

EXHIBIT A-2  
CITY OF MANOR WATER IMPROVEMENTS  
10-YEAR CAPITAL IMPROVEMENTS PLAN  
AUGUST 2020 - DRAFT

The following projects have been identified as required to serve new growth within the service area, in accordance with approved land use assumptions and as part of the 10-year Capital Improvements Plan

Project No.	Year	Description	Size	Unit	Length (ft)	Construction Cost (2020 Dollars)	Annual Interest	Period (yr)	Construction Cost (adjusted for Inflation @ 5% per annum)	Soft Costs	Contingency (10% + 1% per annum)	Financing Cost (5% over 20 Years)	Total Project Costs	Detailed Description
W-6	2021	Blake Manor Road Water Line	12	inch	3,200	\$ 268,800.00	0.050	20	\$ 322,560.00	\$ 48,400.00	\$ 48,200.00	\$ 253,529.66	\$ 673,000.00	Transmission main from downtown along Blake Manor Road to future FM 973. Includes replacing 400 LF of 6" pipe in Downtown Plant
W-10	2020	Hill Lane Water Line	12	inch	3,450	\$ 289,800.00	0.050	20	\$ 333,270.00	\$ 50,000.00	\$ 46,000.00	\$ 259,644.71	\$ 689,000.00	Water Distribution main along Hill Lane to serve new growth
W-13	2025	US 290 Crossing at Golf Course	12	inch	250	\$ 100,000.00	0.050	20	\$ 140,000.00	\$ 21,000.00	\$ 27,400.00	\$ 113,954.07	\$ 302,000.00	Connect 12" water lines on north and south sides of US 290
W-14	2021	Gregg Manor Road Water Supply - Ground Storage Tank and Pumps	250,000	gallon		\$ 2,000,000.00	0.050	20	\$ 2,400,000.00	\$ 360,000.00	\$ 358,800.00	\$ 1,886,411.62	\$ 5,005,000.00	250,000 gal Ground Storage Tank and 1,400 gpm expandable pump station for wholesale water supply connection
W-15	2021	FM 973 Water Line	12	inch	4000	\$ 336,000.00	0.050	20	\$ 403,200.00	\$ 60,500.00	\$ 60,300.00	\$ 316,942.31	\$ 841,000.00	Transmission main from US 290 to serve new growth on the east and west sides of FM 973
W-16	2021	US 290 Water Line	12	inch	2900	\$ 243,600.00	0.050	20	\$ 292,320.00	\$ 43,800.00	\$ 43,700.00	\$ 229,734.79	\$ 610,000.00	Parallel 12" waterline to increase US 290 capacity
W-17	2020	US 290 Water Line	16	inch	4400	\$ 540,000.00	0.050	20	\$ 621,000.00	\$ 93,200.00	\$ 85,700.00	\$ 483,820.91	\$ 1,284,000.00	Extend transmission main from Presidential Glen to Old Kimbro Road
W-18	2020	Old Kimbro Road Water Line	12	inch	3000	\$ 474,000.00	0.050	20	\$ 545,100.00	\$ 81,800.00	\$ 75,200.00	\$ 424,666.41	\$ 1,127,000.00	Transmission main to serve new growth north of US 290
W-20	2025	Bois D'Arc Lane Water Line	16	inch	2700	\$ 302,400.00	0.050	20	\$ 423,360.00	\$ 63,500.00	\$ 82,800.00	\$ 344,559.84	\$ 914,000.00	Transmission main to improve delivery of water from East EST
W-22	2025	Bois D'Arc Lane Water Line	12	inch	2500	\$ 210,000.00	0.050	20	\$ 294,000.00	\$ 44,100.00	\$ 57,500.00	\$ 239,279.35	\$ 635,000.00	Transmission main to serve new growth north of Tower Rd
W-24	2025	Gregg Manor Road Pump Improvements	1200	gpm		\$ 200,000.00	0.050	20	\$ 280,000.00	\$ 42,000.00	\$ 54,700.00	\$ 227,847.65	\$ 605,000.00	Increase Pump Capacity (and contracted supply) at wholesale water connection
W-31	2021	FM 973 Water Line	12	inch	5200	\$ 436,800.00	0.050	20	\$ 524,160.00	\$ 78,600.00	\$ 78,400.00	\$ 412,000.81	\$ 1,093,000.00	Transmission main along FM 973 from Tower Road to Canopy Lane to serve new growth.
Water CIP-1	2020	Gregg Lane to Tower Road Waterline	12	inch	3400	\$ 1,560,000.00	0.050	20	\$ 1,794,000.00	\$ 269,100.00	\$ 247,600.00	\$ 1,397,630.92	\$ 3,708,000.00	Transmission main from Manville WSC Booster Station to East Elevated Storage Tank
Water CIP-2	2017	AMR Water Meters				\$ 300,000.00	0.05	20	\$ 300,000.00	\$ 45,000.00	\$ 31,100.00	\$ 227,484.74	\$ 604,000.00	1350 Meter bodies and AMR registers, 810 replacement meter box lids, software, two vehicle transmitter units, two laptops.
Water CIP-3	2018	AMR Water Meters				\$ 400,000.00	0.05	20	\$ 420,000.00	\$ 63,000.00	\$ 48,300.00	\$ 321,357.73	\$ 853,000.00	1350 Meter bodies and AMR registers, 810 replacement meter box lids, software, two vehicle transmitter units, two laptops.
<b>Total</b>												<b>\$ 18,943,000.00</b>		

