

**Engineer's Opinion of Estimated Costs for Public/Private Improvements
Hillside at Castle Rock Phase 3 - CD23-00__**

All Costs Include Labor and Materials.

Item #	Description	Quantity	Unit	Unit Cost	Total Cost
<u>PUBLIC IMPROVEMENTS TO BE INSPECTED</u>					
	Earthwork				
x	Mobilization	1	LS	5000.00	\$5,000.00
	Import/Export (Cut to Fill)	89814	CY	2.00	\$179,628.00
	Transportation				
x	Paving - 5" Asphalt (Wolfensberger)	772	SY	21.65	\$16,714
x	Paving - Patchback Asphalt (Wolfensberger)	233	SY	21.65	\$5,044
x	Subgrade Prep (Wolfensberger)	772	SY	2.80	\$2,162
	Sidewalks - 10' wide (Wolfensberger)		LF	42.00	\$0
x	Paving -5" Asphalt	5170	SY	21.65	\$111,931
x	Temporary Cul-de-Sac	951	SY	15.00	\$14,265
x	Subgrade Prep	5170	SY	2.80	\$14,476
x	Curb Gutter - Mountable	2400	LF	33.20	\$79,680
x	Curb Gutter - 2.5' Vert.	695	LF	14.00	\$9,730
x	Cross Pans	1010	SF	7.65	\$7,727
x	Sidewalks - 5' wide	3082	LF	22.80	\$70,270
x	Sidewalk Chase Drain (Detention access road)	1	EA	1390.00	\$1,390
x	Sidewalk Chase Drain (NW Trickle Channel)	1	EA	1390.00	\$1,390
x	Corner ADA Handicap Ramps	2	EA	1550.00	\$3,100
x	Mid Block ADA Ramps	2	EA	1460.00	\$2,920
x	Street Repair for utility cuts	60	LF	121.00	\$7,260
	Utility Conduits in Right-of-Way (4" PVC)		LF	3.73	\$0
	Trails/maintenance access (off street, public)		SY	9.06	\$0
x	Traffic Calming Hump	1	EA	500.00	\$500
x	Striping	1	LS	8000.00	\$8,000
x	Signage	1	LS	8000.00	\$8,000
x	Public Street Lighting	4	EA	7500.00	\$30,000
x	Public Street Lighting (Wolfensberger/Grayside 27' Tall)	2	EA	7500.00	\$15,000
	Water				
x	Water Mains 8 inch PVC	2044	LF	35.00	\$71,540
x	Water Mains 12 inch PVC	0	LF	76.64	\$0
x	Connect to Existing 12" WL (Wolfensberger)	1	EA	3024.00	\$3,024
x	Connect to Existing 16" WL (Wolfensberger)	1	EA	3024.00	\$3,024
x	Saw Cut & Pavement Replacement (Wolfensberger)	1	LS	17452.00	\$17,452
x	Water Main Lowerings (8" PVC Lowering at Storm Pipe)	2	EA	4500.00	\$9,000
x	Tees 16"X16"X8"	1	EA	2015.00	\$2,015
x	Tees 12"X8"	1	EA	800.00	\$800
x	Tees 8"X8"	1	EA	551.00	\$551
x	16" x 12" Reducer	1	EA	445.00	\$445
x	Horizontal Bends 8" PVC	12	EA	352.00	\$4,224
x	Vertical Bends 8" PVC	8	EA	450.00	\$3,600
x	Horizontal Bends 12" PVC		EA	910.00	\$0
	Vertical Bends 12" PVC		EA	1040.00	\$0
x	8" PVC Plug	1	EA	352.00	\$352
x	Temporary Blow-Offs	1	EA	1810.00	\$1,810
x	Valves 12"	3	EA	2920.00	\$8,760

