



Summary of Opinion of Probable Construction Cost
Raw Water Intake & Pumping Station, Raw Water Main, Water Treatment Plant and
Finished Water Main
East Range Range Water Project
City of Aurora & Town of White
SEH Project No. 163450
April 11, 2023

<u>Project Component</u>	<u>Estimated Cost</u>
Water Treatment Plant	\$ 11,941,102
Water Main Scenic Acres	\$ 1,564,410
Water Main Pineville	\$ 768,430
Raw Water Intake Facility	\$ 6,380,070
Raw Water Transmission Main	\$ 2,316,900
Construction Subtotal	\$ 22,970,912
Contingencies and Market Conditions (10%)	\$ 2,297,091
Soil Borings & Testing	\$ 163,895
Legal (0.05%)	\$ 114,855
Fiscal (0.05%)	\$ 114,855
Administrative (0.05%)	\$ 114,855
Construction Phase Engineering (5.5%)	\$ 1,389,740
Total Project Construction Cost	\$ 27,166,202



Project Name: East Range Joint Water Project, Aurora and Town of White
 SEH Project No: AUROR 159723
 Date: April 11, 2023
 Estimator: SEH
 Description: 100% WTP Cost Estimate

DIVISION 1 - GENERAL REQUIREMENTS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
GENERAL CONDITIONS	LUMP SUM	1	\$ 1,184,412.77		\$ 1,184,412.77
<i>SUBTOTAL DIVISION 0 AND 01</i>					
DIVISION 2 - EXISTING CONDITIONS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
REMOVE CHAIN LINK FENCE	LIN FT	618	\$ 10.00		\$ 6,180.00
<i>SUBTOTAL DIVISION 2</i>					
DIVISION 3 - CONCRETE	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
CIP CONCRETE: WTP	CU YD	1225	\$ 1,425.00		\$ 1,745,625.00
CIP CONCRETE: CLEARWELL	CU YD	392	\$ 1,425.00		\$ 558,600.00
CIP CONCRETE: BWT	CU YD	205	\$ 1,424.80		\$ 292,084.00
CIP CONCRETE: GROUT	CU YD	20	\$ 657.60		\$ 13,152.00
PRECAST STRUCTURAL CONCRETE	CU YD		\$ 1,205.60		\$ -
CONCRETE FORMING	CU YD		\$ 1,205.60		\$ -
CONCRETE REINFORCING	CU YD		\$ 1,205.60		\$ -
INSULATED PRECAST WALL PANELS	SQ FT	11247	\$ 49.32		\$ 554,702.04
CAST-IN SIGNAGE AT INSULATED PC WALL PANELS "EAST RANGE WATER TREATMENT PLANT"	LUMP SUM	1	\$ 6,576.00		\$ 6,576.00
PRECAST CEILING PLANKS	SQ FT	10407	\$ 43.39		\$ 451,559.73
<i>SUBTOTAL DIVISION 3</i>					
DIVISION 4 - MASONRY	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
INTERIOR 8" CMU WALL (BURNISHED)	SQ FT	2500	\$ 26.31		\$ 65,775.00
INTERIOR 12" CMU WALL (BURNISHED)	SQ FT	2168	\$ 32.88		\$ 71,283.84
<i>SUBTOTAL DIVISION 4</i>					
DIVISION 5 - METALS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
STAIRS, ALUMINUM (OPEN GRATE) - INCLUDES GUARDRAIL/HANDRAIL OF STAIRS	RISER	78	\$ 767.20		\$ 59,841.60
GUARDRAILS AT BASINS/FILTERS	LIN FT	244	\$ 133.72		\$ 32,627.68
GUARDRAILS AT BWT (POTENTIALLY WILL NEED TO ADD 145 LF AROUND BWT, DEPENDING ON FINAL HEIGHT)	LIN FT	145	\$ 133.72		\$ 19,389.40
GUARDRAILS AT CLEARWELL (POTENTIALLY WILL NEED TO ADD 180 LF AROUND CW, DEPENDING ON FINAL HEIGHT)	LIN FT	180	\$ 133.72		\$ 24,069.60
ALUMINUM SOLID COVER	SQ FT	57	\$ 46.90		\$ 2,673.30
3" METAL ROOF DECK	SQ FT	730	\$ 7.04		\$ 5,139.20
STRUCTURAL STEEL	LB	18636	\$ 4.70		\$ 87,589.20
MISCELLANEOUS METALS	LUMP SUM	1	\$ 16,440.00		\$ 16,440.00
<i>SUBTOTAL DIVISION 5</i>					
DIVISION 6 - WOOD, PLASTICS & COMPOSITES	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
ROUGH CARPENTRY / WOODWORK	LUMP SUM	1	\$ 5,480.00		\$ 5,480.00
FRP LADDERS	LF	160	\$ 109.60		\$ 17,536.00
<i>SUBTOTAL DIVISION 6</i>					
DIVISION 7 - THERMAL & MOISTURE PROTECTION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
FOUNDATION INSULATION (TO T.O. FOOTING) - 2" THICKNESS	SQ FT	2917	\$ 2.74		\$ 7,992.58
INSULATED STANDING SEAM METAL ROOF SYSTEM (INSUL. METAL PANEL, METAL FURRING AND ICE/WATER SHEILD)	SQ FT	5124	\$ 32.88		\$ 168,477.12
INSULATED METAL WALL PANEL (WEST WALL)	SQ FT	3544	\$ 14.28		\$ 50,608.32
INSULATED METAL WALL PANEL FOR FASCIA AND SOFFIT	SQ FT	1275	\$ 21.92		\$ 27,948.00
DAMP PROOFING	SQ FT	2849	\$ 2.20		\$ 6,267.80
FIRESTOPPING	LF	550			\$ -
JOINT SEALANTS	LUMP SUM	1	\$ 12,056.00		\$ 12,056.00
GUTTERS / DOWNSPOUTS / SNOW GUARDS	LF	120	\$ 16.44		\$ 1,972.80
<i>SUBTOTAL DIVISION 7</i>					
DIVISION 8 - OPENINGS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
FRP DOORS (SINGLE LEAF) INCLUDING HW	EACH	21	\$ 3,288.00		\$ 69,048.00
FRP DOORS (DOUBLE LEAF) INCLUDING HW	EACH	3	\$ 6,576.00		\$ 19,728.00
ALUMINUM DOOR / FRAME - WIDE STILE (SINGLE LEAF) INCLUDING HARDWARE	EACH	1	\$ 2,630.40		\$ 2,630.40
INTERIOR FLOOR HATCH (4'X6') - SECOND LEVEL (WTP)	EACH	1	\$ 3,288.00		\$ 3,288.00
INTERIOR FLOOR HATCH (3'X3') - HSP ROOM (WTP)	EACH	1	\$ 3,288.00		\$ 3,288.00
INSULATED ROOF HATCHES - OVER HSP ROOM ONLY (WTP)	EACH	4	\$ 5,480.00		\$ 21,920.00
EXTERIOR ACCESS HATCHES (3'X3') (BWT AND CWT)	EACH	6	\$ 5,480.00		\$ 32,880.00
POTABLE WATER TANK HATCHES	EACH	8	\$ 4,384.00		\$ 35,072.00
ALUM. STOREFRONT WINDOWS	SF	400	\$ 65.76		\$ 26,304.00
OVERHEAD SECTIONAL DOOR AT GARAGE	EACH	1	\$ 5,480.00		\$ 5,480.00