Notes:  
Water LUEs are defined as requiring 451 gallons of water per day per single family residence as determined in the the City of Manor Water Master Plan.

EXHIBIT B-2  
CITY OF MANOR WATER IMPROVEMENTS  
10-YEAR CAPITAL IMPROVEMENTS PLAN  
PRO RATA CALCULATIONS  
MAY 2020

Project No.	Year	Description	Size	Total LUE Capacity	10-Year LUE Demand	Total Project Cost in 2020 Dollars	Pro Rata Share	Pro Rata Project Cost in 2020 Dollars
W-6	2021	Blake Manor Road Water Line	12"	1667	763	\$ 673,000.00	46%	\$ 308,037.79
W-10	2020	Hill Lane Water Line	12"	91	45	\$ 689,000.00	49%	\$ 340,714.29
W-13	2025	US 290 Crossing at Golf Course	12"	1667	1667	\$ 302,000.00	100%	\$ 302,000.00
W-14	2021	Gregg Manor Road Water Supply - Ground Storage Tank and Pumps	250000	2500	2500	\$ 5,005,000.00	100%	\$ 5,005,000.00
W-15	2021	FM 973 Water Line	12"	1667	625	\$ 841,000.00	37%	\$ 315,311.94
W-16	2021	US 290 Water Line	12"	1667	1667	\$ 610,000.00	100%	\$ 610,000.00
W-17	2020	US 290 Water Line	16"	2400	900	\$ 1,284,000.00	38%	\$ 481,500.00
W-18	2020	Old Kimbro Road Water Line	12"	1667	700	\$ 1,127,000.00	42%	\$ 473,245.35
W-20	2025	Bois D'Arc Lane Water Line	16"	2400	2400	\$ 914,000.00	100%	\$ 914,000.00
W-22	2025	Bois D'Arc Lane Water Line	12"	1667	1100	\$ 635,000.00	66%	\$ 419,016.20
W-24	2025	Gregg Manor Road Pump Improvements	1200	2000	2000	\$ 605,000.00	100%	\$ 605,000.00
W-31	2021	FM 973 Water Line	12	2400	725	\$ 1,093,000.00	30%	\$ 330,177.08
Water CIP-1	2020	Gregg Lane to Tower Road Waterline	12	2400	725	\$ 3,708,000.00	30%	\$ 1,120,125.00
Water CIP-3	2018	AMR Water Meters		2400	2400	\$ 853,000.00	100%	\$ 853,000.00
								<b>\$ 12,077,127.65</b>

