

**EXHIBIT "E"**  
**COST ESTIMATES FOR OVERSIZE AND DEVELOPER WATER LINES AND**  
**MAXIMUM REIMBURSEMENT CALCULATION**

**EXHIBIT "E"**  
**CALCULATION OF ESTIMATED MAXIMUM CITY REIMBURSEMENT (INCLUDING LINE POWER)**  
**(REVISED)**

<b>DESCRIPTION</b>	<b>PHASE I</b>	<b>PHASE II</b>	<b>TOTAL</b>
Oversized Water Line Cost Estimate	\$ 34,812,347.75	\$ 32,192,175.00	<b>\$ 67,004,522.75</b>
Line Power-Related Costs	<u>\$ -</u>	<u>\$ 2,000,000.00</u>	<u><b>\$ 2,000,000.00</b></u>
Subtotal	\$ 34,812,347.75	\$ 34,192,175.00	<b>\$ 69,004,522.75</b>
 Private Developer Water Line Cost Estimate	 \$ 7,180,313.27	 \$ 5,624,209.48	 <b>\$ 12,804,522.75</b>
 Maximum City Reimbursement	 \$ 27,632,034.48	 \$ 28,567,965.52	 <b>\$ 56,200,000.00</b>



## Engineer's Estimate of Cost (EEOC)

Apex Water System - Build Out Scenario  
City of North Las Vegas

Date: March 30, 2018

By: R. Valdez / M. Carr

Checked By: J. Tull

Approved By: H. Dexheimer

Cost Type	Bid Item No.	Description	Quantity	Unit	Unit Cost	Cost	Notes
Direct	1	Mobilization and Demobilization	1	LS	\$ -	\$ 4,308,088.13	10% of DC Sub-Total Items 2-8
	2	Site 1 (Booster Pump Station PS-1)	1	LS	\$ 2,832,765.53	\$ 2,832,765.53	"Refer to Detail Sheet for Breakdown"
	3	Site 2 (Booster Pump Station PS-2 and Tank T-2A)	1	LS	\$ 4,565,794.00	\$ 4,565,794.00	"Refer to Detail Sheet for Breakdown"
	4	Site 3 (Booster Pump Station PS-3 and Tank T-3A)	1	LS	\$ 4,630,366.02	\$ 4,630,366.02	"Refer to Detail Sheet for Breakdown"
	5	Site 4 (Booster Pump Station PS-4)	1	LS	\$ 4,792,948.88	\$ 4,792,948.88	"Refer to Detail Sheet for Breakdown"
	6	24" Transmission Pipeline	24,100	LF	\$ 335.26	\$ 8,079,706.86	"Refer to Detail Sheet for Breakdown"
	7	36" Transmission Pipeline	29,600	LF	\$ 492.31	\$ 14,572,438.12	"Refer to Detail Sheet for Breakdown"
	8	24' Wide Access Road	31,487	LF	\$ 114.55	\$ 3,606,861.85	"Refer to Detail Sheet for Breakdown"
Direct Costs Sub-Total						\$ 47,388,969.38	
Contingency (15%)						\$ 7,108,345.41	
Direct Costs Sub-Total with Contingency:						\$ 54,497,314.79	
Low Range EEOC (-20%)						\$ 43,597,852	
High Range EEOC (+30%)						\$ 70,846,509	

Cost Type	Item No.	Description	Percentage	Cost	Notes
Indirect	10	City Administration	3%	\$1,634,919	"Assumption"
	11	Engineering and Design	8%	\$4,359,785	" "
	12	Construction Management and Inspections	10%	\$5,449,731	" "
Indirect Costs Sub-Total				\$11,444,436	

Grand Total Engineer's Estimate of Cost incl. Admin, Eng, CM				\$ 65,941,751	
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## Engineer's Estimate of Cost (EEOC)

Apex Water System - Developer Scenario, Private Infrastructure  
City of North Las Vegas