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SUBTOTAL DIVISION 8						\$ 219,638.40
DIVISION 9 - FINISHES	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
ACOUSTICAL CEILING	SF	950	\$ 5.48		\$ 5,206.00	
CMU WALL PAINTING	SF		\$ 3.29		\$ -	
CONCRETE FLOOR SEALER	SF	7210	\$ 2.20		\$ 15,862.00	
EPOXY FLOOR (DECORATIVE MOSAIC)	SF	970	\$ 5.48		\$ 5,315.60	
EQUIPMENT/PROCESS PIPING PAINTING	LUMP SUM	1	\$ 32,880.00		\$ 32,880.00	
GYP BD PAINTING	SF	120	\$ 1.65		\$ 198.00	
NON-STRUCTURAL METAL FRAMING AND GYP (FURRING) AT BREAKROOM CASEWORK WALL	SF	120	\$ 2.20		\$ 264.00	
SUBTOTAL DIVISION 9						\$ 59,725.60
DIVISION 10 - SPECIALTIES	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
INTERIOR ROOM SIGNAGE	EA	15	\$ 54.80		\$ 822.00	
TOILET ACCESSORIES (SINGLE-USE)	LUMP SUM	2	\$ 2,740.00		\$ 5,480.00	
DIMENSIONAL LETTER SIGNAGE (ADDRESS ONLY)	LUMP SUM	1	\$ 548.00		\$ 548.00	
FIRE EXTINGUISHERS	EA	6	\$ 219.20		\$ 1,315.20	
LOCKERS	EA	4	\$ 328.80		\$ 1,315.20	
ADA BENCH	EA	1	\$ 438.40		\$ 438.40	
SUBTOTAL DIVISION 10						\$ 9,918.80
DIVISION 11 - EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
SUBTOTAL DIVISION 11						\$ -
DIVISION 12 - FURNISHINGS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
BASE CABINETS - PLAM	LF	48	\$ 438.40		\$ 21,043.20	
UPPER CABINETS - PLAM	LF	37	\$ 274.00		\$ 10,138.00	
SOLID SURFACE COUNTERTOP (BREAKROOM)	LF	14	\$ 131.52		\$ 1,841.28	
PLAM COUNTERTOP (GARAGE)	LF	27	\$ 43.84		\$ 1,183.68	
EPOXY RESIN COUNTERTOP	SF	66	\$ 87.68		\$ 5,786.88	
WINDOW BLINDS	EA	8	\$ 109.60		\$ 876.80	
SUBTOTAL DIVISION 12						\$ 40,869.84
DIVISION 13 - SPECIAL CONSTRUCTION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
SUBTOTAL DIVISION 13						\$ -
DIVISION 14 - CONVEYING EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
SUBTOTAL DIVISION 14						\$ -
DIVISION 21 - FIRE SUPPRESSION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
COST PER SQUARE FOOT OF FIRE SUPPRESSION SYSTEM	SQ FT	8200	\$ 12.00		\$ 98,400.00	
AIR COMPRESSOR FOR DRY PIPE SYSTEM	EA	1	\$ 2,500.00		\$ 2,500.00	
SUBTOTAL DIVISION 21						\$ 100,900.00
DIVISION 22 - PLUMBING	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT	
TANK STYLE GAS WATER HEATER	EA	1	\$ 8,897.50		\$ 8,897.50	
PVC SANITARY / VENT PIPING 1"	LF	25	\$ 24.86		\$ 621.56	
PVC SANITARY / VENT PIPING 1-1/2"	LF	187	\$ 34.23		\$ 6,400.08	
PVC SANITARY / VENT PIPING 2"	LF	450	\$ 37.96		\$ 17,083.13	
PVC SANITARY / VENT PIPING 3"	LF	282	\$ 56.14		\$ 15,830.78	
PVC SANITARY / VENT PIPING 4"	LF	246	\$ 67.50		\$ 16,605.00	
PVC SANITARY AND VENT FITTINGS	EA	1	\$ 14,135.13		\$ 14,135.13	
PVC STORM PIPING 4"	LF	0	\$ 67.50		\$ -	
PVC STORM PIPING 6"	LF	262	\$ 110.00		\$ 28,820.00	
PVC STORM PIPING 8"	LF	98	\$ 170.00		\$ 16,660.00	
PVC STORM FITTINGS	EA	1	\$ 11,370.00		\$ 11,370.00	
PVC STORM INSULATION	LF	360	\$ 21.50		\$ 7,740.00	
VENTS THROUGH ROOF 4"	EA	5	\$ 180.00		\$ 900.00	
STORM CLEANOUTS	EA	7	\$ 180.00		\$ 1,260.00	
STORM DRAINS	EA	8	\$ 1,668.75		\$ 13,350.00	
POTABLE WATER PIPING 3/4"	LF	951	\$ 21.28		\$ 20,232.53	
POTABLE WATER PIPING 1"	LF	275	\$ 22.39		\$ 6,156.56	
POTABLE WATER PIPING 1-1/4"	LF	175	\$ 27.89		\$ 4,880.31	
POTABLE WATER PIPING 1-1/2"	LF	37	\$ 33.63		\$ 1,244.13	
POTABLE WATER PIPING 2"	LF	78	\$ 47.11		\$ 3,674.78	
POTABLE WATER PIPING 3"	LF	171	\$ 88.03		\$ 15,052.28	
POTABLE WATER PIPING VALVES AND FITTINGS	EA	1	\$ 12,810.14		\$ 12,810.14	
DOMESTIC WATER PIPE INSULATION	LF	1687	\$ 15.00		\$ 25,305.00	
GAS PIPING / SCH 40 STEEL / 2"	LF	10	\$ 50.16		\$ 501.60	
GAS PIPING / SCH 40 STEEL / 1.5"	LF	150	\$ 38.55		\$ 5,782.50	
GAS PIPING / SCH 40 STEEL / 1"	LF	110	\$ 28.13		\$ 3,094.30	



