

System In-Place Costs

The systems costs included on the following pages are intended for budget estimating. They are costs of systems in-place including material and labor, excluding general contractor overhead and fee. Pricing based on Seattle, Washington market and Prevailing Wages. Systems costs are based on a typical installation for on-site work involving new construction. On-site difficulties and uncontrollable variables will add to costs.

BUILDINGS, MOVING

WOOD FRAME, SINGLE STORY WITHIN SAME COUNTY

1) Up to 900 SF	\$23.50 /SF
2) 900-1300 SF	\$26.75 /SF
3) 1300-2000 SF	\$29.00 /SF

BUILDINGS, RAISING

1) Up to 2000 SF bldg, up to 8 FT high	\$0.65 /CF
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DEMOLITION

ASPHALT SAWCUTTING Minimum Charge: \$375

1) 1" Thick	\$0.53 /LF
2) 2" Thick	\$1.21 /LF
3) 4" Thick	\$1.73 /LF
4) 6" Thick	\$2.10 /LF

CONCRETE SLAB SAWCUTTING GAS Minimum Charge: \$375

1) 1" Thick	\$0.53 /LF
2) 2" Thick	\$1.21 /LF
3) 3" Thick	\$1.73 /LF
4) 4" Thick	\$2.10 /LF

CONCRETE SLAB SAWING ELECTRIC Minimum Charge: \$495

1) 1" Thick	\$1.31 /LF
2) 2" Thick	\$2.36 /LF
3) 4" Thick	\$4.73 /LF
4) 6" Thick	\$7.09 /LF

CONCRETE WALL SAWCUTTING Minimum Charge: \$600

1) 4" Thick	\$13.13 /LF
2) 6" Thick	\$18.90 /LF
3) 8" Thick	\$24.68 /LF
4) 10" Thick	\$30.45 /LF
5) 12" Thick	\$36.23 /LF

CMU BLOCK WALL SAWCUTTING Minimum Charge: \$600

1) 4" Thick	\$11.00 /LF
2) 6" Thick	\$15.00 /LF
3) 8" Thick	\$20.00 /LF
4) 12" Thick	\$29.00 /LF

*NOTE: Minimum charges on all above sawcutting range from \$350.00 to \$600.00. Call suppliers for specific quote.

System In-Place Costs

CONCRETE DEMOLITION Minimum 100 SF Exterior (\$800 minimum)

1) 4" Concrete Slab	\$6.04 /SF
2) 8" Concrete Wall	\$9.98 /SF

ASPHALT DEMOLITION Minimum 200 SF (\$800 minimum)

1) 2-4"	\$4.46 /SF
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DUMP FEES, CONCRETE & ASPHALT See Materials Section Page 2-1 for Pricing

WATER SYSTEMS Includes Native Backfill

1) 2" PVC	\$12.13 /LF
2) 4" PVC	\$47.96 /LF
3) 6" Ductile Iron Pipe	\$66.15 /LF
4) 8" Ductile Iron Pipe	\$80.85 /LF
5) Standard Hydrant Assembly	\$7455.00 /EA
6) Hydrant Assembly with Storz Adaptor	\$7560.00 /EA
7) 6" Wet Tap	\$7350.00 /EA
8) 6" Tee	\$740.25 /EA
9) 6" Bend	\$651.00 /EA
10) 8" Wet Tap	\$8715.00 /EA
11) 8" Tee	\$980.70 /EA
12) 8" Bend	\$756.00 /EA

STORM SEWER SYSTEMS

Pipe depth is based on a typical installation for on-site work involving new construction; includes native backfill.

1) 8" CMP Corrugated Metal Pipe	\$48.89 /LF
2) 12" CMP	\$70.28 /LF
3) 15" CMP	\$86.57 /LF
4) 18" CMP	\$100.83 /LF
5) 24" CMP	\$125.28 /LF
6) 30" CMP	\$137.50 /LF
7) 36" CMP	\$167.03 /LF
8) 48" CMP	\$240.37 /LF
9) 54" CMP	\$282.12 /LF
10) 60" CMP	\$316.75 /LF
11) 8" ADS N-12	\$37.18 /LF
12) 12" ADS N-12	\$47.87 /LF
13) 18" ADS N-12	\$77.41 /LF
14) 24" ADS N-12	\$101.85 /LF
15) Catch Basin Type I	\$2215.24 /EA
16) Catch Basin Type II, 48" DIA	\$4674.92 /EA
17) Catch Basin Type II, 54" DIA	\$5550.83 /EA
18) Catch Basin Type II, 54" DIA w/restrictor	\$6992.00 /EA
19) Catch Basin Type II, 60" DIA	\$7893.38 /EA
20) Catch Basin Type II, 72" DIA	\$9441.50 /EA
21) Yard Drain	\$1222.20 /EA
22) 8" PVC (3034)	\$54.23 /LF
23) 12" PVC (3034)	\$61.62 /LF
24) 18" PVC (3034)	\$76.39 /LF
25) 24" PVC (3034)	\$126.29 /LF