**Previously Completed Projects**

Year	Total LUE Capacity	Name	Description	Project Cost	LUEs Used	10-Year LUE Demand	Pro Rata Share	Pro Rata Project Cost
2002	1667	Creekside Offsite Utilities	12"	\$ 175,000.00	405	300	18%	\$ 31,000.00
2005	1667	Greenbury Offsite Utilities	12"	\$ 407,816.64	308	1200	72%	\$ 294,000.00
2007	5,600	Water Supply Main From City of Austin to West Elevated Storage Tank and Downtown	16"	\$ 1,057,675.36	1550	2650	47%	\$ 501,000.00
2008	5,000	West Elevated Storage Tank	500,000	\$ 2,138,083.58	1550	2650	53%	\$ 1,133,000.00
2010	2,400	Presidential Glen Water Lines	16"	\$ 465,054.06	8	1300	54%	\$ 252,000.00
2009	5,000	East Manor Elevated Storage Tank	500,000	\$ 1,880,381.34	1550	2650	53%	\$ 997,000.00
<b>Totals</b>				<b>\$ 6,124,000.00</b>				<b>\$ 3,208,000.00</b>

**CIF Ineligible Projects**

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EXHIBIT B-3  
CITY OF MANOR WATER IMPROVEMENTS  
MISCELLANEOUS PROJECT COSTS  
MAY 2020

Description	Amount
CIF Studies	\$ 13,450.00
Study Cost for Water, Mapping, Modeling	\$ 40,000.00
<b>Total Water-Related Costs</b>	<b>\$ 53,450.00</b>



EXHIBIT B-8  
CITY OF MANOR WATER AND WASTEWATER IMPACT  
FEE FACTORS  
MAY 2020

**1. RESIDENTIAL DEVELOPMENT**

Community Impact Fees for residential development shall be assessed based upon the number of dwelling units proposed for development times the appropriate LUE Factor for water as shown below.

<b>Dwelling Type</b>	<b>Units</b>	<b>LUE Factor</b>
Single Family Residential	Per Housing Unit	1
Two-Family Residential	Per Residential Unit	0.7
Three-Family Residential	Per Residential Unit	0.7
Multi-Family Residential	Per Residential Unit	0.5

**2. NON-RESIDENTIAL DEVELOPMENT**

Community Impact Fees for all non-residential development shall be assessed based upon the water meter size and type installed to serve the proposed development water, as shown below.

<b>Meter Size (Inch)</b>	<b>Type</b>	<b>LUE Factor</b>
5/8	Positive	1
	Displacement	
3/4	Positive	1.5
	Displacement	
1	Positive	2.5
	Displacement	
1-1/2	Positive	5
	Displacement	
2	Positive	8
	Displacement	
2	Compound	8
2	Turbine	10
3	Compound	16
3	Turbine	24
4	Compound	25
4	Turbine	42
6	Compound	50
6	Turbine	92
8	Compound	80
8	Turbine	160
10	Compound	115
10	Turbine	250
12	Turbine	330

EXHIBIT B-4  
CITY OF MANOR WATER  
IMPACT FEE CALCULATION  
MAY 2020

<b>CATEGORY</b>	<b>AMOUNT</b>
Total CIP Eligible Project Cost :	\$ 15,338,577.65
Number of LUEs added:	\$ 5,782.00
<b>Maximum Water CIF:</b>	<b>\$ 2,653.00</b>
<b>50% Credit:</b>	<b>\$ (1,326.50)</b>
<b>MAXIMUM ASSESSABLE CIF:</b>	<b>\$ 1,326.50</b>
<b>2017 ASSESSED WATER CIF:</b>	<b>\$ 1,560.00</b>