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GAS PIPING / SCH 40 STEEL / 3/4"	LF	119	\$	24.10		\$	2,867.42
GAS PIPING VALVES AND FITTINGS	EA	1	\$	3,061.46		\$	3,061.46
RECIRCULATION PUMP RCP-1	EA	1	\$	3,477.31		\$	3,477.31
PLBG FIXT ESW-1	EA	4	\$	3,903.41		\$	15,613.65
PLBG FIXT TMV-1	EA	1	\$	1,518.00		\$	1,518.00
PLBG FIXT 3" FD-1	EA	10	\$	1,937.50		\$	19,375.00
PLBG FIXT WH-1	EA	4	\$	1,641.25		\$	6,565.00
PLBG FIXT HB-1	EA	12	\$	73.08		\$	876.96
PLBG FIXT PRV-1	EA	1	\$	2,778.00		\$	2,778.00
PLBG FIXT WC-1	EA	2	\$	4,382.40		\$	8,764.80
PLBG FIXT RPZ-1	EA	1	\$	5,281.25		\$	5,281.25
PLBG FIXT EWC-1	EA	1	\$	4,650.00		\$	4,650.00
PLBG FIXT UR-1	EA	2	\$	2,700.00		\$	5,400.00
PLBG FIXT LAV-1	EA	3	\$	4,748.40		\$	14,245.20
PLBG FIXT SH-1	EA	1	\$	2,700.00		\$	2,700.00
PLBG FIXT SK-1	EA	4	\$	3,310.80		\$	13,243.20
PLBG FIXT MSB-1	EA	2	\$	4,003.20		\$	8,006.40
PLBG FIXT SP-1	EA	1	\$	595.00		\$	595.00
TRENCH DRAIN	LF	98	\$	258.75		\$	25,357.50
CLEANOUTS	EA	9	\$	180.00		\$	1,620.00
SUBTOTAL DIVISION 22						\$	404,403.44
DIVISION 23 - HVAC	UNIT	EST. QUANTITY		UNIT PRICE	INSTALLATION		AMOUNT
GAS UNIT HEATERS 60 MBH	EA	3	\$	3,215.00		\$	9,645.00
4" DIA VENT	LF	30	\$	50.00		\$	1,500.00
VENT TERMINATIONS	EA	3	\$	43.75		\$	131.25
MAKE UP AIR UNIT (MAU-1)	EA	1	\$	23,452.50		\$	23,452.50
REFRIGERANT LINE SETS	EA	2	\$	780.00		\$	1,560.00
FCU-1 / CU-1	EA	1	\$	5,416.80		\$	5,416.80
RTU-1,2 (AAON ENERGY RECOVER UNITS)	EA	2	\$	150,000.00		\$	300,000.00
20 AND 24 GAUGE ALUMINUM DUCT (ALL SYSTEMS)	LB	1200	\$	23.13		\$	27,750.00
8" DIA WELDED SCHEDULE 40 STEEL (GENERATOR EXHAUST)	LF	15	\$	275.00		\$	4,125.00
ROCK WOOL INSULATION 2 INCH (GENERATOR EXHAUST)	LF	15	\$	46.23		\$	693.38
ALUMINUM JACKET (GENERATOR EXHAUST)	LF	15	\$	22.20		\$	333.00
FITTINGS (GENERATOR EXHAUST)	EA	1	\$	1,287.84		\$	1,287.84
GAS FURNACE AND CONDENSING UNIT (GF-1, CU-2)	EA	1	\$	17,500.00		\$	17,500.00
ENERGY RECOVERY VENTILATOR (ERV-1)	EA	1	\$	1,273.50		\$	1,273.50
DUCT FITTINGS (25%)	EA	1	\$	6,937.50		\$	6,937.50
DIFFUSERS	EA	6	\$	63.48		\$	380.88
GRILLES	EA	32	\$	63.48		\$	2,031.36
EUH (CHEM ROOMS)	EA	4	\$	4,290.00		\$	17,160.00
EUH (ELEC/MECH ROOMS)	EA	3	\$	3,000.00		\$	9,000.00
ELECTRIC BASEBOARD HEATER (EBB-1)	EA	1	\$	250.00		\$	250.00
LOUVERS	SF	180	\$	121.50		\$	21,870.00
MD-1	EA	4	\$	2,358.00		\$	9,432.00
ROOFTOP SUPPLY FAN (PRV-1)	EA	1	\$	15,000.00		\$	15,000.00
INLINE EXHAUST FAN (EF-1,2,3,5)	EA	4	\$	3,080.00		\$	12,320.00
WALL MOUNTED AXIAL EXHAUST FAN (EF-4)	EA	1	\$	3,750.00		\$	3,750.00
CHEMICAL ROOM FRP DUCTWORK	LF	60	\$	60.00		\$	3,600.00
BATHROOM CEILING EXHAUST (EF-6,7,8)	EA	3	\$	502.50		\$	1,507.50
DF-1,2	EA	2	\$	2,413.75		\$	4,827.50
HVAC CONTROL POINTS	EA	124	\$	600.00		\$	74,400.00
HVAC BALANCING (5% OF HVAC SUM)	LS	1	\$	28,856.75		\$	28,856.75
SUBTOTAL DIVISION 23						\$	605,991.76
DIVISION 25 - INTEGRATED AUTOMATION	UNIT	EST. QUANTITY		UNIT PRICE	INSTALLATION		AMOUNT
SUBTOTAL DIVISION 25						\$	-
DIVISION 26 - ELECTRICAL	UNIT	EST. QUANTITY		UNIT PRICE	INSTALLATION		AMOUNT
INTERIOR LIGHT FIXTURES - GENERAL	EA	92	\$	750.00		\$	69,000.00
INTERIOR LIGHT FIXTURES- HEAVY DUTY	EA	25	\$	2,000.00		\$	50,000.00
EXTERIOR LIGHT FIXTURE - WALL MOUNT	EA	12	\$	1,000.00		\$	12,000.00
RECEPTACLES - GENERAL PUPOSE	EA	230	\$	200.00		\$	46,000.00
MECHANICAL EQUIPMENT CIRCUITS	EA	30	\$	1,500.00		\$	45,000.00
PROCESS EQUIPMENT CIRCUITS	EA	40	\$	1,500.00		\$	60,000.00
SERVICE CONDUCTORS	LF	125	\$	200.00		\$	25,000.00
MCC	EA	6	\$	20,000.00		\$	120,000.00



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VFD	EA	3	\$ 15,000.00		\$ 45,000.00
DISCONNECTS	EA	20	\$ 600.00		\$ 12,000.00
MOTOR CIRCUITS	EA	12	\$ 2,000.00		\$ 24,000.00
GENERATOR	EA	1	\$ 350,000.00		\$ 350,000.00
PANELBOARD	EA	4	\$ 7,500.00		\$ 30,000.00
TRANSFORMERS	EA	1	\$ 10,000.00		\$ 10,000.00
INSTRUMENTS	EA	15	\$ 3,000.00		\$ 45,000.00
SUPERVISORY CONTROL PANEL	EA	1	\$ 200,000.00		\$ 200,000.00
FILTER CONTROL PANEL	EA	1	\$ 150,000.00		\$ 150,000.00
COMMISSIONING	DY	14	\$ 1,000.00		\$ 14,000.00
PUBLIC WORKS GARAGE SERVICE	LS	1	\$ 20,000.00		\$ 20,000.00
EXTERIOR CIRCUITS	LF	400	\$ 18.00		\$ 7,200.00
					\$ -
					\$ -
					\$ -
					\$ -
SUBTOTAL DIVISION 26					\$ 1,334,200.00
DIVISION 27 - COMMUNICATIONS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
DATA RACK	EA	1	\$ 3,500.00		\$ 3,500.00
DATA CIRCUITS	EA	12	\$ 250.00		\$ 3,000.00
FIBER SERVICE	LF	200	\$ 15.00		\$ 3,000.00
HANHOLE	EA	1	\$ 1,200.00		\$ 1,200.00
					\$ -
					\$ -
SUBTOTAL DIVISION 27					\$ 10,700.00
DIVISION 28 - ELECTRONIC SAFETY & SECURITY	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
FIRE ALARM AND DETECTION SYSTEM	LS	1	\$ 50,000.00		\$ 50,000.00
CAMERA SYSTEM	EA	4	\$ 5,000.00		\$ 20,000.00
DOOR ACCESS SYSTEM	EA	8	\$ 4,000.00		\$ 32,000.00
					\$ -
					\$ -
					\$ -
SUBTOTAL DIVISION 28					\$ 102,000.00
DIVISION 31 - EARTHWORK	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
CLEARING AND GRUBBING	ACRES	1.09	\$ 20,000.00		\$ 21,800.00
COMMON EXCAVATION (PARKING LOT)	CU YD	1870	\$ 15.00		\$ 28,050.00
SUBGRADE EXCAVATION (PARKING LOT)	CU YD	187	\$ 18.00		\$ 3,366.00
EXCAVATION: WTP	CU YD	4438	\$ 10.70		\$ 47,486.60
EXCAVATION: CLEARWELL	CU YD	4345	\$ 10.70		\$ 46,491.50
EXCAVATION: BWT	CU YD	3215	\$ 10.70		\$ 34,400.50
BACKFILLING AND COMPACTING: WTP	CU YD	3847	\$ 32.10		\$ 123,488.70
BACKFILLING AND COMPACTING: CLEARWELL	CU YD	3216	\$ 32.10		\$ 103,233.60
BACKFILLING AND COMPACTING: BWT	CU YD	2449	\$ 32.10		\$ 78,612.90
DEWATERING	LUMP SUM	1	\$ 6,000.00		\$ 6,000.00
GEOTEXTILE FABRIC	SQ YD	5281	\$ 4.00		\$ 21,124.00
STORMWATER MANAGEMENT					\$ -
TEMPORARY SHORING					\$ -
SUBTOTAL DIVISION 31					\$ 102,000.00
DIVISION 32 - EXTERIOR IMPROVEMENTS	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
COMMON BORROW (PARKING LOT)	CU YD	900	\$ 30.00		\$ 27,000.00
TYPE SP 9.5 WEARING COURSE MIX (2,B)	TON	148	\$ 120.00		\$ 17,760.00
TYPE SP 12.5 WEARING COURSE MIX (2,B)	TON	148	\$ 120.00		\$ 17,760.00
BITUMINOUS MATERIAL FOR TACK COAT	GALLON	61	\$ 5.00		\$ 305.00
AGGREGATE BASE (CV) CLASS 5	CU YD	895	\$ 65.00		\$ 58,175.00
GRANULAR BORROW (CV)	CU YD	1360	\$ 25.00		\$ 34,000.00
CURB AND GUTTER (B618)	LIN FT	146	\$ 40.00		\$ 5,840.00
6" CONCRETE SIDEWALK	SQ FT	1998	\$ 12.00		\$ 23,976.00
6' GALVANIZED CHAIN LINK FENCE	LIN FT	1498	\$ 75.00		\$ 112,350.00
VEHICLE GATE	EACH	1	\$ 20,000.00		\$ 20,000.00
PEDESTRIAN GATE	EACH	1	\$ 2,750.00		\$ 2,750.00
SILT FENCE	LIN FT	2337	\$ 4.00		\$ 9,348.00
DIRECTIONAL DRILLING OBSTRUCTION	EACH	1	\$ 3,500.00		\$ 3,500.00
BORING PIT RESTORATION (TURF AREA)	EACH	1	\$ 200.00		\$ 200.00