Date: April 11, 2018

By: J. Tull

Approved By: H. Dexheimer

Cost Type	Bid Item No.	Description	Quantity	Unit	Unit Cost	Cost	Notes
Direct	1	Mobilization and Demobilization	1	LS	\$ -	\$ 442,425.82	5% of DC Sub-Total Tasks 2-7
	2	Site 1 (Booster Pump Station PS-1)	1	LS	\$ 518,841.24	\$ 518,841.24	"Refer to Detail Sheet for Breakdown"
	3	Site 2 (Booster Pump Station PS-2 and Tank T-2A)	1	LS	\$ 950,950.64	\$ 950,950.64	"Refer to Detail Sheet for Breakdown"
	4	Site 3 (Booster Pump Station PS-3 and Tank T-3A)	1	LS	\$ 977,102.52	\$ 977,102.52	"Refer to Detail Sheet for Breakdown"
	5	Site 4 (Booster Pump Station PS-4 and Tank T-4A)	1	LS	\$ 955,500.25	\$ 955,500.25	"Refer to Detail Sheet for Breakdown"
	6	8" Transmission Pipeline	53,700	LF	\$ 71.79	\$ 3,855,256.73	"Refer to Detail Sheet for Breakdown"
	7	12' Wide Access Road	31,487	LF	\$ 50.52	\$ 1,590,864.95	"Refer to Detail Sheet for Breakdown"
Direct Costs Sub-Total						\$ 9,290,942.14	
Contingency (10%)						\$ 929,094.21	
Direct Costs Sub-Total with Contingency:						\$ 10,220,036.35	
Low Range EEOC (-20%)						\$ 8,176,029	
High Range EEOC (+30%)						\$ 13,286,047	

Type	Item No.	Description	Percentage	Cost	Notes
Indirect	9	City Administration (Private Line)	1.5%	\$153,301	"Assumption"
	10	Engineering and Design (Private Line)	8%	\$817,603	" "
	11	Construction Management and Inspections (Private Line)	5%	\$511,002	" "
Indirect Costs Sub-Total				\$1,481,905	

Grand Total Engineer's Estimate of Cost incl. Admin, Eng, CM				\$ 11,701,942
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## Engineer's Estimate of Cost (EEOC)-PHASE 1

Apex Water System - Phase 1 Build Out Scenario  
City of North Las Vegas

Date: April 11, 2018

By: J. Tull  
Approved By: H. Dexheimer

Cost Type	Bid Item No.	Description	Quantity	Unit	Unit Cost	Cost	Notes
Direct	1	Mobilization and Demobilization	1	LS	\$ -	\$ 2,230,397.46	10% of DC Sub-Total Items 2-8
	2	Site 1 (Booster Pump Station PS-1)	1	LS	\$ 2,832,765.53	\$ 2,832,765.53	"Refer to Detail Sheet for Breakdown"
	3	Site 2 (Booster Pump Station PS-2 and Tank T-2A)	1	LS	\$ 4,565,794.00	\$ 4,565,794.00	"Refer to Detail Sheet for Breakdown"
	4	Site 3 ( Tank T-3A)	1	LS	\$ 1,645,552.49	\$ 1,645,552.49	"Refer to Detail Sheet for Breakdown"
	5	Site 4 (Booster Pump Station PS-4)	1	LS	\$ -	\$ -	"Refer to Detail Sheet for Breakdown"
	6	24" Transmission Pipeline	6,600	LF	\$ 332.89	\$ 2,197,052.05	"Refer to Detail Sheet for Breakdown"
	7	36" Transmission Pipeline	19,200	LF	\$ 507.41	\$ 9,742,324.00	"Refer to Detail Sheet for Breakdown"
	8	24' Wide Access Road	1	LF	\$ 1,320,486.50	\$ 1,320,486.50	"Refer to Detail Sheet for Breakdown"
Direct Costs Sub-Total						\$ 24,534,372.02	
Contingency (15%)						\$ 3,680,155.80	
Direct Costs Sub-Total with Contingency:						\$ 28,214,527.82	
Low Range EEOC (-20%)						\$ 22,571,622	
High Range EEOC (+30%)						\$ 36,678,886	

Cost Type	Item No.	Description	Percentage	Cost	Notes
Indirect	10	City Administration	3%	\$846,436	"Assumption"
	11	Engineering and Design	8%	\$2,257,162	" "
	12	Construction Management and Inspections	10%	\$2,821,453	" "
Indirect Costs Sub-Total				\$5,925,051	

Grand Total Engineer's Estimate of Cost incl. Admin, Eng, CM				\$ 34,139,579	
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## Engineer's Estimate of Cost (EEOC)-PHASE 1

Apex Water System - Phase 1 Developer Scenario, Private Infrastructure  
City of North Las Vegas

