

**Engineer's cost estimate:****Belden Place PUD**

## Notes:

1. This Engineer's cost estimate is for the Preliminary Submittal and the associated construction plans dated November 9, 2020.
2. Cost/Unit values reflect the combined estimated cost to purchase materials and the labor required for construction/installation.
3. Unit costs derived via input from Vail Land Company as well as similar CDOT, City of Denver, and western Colorado projects
3. 15% Contingency is assumed for Preliminary Submittals.
4. See pages following this summary for detailed cost breakdowns.
5. Standard rock clause applies.
6. Water & Sewer tap fees not included.
7. Hwy. 24 culvert crossing & culvert to river discharge costs to be covered by Town of Minturn.

**Cost Item Summary**

	<b><u>COST/UNIT</u></b>	<b><u>UNIT</u></b>	<b><u>QUANTITY</u></b>	<b><u>COST</u></b>
<b>General Conditions</b>	\$395,245	L S	1.0	\$395,245
<b>Water</b>	\$182,648	L S	1.0	\$182,648
<b>Sanitary Sewer</b>	\$176,371	L S	1.0	\$176,371
<b>Shallow Utilities (gas, electric, telephone/internet, CATV)</b>	\$381,224	L S	1.0	\$381,224
<b>Roads &amp; Sidewalks</b>	\$322,383	L S	1.0	\$322,383
<b>Landscaping</b>	\$193,235	L S	1.0	\$193,235

**TOTAL****\$1,651,106**

DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
<b>Belden PUD General Conditions</b>				
Mobilization	\$20,000	ea	1	\$20,000
Clear and grub	\$4	sy	5,884	\$23,537
Strip and stockpile topsoil .5' avg.	\$3.25	cy	1,961	\$6,375
Cut to subgrade before scarify/compact (compacted CY)	\$4.30	cy	4,603	\$19,793
Fill & compact to subgr. after scarify/compact (compacted CY)	\$6	cy	5,755	\$34,530
Borrow excavation from lots (or haul off if negative)	\$11	cy	-1,152	\$0
Contractor Trailer	\$1,000	ea	1	\$1,000
Security Fence	\$10	lf	675	\$6,750
Traffic Control	\$10,500	l s	1	\$10,500
Quality control testing	\$10,000	l s	1	\$10,000
Survey monumentation + final plat	\$1,300	ea	26	\$33,800
Stormwater Management	\$5,000	l s	1	\$5,000
West Side MSE Retaining Wall (avg 4' ht )	\$40	Face SF	1,344	\$53,760
East Side MSE Retaining Wall (avg 2' ht)	\$40	Face SF	316	\$12,640
Erosion and Sediment Control	\$9,500	l s	1	\$9,500
Dust Mitigation	\$20,000	l s	1	\$20,000
Concrete & Flow-Fill Washout structure	\$2,500	ea	1	\$2,500
Vehicle Tracking Pad	\$3,000	ea	1	\$3,000
Removal and Disposal of Sediment (Labor)	\$60	hr	20	\$1,200
Removal and Disposal of Sediment	\$150	hr	20	\$3,000
Erosion Control Mangement	\$95	day	60	\$5,700
Sweeping (sediment removal)	\$170	hr	20	\$3,400
Removal of Trash	\$115	hr	20	\$2,300
Sanitary facility	\$750	each	1	\$750
Bus Stop	\$15,000	each	1	\$15,000
<b>SUBTOTAL</b>				<b>\$304,034</b>
PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$15,202
CONSTRUCTION STAKING (10% OF COSTS)				\$30,403
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$45,605
<b>TOTAL</b>				<b>\$395,245</b>

DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
<b>Belden PUD Water Service</b>				
8" DIP water main with polywrap & concrete kickblocks. 8' depth.	\$68	lf	648	\$44,064
Potholling	\$275	hr	4	\$1,100
12"x 8" wet tap gate valve and box installed on existing	\$7,500	ea	1	\$7,500
8" gate valve and box installed on main	\$1,400	ea	8	\$11,200
6" service lines	\$68	lf	285	\$19,380
6" dia. (8x6" tee, 6" GV, 6" plug) Service Line Construction	\$3,100	ea	5	\$15,500
Install Type K 3/4" Water Service Line, Stop Box and Meter	\$850	ea	25	\$21,250
Fire Hydrants w/ 8" tee & 6" gate valve & 6" pipe	\$6,500	ea	2	\$13,000
Air Vacuum Valve Assembly w/ Manhole	\$5,500	ea	1	\$5,500
Town of Minturn Water inspection fees	\$5,000	ea	1	\$5,000
Pressure Test and Bacteria Test	\$5,000	ea	1	\$5,000
<b>SUBTOTAL</b>				<b>\$148,494</b>
PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$7,425
CONSTRUCTION STAKING (3% OF COSTS)				\$4,455
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$22,274
<b>TOTAL</b>				<b>\$182,648</b>

DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
<b>Belden PUD Sewer Service</b>				
8" Sewer Main (3'-6' deep).	\$56	lf	577	\$32,308
12" Sewer Main (3'-6' deep).	\$74	lf	335	\$24,923
Sewer manholes	\$4,800	ea	6	\$28,800
4" Sanitary Sewer Services	\$1,200	ea	25	\$30,000
Sewer service lines: 6" diameter (1@43', 1@97', 1@37', 1@98', 1@21')	\$35	lf	296	\$10,360
Waterline Crossings	\$2,000	ea	5	\$10,000
Eagle River Sanitation District inspection fees	\$5,000	ea	1	\$5,000
Testing and televise	\$5	lf	400	\$2,000
<b>SUBTOTAL</b>				<b>\$143,391</b>
PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$7,170
CONSTRUCTION STAKING (3% OF COSTS)				\$4,302
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$21,509
<b>TOTAL</b>				<b>\$176,371</b>

DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
<b>Belden PUD Shallow Utilities (Elec, Gas, Internet)</b>				
Electrical lines and vaults (mat'l by Excel-estimated-final design pending)	\$100,000	ea	1	\$100,000
Century-Tel Contract (none reqd)	\$0	ea	1	\$0
Install Elec. vaults	\$1,500	ea	6	\$9,000
Shallow "main" trench+bed&install 3@4"E, 4"T, 2"P-c, 4"C /ft+backfill	\$31	lf	1,098	\$34,038
Shallow "services" to lots trench+bed&install 2"T, 2"P-c, 2"C, 2@4"E /ft+backfill	\$31	lf	2,181	\$66,521
Buy/install 4"Sch40, 36"R. 90 degree elbow	\$90	ea	35	\$3,150
Buy/install 2"Sch40, 36"R. 90 degree elbow	\$40	ea	35	\$1,400
PVC cap or plug for all service ends 4"	\$12	ea	70	\$840
PVC cap or plug for all service ends 2"	\$10	ea	105	\$1,050
Shallow Electric Service for Irrigation systems	\$20	lf	50	\$1,000
<b>Street lights</b>				
Shielded- 30'x250W HPS (Includes 2 unmetered panel & contactor photo cell actuat	\$7,500.0	ea	8	\$60,000
Electric wire	\$2.8	lf	400	\$1,100
1.5" conduit to street lights	\$12.0	lf	400	\$4,800
<b>Natural gas</b>				
Natural gas piping materials & welding by Excel Gas (estimated)	\$12.0	lf	1,352	\$16,224
Dig, Bed & Compact gas piping trench for Excel Gas	\$8.0	lf	1,352	\$10,816
Gas service sleeves 6@4"x75, only if needed for scheduling	\$17.3	lf		\$0
<b>SUBTOTAL</b>				<b>\$309,939</b>
PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$15,497
CONSTRUCTION STAKING (3% OF COSTS)				\$9,298
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$46,491
<b>TOTAL</b>				<b>\$381,224</b>