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OPEN CUT PIPE INSTALLATION RESTORATION (TURF AREA)	LIN FT	774	\$ 15.00		\$ 11,610.00
SEED MIXTURE 25-131	LBS	54	\$ 3.00		\$ 162.00
EROSION CONTROL	LUMP SUM	1	\$ 18,000.00		\$ 18,000.00
SUBTOTAL DIVISION 32					\$ 362,736.00
DIVISION 33 - UTILITIES	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
8" SANITARY MAIN	LIN FT	244.0	\$ 120.00		\$ 29,280.00
SANITARY SEWER MANHOLE	EACH	2.0	\$ 5,500.00		\$ 11,000.00
3" SANITARY SERVICE	LIN FT	24.0	\$ 50.00		\$ 1,200.00
6" SANITARY SERVICE	LIN FT	204.0	\$ 70.00		\$ 14,280.00
10" FINISHED WATER MAIN	LIN FT	791.0	\$ 120.00		\$ 94,920.00
16" FINISHED WATER MAIN	LIN FT	198.0	\$ 150.00		\$ 29,700.00
16" HDPE WATER MAIN	LIN FT	284.0	\$ 150.00		\$ 42,600.00
CONNECT TO EXISTING WATER MAIN	EACH	2.0	\$ 3,500.00		\$ 7,000.00
RAW WATER MAIN HYDRANT ASSEMBLY	EACH	2.0	\$ 12,500.00		\$ 25,000.00
16" GATE VALVE AND BOX	EACH	2.0	\$ 7,500.00		\$ 15,000.00
PROCESS PIPING	LIN FT	498.0	\$ 150.00		\$ 74,700.00
SUBTOTAL DIVISION 33					\$ 344,680.00
DIVISION 34 - TRANSPORTATION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
TRAFFIC CONTROL	LUMP SUM	1	\$ 1,000.00		\$ 1,000.00
SUBTOTAL DIVISION 34					\$ 1,000.00
DIVISION 35 - WATERWAY & MARINE CONSTRUCTION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
SUBTOTAL DIVISION 35					\$ -
DIVISION 40 - PROCESS INTEGRATION (VALVES, PIPING)	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
3" DIP FLANGE	EA	32	\$ 163.00	2.50	\$ 13,040.00
4" DIP FLANGE	EA	41	\$ 191.00	2.50	\$ 19,577.50
6" DIP FLANGE	EA	35	\$ 243.00	2.50	\$ 21,262.50
8" DIP FLANGE	EA	46	\$ 368.00	2.50	\$ 42,320.00
10" DIP FLANGE	EA	21	\$ 470.00	2.50	\$ 24,675.00
12" DIP FLANGE	EA	50	\$ 641.00	2.50	\$ 80,125.00
16" DIP FLANGE	EA	16	\$ 1,110.00	2.50	\$ 44,400.00
3" DIP BLIND FLANGE	EA	1	\$ 92.00	2.50	\$ 230.00
4" DIP BLIND FLANGE	EA	1	\$ 95.00	2.50	\$ 237.50
6" DIP BLIND FLANGE	EA	1	\$ 159.00	2.50	\$ 397.50
8" DIP BLIND FLANGE	EA	3	\$ 237.00	2.50	\$ 1,777.50
10" DIP BLIND FLANGE	EA	1	\$ 354.00	2.50	\$ 885.00
12" DIP BLIND FLANGE	EA	2	\$ 437.00	2.50	\$ 2,185.00
4" DIP MJ FLANGE	EA	17	\$ 60.00	2.00	\$ 2,040.00
10" DIP MJ FLANGE	EA	8	\$ 180.00	2.00	\$ 2,880.00
12" DIP MJ FLANGE	EA	25	\$ 270.00	2.00	\$ 13,500.00
3" DIP FLANGED ELBOW	EA	9	\$ 267.00	2.50	\$ 6,007.50
4" DIP FLANGED ELBOW	EA	8	\$ 267.00	2.50	\$ 5,340.00
6" DIP FLANGED ELBOW	EA	4	\$ 394.00	2.50	\$ 3,940.00
8" DIP FLANGED ELBOW	EA	12	\$ 750.00	2.50	\$ 22,500.00
10" DIP FLANGED ELBOW	EA	12	\$ 1,348.00	2.50	\$ 40,440.00
12" DIP FLANGED ELBOW	EA	12	\$ 1,930.00	2.50	\$ 57,900.00
16" DIP FLANGED ELBOW	EA	3	\$ 5,943.00	2.50	\$ 44,572.50
12" X 6" DIP FLANGED ELBOW	EA	1	\$ 1,552.00	2.50	\$ 3,880.00
4" DIP MJ ELBOW	EA	3	\$ 129.00	2.00	\$ 774.00
10" DIP MJ ELBOW	EA	1	\$ 520.00	2.00	\$ 1,040.00
12" DIP MJ ELBOW	EA	5	\$ 751.00	2.00	\$ 7,510.00
3" DIP FLANGED TEE	EA	2	\$ 384.00	2.50	\$ 1,920.00
4" DIP FLANGED TEE	EA	4	\$ 384.00	2.50	\$ 3,840.00
6" DIP FLANGED TEE	EA	2	\$ 576.00	2.50	\$ 2,880.00
8" DIP FLANGED TEE	EA	3	\$ 1,379.00	2.50	\$ 10,342.50
10" DIP FLANGED TEE	EA	2	\$ 2,168.00	2.50	\$ 10,840.00
12" DIP FLANGED TEE	EA	2	\$ 6,174.00	2.50	\$ 30,870.00
16" DIP FLANGED TEE	EA	2	\$ 7,697.00	2.50	\$ 38,485.00
8" X 6" DIP FLANGED TEE	EA	6	\$ 1,386.00	2.50	\$ 20,790.00
12" X 4" DIP FLANGED TEE	EA	2	\$ 2,465.00	2.50	\$ 12,325.00
12" X 6" DIP FLANGED TEE	EA	3	\$ 2,431.00	2.50	\$ 18,232.50
16" X 4" DIP FLANGED TEE	EA	1	\$ 5,702.00	2.50	\$ 14,255.00
16" X 6" DIP FLANGED TEE	EA	4	\$ 6,536.00	2.50	\$ 65,360.00
16" X 8" DIP FLANGED TEE	EA	1	\$ 7,071.00	2.50	\$ 17,677.50
16" X 12" DIP FLANGED TEE	EA	1	\$ 7,228.00	2.50	\$ 18,070.00



Project Name: East Range Joint Water Project, Aurora and Town of White
 SEH Project No: AUROR 159723
 Date: April 11, 2023
 Estimator: SEH
 Description: 100% WTP Cost Estimate