System In-Place Costs

VAULTS WITH CARTRIDGE FILTER

1) 2-3 FILTERS	\$26,000-\$42,000.00
2) 10-12 FILTERS	\$58,000-\$75,000.00
3) 16-20 FILTERS	\$85,000-\$118,000.00

SANITARY SEWER SYSTEMS

Pipe depth is based on a typical installation for on-site work involving new construction; includes native backfill.

1) 4" PVC 3034 Side Sewer	\$49.35 /LF
2) 6" PVC 3034 Side Sewer	\$64.05 /LF
3) 8" PVC 3034 Sewer Main	\$78.75 /LF
4) Clean Out w/cast iron cover 6" C.O.	\$966.00 /EA
5) Septic Tank 1000 GAL	\$2887.50 /EA
6) Drainfield 24" wide trench	\$16.80 /LF
7) Manhole, 48" DIA	\$6720.00 /EA

FOOTING / FOUNDATION DRAINS

1) PVC 4" Includes: Pipe, Fittings, Gravel Cover (2729)	\$25.73 /LF
2) ADS 4" Includes: Pipe, Fittings, Gravel Cover	\$22.05 /LF
3) Downspout Drains (3034) 4"	\$28.88 /LF

AUGER CAST PILES

Mobilization	\$28,000.00
A) 12" Diameter	\$65.00 /LF
B) 16" Diameter	\$80.00 /LF
C) 18" Diameter	\$85.00 /LF
D) 24" Diameter	\$100.00 /LF

WOOD PILING (new-land only-good soil conditions and access)

Mobilization	\$25,000.00
A) Under 1500 Total LF	\$75.00 /LF
B) Over 1500 Total LF	\$65.00 /LF

SHORING-CANTEVERED SOLDIER PILE (good soil conditions, good access)

Mobilization	\$25,000.00
A) Temporary (includes lagging, SF of lagged wall)	\$80 - \$100.00 /SF
B) Permanent (includes lagging, SF of lagged wall)	\$90 - \$110.00 /SF

System In-Place Costs

CULVERT PIPE - FABRICATED FITTINGS - LABOR CHARGES ONLY

The following are labor charges to cut and weld shop fabricated fittings. Add the required lineal footage to the appropriate pipe type. Add 25% each for aluminum pipe, arched pipe, and eccentric tees e.g. risers.

1) 2-2/3" x 1/2 " Corrugation

<i>SIZE</i>	<i>ELBOW <45 DEG</i>	<i>ELBOW >45 DEG</i>	<i>TEE</i>	<i>WYE</i>	<i>BULKHEAD/ CAP</i>
6"	\$64	\$63	\$77	\$91	\$56
8"	\$71	\$70	\$86	\$101	\$75
10"	\$76	\$76	\$94	\$138	\$93
12"	\$96	\$95	\$118	\$168	\$112
15"	\$115	\$115	\$143	\$198	\$139
18"	\$134	\$133	\$167	\$229	\$167
24"	\$165	\$164	\$217	\$259	\$212
30"	\$212	\$212	\$293	\$348	\$259
36"	\$257	\$256	\$345	\$411	\$339
42"	\$298	\$298	\$399	\$477	\$416
48"	\$340	\$339	\$454	\$542	\$563
54"	\$390	\$390	\$523	\$628	\$688
60"	\$437	\$437	\$580	\$693	\$813
66"	\$480	\$470	\$533	\$759	\$988

2) 3" X 1" Corrugation

<i>SIZE</i>	<i>ELBOW <45 DEG</i>	<i>ELBOW >45 DEG</i>	<i>TEE</i>	<i>WYE</i>	<i>BULKHEAD/ CAP</i>
72"	\$500.00	\$575.00	\$775.00	\$930.00	\$1125.00
78"	\$583.00	\$670.00	\$837.00	\$1004.00	\$1300.00
84"	\$654.00	\$752.00	\$949.00	\$1140.00	\$1218.00
90"	\$710.00	\$817.00	\$1019.00	\$1063.00	\$1738.00
96"	\$752.00	\$865.00	\$1086.00	\$1133.00	\$1988.00
102"	\$801.00	\$921.00	\$1149.00	\$1201.00	\$1784.00
108"	\$843.00	\$969.00	\$1217.00	\$1271.00	\$2275.00
114"	\$888.00	\$1021.00	\$1282.00	\$1340.00	\$2900.00
120"	\$935.00	\$1075.00	\$1349.00	\$1411.00	\$3288.00