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x	Valves 8"	8	EA	1490.00	\$11,920
x	Fire Hydrants Assembly (Tee, Valve, & DIP)	5	EA	6497.53	\$32,488
x	Domestic Service Lines 3/4" Copper	40	EA	1660.00	\$66,400
x	Water Meters 3/4"	40	EA	700.00	\$28,000
	Irrigation Meters 1-1/2"		EA	800.00	\$0
	Irrigation Service Lines 2"		LS	5218.00	\$0
	Sampling Station		EA	2585.00	\$0
	Sanitary Sewer				
	Sanitary Mains 8" PVC (Wolfensberger)		LF	41.00	\$0
	Manholes 4' DIA 9' - 15' depth (Wolfensberger)		EA	3350.00	\$0
x	Sanitary Mains 8" PVC	1535	LF	41.00	\$62,935
x	Manholes 4' DIA 9' - 15' depth	13	EA	3350.00	\$43,550
x	Connections to Existing San Sewer Man Hole	1	EA	1790.00	\$1,790
x	Saw Cut & Pavement Replacement	1	LS	11644.00	\$11,644
x	WYE connections for service lines 4"	44	EA	1268.00	\$55,792
	Drainage				
x	Storm Sewer Pipes - 36" RCP	80	LF	129.00	\$10,320
x	Storm Sewer Pipes - 30" RCP	436	LF	95.00	\$41,420
x	Storm Sewer Pipes - 24" RCP	12	LF	85.00	\$1,020
	Storm Sewer Pipes - 24" CMP		LF	72.25	\$0
x	Storm Sewer Pipes - 18" RCP	71	LF	63.32	\$4,496
	Storm Sewer Pipes - 12" RCP		LF	52.00	\$0
x	Manholes 5' DIA	4	EA	3680.00	\$14,720
	Manholes 6' DIA		EA	4230.00	\$0
	Neenah-4349-C Beehive Grate		EA	500.00	\$0
x	Inlet - Triple Type 16 Combo	4	EA	5703.15	\$22,813
x	Detention Maintenance Access Road	349	SY	9.06	\$3,162
x	Rock Fall Mitigation Access Road	1110	SY	9.06	\$10,057
	Inlet - Type C		EA	3629.35	\$0
x	Inlet - Type D	1	EA	3629.35	\$3,629
	RCP FES 36"		EA	1565.00	\$0
x	RCP FES 24"	1	EA	360.00	\$360
x	Trickle Channel - 1' Wide w/ subgrade prep	1057	LF	9.50	\$10,042
x	Rock Mitigation & Drainage Channel - 3' Wide w/ subgrade prep	1014	LF	45.00	\$45,630
x	Emergency Spillway	1	EA	23604.00	\$23,604
x	Forebay with Hand Rail	2	EA	18158.00	\$36,316
x	Micropool	1	EA	12600.00	\$12,600
	6" Conc Working Bench (12' Wide)		LF	54.72	\$0
x	Trickle Channel - 2' Wide (Detention Pond)	81	LF	57.74	\$4,677
x	Outlets Structure	1	EA	30988.00	\$30,988
x	Rip-Rap - Type H	47	CYS	80.00	\$3,760
	Rip-Rap - Type VI		CYS	60.00	\$0
					\$1,595,123.96
10% Contingency					\$159,512.40
Total Public Improvements					\$1,754,636.36

Item #	Description	Quantity	Unit	Unit Cost	Total Cost
	PRIVATE IMPROVEMENTS TO BE INSPECTED				
	Earthwork				
	Mobilization	0	LS	5000.00	\$0
	Cut to Fill	0	CY	2.00	\$0
	Retaining Walls				
x	3' Retaining Walls	426	LF	0.00	\$0
x	4' Retaining Walls	591	LF	0.00	\$0
x	8' Retaining Walls	644	LF	0.00	\$0
x	Misc. Rear Lot Retaining Walls	820	LF	0.00	\$0
	Water				\$0
	Backflow Prevention Assemblies (list sizes)				\$0
	Fire Service Line (list types and sizes)				\$0
	Abandon/remove water service lines				\$0
	Irrigation backflow prevention assemblies (list sizes)				\$0
	Sanitary Sewer				\$0
	Abandon/remove sanitary sewer service lines				\$0
	Drainage				\$0
	Storm Sewer Pipe				\$0
	Manholes				\$0
	Inlets				\$0
	Clean Outs				\$0
	FES's				\$0
	10% Contingency				\$0.0
	Total Private Improvements To Be Inspected				\$0.0

Item #	Description	Quantity	Unit	Unit Cost	Total Cost
<u>PRIVATE IMPROVEMENTS NOT TO BE INSPECTED</u>					
	<u>Transportation</u>				
	Paving				\$0
	Curb/Gutter				\$0
	Cross Pans				\$0
	Parking Areas				\$0
	Sidewalks				\$0
	Handicapped Ramps				\$0
	<u>Water</u>				
	FDC & fire lines to FDC (list types & sizes) (Inspected by Fire, not Public Works)				\$0
	Domestic Service Lines (from curb stop to building) (list types & sizes) (Inspected by the Building Division)				\$0
	Irrigation Lines (past meter)				\$0
	<u>Sanitary Sewer</u>				\$0
	Service Lines (list types and sizes)				\$0
	Clean-Outs (list sizes)				\$0
					\$0
	10% Contingency				\$0.0
Total Private Improvements Not To Be Inspected					\$0.0
Grand Total					\$1,754,636.36

1. Surety is calculated based on Public Improvement Costs.
2. Inspection Fees are calculated from Public Improvements and Private Improvements to be inspected.
3. Use Tax is calculated from the Grand Total of all Improvements minus Earthwork.
4. All Costs Shall Include Labor and Material.