4" DIP MJ TEE	EA	1	\$ 173.00	2.00	\$ 346.00
12" DIP MJ TEE	EA	2	\$ 966.00	2.00	\$ 3,864.00
10" X 4" DIP MJ TEE	EA	1	\$ 476.00	2.00	\$ 952.00
4" X 3" DIP FLANGED REDUCER	EA	4	\$ 299.00	2.50	\$ 2,990.00
8" X 6" DIP FLANGED REDUCER	EA	1	\$ 467.00	2.50	\$ 1,167.50
16" X 8" DIP FLANGED REDUCER	EA	1	\$ 1,899.00	2.50	\$ 4,747.50
18" PE X 12" MJ REDUCER	EA	1	\$ 1,299.00	2.00	\$ 2,598.00
4" DIP MJ WYE	EA	1	\$ 269.00	2.00	\$ 538.00
4" DIP MJ 45 DEGREE	EA	1	\$ 108.00	2.00	\$ 216.00
6" FLEXIBLE EXPANSION JOINT	EA	2	\$ 2,205.00	2.00	\$ 8,820.00
8" FLEXIBLE EXPANSION JOINT	EA	1	\$ 2,333.00	2.00	\$ 4,666.00
18" JOINT RESTRAINT	EA	1	\$ 350.00	2.50	\$ 875.00
10" COUPLING ADAPTER	EA	1	\$ 427.00	2.00	\$ 854.00
16" ORIFICE PLATE	EA	1	\$ 7,350.00	2.50	\$ 18,375.00
24" FILTER INSPECTION MANWAY	EA	2	\$ 5,250.00	2.00	\$ 21,000.00
PIPE SCREENS	LUMP SUM	1	\$ 2,100.00	2.00	\$ 4,200.00
3" MANUAL BFV	EA	1	\$ 1,470.00	2.00	\$ 2,940.00
4" MANUAL BFV	EA	1	\$ 1,680.00	2.50	\$ 4,200.00
6" MANUAL BFV	EA	3	\$ 1,890.00	2.50	\$ 14,175.00
8" MANUAL BFV	EA	2	\$ 2,310.00	2.50	\$ 11,550.00
12" MANUAL BFV	EA	2	\$ 3,675.00	2.50	\$ 18,375.00
16" MANUAL BFV	EA	3	\$ 6,300.00	2.50	\$ 47,250.00
6" ELECTRIC BFV	EA	4	\$ 9,450.00	2.50	\$ 94,500.00
10" ELECTRIC BFV	EA	2	\$ 10,290.00	2.50	\$ 51,450.00
6" PNEUMATIC BFV	EA	2	\$ 6,300.00	2.50	\$ 31,500.00
8" PNEUMATIC BFV	EA	2	\$ 6,825.00	2.50	\$ 34,125.00
3" CHECK VALVE	EA	1	\$ 3,780.00	2.50	\$ 9,450.00
6" CHECK VALVE	EA	2	\$ 6,090.00	2.50	\$ 30,450.00
8" CHECK VALVE	EA	1	\$ 6,825.00	2.50	\$ 17,062.50
12" CHECK VALVE	EA	1	\$ 14,700.00	2.50	\$ 36,750.00
4" ELECTRIC PLUG VALVE	EA	2	\$ 8,715.00	2.50	\$ 43,575.00
4" MANUAL PLUG VALVE	EA	2	\$ 1,470.00	2.50	\$ 7,350.00
4" MUD VALVE	EA	2	\$ 1,785.00	2.50	\$ 8,925.00
1" AIR RELEASE VALVE	EA	2	\$ 998.00	2.50	\$ 4,990.00
1" AIR/VACC VALVE	EA	3	\$ 1,260.00	2.50	\$ 9,450.00
6" PRESSURE RELIEF VALVE	EA	1	\$ 7,980.00	2.50	\$ 19,950.00
3" DIP PIPE	LF	75	\$ 278.00	2.50	\$ 51,951.25
4" DIP PIPE	LF	53	\$ 148.00	2.50	\$ 19,517.50
6" DIP PIPE	LF	29	\$ 181.00	2.50	\$ 12,896.25
8" DIP PIPE	LF	101	\$ 247.00	2.50	\$ 62,213.13
10" DIP PIPE	LF	22	\$ 315.00	2.50	\$ 17,128.13
12" DIP PIPE	LF	76	\$ 393.00	2.50	\$ 74,424.38
16" DIP PIPE	LF	29	\$ 479.00	2.50	\$ 34,428.13
18" DIP PIPE	LF	3	\$ 549.00	2.50	\$ 4,117.50
4" DIP PIPE (BARRIED)	LF	66	\$ 37.00	2.00	\$ 4,847.00
10" DIP PIPE (BARRIED)	LF	167	\$ 53.00	2.00	\$ 17,702.00
12" DIP PIPE (BARRIED)	LF	331	\$ 67.00	2.00	\$ 44,287.00
4" PIPE SLEEVE	EA	1	\$ 231.00	2.00	\$ 462.00
10" PIPE SLEEVE	EA	4	\$ 554.00	2.00	\$ 4,432.00
12" PIPE SLEEVE	EA	4	\$ 610.00	2.00	\$ 4,880.00
16" PIPE SLEEVE	EA	1	\$ 386.00	2.00	\$ 772.00
PIPE SUPPORTS & HANGERS	LUMP SUM	1	\$ 10,500.00	1.00	\$ 10,500.00
SUBTOTAL DIVISION 40					\$ 1,668,108.75
DIVISION 41 - MATERIALS PROCESSING & HANDLING EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
SUBTOTAL DIVISION 41					\$ -
DIVISION 43 - PROCESS GAS & LIQUID HANDLING, PURIFICATION & STORAGE EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
VT BACKWASH PUMP	EACH	1	\$ 51,000.00	1.50	\$ 76,500.00
VT HIGH SERVICE PUMP	EACH	2	\$ 44,000.00	1.50	\$ 132,000.00
SUBMERSIBLE SLUDGE PUMP	EACH	1	\$ 10,000.00	1.50	\$ 15,000.00
SAMPLE PUMPS AND PIPING	EACH	5	\$ 5,000.00	1.20	\$ 30,000.00
2" MAG METER (PINEVILLE), INSTALLED	EACH	1	\$ 4,500.00	1.00	\$ 4,500.00
4" MAG METER (SLUDGE), INSTALLED	EACH	1	\$ 4,725.00	1.00	\$ 4,725.00
6" MAG METER (FILTER EFFLUENT), INSTALLED	EACH	2	\$ 7,000.00	1.00	\$ 14,000.00



Project Name: East Range Joint Water Project, Aurora and Town of White
 SEH Project No: AUROR 159723
 Date: April 11, 2023
 Estimator: SEH
 Description: 100% WTP Cost Estimate

8" MAG METER (BACKWASH), INSTALLED	EACH	1	\$ 9,000.00	1.00	\$ 9,000.00
12" MAG METER (RAW), INSTALLED	EACH	1	\$ 9,450.00	1.00	\$ 9,450.00
16" MAG METER (FINISHED), INSTALLED	EACH	1	\$ 9,720.00	1.00	\$ 9,720.00
SUBTOTAL DIVISION 43					\$ 304,895.00
DIVISION 46 - WATER AND WASTEWATER EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
FLOCCULATOR & SEDIMENTATION EQUIPMENT	LUMP SUM	1	\$ 325,000.00	1.00	\$ 325,000.00
PLATE SETTLERS & SLUDGE COLLECTOR INSTALLATION	EACH	2	\$ 30,000.00	1.00	\$ 60,000.00
RAPID MIXER	EACH	1	\$ 20,000.00	1.00	\$ 20,000.00
BYPASS STATIC MIXER	EACH	1	\$ 5,000.00	2.00	\$ 10,000.00
FLOCCULATOR BASIN BAFFLE WALLS INSTALL	SF	612	\$ 25.00	1.00	\$ 15,300.00
AIR COMPRESSOR PACKAGE	LUMP SUM	1	\$ 21,600.00	1.00	\$ 21,600.00
AIR SCOUR BLOWER	LUMP SUM	1	\$ 29,723.00	1.00	\$ 29,723.00
FILTER BACKWASH TROUGHS	LF	32	\$ 750.00	1.00	\$ 24,000.00
FILTER MEDIA - 12" ANTHRACITE	CF	173	\$ 30.00	1.00	\$ 5,184.00
FILTER MEDIA - 18" SAND	CF	253	\$ 30.00	1.00	\$ 7,584.00
FILTER MEDIA INSTALL	CF	426	\$ 15.00	1.00	\$ 6,384.00
FILTER UNDERDRAIN & AIR SCOUR PIPING	SF	160	\$ 225.00	1.00	\$ 36,000.00
CHEMICAL FEED PIPING	LUMP SUM	1	\$ 10,000.00	1.00	\$ 10,000.00
COAGULANT SYSTEM	LUMP SUM	1	\$ 17,000.00	1.00	\$ 17,000.00
PAC FEED SYSTEM	LUMP SUM	1	\$ 95,000.00	1.00	\$ 95,000.00
GAS CHLORINE FEED SYSTEM	LUMP SUM	1	\$ 35,000.00	1.00	\$ 35,000.00
FLUORIDE FEED SYSTEM	LUMP SUM	1	\$ 17,000.00	1.00	\$ 17,000.00
POLYMER FEED SYSTEM	LUMP SUM	1	\$ 20,000.00	1.00	\$ 20,000.00
LIQUID ANALYTICAL EQUIPMENT	LUMP SUM	1	\$ 6,000.00	1.00	\$ 6,000.00
PH ANALYZERS (2 SENSORS, 1 CONTROLLER, 1 HAND HELD)	LUMP SUM	1	\$ 7,000.00	1.00	\$ 7,000.00
CHLORINE ANALYZERS	EA	2	\$ 4,500.00	1.00	\$ 9,000.00
TURBIDITY ANALYZERS	EA	6	\$ 1,200.00	1.00	\$ 7,200.00
SUBTOTAL DIVISION 44					\$ 783,975.00
DIVISION 45 - INDUSTRY-SPECIFIC MANUFACTURING EQUIP	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
SUBTOTAL DIVISION 45					\$ -
DIVISION 46 - WATER & WASTEWATER EQUIP	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
SUBTOTAL DIVISION 46					\$ -
DIVISION 48 - ELECTRICAL POWER GENERATION	UNIT	EST. QUANTITY	UNIT PRICE	INSTALLATION	AMOUNT
SUBTOTAL DIVISION 48					\$ -
SUB TOTAL					\$ 11,941,101.57