Date: April 11, 2018

By: J. Tull

Approved By: H. Dexheimer

Cost Type	Bid Item No.	Description	Quantity	Unit	Unit Cost	Cost	Notes
Direct	1	Mobilization and Demobilization	1	LS	\$ -	\$ 246,112.66	5% of DC Sub-Total Tasks 2-7
	2	Site 1 (Booster Pump Station PS-1)	1	LS	\$ 518,841.24	\$ 518,841.24	"Refer to Detail Sheet for Breakdown"
	3	Site 2 (Booster Pump Station PS-2 and Tank T-2A)	1	LS	\$ 950,950.64	\$ 950,950.64	"Refer to Detail Sheet for Breakdown"
	4	Site 3 (Tank T-3A)	1	LS	\$ 552,482.52	\$ 552,482.52	"Refer to Detail Sheet for Breakdown"
	5	Site 4 (Booster Pump Station PS-4 and Tank T-4A)	1	LS	\$ -	\$ -	"Refer to Detail Sheet for Breakdown"
	6	8" Transmission Pipeline	25,800	LF	\$ 81.09	\$ 2,092,239.73	"Refer to Detail Sheet for Breakdown"
	7	12' Wide Access Road	18,465	LF	\$ 43.74	\$ 807,739.15	"Refer to Detail Sheet for Breakdown"
Direct Costs Sub-Total						\$ 5,168,365.94	
Contingency (10%)						\$ 516,836.59	
Direct Costs Sub-Total with Contingency:						\$ 5,685,202.54	
Low Range EEOC (-20%)						\$ 4,548,162	
High Range EEOC (+30%)						\$ 7,390,763	

Type	Item No.	Description	Percentage	Cost	Notes
Indirect	9	City Administration (Private Line)	1.5%	\$85,278	"Assumption"
	10	Engineering and Design (Private Line)	8%	\$454,816	" "
	11	Construction Management and Inspections (Private Line)	5%	\$284,260	" "
Indirect Costs Sub-Total				\$824,354	

Grand Total Engineer's Estimate of Cost incl. Admin, Eng, CM				\$ 6,509,557
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Phase II Bid Costs  
Apex Water System - Build Out Scenario  
City of North Las Vegas

Date: April 11, 2022

By: T. Brady

Cost Type	Bid Item No.	Description	Quantity	Unit	Unit Cost	Cost	Notes
	1	Installation of 24" DIP Waterline	32,320	LF	\$ 425.00	\$ 13,736,000.00	
	2	Installation of 24" Valve Vault	25	EA	\$ 181,000.00	\$ 4,525,000.00	
	3	Construct 6" Blow Off Assembly	31	EA	\$ 12,500.00	\$ 387,500.00	
	4	Construct 4" Air Release Valve Assembly	30	EA	\$ 11,300.00	\$ 339,000.00	
	5	Construct 16' Type II Access Road	931,650	SF	\$ 1.00	\$ 931,650.00	
	6	Construct 16' Paved Access Road to Site 4	93,150	SF	\$ 2.90	\$ 270,135.00	
	7	Construct Access Road Rip Rap Section	770	LF	\$ 60.00	\$ 46,200.00	
	8	Construct 4" Fiber Optic Conduit	69,800	LF	\$ 10.00	\$ 698,000.00	
	9	Construct 2'x3' Fiber Optic Pull Box	73	EA	\$ 4,500.00	\$ 328,500.00	
	10	Rough Grade for 24" Waterline	1,024,760	SF	\$ 0.50	\$ 512,380.00	
	11	Construct Site 3 Pump Station	1	LS	\$ 3,694,354.00	\$ 3,694,354.00	
	12	Construct Site 4 Tank Site & Reservoir	1	LS	\$ 5,526,000.00	\$ 5,526,000.00	
	13	NVE and Power-Related Costs	1	LS	\$ 2,000,000.00	\$ 2,000,000.00	
Direct Costs Sub-Total						\$ 32,994,719.00	
Cost Type	Bid Item No.	Description				Cost	Notes
	11	Engineering and Design				\$ 705,956.00	
	12	Construction Management and Inspections				\$ 491,500.00	
Indirect Costs Sub-Total						\$ 1,197,456.00	
Grand Total Cost Incl. Admin, Eng, CM						\$	34,192,175.00