System In-Place Costs

ELEVATOR SHAFTS (good conditions and access)

A) 24" Diameter	\$45,000.00 /EA
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DRILLED SHAFTS

A) 18" Diameter	\$190.00 /LF
B) 24" Diameter	\$225.00 /LF
C) 30" Diameter	\$275.00 /LF
D) 36" Diameter	\$350.00 /LF

EARTHWORK

1) Excavation, Common 500 CY	\$12.60 /CY
2) Excavation, Common 10,000 CY	\$10.50 /CY
3) Fill Structural Class B Pit Run Gravel	\$43.05 /TON
4) Export within 10 mile radius	\$35.42 /CY
5) Dump Fees	\$12.47 /TON
6) Footing Excavation Small Backhoe	\$18.46 /CY
7) Footing Excavation Large Track Backhoe	\$12.97 /CY
8) Footing Backfill Placed and Compacted	\$13.47 /CY
9) Gravel Base Under Slab on Grade	
Includes: Fill, Placement, and Compaction.	\$71.40 /CY
10) Filter Fabric Mirafi #140N	\$2.00 /SY
11) Vapor Barrier Under Slab on Grade 6 Mil	\$0.19 /SF
12) Rough Grade	\$0.20 /SF
13) Clearing	\$0.47 /SF
14) Fine Grading	\$0.29 /SF
15) Road Crossing - Utility Ditch Crushed Rock	\$43.05 /TON

ASPHALT PAVEMENT

ADD 22% FOR PREVAILING WAGES

1) 2" Class B Asphalt w/2" Base Includes soil sterilization	
A) 100 to 500 SY	\$44.50 /SY
B) 500 to 1000 SY	\$31.12 /SY
C) 1000 SY and up	\$29.26 /SY
2) 2" Class B Asphalt w/ 4" Base Includes soil sterilization	
A) 100 to 500 SY	\$48.19 /SY
B) 500 to 1000 SY	\$40.58 /SY
C) 1000 to 2500 SY	\$35.75 /SY
D) 2500 SY and up	\$29.44 /SY
3) 2" Class B Asphalt with 4" ATB Base	
A) 2200 SY	\$56.50 /SY
B) 7000 SY	\$47.60 /SY
4) 4" ATB	\$45.57 /SY
5) Bike Path 2" Class B Asphalt with 4" base	\$45.95 /SY
6) Trench Patching Includes: 2" Asphaltic Concrete, no base or prep.	\$58.25 /LF
7) Root Barrier: 2' high	\$41.42 /LF
8) Gravel Surfacing	\$23.63 /SY
9) Seal Coat Latex Base-2 coats	\$4.10 /SY

System In-Place Costs

CONCRETE PAVEMENT

1) 9" Thick	\$74.00 /SY
2) 12" Thick	\$88.00 /SY

UNIT PAVERS See Systems-in-Place in Division 4.

FENCING, PERMANENT - Furnished & installed. Budget prices listed are based on a minimum quantity of several hundred lineal feet of fence in normal soil conditions for new construction. Prices are based on Seattle Washington area market and Prevailing Wage costs. On-site variables or project specific conditions (like total quantity of fence, access, grade changes, digging conditions, cutting of asphalt or concrete for post setting, prevailing wage) will impact costs.

1) 6' High Galvanized Chain Link Fence	\$55.00-\$70.00 /LF
2) 7' High GALV Chain Link Fence w/3 strands barbwire (6' fabric)	\$60.00-\$75.00 /LF
3) 6' High Black Coated Chain Link Fence (vinyl coated chain link fabric and powder coated framework)	\$50.00-\$75.00 /LF
4) 6' High Black Coated Chain Link Fence w/Vinyl slats (vinyl coated chain link fabric and powder coated framework)	\$65.00-\$80.00 /LF
5) 6' High Basic Solid Wood Style Fence (4x4 posts, (2) 2x4 rails, 1x6 vertically installed cedar fence boards)	\$50.00-\$70.00 /LF
6) 3' High Two Rail Split Rail Fence (Cedar)	\$22.00-\$28.00 /LF