East Range Joint Water Project,
Aurora and Town of White

Project Name: _____
 SEH Project No: AUROR 159723
 Date: April 10, 2023
 Estimator: Ellen Lemke
 Checked By: Dan Hinzmann
 Description: 100% Scenic Acres Water Transmission Mains
Cost Estimate

SCENIC ACRES AREA PRELIMINARY OPINION OF COST

SITE	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CLEAR AND GRUB	ACRES	0.15	\$ 20,000.00	\$ 3,000.00
REPLACE PIPE CULVERT & APRON	LIN FT	57	\$ 120.00	\$ 6,840.00
REPLACE GUARD RAIL	LIN FT	115	\$ 60.00	\$ 6,900.00
DIRECTIONAL DRILLING OBSTRUCTION	EACH	7	\$ 7,500.00	\$ 52,500.00
BORING PIT (NON-ROAD AREA)	EACH	6	\$ 3,500.00	\$ 21,000.00
BORING PIT (ROAD AREA)	EACH	3	\$ 9,500.00	\$ 28,500.00
EXPLORATORY DIG (NON-ROAD AREA)	LIN FT	100	\$ 100.00	\$ 10,000.00
EXPLORATORY DIG (ROAD AREA)	LIN FT	200	\$ 150.00	\$ 30,000.00
POTABLE WATER DISTRIBUTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
12" HDPE WATER MAIN	LIN FT	6653	\$ 100.00	\$ 665,300.00
20" STEEL JACK AND BORE CASING PIPE	LIN FT	193	\$ 500.00	\$ 96,500.00
12" HDPE HDD PIPE INSTALLATION	LIN FT	6653	\$ 40.00	\$ 266,120.00
16" HDPE HDD PIPE INSTALLATION	LIN FT	2	\$ 50.00	\$ 100.00
4" INSULATION	SQ YD	25	\$ 50.00	\$ 1,250.00
CONNECT TO EXISTING WATER MAIN	EACH	1	\$ 3,500.00	\$ 3,500.00
CONNECT TO EXISTING WATER SERVICE	EACH	1	\$ 1,500.00	\$ 1,500.00
1" TAPPING TEE WITH ELECTROFUSION SADDLE	EACH	1	\$ 1,000.00	\$ 1,000.00
1" CURB STOP AND BOX	EACH	1	\$ 1,350.00	\$ 1,350.00
1" HDPE WATER SERVICE PIPE	LIN FT	65	\$ 75.00	\$ 4,875.00
TRACER WIRE BOX	EACH	1	\$ 175.00	\$ 175.00
FINISHED WATER MAIN HYDRANT ASSEMBLY	EACH	7	\$ 9,500.00	\$ 66,500.00
12" GATE VALVE AND BOX	EACH	7	\$ 6,500.00	\$ 45,500.00
SUB TOTAL				\$ 1,312,410.00
TRAFFIC CONTROL			1%	\$ 14,000.00
MOBILIZATION			10%	\$ 132,000.00
EROSION CONTROL			3%	\$ 40,000.00
MISCELLANEOUS CONSTRUCTION			5%	\$ 66,000.00
TOTAL CONSTRUCTION				\$ 1,564,410.00

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ASSUMPTIONS:

1. 12" HDPE WATER MAIN TO BE DIRECTIONALLY DRILLED, ASSUMES OBSTRUCTION ONCE EVERY 1000'
2. HYDRANT ASSEMBLY INCLUDES TEE, LEAD, VALVE, AND HYDRANT
3. TURF RESTORATION IS ASSUMED TO INCLUDE 4" OF SALVAGED TOPSOIL AND SEEDING
4. ROADWAY RESTORATION IS ASSUMED TO PER PLAN TYPICAL SECTIONS



East Range Joint Water Project,
Aurora and Town of White

Project Name: _____
 SEH Project No: AUROR 159723
 Date: April 10, 2023
 Estimator: Ellen Lemke
 Checked By: Dan Hinzmann
 Description: 100% Pineville Water Transmission Mains
Cost Estimate

PINEVILLE AREA ALTERNATE PRELIMINARY OPINION OF COST

SITE	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CLEAR AND GRUB	ACRES	0.20	\$ 20,000.00	\$ 4,000.00
DIRECTIONAL DRILLING OBSTRUCTION	EACH	3	\$ 7,500.00	\$ 22,500.00
BORING PIT (ROAD AREA)	EACH	3	\$ 9,500.00	\$ 28,500.00
OPEN CUT PIPE INSTALLATION (NON-ROAD AREA)	LIN FT	381	\$ 100.00	\$ 38,100.00
OPEN CUT PIPE INSTALLATION (ROAD AREA)	LIN FT	51	\$ 150.00	\$ 7,650.00
POTABLE WATER DISTRIBUTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
12" HDPE WATER MAIN	LIN FT	2989	\$ 100.00	\$ 298,900.00
12" HDPE HDD PIPE INSTALLATION	LIN FT	2557	\$ 40.00	\$ 102,280.00
4" INSULATION	SQ YD	50	\$ 50.00	\$ 2,500.00
CONNECT TO EXISTING WATER MAIN	EACH	3	\$ 3,500.00	\$ 10,500.00
FINISHED WATER MAIN HYDRANT ASSEMBLY	EACH	2	\$ 9,500.00	\$ 19,000.00
12" GATE VALVE AND BOX	EACH	3	\$ 6,500.00	\$ 19,500.00
PRESSURE REDUCING VALVE ASSEMBLY	EACH	1	\$ 90,000.00	\$ 90,000.00
SUB TOTAL				\$ 643,430.00
TRAFFIC CONTROL			1%	\$ 7,000.00
MOBILIZATION			10%	\$ 65,000.00
EROSION CONTROL			3%	\$ 20,000.00
MISCELLANEOUS CONSTRUCTION			5%	\$ 33,000.00
TOTAL CONSTRUCTION				\$ 768,430.00

ASSUMPTIONS:

1. 12" HDPE WATER MAIN TO BE DIRECTIONALLY DRILLED, ASSUMES OBSTRUCTION ONCE EVERY 1000'
2. HYDRANT ASSEMBLY INCLUDES TEE, LEAD, VALVE, AND HYDRANT
3. TURF RESTORATION IS ASSUMED TO INCLUDE 4" OF SALVAGED TOPSOIL AND SEEDING
4. ROADWAY RESTORATION IS ASSUMED TO PER PLAN TYPICAL SECTIONS



Project Name: East Range Joint Water Project, Aurora and Town of White
 SEH Project No: AUROR 159723
 Date: April 14, 2023
 Estimator: SEH
 Description: 100% Intake Cost Estimate