<u>DESCRIPTION</u>	<u>COST/UNIT</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>TOTAL COST</u>
<b>Belden PUD Road Work: 4.0"HBP &amp; 8" Class 6 + 24" C&amp;G + 3.0' Intermittent Sidewalk</b>				
Scarify-wet-compact subgr.	\$2.5	sy	1,807	4,518
Geotextile Fabric Contech C-200	\$9.0	sy	1,807	16,266
Silver Loop & Belden Way - 4" HBP over 8" class 6	\$6.3	sf	16,266	101,663
Fillets at intersection (2@245sf) 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	29	1,016
Fillets at intersection (2@245sf) Concrete flat work	\$21.0	sf	490	10,290
East Side Curb & Gutter 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	109	3,812
East Side 18" Gutter + 6" mountable Curb	\$20.0	lf	712	14,240
Interior Curb & Gutter 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	86	3,020
Interior 18" Gutter + 6" mountable Curb	\$20.0	lf	545	10,900
Interior 3' Sidewalk 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	94	3,287
Interior 3' Sidewalk Flatwork	\$10.0	sf	1,585	15,850
West Side Curb & Gutter 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	97	3,389
West Side 18" Gutter + 6" mountable Curb	\$20.0	lf	467	9,340
East Side 3' Sidewalk 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	27	956
East Side 3' Sidewalk Flatwork	\$10.0	sf	461	4,610
Islands 12" Class 6 --x cy x 1.6 ton/cy	\$35.0	ton	13	454
Islands Flatwork	\$10.0	sf	219	2,190
Scupper w/Reinforced Turf outlet	\$5,000.0	ea	1	5,000
Adjust sewer MH	\$500.0	ea	2	1,000
Adjust water gatevalves	\$500.0	ea	5	2,500
Silver Loop & Belden Way - 4" HBP over 8" class 6	\$6.3	sf	2,106	13,163
Entrance - Concrete Valley pan crossing	\$10.0	sf	104	1,040
Concrete Crossspan at top of ramp	\$21.0	sf	162	3,402
South Ramp Wall	\$500.0	cy	20	10,000
North Ramp Wall	\$500.0	cy	20	10,000
Pavement Markings and Striping	\$5,000.0	ls	1	5,000
Sign - STOP R1-1, 30"x30"	\$400.0	ea	1	400
Sign - Speed Limit	\$200.0	ea	1	200
Sign - No Parking On Street	\$200.0	ea	1	200
Sign - Not a Through Street	\$200.0	ea	1	200
<b>SUBTOTAL</b>				<b>\$257,906</b>
PERIODIC CONSTRUCTION INSPECTION, AS-BUILTS (5% OF COSTS)				\$12,895
CONSTRUCTION STAKING (5% OF COSTS)				\$12,895
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$38,686
<b>TOTAL</b>				<b>\$322,383</b>

DESCRIPTION	COST/UNIT	UNIT	QUANTITY	TOTAL COST
<b>Belden PUD Landscaping</b>				
<b>Deciduous Trees</b>				
Honeycrisp Apple 2" Cal	\$500	ea	5	\$2,500
Quacking Aspen 2" Cal	\$500	ea	6	\$3,000
Black Hawk European Mountain Ash 2" Cal	\$500	ea	9	\$4,500
<b>Evergreen Trees</b>				
Baby Blue Eyes Spruce 6 ft	\$500	ea	1	\$500
<b>Ornamental Trees</b>				
Autumn Brilliance Serviceberry 8" clump	\$500	ea	18	\$9,000
Toba Hawthorn 2" Cal	\$500	ea	6	\$3,000
Spring Snow Crabapple 2" Cal	\$500	ea	6	\$3,000
Thunderchild Crabapple 2" Cal	\$500	ea	12	\$6,000
Gambel Oak 8" clump	\$500	ea	11	\$5,500
<b>Deciduous Shrubs</b>				
Creeping Willow 5 Gal	\$100	ea	13	\$1,300
Ash-leaf Spirea 5 Gal	\$100	ea	6	\$600
Miss Kim Lilac 5 Gal	\$100	ea	13	\$1,300
Western Snowberry 5 Gal	\$100	ea	8	\$800
<b>Perennials</b>				
Bronze Carpet Bugle 4"	\$10	ea	425	\$4,250
Lipstick Strawberry 4"	\$10	ea	425	\$4,250
Creeping Potentilla 4"	\$10	ea	425	\$4,250
Labrador Violet 4"	\$10	ea	425	\$4,250
Rocky Mountain Columbine 1 Gal	\$20	ea	262	\$5,240
Bevan's Geranium 1 Gal	\$20	ea	262	\$5,240
Little Business Daylily 1 Gal	\$20	ea	262	\$5,240
Rocky Mountain Iris 1 Gal	\$20	ea	262	\$5,240
Liatris 1 Gal	\$20	ea	262	\$5,240
Shasa Daisy 1 Gal	\$20	ea	262	\$5,240
Rocky Mountain Penstemon 1 Gal	\$20	ea	262	\$5,240
<b>Landscaping Miscellaneous</b>				
Irrigation Water Tap	\$5,000	ea	1	\$5,000
Irrigation System	\$20,000	ea	1	\$20,000
Irrigation Controller	\$2,700	ea	1	\$2,700
Topsoil (soil + placement)	\$44	tn	378	\$16,646
Seeding (hydraulic)	\$2,000	ac	0.47	\$938
Soil Conditioning	\$2,700	ac.	0.47	\$1,266
Tire Swing	\$500	ea	1	\$500
Picnic Table	\$500	ea	1	\$500
Balance Logs	\$500	ea	1	\$500
Decorative Boulders	\$500	ea	1	\$500
Dog Waste Station	\$200	ea	4	\$800
Landscape Maintenance (24 month)	\$24,000	l s	1	\$24,000
<b>SUBTOTAL</b>				<b>\$168,030</b>
CONSTRUCTION CONTINGENCY (15% OF COSTS)				\$25,205
<b>TOTAL</b>				<b>\$193,235</b>