FENCING, TEMPORARY

1) 6'H X 12'L Temp Fence Panels W/ Concrete Block	
A) 3 month contract	\$2.25/LF (JOB MIN 450.00)
B) 6 month contract	\$3.00/LF (JOB MIN 650.00)
C) 9 month contract	\$4.25/LF (JOB MIN 750.00)
D) 12 month contract	\$5.00/LF (JOB MIN 850.00)
2) 6'H Drive Post Fencing	
A) 1-6 month contract	\$26.00/LF (JOB MIN 550.00)
3) Standard Labor To Install/Remove	\$12.00 /LF
4) Delivery In King, Pierce & Sno Co	\$350.00 Per Truckload
5) Time & Material Or Extra Labor	\$180.00 Per Crew
6) Water Barricade Rentals	\$55.00 Per Unit Per Month
Call For Pricing On Fence Panel Option, Customer Responsible For Water Supply	

STEEL TRENCH PLATES Freight: \$75 per hour up to 40,000 LB Includes boom truck service

1) 2142 lbs, 6'X10'X7/8"	\$100.00 /MO
2) 3266 lbs, 8'X10'X1"	\$115.00 /MO
3) 3920 lbs, 8'X12'X1"	\$115.00 /MO
4) 5875 lbs, 8'X12'X1-1/2"	\$150.00 /MO
6) 6532 lbs, 8'X20'X1"	\$175.00 /MO

ELEVATOR SHAFTS - good conditions and access

1) 24" Diameter	\$12,000.00 /EA
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System In-Place Costs

CURBING

1) Extruded Curb 6" x 8" - Standard Size-Minimum 250 LF	\$25.00 /LF
2) Extruded Curb 6" x 10"- Minimum 250 LF	\$30.00 /LF
3) Precast Wheel Stops 6'	\$400.00/EA 12 OR LESS
4) Precast Wheel Stops 6'	\$400.00/EA 13 OR MORE

PARKING AND PAVEMENT MARKINGS

1) Striping	\$2.00-30.00 /LF
2) Stencils	\$30.00-\$1000.00 /EA
3) Numbers	\$35.00 EACH DIGIT
4) Curb Painting	\$4.00-\$20.00 /LF
5) Seal Coating second coat with asphalt emulsion	\$1.00 /SF

** Call for minimum charges on small quantities **

POWER WASHING

1) Power wash water truck: Prevailing HR	\$130.00 /HR
2) Power wash water truck: Non-Prevailing HR	\$105.00 /HR

PERMEABLE ASPHALT

MIX & INSTALLATION ONLY. EXCLUDES UNDERLINING BASE COURSE

1) 10,000 SF- 4" Mix only	\$6.16 /SF
2) 30,000 SF - 4" Mix only	\$5.77 /SF

PERVIOUS CONCRETE PAVING

1) 4" (Truck pour)	\$6.75 /SF
2) 5" (Truck pour)	\$8.00 /SF

PAVERS

1) Permeable Pavers with sub-base, base and bedding	\$14.00-\$18.00 /SF
2) Sand Set Pavers	\$13.00-\$18.00 /SF
3) Pedestal Set Pavers	\$15.00-\$21.00 /SF
4) Interlocking Concrete Pavers	\$10.00 /SF

RETAINING WALLS

1) Rockeries	\$13.00-\$18.00 /SF
2) Gabion	\$130.00-\$160.00 /CY
3) Wire Mesh Walls	\$14.00-\$32.00 /SF
4) Modular Block	\$13.00-\$23.00 /SF
5) Cribblock	\$16.00-\$24.00 /SF
6) 18 X 18 1-5/8" Thick	\$10.70 /EA
7) 24 x 24 1-7/8" Thick	\$13.20 /EA

SITE FURNISHINGS

1) Tennis court Surface coat	\$3750.00/COURT
2) Cushioned play mat 1-3/4"	\$11.50 /SF