DIVISION 1 - GENERAL REQUIREMENTS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
GENERAL CONDITIONS	LS	1	\$ 632,259.20	\$ 632,259.20
<i>SUBTOTAL DIVISION 0 AND 01</i>				\$ 632,259.20
DIVISION 2 - EXISTING CONDITIONS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
<i>SUBTOTAL DIVISION 2</i>				\$ -
DIVISION 3 - CONCRETE	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CIP CONCRETE- INTAKE STRUCT	CY	80	\$ 1,315.20	\$ 105,216.00
EXTERIOR WALLS - 12" INSULATED PC WALL PANELS	SQ FT	968	\$ 49.32	\$ 47,741.76
<i>SUBTOTAL DIVISION 3</i>				\$ 152,957.76
DIVISION 4 - MASONRY	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
INTERIOR 8" CMU WALLS	SQ FT	204	\$ 19.73	\$ 4,024.92
<i>SUBTOTAL DIVISION 4</i>				\$ 4,024.92
DIVISION 5 - METALS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
<i>SUBTOTAL DIVISION 5</i>				
DIVISION 6 - WOOD, PLASTICS & COMPOSITES	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
WOOD - ROOF TRUSSES	SQ FT	729	\$ 14.08	\$ 10,264.32
ROUGH CARPENTRY / WOODWORK	SQ FT (BLDG)	514	\$ 0.33	\$ 169.62
INTERLOCKING PVC PANEL (CEILING)	SQ FT	415	\$ 8.22	\$ 3,411.30
<i>SUBTOTAL DIVISION 6</i>				\$ 13,845.24
DIVISION 7 - THERMAL & MOISTURE PROTECTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
FOUNDATION INSULATION (4' DEPTH) - 2" THICKNESS	SQ FT	363	\$ 2.74	\$ 994.62
PREFINISHED STANDING SEAM METAL ROOF SYSTEM (PANEL, ICE & WATER, ROOF BOARD)	SQ FT	731	\$ 27.40	\$ 20,029.40
PREFINISHED METAL WALL PANEL (GABLED ENDS AND CURB FOR SKYLIGHT)	SQ FT	290	\$ 10.96	\$ 3,178.40
PREFINISHED VENTED METAL SOFFIT PANEL, FASCIA AND TRIM	LF	108	\$ 13.16	\$ 1,421.28
DAMPProofing	SQ FT	1410	\$ 4.11	\$ 5,795.10
JOINT SEALANTS	LF	350	\$ 3.29	\$ 1,151.50
GUTTERS / DOWNSPOUTS / SNOW GUARDS	LF	54	\$ 16.44	\$ 887.76
<i>SUBTOTAL DIVISION 7</i>				\$ 33,458.06
DIVISION 8 - OPENINGS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
REMOVABLE TRANSLUCENT SKYLIGHT OVER HSP'S	SF	80	\$ 60.28	\$ 4,822.40
FRP DOORS (SINGLE LEAF) INCLUDING HW	EACH	1	\$ 3,288.00	\$ 3,288.00
FRP DOORS (DOUBLE LEAF) INCLUDING HW	EACH	1	\$ 4,932.00	\$ 4,932.00
ACCESS HATCH OVER CIP CONCRETE CAISSON	EACH	1	\$ 4,384.00	\$ 4,384.00
<i>SUBTOTAL DIVISION 8</i>				\$ 17,426.40
DIVISION 9 - FINISHES	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CMU AND INTERIOR PC WALL PAINTING	SF	1230	\$ 3.29	\$ 4,046.70
CONCRETE FLOOR SEALER	SF	430	\$ 2.20	\$ 946.00
EQUIPMENT/PROCESS PIPING PAINTING	LUMP SUM	1	\$ 5,480.00	\$ 5,480.00
<i>SUBTOTAL DIVISION 9</i>				\$ 10,472.70
DIVISION 10 - SPECIALTIES	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
INTERIOR ROOM SIGNAGE	EA	1	\$ 54.80	\$ 54.80
DIMENSIONAL LETTER SIGNAGE (ADDRESS ONLY)	LUMB SUM	1	\$ 548.00	\$ 548.00
FIRE EXTINGUISHERS	EA	1	\$ 219.20	\$ 219.20
<i>SUBTOTAL DIVISION 10</i>				\$ 822.00
DIVISION 11 - EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
<i>SUBTOTAL DIVISION 11</i>				
DIVISION 12 - FURNISHINGS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
<i>SUBTOTAL DIVISION 12</i>				
DIVISION 13 - SPECIAL CONSTRUCTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
12 FOOT STEEL INTAKE CAISSON	UNIT	1	\$ 1,627,500.00	\$ 1,627,500.00
18 INCH HDPE INTAKE/SCREEN STRUCTURE WITH MARINE SUPPO	UNIT	1	\$ 2,823,822.75	\$ 2,823,822.75
OTHER	UNIT	0	\$ -	\$ -
<i>SUBTOTAL DIVISION 13</i>				\$ 4,451,322.75
DIVISION 14 - CONVEYING EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
<i>SUBTOTAL DIVISION 14</i>				
DIVISION 21 - FIRE SUPPRESSION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
OTHER	UNIT	0	\$ -	\$ -
OTHER	UNIT	0	\$ -	\$ -
<i>SUBTOTAL DIVISION 21</i>				\$ -



Project Name: East Range Joint Water Project, Aurora and Town of White
 SEH Project No: AUROR 159723
 Date: April 14, 2023
 Estimator: SEH
 Description: 100% Intake Cost Estimate

DIVISION 22 - PLUMBING	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
PVC SANITARY / VENT PIPING 2"	LF	41	\$ 37.96	\$ 1,556.46
PVC SANITARY / VENT PIPING 3"	LF	47	\$ 56.14	\$ 2,638.46
PVC SANITARY AND VENT FITTINGS	EA	1	\$ 1,048.73	\$ 1,048.73
VENTS THROUGH ROOF 4"	EA	3	\$ 180.00	\$ 540.00
POTABLE WATER PIPING 3/4"	LF	108	\$ 21.28	\$ 2,297.70
POTABLE WATER PIPING 2"	LF	20	\$ 47.11	\$ 942.25
POTABLE WATER PIPING VALVES AND FITTINGS	EA	1	\$ 809.99	\$ 809.99
DOMESTIC WATER PIPE INSULATION	LF	128	\$ 15.00	\$ 1,920.00
PLBG FIXT 3" FD-1	EA	3	\$ 1,937.50	\$ 5,812.50
PLBG FIXT WH-1	EA	1	\$ 1,641.25	\$ 1,641.25
PLBG FIXT HB-1	EA	2	\$ 73.08	\$ 146.16
PLBG FIXT PRV-1	EA	1	\$ 2,778.00	\$ 2,778.00
PLBG FIXT RPZ-1	EA	1	\$ 5,281.25	\$ 5,281.25
CLEANOUTS	EA	1	\$ 180.00	\$ 180.00
SUBTOTAL DIVISION 22				\$ 27,592.75
DIVISION 23 - HVAC	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
REFRIGERANT LINE SETS	EA	2	\$ 780.00	\$ 1,560.00
FCU-1 / CU-1	EA	2	\$ 5,416.80	\$ 10,833.60
EUH-1,2	EA	2	\$ 3,000.00	\$ 6,000.00
HVAC CONTROL POINTS	EA	16	\$ 500.00	\$ 8,000.00
HVAC BALANCING (5% OF HVAC SUM)	LS	1	\$ 1,319.68	\$ 1,319.68
SUBTOTAL DIVISION 23				\$ 27,713.28
DIVISION 25 - INTEGRATED AUTOMATION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
OTHER	UNIT	0	\$ -	\$ -
OTHER	UNIT	0	\$ -	\$ -
SUBTOTAL DIVISION 25				\$ -
DIVISION 26 - ELECTRICAL	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
ELECTRICAL SERVICE CONDUCTORS	LF	100	\$100	\$ 10,000.00
GENERATOR	LS	1	\$150,000	\$ 150,000.00
ATS	EA	1	\$25,000	\$ 25,000.00
PP-1	EA	1	\$8,000	\$ 8,000.00
VFD	EA	2	\$15,000	\$ 30,000.00
DISCONNECTS	EA	5	\$800	\$ 4,000.00
MOTOR, PROCESS, MECHANICAL CIRCUITS	EA	10	\$1,500	\$ 15,000.00
INTERIOR LIGHT FIXTURES	EA	8	\$750	\$ 6,000.00
EXTERIOR LIGHT FIXTURES	EA	2	\$1,000	\$ 2,000.00
SUPERVISORY CONTROL PANEL	EA	1	\$100,000	\$ 100,000.00
INSTRUMENTATION	EA	4	\$3,000	\$ 12,000.00
GENERAL CIRCUITS	EA	12	\$500	\$ 6,000.00
COMMISSIONIN	DY	8	\$1,000	\$ 8,000.00
				\$ -
				\$ -
				\$ -
				\$ -
SUBTOTAL DIVISION 26				\$ 376,000.00
DIVISION 27 - COMMUNICATIONS	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
SUBTOTAL DIVISION 27				
DIVISION 28 - ELECTRONIC SAFETY & SECURITY	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CAMERA	EA	1	\$5,000	\$ 5,000.00
SUBTOTAL DIVISION 28				
DIVISION 31 - EARTHWORK	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CLEARING AND GRUBBING	ACRES	1.97	\$ 20,000.00	\$ 39,400.00
COMMON EXCAVATION	CU YD	4348	\$ 20.00	\$ 86,960.00
SUBGRADE EXCAVATION	CU YD	435	\$ 18.00	\$ 7,830.00
DEWATERING	LUMP SUM	1	\$ 25,000.00	\$ 25,000.00
GEOTEXTILE FABRIC	SQ YD	1052	\$ 4.00	\$ 4,208.00
STORMWATER MANAGEMENT				\$ -
TEMPORARY SHORING				\$ -
SUBTOTAL DIVISION 31				\$ 163,398.00
AGGREGATE SURFACING (CV) CLASS 5	CU YD	221	\$ 45.00	\$ 9,945.00



