GE4	GE5	GE4/GE5 Split	EB1	MJ3/MJ4 Split	MJ1/MJ2 Split
Sheet Number / Line / Station Range Used for Cost Share Note: Line only provided if more than one line is shown on the construcion sheet	L2 / n/a / 0+00 to 3+51	K2 / n/a / 6+80 to 8+00 K3 / n/a / 8+00 to 13+75 L4 / Line C / 4+17 to 11+00	K3 / n/a / 13+75 to 14+17 L4 / Line C / 11+00 to 11+17	K4 / n/a / 0+00 to 7+10 L5 / Line D / 0+00 to 6+40	K4 / n/a / 7+10 to 8+50 K5 / n/a / 8+50 to 16+50 K6 / n/a / 16+50 to 25+00 K7 / n/a / 25+00 to 32+50 K8 / n/a / 32+50 to 38+73 L5 / Line D / 6+40 to 8+00	K9 / n/a / 0+00 to 5+73	K9 / n/a / 5+73 to 8+50 K10 / n/a / 8+50 to 15+00
Water Utility Development Fees							
Total Water Construction Cost	\$0.00	\$121,438.13	\$16,257.73	\$280,098.62	\$590,808.93	\$209,037.93	\$261,494.24
% of total water cost	0.00%	6.14%	0.82%	14.15%	29.85%	10.56%	13.21%
Portion of Engineering, Permitting & Financing Costs	\$0.00	\$38,622.57	\$5,170.66	\$89,083.45	\$187,902.75	\$66,483.09	\$83,166.46
Total Water Special Development Fee	\$0.00	\$160,060.70	\$21,428.39	\$369,182.07	\$778,711.68	\$275,521.02	\$344,660.69
Sewer Utility Development Fees							
Total Sewer Construction Cost	\$58,002.66	\$76,924.92	\$9,576.54	\$166,695.54	\$150,285.23	\$42,883.58	\$42,883.58
% of total sewer cost	6.09%	8.08%	1.01%	17.51%	15.79%	4.51%	4.51%
Portion of Engineering, Permitting & Financing Costs	\$22,813.38	\$30,255.80	\$3,766.61	\$65,564.02	\$59,109.59	\$16,866.80	\$16,866.80
Total Sewer Special Development Fee	\$80,816.04	\$107,180.73	\$13,343.15	\$232,259.56	\$209,394.82	\$59,750.38	\$59,750.38

Water and Sewer Main Street Segment Name and ID Number	Mary Jane South (8)	Mary Jane South (9)	Mary Jane South (10)	Mary Jane North (11)	Mary Jane North (12)	Mary Jane North (13)	Mary Jane North (14)	Mary Jane North (15)
Parcel	MJ2/MJ3 Split	MJ1/MJ4 Split	ROW	MJ9	MJ9/MJ10 Split	MJ8/MJ9 Split	MJ8/MJ10 Split	MJ8
Sheet Number / Line / Station Range Used for Cost Share Note: Line only provided if more than one line is shown on the construcion sheet	K9 / n/a / Stub east at 5+72	K9 / n/a / Stub west at 5+72	K10 / n/a / 15+00 to 16+51	K11 / n/a / 4+32 to 7+08 K12 / n/a / 8+00 to 8+45	K12 / n/a / 8+45 to 10+50 L8 / n/a / 5+57 to 7+75	L8 / n/a / Stub east at 7+66	L8 / n/a / Stub west at 7+66	K12 / n/a / 10+50 to 14+69 L8 / n/a / 7+75 to 8+50 L9 / n/a / 8+50 to 15+64
Water Utility Development Fees								
Total Water Construction Cost	\$39,619.42	\$18,526.96	\$42,625.21	\$139,348.36	\$0.00	\$0.00	\$0.00	\$104,520.65
% of total water cost	2.00%	0.94%	2.15%	7.04%	0.00%	0.00%	0.00%	5.28%
Portion of Engineering, Permitting & Financing Costs	\$12,600.69	\$5,892.37	\$13,556.66	\$44,318.79	\$0.00	\$0.00	\$0.00	\$33,242.08
Total Water Special Development Fee	\$52,220.11	\$24,419.34	\$56,181.87	\$183,667.15	\$0.00	\$0.00	\$0.00	\$137,762.73
Sewer Utility Development Fees								
Total Sewer Construction Cost	\$0.00	\$0.00	\$0.00	\$61,898.93	\$39,057.45	\$14,280.54	\$15,148.01	\$204,955.77
% of total sewer cost	0.00%	0.00%	0.00%	6.50%	4.10%	1.50%	1.59%	21.53%
Portion of Engineering, Permitting & Financing Costs	\$0.00	\$0.00	\$0.00	\$24,345.84	\$15,361.92	\$5,616.76	\$5,957.95	\$80,612.39
Total Sewer Special Development Fee	\$0.00	\$0.00	\$0.00	\$86,244.78	\$54,419.37	\$19,897.30	\$21,105.96	\$285,568.15