System In-Place Costs

LANDSCAPING

1) Irrigation Systems Per Square Foot	
A) 2" to 3" Popups	\$1.10 /SF
B) 6" Popups	\$1.65 /SF
C) Toro 300's	\$1.00 /SF
D) Super 600's	\$1.00 /SF
2) Irrigation Systems Detailed	
A) Point of Connection Depending on Size	\$3,350.00 /EA
B) 2" Automatic Control Valves - Brass	\$1,250.00 /EA
C) 1-1/2" Automatic Control Valves - Brass	\$975.00 /EA
D) 1" Automatic Control Valves - Brass	\$750.00 /EA
E) 2" Automatic Control Valves - Plastic	\$625.00 /EA
F) 1-1/2" Automatic Control Valves - Plastic	\$425.00 /EA
G) 1" Automatic Control Valves - Plastic	\$475.00 /EA
H) 3" PVC	\$7.50 /LF
I) 2-1/2" PVC	\$7.00 /LF
J) 2" PVC	\$5.50 /LF
K) 1-1/2" PVC	\$4.50 /LF
L) 1-1/4" PVC	\$3.75 /LF
M) 1" PVC	\$3.45 /LF
N) 3/4" PVC	\$3.25 /LF
O) Quick Couplers	\$205.00 /EA
P) Manual Drainage	\$95.00 /EA
Q) Automatic Electric Controller, 24 Station	\$1575.00-\$2625.00 /EA
R) Heads Depends on average size	\$135.00 /EA
S) Direct Burial Cable, 14 GA	\$0.20 /LF
T) Double Check Valve 2" Approximate	\$1,100.00 /EA
U) Double Check Valve 2" W/enclosed 25TA Vault Apprx	\$2,750.00 /EA
3) Grading	
A) Rough Grading	\$0.08-\$0.09 /SF
B) Fine Grading	\$0.17 /SF
4) Soil Placement	
A) Stockpiled Open Area	\$15.25 /CY
B) Stockpiled Tight Areas	\$17.75 /CY
C) Imported Open Areas	\$40.00 /CY
D) Imported Tight Areas	\$45.00 /CY
5) Bark Mulch Blown	\$70.00 /CY
6) Bed Areas Includes soil prep and bark	\$0.75 /SF
7) Turf Areas	
A) Hydroseeding	\$0.15-\$0.20 /SF
Includes: Mulch seed blends, fertilizer & tackifier but not ground prep.	
B) Strawblowing	\$0.05-\$0.08 /SF
or \$420-\$840 per acre price varies by slope and volume	
Strawblowing - with tackifier	\$0.07 /SF
C) Sodding	\$0.60 /SF
Includes: till, fertilizer, light grade touch-up	

System In-Place Costs

8) Planting	
A) Shrubs 1 gallon	\$12.50-\$15.00 /EA
B) Shrubs 2 gallon	\$12.50-\$16.50 /EA
C) Shrubs 5 gallon	\$28.00-\$35.00 /EA
D) Vine Maples 6'-8' clumps	\$350.00 /EA
E) Trees - Deciduous 2" caliper	\$475.00 /EA
F) Trees - Deciduous 3" caliper	\$550.00 /EA
G) Trees - Deciduous 4" caliper	\$750.00 /EA
Trees - Add 20% for oaks	
H) Trees - Coniferous 6 - 8'	\$325.00 /EA
I) Trees - Coniferous 8 - 10'	\$350.00 /EA
J) Trees - Coniferous 10 - 12'	\$475.00 /EA
K) Groundcovers 2-1/4"	\$3.50 /EA
L) Groundcovers 4"	\$4.25 /EA
Groundcover prices vary with plant material and spacing.	
9) Turf & Trees 30' on Center with Irrigation System	
A) Sod Turf	\$1.85 /SF
B) Seed Turf	\$1.50 /SF

CONSTRUCTION SURVEY / LAYOUT-SITE PREPARATION

Construction survey estimated layout/consulting rates-prices do not include typical 20% for office support/setup costs.

PROFESSIONAL SERVICES: Cut sheets, field notes, office calculation data or other post field information may be an additional fee.

1) Office staff: Licensed Surveyor	\$250.00-\$350.00 /HR
2) Office staff: Draft Person	\$100.00-\$150.00 /HR
3) 2-man Field Crew	\$300.00-\$350.00 /HR
4) G.P.S. control point (3 minimum)	\$200.00 /EA
5) Monument reference/replacement	\$500.00 /EA
6) Assumed Datum Bench Mark (2 minimum)	\$200.00 /EA
7) Defined Datum Bench Mark (2 minimum)	\$250.00 /EA
8) Aerial Drone 3D Mapping Data Collection	\$300.00-\$400.00 /HR
8A) Aerial Drone 3D Mapping Office Drafting	\$125.00-\$150.00 /HR
9) Bathymetric Subaquatic Mapping (single-beam)	\$500.00 /HR
9A) Bathymetric Subaquatic Mapping (multi-beam)	Call Service Provider
10) Crew Travel (Portal to Portal)	\$100.00-\$150.00 /HR

System In-Place Costs**TRAFFIC SIGNAL SYSTEMS**

Does Not Include Lighting Or Power Function

1)	Sized For Single Arm To 40 Feet	\$3,750.00 /EA
2)	Horizontal Arm Per Lineal Feet	\$550.00 /LF
3)	Traffic Signal	
	Including Signal Bracket Sensor Wiring	\$6,500.00 /EA
4)	Pedestrian Signals And Callers	
	Includes Four Signals With Brackets And To Call Buttons	\$8,750.00 /EA
5)	Controller Design	
	Includes Miscellaneous Signage And Adjacent Surface Work	\$75,000.00 /EA