Project Name: **East Range Joint Water Project, Aurora and Town of White**
 SEH Project No: **AUROR 159723**
 Date: **April 14, 2023**
 Estimator: **SEH**
 Description: **100% Intake Cost Estimate**

GRANULAR BORROW (CV)	CU YD	332	\$ 25.00	\$ 8,300.00
6" CONCRETE PADS	SQ FT	158	\$ 12.00	\$ 1,896.00
6' GALVANIZED CHAIN LINK FENCE	LIN FT	419	\$ 75.00	\$ 31,425.00
VEHICLE GATE	EACH	1	\$ 20,000.00	\$ 20,000.00
PEDESTRIAN GATE	EACH	1	\$ 2,750.00	\$ 2,750.00
SILT FENCE	LIN FT	2696	\$ 4.00	\$ 10,784.00
OPEN CUT PIPE INSTALLATION RESTORATION (TURF AREA)	LIN FT	264	\$ 15.00	\$ 3,960.00
EROSION CONTROL BLANKETS CATEGORY 3N	SQ YD	1706	\$ 3.00	\$ 5,118.00
SEED MIXTURE 25-14	LBS	122	\$ 4.50	\$ 549.00
EROSION CONTROL	LUMP SUM	1	\$ 8,000.00	\$ 8,000.00
SUBTOTAL DIVISION 32				\$ 102,727.00
DIVISION 33 - UTILITIES	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
6" SANITARY SERVICE	LIN FT	20.0	\$ 60.00	\$ 1,200.00
16" HDPE RAW WATER MAIN	LIN FT	264.0	\$ 175.00	\$ 46,200.00
SUBTOTAL DIVISION 33				\$ 47,400.00
DIVISION 34 - TRANSPORTATION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
SUBTOTAL DIVISION 34				
DIVISION 35 - WATERWAY & MARINE CONSTRUCTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
OTHER	UNIT	0	\$ -	\$ -
OTHER	UNIT	0	\$ -	\$ -
SUBTOTAL DIVISION 35				\$ -
DIVISION 40 - PROCESS INTEGRATION (VALVES, PIPING)	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
DIP PROCESS PIPING	LUMP SUM	1	\$ 54,000.00	\$ 54,000.00
PROCESS VALVES	LUMP SUM	1	\$ 54,000.00	\$ 54,000.00
PIPE SUPPORTS & HANGERS	LUMP SUM	1	\$ 5,250.00	\$ 5,250.00
SUBTOTAL DIVISION 40				\$ 113,250.00
DIVISION 41 - MATERIALS PROCESSING & HANDLING EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
OTHER	UNIT	0	\$ -	\$ -
OTHER	UNIT	0	\$ -	\$ -
SUBTOTAL DIVISION 41				\$ -
DIVISION 43 - PROCESS GAS & LIQUID HANDLING, PURIFICATION & STORAGE EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
HIGH SERVICE PUMPS	EACH	2	\$ 97,200.00	\$ 194,400.00
10" MAG METER (RAW)	EACH	1	\$ 11,000.00	\$ 11,000.00
SUBTOTAL DIVISION 43				\$ 205,400.00
DIVISION 44 - PROCESS EQUIPMENT	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
OTHER	UNIT	0	\$ -	\$ -
OTHER	UNIT	0	\$ -	\$ -
SUBTOTAL DIVISION 44				\$ -
SUB TOTAL				\$ 6,380,070.06

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East Range Joint Water Project,
Aurora and Town of White

Project Name: _____
 SEH Project No: AUROR 159723
 Date: April 10, 2023
 Estimator: Ellen Lemke
 Checked By: Dan Hinzmann
 Description: 100% Raw and Finished Water Transmission Mains
Cost Estimate

RAW WATER MAIN PRELIMINARY OPINION OF COST

SITE	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
CLEAR AND GRUB	ACRES	0.10	\$ 20,000.00	\$ 2,000.00
DIRECTIONAL DRILLING OBSTRUCTION	EACH	10	\$ 7,500.00	\$ 75,000.00
BORING PIT (NON-ROAD AREA)	EACH	12	\$ 3,500.00	\$ 42,000.00
OPEN CUT PIPE INSTALLATION (NON-ROAD AREA)	LIN FT	301	\$ 100.00	\$ 30,100.00
OPEN CUT PIPE INSTALLATION (ROAD AREA)	LIN FT	10	\$ 150.00	\$ 1,500.00
POTABLE WATER DISTRIBUTION	UNIT	EST. QUANTITY	UNIT PRICE	AMOUNT
16" HDPE WATER MAIN	LIN FT	9680	\$ 120.00	\$ 1,161,600.00
24" STEEL JACK AND BORE CASING PIPE	LIN FT	74	\$ 750.00	\$ 55,500.00
16" HDPE HDD PIPE INSTALLATION	LIN FT	9369	\$ 50.00	\$ 468,450.00
4" INSULATION	SQ YD	25	\$ 50.00	\$ 1,250.00
RAW WATER MAIN HYDRANT ASSEMBLY	EACH	5	\$ 12,500.00	\$ 62,500.00
16" BUTTERFLY VALVE AND BOX	EACH	6	\$ 7,500.00	\$ 45,000.00
SUB TOTAL				\$ 1,944,900.00
TRAFFIC CONTROL			1%	\$ 20,000.00
MOBILIZATION			10%	\$ 195,000.00
EROSION CONTROL			3%	\$ 59,000.00
MISCELLANEOUS CONSTRUCTION			5%	\$ 98,000.00
TOTAL CONSTRUCTION				\$ 2,316,900.00

ASSUMPTIONS:

1. 16" HDPE WATER MAIN TO BE DIRECTIONALLY DRILLED, ASSUMED OBSTRUCTION ONCE EVERY 1000'
2. HYDRANT ASSEMBLY INCLUDES TEE, LEAD, VALVE, AND HYDRANT
3. TURF RESTORATION IS ASSUMED TO INCLUDE 4" OF SALVAGED TOPSOIL AND SEEDING
4. ROADWAY RESTORATION IS ASSUMED TO BE PER PLAN TYPICAL SECTIONS