City Upsize and Quantity Adjustment	
Water Utility Development Fees	
Total Water Construction Cost	\$155,586.08
% of total water cost	7.86%
Portion of Engineering, Permitting & Financing Costs	\$49,483.09
Total Water Special Development Fee	\$205,069.17
Sewer Utility Development Fees	
Total Sewer Construction Cost	\$69,165.53
% of total sewer cost	7.27%
Portion of Engineering, Permitting & Financing Costs	\$27,203.91
Total Sewer Special Development Fee	\$96,369.44

Subtotal of All Cost Items (Street Segments 1 to 14 and City Upsize)	
Water Utility Development Fees	
Total Water Construction Cost	\$1,979,362.24
Total Water Special Development Fee	\$2,608,884.91
Sewer Utility Development Fees	
Total Sewer Construction Cost	\$951,758.28
Total Sewer Special Development Fee	\$1,326,100.05

EXHIBIT 6: Total Water and Sewer Special Development Fees by Parcel, Plus City Costs

Parcel	Water Contributing Road Segments*	Water Total	Wastewater Contributing Road Segments*	Wastewater Total	Total Water and Sewer Special Development Fee
GE1	100% of (1)	\$0.00	100% of (1)	\$80,816.04	\$80,816.04
GE4	100% of (2) 50% of (4)	\$344,651.74	100% of (2) 50% of (4)	\$223,310.51	\$567,962.24
GE5	100% of (3) 50% of (4)	\$206,019.42	100% of (3) 50% of (4)	\$129,472.93	\$335,492.35
EB1	100% of (5)	\$778,711.68	100% of (5)	\$209,394.82	\$988,106.50
MJ1	50% of (7) 50% of (9)	\$184,540.02	50% of (7) 50% of (9)	\$29,875.19	\$214,415.20
MJ2	50% of (7) 50% of (8)	\$198,440.40	50% of (7) 50% of (8)	\$29,875.19	\$228,315.59
MJ3	50% of (6) 50% of (8)	\$163,870.56	50% of (6) 50% of (8)	\$29,875.19	\$193,745.75
MJ4	50% of (6) 50% of (9)	\$149,970.18	50% of (6) 50% of (9)	\$29,875.19	\$179,845.37
MJ9	100% of (11) 50% of (12) 50% of (13)	\$183,667.15	100% of (11) 50% of (12) 50% of (13)	\$123,403.11	\$307,070.26
MJ10	50% of (12) 50% of (14)	\$0.00	50% of (12) 50% of (14)	\$37,762.67	\$37,762.67
MJ8	50% of (13) 50% of (14) 100% of (15)	\$137,762.73	50% of (13) 50% of (14) 100% of (15)	\$306,069.78	\$443,832.51
Total Fees		\$2,347,633.87		\$1,229,730.61	\$3,577,364.48
City-MJ Roundabout		\$56,181.87		\$0.00	\$56,181.87
City Upsize/Qty Adjustment		\$205,069.17		\$96,369.44	\$301,438.61
Total Including City Costs		\$2,608,884.91		\$1,326,100.05	\$3,934,984.96

*Road segment numbers are identified in Exhibits 3A and 3B, second row from top